



## **Getting Started Guide for Administrators**

For  
Numara FootPrints®,  
Numara FootPrints® for eService  
Version 9.5

Numara Software Inc.

**Numara FootPrints** Getting Started for Administrators Manual: Rev 9.5

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# Chapter 1: Introduction

Numara FootPrints® and Numara FootPrints for Customer Service are the 100% web-based help desk and customer support tools that are so easy to use and administer, you can get into live production in just a few days. Users and administrators require only a browser to take full advantage of Numara FootPrints' many capabilities. Numara Software developed Numara FootPrints to address the void in the mid-market for an easy to use and comprehensive system that puts control in the hands of the help desk or support manager—without high costs, additional programming, or complex administration.

Numara FootPrints is extremely flexible, scalable, and customizable. This proven, award-winning 100% web-based service desk tool eliminates expensive training, consulting, database programming, and staff additions to manage support automation software from your list of challenges. Numara FootPrints can be used for multiple, simultaneous projects and support multiple languages for users and groups, and you can leverage Numara FootPrints' capabilities across multiple locations and corporate functions to expand the reach of your issue management and related communication.

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## What's New in Numara FootPrints 9.5?

### New Feature Highlights

- New, modernized interface designed with a focus on increasing user productivity
- 64-bit installs for Windows and Linux
- CMDB Usability Enhancements
- Change Management Enhancements
- Administration productivity and workflow improvements

### Practical and Flexible IT Service Management for the Real World

Numara® Software, a leading, global provider of practical service management software, introduces the next major release of its award-winning, Numara® FootPrints®. Unparalleled value coupled with a highly flexible and unique web-based workflow platform, Numara FootPrints empowers organizations with the ability to manage the service desk with optimal efficiency and automate business processes for IT and beyond. Focused on enhancing the customer experience for support organizations worldwide, Numara FootPrints 9.5 offers a new user interface with a focus on productivity, extensive usability enhancements, and expanded support for best practices in the latest release of the award-winning, web-based service desk.

### World-Class Customer Experience

Numara FootPrints 9.5 provides new and improved ways to help our customers manage service delivery more effectively including; a brand new, modern user interface with emphasis on increasing productivity, 64-bit support, and improved usability for administrators and customers.

#### **New! Modern user interface: Increase your productivity by having more information easily accessible from the screen you spend most of your time on.**

- New “home” screen. IT and support professionals need fast access to support information to be productive. The newly designed “home” screen, based on extensive customer research and designed with the latest user experience best practices in mind, puts the emphasis on the most important information for faster comprehension and quicker action. Key data like the latest description and last update time are highlighted, while Ajax technology allows real time access to full details faster – without leaving the home screen.
- New toolbar. Agents want quick access to their most frequently used options. The new FootPrints toolbar gives agents one- click access to create new Issues, run reports, and other key tasks without clutter. And it can be customized per workspace based on need. Note that the term “workspace” replaces the term “project” for better alignment with our customers’ usage of this important capability.
- New Quick Edit. Work through your assignments faster than ever with the new Quick Edit feature. Update the status, priority, description, and even custom fields in seconds all without leaving the Home screen,

- **Single frame interface** The new, modernized interface is implemented in a single frame following the latest web standards. Embed the application in other web sites or web applications, and provide a better experience for your users.
- **New look and feel** The new interface extends throughout the product giving users a consistent look and feel, including new icons, colors and toolbar.

## **Continued Improvements in Usability and Flexibility: Provide a superior experience to Agents, Customers and Administrators.**

### **Agent and Customer user experience**

- **New, modern user interface** with streamlined access to important information Agents and Customers alike will benefit from the new interface that focuses on highlighting what is most important to the user, making the interface more usable, and providing easier access to the most important information.
- **Give customers access to the rich text editor and the Priority field "Power"**. Customers will benefit from using the rich text editor by being able to enter more content- rich descriptions of their Requests and be able to escalate the Priority based on their role.
- **Auto-check Assignee availability more efficiently.** A new, improved auto-check availability feature means less time for Agents to wait to see who is available for assignment. And availability can now be checked for any future date with conflicts automatically noted.
- **One-click access for current date and time.** Fill out date-time fields more efficiently with one click to populate the current date and time.
- **Report on email workflow.** New option to include all email notification information in custom reports. See who was notified and when, ensuring nothing falls through the cracks.

### **Administrator user experience**

- **Master your form building with drag-and-drop field reorder and form preview.** Efficiently customize your form by dragging and dropping fields and tabs in the proper order within the Field Maintenance dialog. Get a preview of your form right from this screen without having to leave it or commit your changes to the production environment. And now you can add help text for file attachments to your form.
- **Design your workflow faster with copying of escalation rules.** Create escalation and business rule templates and use the new copy feature to create similar rules without having to start from scratch each time.
- **Improve your workflow with better data exchange between Masters and subtasks relationships.** Subtasks can now inherit values from the Master upon creation for more efficient access to vital data. Also, propagate values from subtasks up to their corresponding Master for better reporting.
- **Modify your User Role Status workflow in an efficient grid.** Reduce time spent configuring your user roles by using a streamlined grid to determine what Statuses your Agents are allowed to go to and from, and when description is mandatory - all with less clicks. And there are new role options to remove "Close" from the home screen quick actions dialog and to set the ticket form style (long or tabs) per Agent Preference Template.
- **Simplify your User Management with direct search.** Search the System User Management screen by User Name or User ID, or filter by User and License type.
- **Control access for creating Incidents in your project workspace.** Control what users have access to copy and move Incidents into your project workspace from other project

workspaces. The fewer Issues you have to reroute, the more time available to work on what is important.

- Enforce file attachment security and management Determine at what point in your workflow file attachments are required and prevent users from accessing file attachments using new file attachment rules based on field values.
- Improved security for contact data Determine who is allowed to administer your Address Book through user roles for more granular security control.

## Best Practices for the Real World

Numara FootPrints 9.5 provides practical, rapid best practices enablement for the vital processes that support your customer demands. Whether you are in the beginning stages of formalizing your IT processes or you are fully embracing technology, security, and ITIL best practices to align IT with your business, Numara FootPrints 9.5 offers unmatched flexibility and painless implementation.

### Technology and Security Best Practices Alignment: Stay up to date with Numara FootPrints's Best Practice Technology Support.

- New! 64-bit support: Take advantage of the latest 64-bit hardware on Windows and Linux. FootPrints can now be installed on operating systems running in long mode on an x86-64 processor. This new standard for x86 servers is becoming the preferred method for Windows and Linux servers. All corresponding technology that ships with FootPrints has also been updated to give the best user experience for every install.
- Securely connect to your mail server from FootPrints. Make sure the important data being passed from your mail server to your FootPrints server is secure by using the secure IMAP/SLL protocol (port 993), the new standard for mail server software.
- All important user information is available in the database. Following database access best practices standards, all important user information is now housed in the FootPrints database. Whether you are an experienced DBA, or you just need to connect to the FootPrints database to run reports, now you have access to the user information you need.

### Integrated IT Asset Management: Integrate vital data from the Numara Asset Management Platform (AMP)

- Work hand-in-hand with your asset inventory. The service management team can greatly benefit from having access to a powerful and efficient asset inventory system. The integration between Numara FootPrints and the brand new Numara Asset Management Platform dynamically pulls vital information into your Incidents, problems, and requests for change. Having this data available within the service desk is key to fast problem resolution, and valuable when running weekly and monthly trend reports. For deeper incident and problem resolution, the Numara AMP console can be launched right from Numara FootPrints to perform remote control, software deployment, and other asset-related activities (Active X required).

### Configuration Management Enhancements: Save time and effort with a more streamlined workflow.

- Make sure the right CIs get linked to your Incidents, Problems, and Change Requests Save time by having the appropriate CIs (Configuration Items) linked to your records automatically based on the submitter. Save effort with one- click access to your most commonly used CI lists and searches when linking a CI to a record.
- Make sure everyone is aware of important CI information linked to your Incidents, Problems, and Changes. Include important linked CI details when sending out email notifications to assignees, approvers, managers, and customers associated with a record.

**Comprehensive Change Management: Enhance your Change Management workflow and information availability**

- More workflow options mean better alignment with your Change Management process. Give more information to all interested parties by making approval comments mandatory upon approval, disapproval, or deferral of change request voting. Add “Expired” as an additional approval outcome option to route your change requests appropriately if not approved in a timely manner. Automatically update change request information as part of your approval workflow to minimize manual data entry.
- Disseminate important change request information to all interested parties. Mirror various change approval states in change request fields for easier visibility and inclusion in report and email notifications. Send email notifications to a broad range of audiences including assignees, approvers, managers, customers, and other interested parties. Get full change approval details in all custom reports.

**Tighter Service Level Management: Improve and ensure optimal service desk quality with improved SLA management**

- Enforce your Service Level date targets by implementing roles-based Service Level field permissions. Limit access to your Service Level fields to ensure proper Service Level enforcement and reporting. Use more granular role level security to determine who could read, write, and edit Service Level information.
- Determine the length of your business per service level agreement. Whether your Service Levels with customers are based on a 9 -to-5, 5 day schedule or an 8-to-8, 7 day schedule, determine what constitutes one day for response and resolution times per customer or unique service level agreement. Gain control of SLA enforcement and reporting for environments with varied SLA requirements.

## Numara Software FootPrints Versions and Add-ons

The following versions of **Numara FootPrints** are available:

- **Numara FootPrints**—The web-based help desk and customer problem management solution for Windows, UNIX, and Linux servers.
- **Numara FootPrints for Customer Service**—The web-based customer service desk automation solution
- **Numara FootPrints FootPrints Base Starter Pack**—The web-based help desk and customer problem management solution for Windows/SQL Express or Windows/SQL Server only. This is the same great FootPrints customers have always used, but geared towards smaller business. Base Starter Pack customers can purchase Change Management and Mobile. Limitations include:
  - a maximum of fifteen named agents
  - Windows/SQLExpress or Windows/SQL Server only
  - no concurrent licenses
  - no ability to add CMDB or SQL Link
  - a maximum of three workspaces plus one survey workspace.
- **Numara FootPrints Hosting Service**—All the power of **Numara FootPrints**, hosted by Numara Software, Inc..

### NOTE

FootPrints for Exchange is no longer available, but customers can continue to enjoy the same functionality by upgrading to Numara FootPrints.

The following add-on modules are also available for integration with **Numara FootPrints**:

- **Numara Configuration Management (with Service Catalog)**—ITIL compliant add-on module that provides complete Configuration Management functionality. Import assets and define your entire configuration. Configuration management data can be imported to Issues. Also features reporting.

### NOTE

The Extended Starter Pack is required to purchase the Configuration Management module. Please contact your salesperson for more information about obtaining the Extended Starter Pack.

- **Numara FootPrints Sync**—Two-way, dynamic synchronization of calendar appointments, tasks, and contacts with the user's desktop, PIM (Personal Information Manager), or handheld productivity tool.
- **Numara Asset Management**—Auto-discovery of PC assets, network management, and software deployment using any combination of the following:
  - **Numara Asset Manager**—Complete, up-to-the-minute PC hardware and software identification.
  - **Numara FootPrints Integration with Microsoft System Center Configuration Manager/SMS**—Allows help desks agents to dynamically access PC asset data while they're working on an Issue from within Numara FootPrints.
  - **Numara FootPrints Integration with LANDesk**—Allows help desks agents to dynamically access PC asset data while they're working on an Issue from within Numara FootPrints.

- **Numara FootPrints Deployment**—Enables organizations to leverage their support and help desk operations to optimize IT resources and implement preventative maintenance, eliminating potential technical issues before they occur.
- **Numara FootPrints Dynamic Address Book Link**—Gives access to multiple LDAP-based and SQL-based address books.
- **Numara FootPrints Integration with Right Answers**—Comprehensive Knowledge-Paks with hundreds of thousands of solutions for more than one hundred fifty applications.
- **Numara FootPrints Telephony**—An integrated, hosted contact center service that works with your **Numara FootPrints** software, offering call centers and service desks advanced, skills-based call routing that automatically transfers incoming customer requests to the right help desk agent or customer service representative. Numara FootPrints Telephony is an integration, not an add-on.
- **Numara FootPrints Change Management**—Enables organizations to develop their own approval process for Issues, with no programming. In **Numara FootPrints** Change Management, approvers are designated for specific Workspaces. When an Issue meets approval criteria, the approvers are notified that an Issue awaits approval. The approvers then give or withhold approval. When an Issue is approved or rejected, it is moved to another stage in the process.
- **Numara FootPrints CRM Bridge**—Integration with some of the most widely-used sales automation tools. This integration helps organizations tie their web-based customer support tracking and automation with their web-based CRM sales tracking process to give sales and customer support teams direct access to the latest customer support interactions at any time. From within the sales automation tool, sales representatives can see active support issues for their customers in **Numara FootPrints**. From within **Numara FootPrints**, sales representatives can access their customer Address Books that are stored in the sales automation tool. The following sales automation tools are integrated via the **Numara FootPrints** CRM Bridge.
  - Numara FootPrints Integration with MS CRM
  - Numara FootPrints Integration with Salesforce.com
  - Numara FootPrints Integration with Sales/CRM powered by SalesNet®

#### NOTE

Live eSupport and the LANSurveyor integration are no longer supported.

- **Numara Remote**—Enables an Agents to take control of a customer's PC.

## PerlEx Modules, Packages, and Extensions

ActivePerl Enterprise Edition is the up-to-date, quality-assured perl binary distribution from ActiveState. Current releases, and other professional tools for open source language developers are available at:

<http://www.ActiveState.com>

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## Numara FootPrints Requirements

**Numara FootPrints** is a 100% web-based solution that is installed on a web server. Please review the following requirements prior to installing **Numara FootPrints**.

- Windows
- Linux/UNIX
- Suggested Hardware Based on Volume

### NOTE

Performance is severely limited on servers which use McAfee and Numara FootPrints together.

Although Numara FootPrints runs under VMware on Windows, Numara FootPrints does not support VMware.

## Windows Requirements

As a 100% web-based software application, Numara FootPrints resides on a single, central computer running a web server. Client software is not required and a standard web browser is all that is needed to launch, run and manage the system. Numara FootPrints supports most platforms available today, as well as multiple browsers, databases, e-mail systems and client systems.

### Versions of Numara FootPrints for Microsoft Windows web servers

<b>Platform</b>	<ol style="list-style-type: none"> <li>1. Windows Server 2008 (32-bit and 64-bit)</li> <li>2. Windows Server 2003 (32-bit and 64-bit)</li> </ol>	
<b>File System</b>	<ol style="list-style-type: none"> <li>3. NTFS-formatted hard drive</li> </ol>	
<b>Web Server</b>	<ul style="list-style-type: none"> <li>• Internet Information Server (IIS) v6-7.0</li> </ul>	
<b>Database<sup>(4)</sup></b>	<b>Microsoft SQL Server</b>	<b>Oracle</b>
<b>Version</b>	<ol style="list-style-type: none"> <li>4. Microsoft SQL Server 2005/2008<sup>(1)</sup></li> <li>5. Microsoft SQL Server Express 2005/2008</li> </ol>	<ol style="list-style-type: none"> <li>6. Oracle 10g/11g<sup>(2)</sup> (Note: The database can reside on a Windows, Linux, or UNIX server)</li> <li>7. Oracle Text required</li> </ol>
<b>Hardware 1 - 20 Users<sup>(3)</sup></b>	<b>SQL Server on a different server:</b> <ul style="list-style-type: none"> <li>• 2 GB RAM</li> <li>• 1 Xeon® or Opteron™ 2.4 GHz processor or better</li> <li>• 20 GB disk space</li> </ul> <b>SQL Server on the same server:</b> <ul style="list-style-type: none"> <li>• 4 GB RAM</li> <li>• 1 Xeon® or Opteron™ 2.4 GHz processor or better</li> <li>• 20 GB disk space</li> </ul>	<b>Oracle on a different server:</b> <ul style="list-style-type: none"> <li>• 2 GB RAM</li> <li>• 1 Xeon® or Opteron™ 2.4 GHz processor or better</li> <li>• 20 GB disk space</li> </ul> <b>Oracle on the same server:</b> <ul style="list-style-type: none"> <li>• 4 GB RAM</li> <li>• 1 Xeon® or Opteron™ 2.4 GHz processor or better</li> <li>• 20 GB disk space</li> </ul>
<b>Hardware 21 - 50 Users<sup>(3)</sup></b>	<b>SQL Server on a different server:</b> <ul style="list-style-type: none"> <li>• 4 GB RAM</li> <li>• 2 Xeon® or Opteron™ 2.4 GHz processor or better</li> <li>• 40 GB disk space</li> </ul> <b>SQL Server on the same server:</b> <ul style="list-style-type: none"> <li>• 4 GB RAM</li> <li>• 2 Xeon® or Opteron™ 2.4 GHz processor or better</li> <li>• 40 GB disk space</li> </ul>	<b>Oracle on a different server:</b> <ul style="list-style-type: none"> <li>• 4 GB RAM</li> <li>• 2 Xeon® or Opteron™ 2.4 GHz processor or better</li> <li>• 40 GB disk space</li> </ul> <b>Oracle on the same server:</b> <ul style="list-style-type: none"> <li>• 4 GB RAM</li> <li>• 2 Xeon® or Opteron™ 2.4 GHz processor or better</li> <li>• 40 GB disk space</li> </ul>
<b>Hardware Large Volume 51+ Users<sup>(3)</sup></b>	See the "Suggested hardware based on volume" chart on the last page.	
<b>E-mail</b>	<ul style="list-style-type: none"> <li>• SMTP for e-mail notification, i.e. as provided by Microsoft Exchange and Lotus Notes</li> <li>• POP/IMAP/IMAP-SSL for incoming e-mail processing, i.e. as provided by Microsoft Exchange and Lotus Notes</li> </ul>	
<b>Client Platform</b>	<ul style="list-style-type: none"> <li>• Any supported web browser as defined below</li> </ul>	
<b>Web Browser</b>	<ul style="list-style-type: none"> <li>• Microsoft Internet Explorer® 7 or 8</li> <li>• Mozilla® Firefox® v3.0.x or 3.5.x</li> <li>• Safari® 4.0.x on MAC OS</li> </ul>	

**Server  
Virtualization**

- Numara FootPrints has been proven by Numara Software customers to function properly in virtualized data centers that use Parallels™ Virtuozzo®, VMware® ESXi and VMware Infrastructure. As such, Numara FootPrints is supported in these environments to the extent of the product's functionality as long as it is installed on the approved OS platforms, web servers and databases. Numara Software makes no claims regarding Numara FootPrints performance in these environments since the mix of other applications and hardware can have a direct impact on overall performance. Numara FootPrints may work properly on other virtualization products, but Numara FootPrints does not make claims that it will. Furthermore, Numara FootPrints is not supported on VMware Server or VMware Workstation using the GSX engine in a production environment since it is not designed for hardware optimization.

(1) Use of Numara FootPrints with Microsoft SQL Server may require additional Microsoft licenses. For more information, contact Microsoft at [www.microsoft.com](http://www.microsoft.com). A no-cost Microsoft SQL Server Express 2005 is available from Numara Software.

(2) Use of Numara FootPrints with Oracle may require additional Oracle licenses. For more information, contact Oracle at [www.oracle.com](http://www.oracle.com)

(3) The number of users refers to the average number of concurrent users on the system at any one time. This should include agents and 1-2 percent of the total number of customers (if using Numara FootPrints for customer service). So, if you have 20 agents and 1000 customers using customer self-service, 30-40 users should be counted. This is only a rough guide. Actual load on the system is dependent upon your usage of Numara FootPrints.

(4) The Extended Starter Pack is required to use Linux, UNIX, Oracle, Postgres or MySQL database (with the Base Starter Pack only Windows/SQL Express and Server are supported). Please contact your salesperson for details on obtaining the Extended Starter Pack.

## Linux/UNIX Requirements

As a 100% web-based software application, Numara FootPrints resides on a single, central computer running a web server. Client software is not required and a standard web browser is all that is needed to launch, run and manage the system. Numara FootPrints supports most platforms available today, as well as multiple browsers, databases, e-mail systems and client systems.

Versions of Numara FootPrints for UNIX and Linux web servers

Platform	Linux	Sun Solaris
<b>Version</b>	<ul style="list-style-type: none"> <li>Any Intel® 32 or 64 bit Linux system built from glibc 2.3-2.10.x</li> </ul>	<ul style="list-style-type: none"> <li>Sun™ Solaris for Sparc® 2.8 or higher</li> </ul>
<b>Web Server</b>	<ul style="list-style-type: none"> <li>Apache</li> </ul>	<ul style="list-style-type: none"> <li>Apache</li> </ul>
<b>Database<sup>(3)</sup></b>	<ul style="list-style-type: none"> <li>MySQL 5 – 5.1.x</li> <li>Oracle 10g/11g<sup>(1)</sup> (Oracle Text required)</li> <li>Postgres 7/8</li> </ul>	<ul style="list-style-type: none"> <li>MySQL 5 – 5.1.x</li> <li>Oracle 10g/11g<sup>(1)</sup> (Oracle Text required)</li> <li>Postgres 7/8</li> </ul>
<b>Hardware Minimum 1 - 20 Users<sup>(2)</sup></b>	All Databases: <ul style="list-style-type: none"> <li>2 GB RAM</li> <li>1 Xeon® or Opteron™ 2.4 GHz processor or better</li> <li>20 GB disk space</li> </ul>	All Databases: <ul style="list-style-type: none"> <li>2 GB RAM</li> <li>1 – 2+ GHz processor</li> <li>20 GB disk space</li> </ul>
<b>Hardware 21 - 50 Users<sup>(2)</sup></b>	Oracle/MySQL/Postgres <ul style="list-style-type: none"> <li>4 GB RAM</li> <li>2 Xeon® or Opteron™ 2.4 GHz processor or better</li> <li>20 GB disk space</li> </ul>	All Databases: <ul style="list-style-type: none"> <li>4 GB RAM</li> <li>2 – 2+ GHz processors</li> <li>40 GB disk space</li> </ul>
<b>Hardware Large Volume 51+ Users<sup>(2)</sup></b>	See the "Suggested hardware based on volume" chart on the last page.	
<b>E-mail</b>	<ul style="list-style-type: none"> <li>Locally installed Sendmail</li> <li>SMTP, i.e. as provided by Microsoft Exchange and Lotus Notes</li> <li>POP/IMAP/IMAP-SSL, i.e. as provided by Microsoft Exchange and Lotus Notes</li> </ul>	
<b>Client Platform</b>	<ul style="list-style-type: none"> <li>Any supported web browser as defined below</li> </ul>	
<b>Web Browser</b>	<ul style="list-style-type: none"> <li>Microsoft Internet Explorer® 7 or 8</li> <li>Mozilla® Firefox® v3.0.x or 3.5.x</li> <li>Safari® 4.0.x on MAC OS</li> </ul>	
<b>Server Virtualization</b>	<ul style="list-style-type: none"> <li>Numara FootPrints is supported if installed in a virtualized data center providing it receives the resources defined above. Numara FootPrints is not supported on VMware GSX Server™ engine in a production environment.</li> </ul>	

(1) Use of Numara FootPrints with an Oracle database may require database licenses. For more information, contact Oracle at [www.oracle.com](http://www.oracle.com).

(2) The number of users refers to the average number of concurrent users on the system at any one time. This should include agents and 1-2 percent of the total number of customers (if using Numara FootPrints for customer service). So, if you have 20 agents and 1000 customers using customer self-service, 30-40 users should be counted. This is only a rough guide. Actual load on the system is dependent upon your usage of Numara FootPrints.

(3) The Extended Starter Pack is required to use Linux, UNIX, Oracle, Postgres or MySQL database (with the Base Starter Pack only Windows/SQL Express and Server are supported). Please contact your salesperson for details on obtaining the Extended Starter Pack.

## Suggested Hardware Based on Volume

Platform	Windows 32 or 64 Bit 2003/2008 Server w/	Linux 32 or 64 bit Any Intel Server w/	Sun SolarisSun SPARC Server w/
<b># Of Users<sup>(1)</sup></b>			
<b>1-20</b> (2)	2 GB RAM (1) - Xeon® or Opteron™ 2.4 GHz processor or better	2 GB RAM (1) - Xeon® or Opteron™ 2.4 GHz processor or better	2 GB RAM (1) - 2+ GHz Processor
<b>21-50</b>	4 GB RAM (2) - Xeon® or Opteron™ 2.4 GHz processor or better	4 GB RAM (2) - Xeon® or Opteron™ 2.4 GHz processor or better	4 GB RAM (2) -2+ GHz Processors
<b>51-150</b> (3)	8 GB RAM (4) - Xeon® or Opteron™ 2.4 GHz processor or better	8 GB RAM (2) - Xeon® or Opteron™ 2.4 GHz processor or better	8 GB RAM (4) – 2+ GHz Processors
<b>151-249</b> (4)	8 GB RAM & (8) - Xeon® or Opteron™ 2.4 GHz processor or better	8 GB RAM (4) - Xeon® or Opteron™ 2.4 GHz processor or better	8 GB RAM (4) – 2+ GHz Processors
<b>250-500</b> (5)	16 GB RAM & (16) - Xeon® or Opteron™ 2.4 GHz processor or better	16 GB RAM (8) - Xeon® or Opteron™ 2.4 GHz processor or better	16 GB RAM (8) – 2+ GHz Processors
<b>501+</b> (6)	32 GB RAM & (32) - Xeon® or Opteron™ 2.4 GHz processor or better	32+ GB RAM (16)+ Xeon® or Opteron™ 2.4 GHz processor or better	32+ GB RAM (16)+ - 2+ GHz Processors
<b>Sample Server for Large Volume</b> (7)	HP Proliant DL500 series, IBM x3850 or Dell PowerEdge™ R200 for up to 150 users.  HP Integrity Servers, IBM x3950 R2, or Dell PowerEdge R900 for over 150 users.	HP Integrity rx7620-16 Server	Sun SPARC Enterprise Series Server

(1) The number of users refers to the average number of concurrent users on the system at any one time. This should include agents and 1-2 percent of the total number of customers (if using Numara FootPrints for customer service). So, if you have 20 agents and 1000 customers using customer self-service, 30-40 users should be counted. This is only a rough guide. Actual load on the system is dependent upon your usage of Numara FootPrints

(2) In all cases, Xeon or Opteron CPUs should be used

(3) Windows 2003 Standard (SP2 and R2) supports up to 4 processors and 4 GB RAM. Windows 2008 (32-bit) supports up to 4 GB RAM and (64-bit) supports up to 32 GB RAM

(4) Windows 2003 Enterprise (SP2 and R2) supports up to 8 processors and 64 GB RAM. Windows 2008 (32-bit) supports up to 64 GB RAM and (64-bit) supports up to 2 TB RAM.

(5) Windows 2003 DataCenter supports up to 32 processors and 64 GB RAM. Windows 2008 (32-bit) supports up to 64 GB RAM and (64-bit) supports up to 2 TB RAM.

(6) "Sample Server" is not intended to be an inclusive list of authorized hardware or vendors, but examples of possible servers that can be used.


(7) Dual and Quad Core CPUs are equivalent to 2 and 4 processors respectively. 4 Processors can be 4 single CPUs, 2 Dual Core, or 1 Quad Core.

## List of Available Documents



The following table lists **Numara FootPrints** user documentation.

Document	Description
Numara <b>FootPrints Getting Started Guide for Administrator</b>	Provides a means for administrators to get <b>Numara FootPrints</b> to production quickly. All of the immediate actions of implementation are covered in detail.
Numara <b>FootPrints User Guide</b>	Covers the basic functionality of <b>Numara FootPrints</b> for Agents, including Issue creation and Report generation.
Numara <b>FootPrints Reference Manual</b>	Documents every aspect and detail of <b>Numara FootPrints</b> .
Numara <b>FootPrints Change Management Guide</b>	Provides best practices for <b>Numara FootPrints</b> Change Management as well as the details of configuration and implementation.
Numara <b>FootPrints Configuration Management Guide</b>	Provides best practices for <b>Numara FootPrints</b> Configuration Management, including Service Catalog, as well as the details of configuration and implementation.
Numara <b>FootPrints Mobile Guide</b>	Describes configuraton and implementation for <b>NumaraFootPrints</b> Mobile.

## Online Help

Help is available from within **Numara FootPrints**. To access the online Help document, click the  **Help** icon on the homepage. A new browser window is spawned containing complete documentation on **Numara FootPrints**. This includes:

- Table of contents, Index, and Search tabs for navigation.
- A glossary defining common terms used in **Numara FootPrints**.

In addition to the  **Help** icon on homepage, context-sensitive help links are available throughout the Numara FootPrints system. If you see the  icon anywhere outside of the **FootPrints** Toolbar, it is a link to context-sensitive help. Click the link to view information that is specific to the current page.

The on-line help works as expected in Internet Explorer and FireFox browsers. The on-line help may show some unexpected behavior in rare instances when used with these or other browsers.

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## Technical Support

For questions regarding **Numara FootPrints** and for technical support, contact the Numara Software Support team:

<b>Phone</b>	1.800.222.0550 (dial 2 when you connect) (USA and Canada) 732.287.2100 ext. 2 (international)
<b>Email</b>	footprints.support@numarasoftware.com
<b>Web</b>	<a href="http://www.numarasoftware.com/support">http://www.numarasoftware.com/support</a>

Numara Software Support hours are Monday through Thursday, 9am to 8pm, and Friday, 9am to 6:30pm Eastern Standard Time. You can search the **FootPrints** Knowledge Base any time at the web address above.

For our **international users**, please contact your local distributor.

Thank you for using **Numara FootPrints**!

### SUPPORT

Commercial support for ActivePerl Enterprise Edition is available through ActiveState at:

<http://www.ActiveState.com/Support/Enterprise/>

For peer support resources for ActivePerl Enterprise Edition issues see:

<http://www.ActiveState.com/Support/>

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## Chapter 2: Concepts

### Workspaces

**FootPrints** stores and tracks information in Workspaces. A Workspace is a separate sub-database within the system which can have its own custom fields, options, and users. There is no limit to the number of Workspaces that you can create within **FootPrints**. You may choose to keep all of your data in a single Workspace or you can create multiple Workspaces. For example, one Workspace can be used for help desk activity while a second Workspace can be used for internal bug tracking.

New workspaces can only be created by System Administrators. An unlimited number of workspaces can be created with the Extended Starter Pack. The Base Starter Pack is limited in the number of workspaces you can create.

#### NOTE

The Base Starter Pack comes with a limit of three workspaces, plus one workspace for Customer Surveys. Archive workspaces count as one of the three workspaces. The Extended Starter Pack unlocks the ability to create unlimited workspaces. Please contact your salesperson for more information about obtaining the Extended Starter Pack.

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### Issues

A **FootPrints** Workspace comprises a set of related Issues. “Issue” is the default name given to a **FootPrints** record. Each Issue is a numbered record in the **FootPrints** Workspace database around which all help desk and problem tracking activity centers.

All Issues have some built-in content in the form of required fields (i.e., mandatory data required for the database), as follows:

- **Title**—a short description of the Issue
- **Priority**—the urgency of the Issue
- **Status**—the current state of the Issue; Open and Closed are required status options, but administrators can create as many categories of status (e.g., Pending approval), as they wish.
- **Description**—a description of the Issue, usually containing much more detail and history than the Title.
- **Assignee**—the person or persons assigned to track or resolve the Issue.

Not all organizations use the term "Issue" as the label for a record of this type. Administrators can customize **FootPrints** to apply whatever label is appropriate in your local culture. Administrators can change the name "Issues" to "Tickets", for example, so that wherever the word "Issues" appears by default in **FootPrints**, the word "Tickets" is displayed.

#### NOTE

During installation, the administrator is given the chance to change the default term "Issue" to another name, such as "Entry," "Call," or "Ticket." For consistency, this manual always refers to **FootPrints** records as "Issues."

## Types of Issues

**FootPrints** provides a number of different types of Issues:

- **Issue**—An Issue is normally used to log any event or problem. The name for this may differ (Ticket, Entry, etc.) depending on how your system is configured. An Issue can be opened, assigned, worked on, and closed by internal [Agent](#) users and [Administrators](#). **FootPrints** can automatically send notification email whenever an Issue is worked.
- **Request**—A Request is a preliminary Issue that is submitted by a Customer. **FootPrints** Agents can then "take" the Request and turn it into a regular Issue, or Requests can be automatically assigned to one or more Agents. (Administrators can read the section on [Auto Assign](#) for more information). Your Administrator can tell you how Requests are handled in your organization.
- **Quick Issue**—Quick Issues are templates that contain pre-filled information for standard types of Customer problems and requests. For example, a Quick Issue template for "Password Reset" would start out pre-filled with a description of the problem, the problem categories pre-filled with "Network" and "Password Reset", and perhaps a Status of "Closed". The Agent only needs to fill in the user's contact information to submit the Issue. The Workspace Administrator can create an unlimited number of templates
- **Master Issue/Subtask**—Sometimes an Issue needs to be broken up into separate subtasks to be completed by different users. When a subtask is created for an Issue, the originating Issue automatically becomes a Master Issue of that subtask. Multiple subtasks can be created for an Issue.
- **Master Quick Issue**—Quick Issue templates can also be defined to create Master Issues and related subtasks automatically, for example, to define the New Hire process.
- **Global Issue/GlobalLink**—Global Issues are used to designate important or frequently reported Issues that will affect many users. Global Issues can be broadcast to all Agents, are displayed on the Agent **FootPrints** Homepage, and can optionally be displayed for Customers to subscribe to. Whenever a new Issue is reported with the same problem as an existing Global Issue, the Agent (or, optionally, the Customer) can link the Issue to the known Global Issue (called GlobalLinks). Global Issues can be closed simultaneously with their GlobalLinks.
- **Solution**—Solutions are a special type of record in **FootPrints** that make up the Knowledge Base. They are used to describe solutions to common problems, frequently asked questions, document procedures, etc. A Solution can be created from scratch or spun off from an Issue. Solutions can be public or internal and they can be configured to require an approval process before they are published.

#### NOTE

Issues and Requests can also be submitted and updated via email. Please refer to the section on submission via Email for more information.

## Master Issues and Subtasks

Sometimes an Issue must be divided into subtasks to be completed by different users. The **FootPrints** Master Issue/Subtasks facility allows you to create parent-child relationships between Issues for complex processes.

When a subtask is created for an Issue, the originating Issue automatically becomes a Master Issue of that subtask. Multiple subtasks can be created for an Issue. As an example, numerous tasks must be accomplished when a new hire is performed. **FootPrints** users often create a Master Issue for new hires. Each of the tasks that must be performed for a new hire, such as acquiring a telephone or adding the new hire as a user to the network, is created as a subtask.

Subtasks can be created manually by an Agent or automatically by a [Master Quick Issue Template](#).

Creating a subtask of an Issue automatically makes the originating Issue a Master Issue, with a parent-child relationship existing between the Master Issue and the subtask.

Master Issues and subtasks have a special relationship. When a Master Issue is opened and subtasks are created, the Master Issue remains opened until all of the subtasks have been closed. When the last subtask is closed, the Master Issue can either be closed automatically or **FootPrints** can automatically send an email to all individuals who are assigned to the Master Issue informing them that the subtasks have been closed. It then becomes the responsibility of someone assigned to the Master Issue to close it. The default is to automatically change the status to Closed.

## Global Issues

Global Issues are used to designate important or frequently reported Issues that affect many users. For example, a "System Down" failure that will be reported by many users can be made into a Global Issue. Global Issues can be broadcast to all Agents, are displayed on the Agent's **FootPrints** Homepage, and can optionally be displayed for customers to subscribe to. Whenever a new Issue is reported with the same problem, the Agent (and, optionally, the customer) can link the Issue to the known Global Issue. Global Issues can be closed simultaneously with their associated GlobalLinks. This feature can save the time for Agents by preventing duplicate work and can make it easier to communicate pervasive problems to all users.

Global Issues have two parts to them:

- **Global Issue**—This is the originating problem. It is broadcast to all Agents when it is created, is available on the Homepage for setting up a link, and can optionally be broadcast to customers so that they can link to it. Agents can be restricted from creating Global Issues via their role assignment.
- **GlobalLinks**—These are Issues linked to a Global Issue because they describe the same or a similar problem, but are reported by different users. Issues can be made GlobalLinks by Agents from the **FootPrints** home page or the Issue Details page. Customers can optionally link to a Global Issue, allowing them to create their own GlobalLink automatically.

### NOTE

The name of this feature depends on the name given to records in **FootPrints** for the system/workspace. For example, if the name "Ticket" has been defined for records in the current workspace, the Global Issue is referred to as a "Global Ticket" throughout the workspace. However, GlobalLinks are always referred to as "GlobalLinks". For consistency, all help files refer to the feature as "Global Issue" and "GlobalLinks".

## Quick Issues

Quick Issues are templates that contain pre-filled information for frequently reported customer Issues, such as "Password Reset", "Service Request", etc. For example, a Quick Issue template for "Password Reset" would start out pre-filled with a description of the problem, the problem categories pre-filled with Network and Password Reset, and perhaps a status of Closed. The Agent only needs to fill in the user's contact information to submit the Issue. The Workspace Administrator can create an unlimited number of templates, which are available to all Agents and customers from the **FootPrints** Toolbar. (Customers cannot access Master Issues.)

The Quick Issue Templates page is also where you create and edit Master Issues and Subtasks.

Quick Issue templates are created by the Workspace Administrator.

Quick Issues are considered advanced **FootPrints** features. Refer to [Creating Quick Issue Templates](#) and subsequent topics in that section for details on configuring Quick Issues.

### NOTE

The name of this feature depends on the name given to records in **FootPrints** for the system/workspace. For example, if the name "Call" has been defined for records in the current workspace, the feature is called "Quick Call" throughout the workspace (on the toolbar, in the Administration pages, etc.). For consistency, all help files refer to the feature as "Quick Issue"

## Linked Issues

When Issues are "linked", it means that an association has been created between the Issues. The association is displayed whenever the Issue is displayed in **FootPrints**. Associations of this type denote that there are similarities between the issues that the person who established the link wants everyone to see. Linked Issues can be set up so that changes made to one Issue are propagated to the other Issue or Issues.

In the case of Global Issues, links are called "[GlobalLinks](#)". These are Issues linked to the Global Issue because they describe the same or similar problem, but are reported by different users.

Issues linked to a Master Issue are called "[Subtasks](#)". These are Issues linked to the Master Issue because they describe a subset of activities to be performed in resolving the Master Issue.

## Requests

A request is a preliminary Issue that is submitted by a customer, either through the **FootPrints** interface (using the Customer Self-service interface) or via email. There are three options for the handling of new Requests:

8. The Requests go into the Request "bin". From there, an Agent or Administrator may assign new Requests to one or more Agents to work on them. The Requests then appear in each assigned Agent's Assignments list on the Homepage.
9. Agents can "take" Requests from the Request bin and assign themselves to the Requests.
10. New Requests can automatically be converted into Open Issues and assigned to internal users based on the value in a drop-down field. This feature must be configured by the Workspace Administrator. Please refer to the section on [Auto Assignment](#) for more information.

Please check with your **FootPrints** Administrator for more information on how your organization handles Requests in **FootPrints**.

Customers can follow progress on Requests that they have submitted as they are worked. In addition, **FootPrints** can automatically send email to the customer who submitted the Request when changes to the Request are made.

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## Agents and Customers

**FootPrints** supports different levels of user privileges for users with different needs. An “Agent” user account is intended for specified internal users, such as help desk Agents, customer service representatives, or engineers. A “Customer” account is intended for employee end-users or external Customers, allowing those users to submit and track their own requests and to search the knowledge base.

**FootPrints** comes with a number of built-in user types, called “roles”. Custom roles can also be created by the Administrator to define permissions for different groups of users.

Here is a breakdown of the built-in roles:

- **Agent roles:**
  - **Agent**—A standard, full-strength user. This user type commonly includes: help desk Agent, call center Agent, developer, engineer, manager, and workspace member. Agent users have the ability to use all of the basic functions of FootPrints, including creating, viewing, and editing Issues and running queries.
  - **Workspace Administrator**—In addition to Agent privileges, a Workspace Administrator can administer an existing Workspace, including adding custom fields, setting options, and adding users.
  - **System Administrator**—In addition to Agent and Workspace Administrator privileges, the System Administrator has control over the whole FootPrints system, including administration of any Workspace, adding new Workspaces, and managing licenses.
- **Customer roles:**
  - **Read KB**—View and search the [Knowledge Base](#).
  - **Read KB/Requests**—View and search the Knowledge Base and check the statuses on Requests (entered by an internal user or via email).
  - **Read/Submit**—In addition to the functionality described above, can submit Requests via a FootPrints web interface.
  - **Read/Submit/Edit**—In addition to the functionality described above, these users have limited edit privileges of their own Requests.

## More About Customers

Customer users have a number of components:

**User Account**—This is the ID and password of the Customer. Users can have unique IDs and passwords or they can share a generic ID and password. This record is kept in the password file.

**Contact Record**—The contact information for the user is kept in the **FootPrints** Address Book or dynamically read from an LDAP or other External Database/SQL source. The data kept depends on the fields that exist in the Address Book.

**Primary Key**—The Customer user account and contact records are linked via the Primary Key field. This is a field in the Address Book, such as User ID or Email Address, that uniquely identifies the user.

**Role**—The permission level for the user. Built-in and custom roles are available.

## Supervisors

FootPrints contains the concept of "Supervisors". Agents can be designated as assigned to specific supervisors, which makes it easier to designate where emails go when, for example, there is an Issue [Escalation](#).

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## Permissions

"Permissions" refers to the level of restriction applied to any user, whether it is an Agent, Administrator, or Customer. As an example, Agents can be restricted from submitting Solutions to the Knowledge Base; therefore, such Agents would not have "permission" to submit Solutions to the Knowledge Base.

### Configuration of Permissions

Permissions are configured by Administrators. Workspace Administrators can configure permissions on a Workspace level, allowing a specified role (e.g., Agents) to perform or not perform certain actions. System Administrators can configure permissions on either a workspace level or system-wide. For example, Customers could be restricted from submitting their own Requests in a specific workspace, allowing them to submit Requests to other workspaces, or they could be restricted from submitting Requests to any Workspace.

Permissions can also be set on the field level. That is, users can be prevented from entering data into designated fields without the appropriate permissions. Field level permissions are set by either a Workspace Administrator for a specific workspace or system-wide by a System Administrator. With field level permissions, there are two ways in which users are prevented from accessing the field to enter data. In the first instance, the field may be visible to the user, but the user would be prevented from entering data into the field without permissions. In the second instance, the field may be invisible to specified roles.

### Permission Assignment

Permissions are assigned by [role](#). That is, Administrators determine which permissions a specific role is allowed. The Administrator then can determine which individuals are assigned that role.

Because Administrators can create new roles, the affect of permissions can be limited to a small group or even an individual. For example, if an Administrator wants only a single person or a small number of people to be able to add Solutions to the Knowledge Base, the Administrator could restrict all Agents from adding to the Knowledge Base, then create a new Agent role, assign the appropriate users to the new role, and allow the new role to add Solutions to the Knowledge Base.

### Field-level Permissions

"Permission" refers to the level of restriction applied to any user, whether it is an Agent, Administrator, or Customer. For example, Agents can be restricted from submitting Solutions to the Knowledge Base; therefore, such Agents would not have "permission" to submit Solutions to the Knowledge Base. Field-level permissions restrict which fields are accessible to users. Field-level permissions, like regular permissions, are defined by role. For example, Issues can sometimes become exceptionally lengthy and cluttered in terms of the number of fields that are displayed,

but not all users need to see all fields. Field-level permissions can be used to "clean up" the Issues page.

As another example, field-level permissions can be used to keep some fields hidden until such time as they become relevant, such as fields created for system test being hidden until a certain status is reached.

For details on configuring field-level permissions, refer to [Field-level Permissions](#).

## How Roles and Teams Work Together

Roles and teams are two user elements in **FootPrints** that work together:

- **Team**—Users are organized in teams for assignment purposes.
- **Role**—Users are granted permissions on what they can do within their team and within the **FootPrints** workspace via a user role.

For example, while the "Level 1 Support Team" may be made up of five users, one of those users might be the team leader and the other four are support technicians. All five users share the same "Level 1 Support Team", but the team leader can be assigned the "Team Leader" role and the other members can be assigned the "Technician" role. This distinction is illustrated in the following table:

User	Team	Role
Jill Smith	Level 1 Support Team	Leader
Linda Thompson	Level 1 Support Team	Technician
Bill Jones	Level 1 Support Team	Technician
Jose Gomez	Level 1 Support Team	Technician
Brian Patel	Level 1 Support Team	Technician

In this example, when someone assigns an Issue to the Level 1 Support Team, all five members receive an email notification and the Issue appears in the Team Assignment queue. Although the Technician role may not allow those users to take the Issue, the Team Leader role allows Jill to assign the Issue to one of the Technicians on the team. In addition, the Technicians may be restricted to only viewing Issues for their own team, while Jill could view the Issues for all teams in the Workspace.

Teams can be organized for different functions, departments, groups, etc. Roles can be configured to give as much or as little access as desired for a group of users.

## Other Aspects of Roles and Teams

- **One Role, Many Teams**—While a user can be a member of multiple teams, a user can only have one user role within a Workspace. Therefore, within a Workspace, a user has the same permissions regardless of the team to which he or she belongs.
- **Team leaders**—Team leaders can be designated for a Team. This makes a convenient method for designating where an email should go when an Issue [Escalation](#) occurs.

- **Customers**—Customers cannot belong to teams because they cannot be assigned to Issues. Customers are organized by "organizational unit". (The organization unit is an optional property of a contact in the Address Book. Examples of an organizational unit include "Department", "Business Unit", or "Company". If an organizational unit is specified, the contacts in the Address Book are grouped by organizational unit.) Customers can, however, be assigned to a customized role in order to create a special set of permissions.
- **Same Name for Role and Team**—While the ability to configure roles and teams separately gives you more flexibility, you can choose to give all of the users in a team the same permissions. In that case, you might, optionally, give the role and the team the same name.
- **Optional**—If the functionality provided in roles and teams is not needed by your organization, you do not need to configure these features at all. Users can be assigned individually without teams and can inherit the permissions of the built-in roles.

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## Customer Self-service

Customers in **FootPrints** have access to many self-service features. Depending on their permission level, Customers can submit Requests, track the status of their Requests, search the Knowledge Base for Solutions to their problems, etc. This user type is appropriate for both employee Customers and external Customers of your organization.

With respect to security for self-service Customers, **FootPrints** can authenticate against multiple login methods. This allows, for example, new customers to be validated against the Windows password file, while Agents are validated against the company's master /Active-Directory/LDAP contact book.

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## Fields

A "field" is a section of a web form that can accept input. Fields generally accept either text or numbers. In addition, fields can accept a mouse click that selects an option from a list or a mouse click that checks or unchecks a box.

## Field Types

The following workspace field types are supported:

- **Character (single or multiple line)**—This type of field can contain any type of data, such as alpha, numeric, or special characters. Single-line character fields accept one line of data, while multiple-line character fields accept an unlimited number of lines of data. There is no effective limit on the amount of text in a field.
- **Integer**—Accepts integers.
- **Real Number**—Accepts positive integers or decimal numbers (no negative numbers). If **FootPrints** is running on MS SQL Server or MySQL, you will be asked to include Total Digits and Total Decimal Places for the real number when configuring the field. Total Digits is the total number of digits in the number and Total Decimal Places is the number of digits to the right of the decimal. If an unacceptable value is entered into a real number field, such as a value that includes alphabetical characters, has too many digits

after the decimal place, or is too wide for the field as it has been configured, FootPrints generates a warning before you can leave the page.

When creating a new real number field, MS SQL versions of **FootPrints** asks for the total digits and total decimal places on the field maintenance page. This is necessary since SQL Server real numbers default to four decimal places, which might not be what you want displayed if you are entering currency information.

- **Date**—Accepts valid dates (format based on system or user preference).
- **Date-Time**—The user can select both a date and a time for this field type. Can optionally be linked to the Calendar. A default link to the calendar(s) can be changed at the time of Issue creation by the Agent. In addition, the field can be configured as a link to the personal calendar or personal and workspace calendars by default. by clicking the radio button for either linking to the personal calendar or linking to the personal and workspace calendars when the Issue is created. To select the current date-time, click the checkbox provided with the field.
- **Drop-down**—Offers a pre-defined drop-down list of choices from which the user chooses one of the options.
- **Multi-select**—Allows the user to select multiple choices from a pre-defined list.
- **Checkbox**—Offers a checkbox for users to select in the Issue form. In searches, reports and on the Details screen, the values "On" and "Off" are displayed, or alternate values can be defined. Mandatory/optional permissions do not apply to checkboxes; this field can be checked or left unchecked by the user.
- **Web site**—Accepts URL addresses (of the form `http://server.name.com`). Appears as a hypertext link on the Details page of an Issue.
- **FTP**—Accepts fully-qualified FTP addresses (of the form `ftp://ftp.sitenam.com`). Appears as a hypertext link on the Details page of an Issue.
- **Email Address**—Accepts Email addresses. Appear as a hypertext link on the Details page of an Issue.
- **Add Tab/Section**—Adds a section header or tab, depending on whether you are using the expand/collapse or tabs interface. When a tab or section is added, it is automatically placed at the end of the set of tabs or sections. The administrator must use the arrow keys to move the tab or section into its appropriate position on the page and must also move the fields to be associated with that tab or section individually.

## Built-in Fields

Built-in fields are fields that are included in the **FootPrints** Workspace templates at installation. Some of the built-in fields cannot be removed, but the labels on built-in fields can be changed. For example, "Title" can be changed to "Incident", but the field itself must remain on the Issue form and must be filled out in order for an Issue to be submitted, i.e., accepted by the system.

To see which Workspace templates contain which built-in fields, refer to Chapter 12: Sample Workspace Templates.

## Mandatory and Optional Fields

Mandatory fields are fields that must be populated in order for the Issue to be successfully submitted.

Optional fields are fields that may or may not be populated when an Issue is submitted. If all mandatory fields are populated but one or more optional fields are not populated when an Issue is submitted, the submission should be successful.

## Field Dependency

"Field dependency" refers to a configuration in which the data entered in one field changes the options in the next field. For example, if you have a drop-down field labeled Problem Type and you select Printer from its drop-down list, the next field would offer options that are specific to printer problems. If, instead of Printer, you had select Network, then the next field only displays options related to network problems. **FootPrints** has a facility for creating field dependencies, so that users can be lead through a series of fields, each of which contains options that are specific to the choice made in the previous field.

Multiple dependencies can be configured per workspace and multi-level dependency groups can be created to funnel the user to categories and sub-categories.

There are two kinds of field dependencies supported in **FootPrints**:

- **Pop-up window containing dependent fields**—For this type of field dependency, a drop-down menu is designated as a "decision field". A different pop-up window is displayed depending on which option is selected in the decision field (drop-down menu). Each of the pop-up windows is configured with your choice of fields. For example, assume that there is a field called Resource. The options for Resource are Hardware and Software. If the user selects Hardware from the menu, a pop-up window is displayed with a drop-down menu field called Asset, a multi-line character field called Description, etc. The drop-down menu might contain a list of hardware assets, such as Printer or Edge router, and the Description field is for describing the problem, and so on. If, however, the user selects Software, a pop-up window is displayed with a drop-down menu field called Application which lists the applications, such as Excel or Visio, and a second field called Server, which lists DNS names.
- **Dynamic drop-down dependency groups**—A drop-down menu is designated as a decision field for this type of field dependency as well. However, in this case, a pop-up window is not the dependent factor. Instead, there is a set of subsequent drop-down menus on the same page. The choices that are displayed in each of those drop-downs depend on the choice made in the preceding drop-down field. An example of this would be a drop-down menu field called Software that lists software products. The next field is called Release. The user selects a software title in the Software field. The values in the Release drop-down change depending on which software product was selected in the decision field. The next drop-down menu field might be called Known Problems. This contains a list of known problems that are based on the specific software product and release. If a different software product is selected, different release numbers are displayed and, depending on the release selected, different known problems are displayed.

This type of field dependency is very useful in setting up multi-level groups of dependencies that drill-down and refine the information being submitted.

## Workspace Schema

The Workspace Schema is a display of the order of the fields in a workspace. The Workspace Schema is useful when you are attempting to import data to **FootPrints** or export data from **FootPrints**. The Workspace Schema can be used to check that the tables of data match up.

## InstaCalc Fields

FootPrints allows you to create simple mathematical formulas using Workspace fields. The formulas allow multiplication, division, addition, and subtraction as well as the use of the unary minus and parentheses. Formulas follow the standard order of operations.

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## Address Book

The **FootPrints** Address Book is a database of contact information for your end users, whether they are employees, remote users, or customers. The contact data can be kept in **FootPrints** or can be dynamically read from an outside source, such as Microsoft Exchange, Active Directory, or other LDAP source. The LDAP option is only available in the demo or if you purchased the **Dynamic Address Book Link** add-on module. When the **Dynamic Address Book Link** is used, individual contacts cannot be added to the **FootPrints** Address Book directly. If you wish to add someone to the Address Book when using the Dynamic Address Book Link, you must add the contact to the LDAP source. Supported contact databases include Microsoft Exchange 5.x/2000, Netscape iPlanet, Lotus Notes, and Novell Directory Services.

### NOTE

FootPrints supports Secure LDAP (LDAPS). For additional information on LDAPS support, contact Numara Software Support.

Address Book data can also be imported from an outside source, such as a SQL database.

When an Issue is created in **FootPrints**, it can be linked to a contact, so that the information about the end user is available to technical users looking at the Issue.

A **FootPrints** Address Book is made up of fields, just like an Issue. When a Workspace is built, the fields in the Address Book are dependent on the Workspace template that was selected.

Administrators can modify the fields in the Address Book as appropriate.

The Address Book contains two additional properties:

- **Primary Key**—The primary key is a unique identifier for each contact in the Address Book. If the customer self-service feature is used, the primary key is the ID that customers use to log into **FootPrints**, along with a password. This field should be both present and unique to all contacts. "User ID" is the recommended field and also the default for all templates.
- **Organizational Unit**—The organization unit is an optional property used to organize contacts in the Address Book. Examples include "Department", "Business Unit", or "Company". If organizational unit is used, the contacts in the Address Book are grouped by the field.

## Contacts

"Contact" is the default name given to a record in the **FootPrints** Address Book. Normally this contains a customer's name, email address, phone number, etc., but a contact can be any record in the Address Book containing any number and variety of fields.

Contact data can be added to the database in a variety of ways. Contacts can be typed in directly, one-by-one, or imported from another source. In addition, **FootPrints** allows you to dynamically link to any LDAP source and populate the Address Book from that source. This has the advantage of allowing you to maintain only the one LDAP resource. Any changes made to the LDAP resource are reflected dynamically when contact information is accessed in **FootPrints**.

## Master Contact Record

The Master Contact Record provides an easy way to organize contacts by company, with contacts from each company inheriting properties from the master company record. A master contact record allows an Agent to store information common to an organization, such as a company name or department, in a record similar to that of an address book contact. Upon adding or editing a contact who is a member of an organization for which a master contact record exists, the Agent may pre-load the master contact record information into the contact.

For details on configuring the Master Contact Record, refer to [Master Contact Record Setup](#).

For details on using the Master Contact Record, refer to [Master Contact Record Actions](#).

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## Resolving Issues

Issue resolution can be accomplished in a number of ways. The first and most obvious is by Agents directly working on an Issue. In a normal workflow, an Issue may be created or received as a Request from a Customer, an Agent is assigned when the Issue is created, and the Agent resolves and closes the Issue.

Other ways in which Issues can be resolved outside the normal workflow described above are with:

[The Knowledge Base](#)

[Frequently Asked Questions \(FAQ\)](#)

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## Knowledge Base

The Knowledge Base is a place to record, organize and manage important information for a **FootPrints** Workspace database. This can include, but is not limited to: solutions to common problems, answers to Frequently Asked Questions, patches, and documents. By using the **FootPrints** Knowledge Base feature, you can turn the past experiences of individual customers and agents into a database of Solutions for all Workspace members. This can assist Agents in finding quicker resolutions to recurring problems and in empowering customers to find the answers to their questions without submitting a request.

Records in the Knowledge Base are called "Solutions". Solutions can be developed specifically for the Knowledge Base or can be Issues that were resolved and contain a solution to a problem.

Users may be required to obtain an "approval" before a Solution that they submitted is accepted into the Knowledge Base. Approvals are described in more detail below.

### Internal Knowledge Base

Solutions can be designated to go into the internal Knowledge Base. The internal Knowledge Base is only available to internal **FootPrints** users, i.e., it is not accessible by anyone in a customer role. Internal users can also be configured in roles to restrict access to the Knowledge Base.

### Public Knowledge Base

Solutions can be designated to go into the public Knowledge Base. The public Knowledge Base is accessible by all internal users as well as any customer with permissions.

## External Resources

In addition to the **FootPrints** Knowledge Base, which comprises Issues that are designated as Solutions, **FootPrints** can provide links to external Knowledge Bases. **FootPrints** comes with links pre-configured for the following external Knowledge Bases:

- Adobe
- Apple
- Google Groups
- Hewlett-Packard
- Microsoft Technet

An additional external Knowledge Base is Knowledge-Paks® Online (from RightAnswers, LLC), which is described below.

Administrators can add external Knowledge Bases to **FootPrints**.

## Knowledge-Paks Online

Knowledge-Paks OnLine, a product of RightAnswers, contain thousands of solutions to common desktop and other IT Issues. Knowledge-Paks OnLine is only available if you have purchased and enabled the Knowledge-Paks add-on module from Numara Software.

## Approvals

By default, Agents in **FootPrints** can submit Solutions to both the public and internal Knowledge Bases. Using role permissions, Administrators can limit designated users from submitting Solutions to the Knowledge Bases, and/or can require designated users to receive approval before their Solutions are published. This allows the Administrator to have better control over which information is published to Customers and to review Solutions before Customers see them.

When Agents are required to receive approval before publishing Solutions, one or more users must be designated as approvers. These users (usually Administrators) receive email when a Solution is submitted for approval and can approve, edit, or reject the Solution.

Once approvals are configured for at least one user role, the approval process is in place automatically.

## Frequently Asked Questions

In **FootPrints**, Frequently Asked Questions (FAQs) are categories that are available to Agents and Customers (who have appropriate permissions) when searching the Knowledge Base. These categories are created and maintained by the Workspace Administrator. The categories are defined by advanced search criteria, such as problem type, platform, software version, etc., and named and saved by the Administrator. Each time a category is accessed, it returns the latest Solutions that match the criteria defined for that category.

The **FootPrints** idea of a FAQ page is not like other FAQ pages with their question and answer format. Instead, a **FootPrints** FAQ is more of a pre-defined search category within the Knowledge Base that displays all of the Solutions that were found during the search. It is a time-saving device that helps organize the Solutions in the database for the user. A FootPrints FAQ can also contain hierarchies of categories.

## Licenses

There are three categories of **FootPrints** license for users: fixed, concurrent, and Customer:

- **Fixed**—The user is assigned a single license and logs into **FootPrints** with his own unique ID and password. Only one user can use this type of license at a time because it is assigned to a specific user. A fixed license is always available to the user to whom it is assigned.
- **Concurrent**—A concurrent license is sometimes referred to as a "floating" license. A concurrent license can be shared by an unlimited number of people, but only one such user can be logged into **FootPrints** under an instance of a concurrent license at one time. Each user sharing a concurrent license has his or her own unique ID and password, but can only log in if a concurrent license is free. To further clarify, if five concurrent licenses are purchased and twenty-five people are sharing those licenses, only five of the twenty-five can be logged in at one time. If a sixth person tries to log in, a message is displayed to the sixth person stating that there are no available licenses. If one of the five users logs out of **FootPrints**, a license is freed and a new person can then log in.  
  
Concurrent user access is logged, including successful logins and denials due to lack of license availability. This allows the administrator to gauge usage of concurrent licenses over a period of time.
- **Customer**—A Customer license permits an unlimited number of customers to be created and have access to the system.

## Licensing and User Roles

As stated above, you must have a Customer license to enable incoming email for external users.

Workspace Administrators and Agent users can use a fixed or a concurrent license.

System Administrators must have a fixed license.

## Asset Management

Asset Management is an add-on module to **Numara FootPrints**. Asset Management enables the auto-discovery of PC assets, network management, and software deployment using any combination of the following:

- **Numara Asset Management Platform**—Complete, up-to-the-minute PC hardware and software identification.
- **FootPrints Integration with Microsoft System Center Configuration Manager/SMS**—Allows help desk Agents to dynamically access PC asset data, acquired with Microsoft System Center Configuration Manager/SMS, while they're working on an Issue from within **FootPrints**.

### Note

Microsoft System Center Configuration Manager/SMS is only available for systems running the Windows OS.

- **FootPrints Integration with LANDesk by LANDesk Software**—Allows Agents to dynamically access PC asset data, acquired with LANDesk, while they're working on an Issue from within **FootPrints**.

## Numara Asset Management Platform

With Numara Asset Management Platform, you can track all hardware and software assets.

Numara Asset Management Platform allows Agents to incorporate asset data into issues by performing lookups in the asset management database. Asset data is fully integrated with **FootPrints** Issue management. Agents can get automatic snapshots of users' configurations, including platform, hardware, and software information and save the information as part of the Issue record.

For details on configuring Numara Asset Management Platform, refer to [Numara Asset Management Platform](#).

## Integration with Microsoft System Center Configuration Manager/SMS Inventory

If your organization uses Microsoft System Center Configuration Manager/SMS for tracking PC-based inventory, you can take advantage of Microsoft System Center Configuration Manager/SMS inventory data from within **FootPrints**. **FootPrints** with Microsoft System Center Configuration Manager/SMS integration allows help desk Agents to dynamically access PC asset data for a user directly from within an Issue in **FootPrints**. This automated process saves time, helps Agents solve users' issues quickly, and ensures data accuracy.

When creating or editing an issue from within **FootPrints**, you can directly view hardware, software, and network information that's contained in the Microsoft System Center Configuration Manager/SMS inventory database for a particular machine or user. The data can then be imported into the **FootPrints** Issue. This information becomes part of the Issue's history and is searchable from the **FootPrints** Advanced Search and Reporting tools.

**FootPrints** with Microsoft System Center Configuration Manager/SMS integration can be enabled on a per Workspace basis.

For details on configuring FootPrints Integration with Microsoft System Center Configuration Manager/SMS, refer to [Microsoft System Center Configuration Manager/SMS](#).

## Integration with LANDesk

If your organization uses LANDesk for tracking PC-based inventory, you can take advantage of LANDesk inventory data from within **FootPrints**. **FootPrints** Integration with LANDesk allows help desk Agents to dynamically access PC asset data for a user directly from within an Issue in **FootPrints**. This automated process saves time, helps Agents solve users' issues quickly, and ensures data accuracy.

When creating or editing an issue from within **FootPrints**, you can directly view hardware, software, and network information that's contained in the LANDesk inventory database for a particular machine or user. The data can then be imported into the **FootPrints** Issue. This information becomes part of the Issue's history and is searchable from the **FootPrints** Advanced Search and Reporting tools.

FootPrints Integration with LANDesk can be enabled on a per Workspace basis.

For details on configuring FootPrints Integration with LANDesk, refer to [LANDesk Asset Manager](#).

## Another Asset Management Tool—FootPrints Deploy powered by Prism Deploy®

**FootPrints** Software Deployment, powered by Prism Deploy, installs and updates software on any PC, laptop, or server throughout your entire organization. Featuring mature, award-winning software deployment technology, a drag and drop deployment console, and a unique Conflict Checker utility, **FootPrints** Software Deployment makes software deployment very simple.

For details on configuring FootPrints Deploy powered by Prism Deploy, refer to [FootPrints Deploy](#).

**FootPrints** supports several modes of user/password authentication. Administrators have the option of using **FootPrints**' internal encryption techniques, in which **FootPrints** maintains its own database of users and passwords, **FootPrints** can let the web server perform the authentication, or **FootPrints** can authenticate by interfacing with either an LDAP directory server or the Windows user list on Windows, and UNIX/Linux user list on UNIX systems.

Each **FootPrints** user may be assigned either a primary or secondary authentication method. Only the assigned method is attempted when a user tries to authenticate. If the secondary authentication method selected is None, all FootPrints users are authenticated against the primary authentication method.

If **FootPrints** authentication is used, any user attempting to access **FootPrints** must have a unique **FootPrints** ID and password. If an external authentication method is enabled (Windows, UNIX, or LDAP), then authentication is based on the users' network IDs and passwords, but a user ID must still be created within **FootPrints** for each agent.

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## Searches

When **FootPrints** conducts a search, it means that the user supplies some criteria (a keyword, an Issue number, a date range, etc.) and **FootPrints** assembles and displays all of the records that meet the search criteria. Searches can be conducted on specific fields (for example, search the Problem Type field for all records that contain the word "Printer" in that field) or on all fields (for example, the user supplies keywords such as "wireless data" and **FootPrints** searches all of the fields in all of the records for those words). Searches can also be conducted on a date or range of dates (e.g., all Issues that were opened between April 1, 2007 and April 30, 2007).

**FootPrints** contains a number of search facilities that allow you to search and locate specific Issues in the database and create custom queues for the Homepage:

- **Quick Search**—Available from any page in **FootPrints**. Search by entering a keyword, title, or Issue number.
- **Built-in Queues**—These are lists on the **FootPrints** Homepage that, when selected, assemble and display records according to predetermined criteria. For example, the user might click on the My Assignments queue, which would then display all of the Issues assigned to the user.
- **Advanced Search**—Complex search on all fields and criteria.
- **Saved Searches**—Save advanced search criteria to create queues available from the **FootPrints** Homepage.
- **Cross-workspace Searching**—Search for issues across multiple Workspaces.

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## Reports

Reports quantify and format information stored in the database. When the user requests a report, it means nothing more than deciding which field data to retrieve and how the output should look. **FootPrints** then provides the information in the requested format. The key to making Reports that are useful is deciding what sort of information you want to have before you run the Report. For example, if you want to determine how many issues were in an active state (i.e., not yet closed) on a specific date and how many of those particular issues were then closed one month later, you can specify those criteria to **FootPrints** and request a Report. **FootPrints** then connects to the database, counts these items for you, and generates a Report that displays the data in the format you requested.

### Types of Reports

The following Report types can be obtained from **FootPrints**:

- **Single Issue Report**—Create a report on a single Issue.
- **Quick Report**—Create a report on a set of Issues displayed on the Homepage.
- **Custom Reports**—Create custom reports with custom criteria and formatting options, including graphics and multi-level metrics.
- **Saved Reports**—Access saved custom report templates.
- **Shared Reports**—Access report templates that are shared by different users.
- **Workspace Flashboard**—Display an up-to-the-minute, customizable, graphical representation of help desk and workspace activity.
- **Personal Flashboard**—Display an up-to-the-minute, customizable, graphical representation of the individual's activity and the activity of Teams to which the Agent belongs for the current Workspace.
- **Metrics**—Generate reports for statistical and historical analysis.
- **Cross-workspace Reporting**—Create custom reports across multiple workspaces.
- **Time-tracking Reports**—Generate time-tracking and billing reports.
- **Report Templates**—Create single-issue report templates for printing out Purchase Orders, Work Orders, RMA's, etc.
- **Change Management Reports**—Only available with the Change Management Add-on module, provides data about Issues that match the Change Management criteria.

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## Time-tracking

Time-tracking is used to track the time Agents spend working on Issues. Time can be tracked automatically by the system or manually by the Agent. Agents can be assigned hourly billing rates to be used in calculating the monetary amounts spent on Issues in addition to time spent. Time can be tracked for any Agent when creating Issues and when editing Issues. The total time counted over all sessions is accumulated and stored for the Issue. If this feature is not needed, it can be disabled for the Workspace.

This data can be used to create time-tracking reports, which can be used for billing, or to track any time-related information, such as how long one or more users spent on certain kinds of Issues. A **FootPrints** time-tracking report returns totals and averages of all time-tracking data included in the report and individual time-tracking information for each Issue reported. In

addition to returning specific data for billing purposes, the time-tracking report can be used to return averages and totals for a specific internal user, Customer, status or priority type, etc.

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## Numara FootPrints Calendar

The **FootPrints** Calendar is a web-based calendaring system that is fully integrated with **FootPrints** issue tracking and customer problem management. Agents and Administrators can track personal and workspace-wide appointments, schedule meetings, jobs, and more. Calendar appointments can be linked to **FootPrints** issues. Recurring appointments can be created that automatically create new Issues at the next recurrence. Appointments can be synchronized with Microsoft Outlook via email or, if you have the FootPrints Sync add-on module, with a number of supported Personal Information Managers (PIMs). Work schedules can be defined for the Workspace and for individual Agents, including regular work hours, holidays, vacations and sick leave, which can reduce conflicts when scheduling work. Agents can set their FootPrints interface to their local time zone so that all appointments and other times appear in local time rather than the time on the server.

There are three options for the **FootPrints** calendar system:

- **Workspace**—The Workspace Calendar can be used to track appointments for all Agents and Teams for a **FootPrints** workspace. Each Workspace has its own calendar.
- **Personal**—Each Agent/Administrator in **FootPrints** has a Personal Calendar. This is a place to add both personal appointments and work-related appointments. The Personal Calendar remains constant throughout all workspaces for a user.
- **Availability**—Each Agent/Administrator can have an availability schedule defined for them, minimizing conflicts when work appointments are scheduled. Availability can be linked to date/time fields in an issue.

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## Workspace Work Schedule

A work schedule can be defined for a Workspace and for individual Agents. Regular working hours, days off, and holidays can be defined in the work schedule by the Workspace Administrator. Escalation rules can be configured to follow the Calendar. Holidays and exceptions to the regular schedule are defined in the work schedule. When generating a time-tracking Report, work schedule time can be figured into the Report so that only time during work hours is calculated. For example, if your organization usually works an eight hour day, Monday through Friday, you can define your Workspace Work Schedule as eight hours, Monday through Friday. You can then run a report showing how long it took to close Issues. By setting the Report to account for the eight hour work day and five day work week, the Report will only count the time spent during the defined days and hours (a maximum of 40 hours per week). If an issue took from 9AM Monday morning until 9AM Wednesday morning to close, the Report will show that as 16 hours. If, on the other hand, the Report did not account for the Workspace Work Schedule, the same Issue would be reported as taking 48 hours to close.

The **FootPrints** Workspace Work Schedule also allows the administrator to establish a second shift in the work schedule. This provides greater flexibility in work hours and reporting.

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## Synchronizing Appointments

Appointments in the **FootPrints** calendar can be synchronized with external calendars and vice-versa. This means that, from within **FootPrints**, you can create an appointment on the **FootPrints** calendar and have that appointment show up on your external calendar (Outlook, Lotus Notes, etc.) You can also create an appointment in your external calendar and have it show up in your **FootPrints** calendar. This requires installation of a small client.

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## Workflow Functions

"Workflow" refers to tasks and business rules that can be configured by the Workspace Administrator to occur automatically based on many different criteria. "Workflow" functions are the mechanisms that are built into **FootPrints** for configuring those tasks and business rules to occur automatically.

### Escalation

**FootPrints** escalation enables you to automate business processes throughout the system with no programming, using the same web-based interface used for searches, reports, creating Issues, etc. This feature can perform simple escalations that send email when an Issue has been unresolved for a certain amount of time as well as observe more complex rules based on multiple criteria that enact multiple actions, such as changing status, assignment, etc.

Some of the common uses of the **FootPrints** escalation feature are:

- Time-based escalation—Escalate overdue Issues to another user or priority
- Service Level Agreements—Alert Agents to the fact that a service level agreement threshold is being reached.
- Reminders—Send follow-up reminders to Agents.
- Automatic Assignment—Create auto-assignment rules based on a combination of multiple criteria.
- Custom Email Notifications—Create custom email notifications to be sent to Agents and Customers at any stage in the workflow.
- External Programs—Launch a batch job in another system or application.
- Multi-workspace workflow—Automate the escalation of an Issue from one workspace to another.
- Approvals—Use in conjunction with statuses and roles to define a custom approval process.

An escalation rule automatically escalates Issues based on your criteria on a workspace-wide basis. Rules can be defined for which Issues should be automatically escalated and for defining what should occur when Issues meet those criteria. For example, your organization may have a rule that states that "all priority 1 Issues must be closed within 24 hours." **FootPrints'** automatic escalation feature can be configured to send an email automatically to alert the Administrator when a priority 1 Issue is still open after 24 hours.

The order of escalation rules on the escalation page determines which rules take precedence. For details on configuring escalation, refer to [Managing Escalations](#).

## Service Level Management

The Service Level Management feature is designed to help the service desk meet service levels for customers based on their service contracts. Service levels can be defined based on the problem or incident type using a Workspace field, or can be based on who the customer is using an Address Book field. Resolution time, response time (how quickly a response of some kind must be made to an Issue), contract information, and associated escalation rules can be defined for each level, and an unlimited number of service levels can be defined. Due dates and times are automatically generated based on the resolution time. Service Level Metric reports can be generated including percentage of issues that exceeded the resolution time for a particular time period. In sum, the Service Level Management feature can provide the basis for a series of automated workflow rules that ensure the standard of service provided to customers.

### NOTE

This feature is not available in the **FootPrints** database versions. To get the benefit of this feature, you must upgrade to one of the SQL/ODBC-based versions for Windows (MS SQL Server, Access, etc.), or DBD/DBI-database versions for UNIX/Linux (Oracle, MySQL, Postgres, etc.).

For details on Service Level Management, refer to [Creating a Service Level Field](#).

## Numara Software Change Management

In general, change management is a process developed to ensure that standardized methods and procedures are used for handling all changes. The goal of change management is to minimize the impact of changes on service quality.

The **FootPrints** Change Management add-on module enables organizations to develop their own approval process for Issues with no programming. In **FootPrints** Change Management, approvers are designated for specific workspaces. When an Issue meets approval criteria, the approvers are notified that an Issue awaits approval. The approvers then give or withhold approval. When an Issue meets approval criteria, it is moved to another stage in the process. Note that meeting "approval criteria" may mean that the Issue is rejected rather than approved.

Workspace administrators can designate different approvers for different stages in the approval process. For example, a proposal for a software change may require an approval in principle for the change from product management, then an approval for the design from the development organization, then an approval for the actual software build from software development, then a testing approval from quality assurance, and so on. The Change Management feature allows the Workspace administrator to create an orderly and efficient method for getting those approvals and ensuring that nothing falls through the cracks or waits too long for review.

### NOTE

**FootPrints** Change Management is an add-on module that incurs an additional cost. This add-on module is not available for the FootPrints database version. Maintenance customers can upgrade to another database version to enable this add-on module for no additional cost (other than the cost of the add-on). Approvers must have a **FootPrints** Agent license (fixed or concurrent).

**FootPrints** Change Management provides features that include the following:

- Customizable criteria for automatically setting off an approval process (including all built-in and custom fields)
- Customizable rules for meeting an approval (i.e. requiring one, a majority, or all to approve)

- Customizable actions upon approval or disapproval, including the start of another approval phase, change of status, re-assignment, etc.
- Customizable email notifications for various stages of approval
- Change Management Audit Trail
- Customizable Permissions for access to approval information
- Built-in homepage listing “My Approvals”
- Built-in Change Management reports
- Approval via email
- Optional anonymous approvals

For details on configuring Change Management, refer to [Configuring Change Management](#).

For details on using Change Management, refer to [Using Change Management](#).

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## Numara Configuration Management

The Information Technology Infrastructure (ITIL) standards include two main categories for organizing best practices that are further divided into five sub-categories each. One of these requirements is Configuration Management, which is a sub-category of the Services Support category.

Configuration Management deals with tracking individual “Configuration Items” (CIs) throughout an enterprise. Configuration Management involves relating assets or CIs and establishing dependencies and hierarchies. It also involves designating certain services as CIs, such as Email, Internet, etc., and then determining upon which CIs each service is dependent. This process is very important for identifying the impact of any changes that would be made within an organization.

## Numara FootPrints Service Catalog

Service Catalog is the heart of ITIL v3. A Service Catalog is a document that provides a brief overview, in business terms, of all the business and infrastructure services offered by the IT provider, which may also include service charges. Numara FootPrints Service Catalog (SC) enables IT organizations to offer a menu of services customized to their business customers; this allows IT to demonstrate its value to the business, and provide transparency of service costs. Items in the Service Catalog might include new equipment (laptop, Blackberry, etc.), critical business services such as email, or services required for a new hire. An entry in the SC would include a description of service, costs, service level agreement, etc. in a customer-friendly interface.

The Numara Service Catalog builds on existing functionality in FootPrints (configuration management, workspaces, quick issue templates, self-service, and change management) to provide its Service Catalog solution. Because of its great flexibility, the Numara Service Catalog can be used in any type of organization or department – IT, HR, Pro Services/Training, Facilities, External Customer Support, etc.

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## Broadcast Message

A broadcast message is a message displayed in a pop-up window to all logged in **FootPrints** internal users (i.e., not customers). Only system administrators can create broadcast messages.

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## Customer Surveys

When this feature is enabled, a customer satisfaction survey can be automatically emailed to customers when their Issues are closed. The email, with the survey attached, is sent to the customer according to the rules specified under Administration | Workspace | Automated Workflow | Customer Surveys.

### IMPORTANT

Check local laws governing automated surveys before enabling the feature.

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## Preventive Maintenance

The Preventive Maintenance feature enables the FootPrints user to provide proactive service management with Quick Issue Templates that automatically create new issues on a recurring basis, which can be used for periodic server maintenance, ensuring password changes on strategic accounts every X days, regular auditing of systems for SOX compliance, or any other regularly scheduled maintenance event.

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## FootPrints Web Services

FootPrints Web Services is a way for users to programmatically access the database over the Internet using web services and perform specific functions. The specific functions are:

- Searching the database ( using queries for Issue, Address Book, History data, etc.). This search can be more complex than the built-in searching functions of the **FootPrints** interface, since users can, for example, build combinations of AND and OR queries.
- Retrieve the details of an Issue.
- Create an Issue.
- Edit an Issue.
- Create dynamic or static link between Issues.
- Create a new contact in the Address Book.
- Edit an existing contact in the Address Book
- Create a new or edit an existing contact in the Address Book.



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# Chapter 3: The Numara FootPrints Interface

## The Numara FootPrints Homepage

After successful login, the FootPrints Homepage is displayed. The FootPrints Homepage is the starting point of your FootPrints workspace. You can return to the home page at any time by clicking the "Home" button on the toolbar.

The FootPrints home page is displayed in two logical areas divided by the toolbar. **Above the toolbar**, from left to right, are:

- the **Numara logo**
- the **Quick Search** field, for searching for issues
- the **greeting**, which displays the user's name
- the **Sign-out** link, for logging off of FootPrints
- the **Preferences** link, for setting individual user preferences
- the **Help** link, for displaying the full online help documentation
- below the Sign-out, Preferences, and Help links, the **workspace drop-down** for changing the workspace.

**Below the FootPrints toolbar** are:

- the **dashboard components** for listing items of interest, and, below that
- the **Actions** drop-down for taking actions quickly
- the **Display** drop-downs for displaying issues that meet specified search criteria, and below that
- the list of issues

The **FootPrints toolbar** displays the following options:

- **Home** for displaying the home page
- **New Issue** for opening a new issue
- **Reports** for accessing reporting functions

- **Administration** (only visible to those with administrator privileges) for accessing administration functions
- **More** for additional functions

## The New Homepage

Experienced FootPrints agents will notice immediately how radically different the homepage looks. All of the existing FootPrints features and functions are still there, but they have been streamlined and the page has become less complicated in order to make it easier for you to navigate. The goal was to make life easier for you, and once you become accustomed to the new interface, it will be. For new agents, the new look of FootPrints will make it easier to adjust to using the software.

Of special note, the term “Project” has been changed throughout FootPrints to “Workspace”. Consequently, a cross-project report is now called a “cross-workspace report”.

## Where Things Went

The home page has been shifted around to emphasize buttons, links, and data that is most important and to mute other information. This results in the eye being drawn to what is most important and limits the clutter caused by superfluous information. Here’s a quick description of where everything is now:

- **FootPrints Toolbar**—The toolbar is no longer a row of buttons down the left side of the page. It is now a band across the upper portion of the page, separating the top of the page from the FootPrints Dashboard components and all the material below the dashboard. By default, the toolbar does not have as many buttons visible, though the administrator can add more buttons to it. The Homepage, New Issue, Reports, and (for those with administrative privileges) Administration buttons are still there. If you click them, you get the main page for those functions. If you mouse over them, a menu is displayed for additional functions relevant to them. There is also a More button now. Mouse over the More button to display additional functions, as follows:
  - Address Book
  - Workspace Calendar
  - Personal Calendar
  - CMDB (if your organization used the Configuration Management Database module)
  - Knowledge Base
  - Instant Talk (optional)
  - Remote Control (optional)
- **My Preferences**—If you are looking for the My Preferences button, it is now a link at the top right of the page and is called simply “Preferences”.
- **Quick Issue Templates, Global Issues, and Adding to the Knowledge Base**—Quick Issue Templates, Global Issue, and adding to the Knowledge Base are now on the menu under New Issue, and Quick Issues are called “Quick Templates”.
- **Reports**—All Reports, including the Flashboards, are listed under Reports.
- **Search**—All of the Search functions are at the top of the page where the Quick Search was and remains located. The three radio button options for “Title”, “Keyword”, and “Number” searching have been replaced with a drop-down that defaults to “Title” searches and also includes a “Keyword” option. Typing a numeric value into the Quick

Search automatically pulls up the corresponding Issue with that number, so the "Number" option has been removed. To perform a string search on a numeric value, you must surround your numeric value with double quotes. Advanced Searches are performed by clicking the Advanced link. Hover over the Advanced link with the mouse for access to Saved Searches and Cross Workspace Searches.

- **Calendar**—The Calendars (Personal and Workspace) are under the menu for the More button. Visit either calendar or the Create/Edit Issue page for access to the Availability Calendar.
- **Help**—Help is now a link in the top right corner of the page. This is the button for the main help page. Context-sensitive help remains on all other pages.
- **Logout**—The log out function was in the FootPrints toolbar in the left frame. It is now called "Sign out" and is a link in the top right section of the page.
- **Project drop-down field**—The Project drop-down field, used to change projects, is now the "Workspace" drop-down. It is no longer in the upper right corner of the page, but on the upper right side. If you look there you will see the words "You are now in the X workspace", where X is the name of the current workspace. Click on the name of the workspace and the drop-down is displayed.
- **List of Issues**—The list of issues is in the same place that it was before. Some changes have been made to give you more access to the information you need without having the overhead of loading other pages. You will see the Priority, Title, and column that is sorted highlighted while other information is muted. Alongside the Title is the first few words of the most recent Description to easily see the latest information for your assignments. Clicking [more...] will reveal even more of the most recent Description and reveal links for "Descriptions", "Details", and "Edit". Click the "Descriptions" link to reveal the full list of all Descriptions if you need this level of detail. If more detail is needed, you can click the "Details" link to launch the full Details page. At any time during this process you can click the Title of the Issue to launch the new Quick Edit page to quickly update your Priority, Status, Description, or other selected fields without having to leave the page. If you need to edit more information, access to the full Edit page is available as a link once [more...] is clicked, is available from the Quick Edit, and is also available by clicking the Issue number on the homepage for 1 click access.

The new Quick Edit feature means that, without leaving the homepage, you can quickly make an update to the Title, Priority, or Description, which are the most common updates that occur. If you work in an environment that requires consistent updating of other fields, your administrator can add other fields to this form. If you work in an environment that requires extensive updating of fields and use of other functions with each update like Time Tracking, the Quick Edit feature may not be for you and your administrator may disable it.

- **Quick Action Dialog**—The Quick Action Dialog checkbox, which was located above the list of issues on the right side of the page is still above the list of issues, but it was moved to the left side of the page for greater visibility.
- **Priority**—Formerly, all priorities in the priority column of the list of issues were displayed. In the new interface, only important priorities are displayed so as to make them more visible.
- **Multi-window mode**—You may have noticed that the Incident Details and Edit pages are opening in a new window. In the past this was optional, but is now the standard approach in FootPrints. With the way the new homepage has been designed, you should have to visit these pages less often than before. The separate windows also let's you multitask more efficiently.

## Above the Toolbar

### Quick Search

The Quick Search is located at the top of a FootPrints page. It is available from any FootPrints screen (in the Address Book, the Quick Search searches the Address Book only).

To use Quick Search, enter the search string in the Quick Search field, select the field to search from the drop-down (using the drop-down arrow), and then click the SEARCH button. A list of all Issues that match your search criteria are displayed. More complex searches are covered in the chapter on Searching and Reporting.

### Sign-out

The Sign-out is located at the top of a FootPrints page. Click the Sign-out link to log out of FootPrints.

### Preferences

The Preferences option allows Agents, administrators, and customers (if they have been configured with access to preferences) to customize their Homepage and set other personal preferences. Users can change their email addresses, passwords, security options, Homepage list preferences, and more.

#### NOTE

Customers do not have access to all of the preferences available to Agents and administrators.

To change preferences, click the Preferences link.

Tabs are displayed for:

- Personal Info—Change your display name, email address, default Workspace, password, and more.
- Issue Page—Options for creating and editing Issues.
- Homepage—Define the list of Issues and columns displayed on your FootPrints homepage.
- Dashboard—Define the dashboard components that appear at the top of the main frame on your FootPrints homepage.
- Misc. Preferences—Other personal preferences.

#### NOTE

Most options apply to FootPrints system-wide, with the exception of Homepage and the security option to Require Password for Issues, which are chosen on a per-Workspace basis. If a user belongs to multiple Workspaces, it is possible to display different list preferences for each Workspace.

## Personal Info

These options apply to all Workspaces to which you belong. After configuring options, scroll to the bottom of the page, enter your password, and click SAVE.

- **Name**—Change your display name (does not affect user ID). Replace the current name in the text box.
- **Primary Email address**—Change your email address for FootPrints email notification. To change your email address, replace the current address in the text box. The option must be checked to receive email.
- **Pager Email Address (optional)**—Optionally enter separate email address for notification via pager. Can be used for escalation notification. Check this option to receive regular notification email at this address.
- **Wireless Email Address (optional)**—Optionally enter separate email address for notification via wireless device. Can be used for escalation notification. Check this option to receive regular notification email at this address.
- **Change Password**—Change your FootPrints password. Password must be entered twice.
- **Default Workspace**—If you are a member of more than one Workspace, change the default Workspace that is displayed when logging in to FootPrints. To change the default Workspace, choose from the drop-down box.
- **Your Local Time Zone**—By default, FootPrints displays all dates and times in the time zone where the FootPrints server resides. If you select a time zone from the drop-down list, all dates and times are displayed adjusted to be accurate for that time zone (does not affect how data is stored).
- **Date Format**—This option determines how dates are represented throughout FootPrints. The options are:
  - **American**—MM/DD/YYYY
  - **European**—DD/MM/YYYY
  - **ISO**—YYYY/MM/DD
  - **Revert to the system default**—The default format set by the System Administrator is used.
- **Preferred Language**—If the current FootPrints installation supports multiple languages, choose a language for display.
- **U.S. Government Section 508 Compliance/Visually Impaired Enhancement**—This feature enables FootPrints to be better accessed by visually impaired users. If enabled, FootPrints is optimized to be used with the "JAWS" browser and other similar browsers. If you enable or disable this feature, you must refresh the browser.

### NOTE

This feature should only be enabled if you are visually impaired and using a browser like JAWS.

- **Delete Cookie**—If you elected to have FootPrints remember your ID and password (on the Login page), an option to delete the login cookie appears here. Check the box to delete the cookie. Deleting the cookie means that you must enter your user name and password every time you log in to FootPrints.

### NOTE

If you just changed your password, your old password is still active until after you apply the changes. Consequently, even though you changed your password on the Preferences page, you must enter the old password to apply the changes. After successfully changing your preferences, your new password becomes active.

## Issue Page

These options apply to all Workspaces to which you belong. After configuring options, scroll to the bottom of the page, enter your password, and click **SAVE**.

- **Interface Style**—Choose between **Tabs** and **Expand/Collapse**
  - **Tabs**—Selecting **Tabs** causes sections to be displayed as tabs on **Create**, **Edit**, and **Details** Issue pages. If you select **Tabs**, you can select which section tab is displayed when each of the three page types (**Create Issue**, **Edit Issue**, and **Details**) is displayed. Choose the tab to display from the drop-down box.
  - **Expand/Collapse**—Selecting **Expand/Collapse** causes sections to be displayed as expandable/collapsible sections on **Create** and **Edit** Issue pages. Agents can click the plus or minus sign beside the section heading to expand or collapse the section, respectively. If you select **Expand/Collapse**, you can select which sections are displayed in the expanded mode for each of the three page types (**Create Issue**, **Edit Issue**, and **Details**). Checking the box beside the section name means the section is expanded when you access the selected page.
- **Automatic Spell Check**—Optionally enable automatic spell check on the **Create Issue** and **Edit Issue** pages. The spell check occurs after you submit an Issue or an update to an Issue.
- **HTML Description Editor**—The **Description** field can include controls for formatting the text, including font type, size, color, bulleted and numbered lists, and tables. Internet Explorer v5.5 or greater is required for this feature to work. If disabled, a plain text box is used instead.

### NOTE

The **HTML Description Editor** feature may be disabled by the administrator in some Workspaces.

- **Flip-Thru Description Viewer**—If enabled, when the user views the **Issue Description** field, only one description is displayed at a time. Arrow buttons allow the user to "flip through" multiple descriptions for the Issue. An additional control above the **Description** field allows the user to display all of the descriptions at once in a new window.
- **Display Complete Description on Edit**—If enabled, a display field that cannot be edited is included just before the **Description** field that allows the Agent to scroll through previously entered descriptions without opening a separate **View Current Description** window.
- **Edit Most Recent Description**—If enabled, the last description of an Issue appears on the edit page in a separate box for editing purposes. This option is only available to administrators or other users with the correct role permission.
- **Pre-fill New Issues With My Contact Information**—If enabled, the **Contact Information** section of the Issue is always pre-populated with the **Address Book** record of the Agent entering Issue data. The Agent must have a corresponding record in the **Address Book** for this to work. Otherwise, the fields remain empty.
- **Open attachments from a new window**—If enabled, a new window is opened when you click on a file attachment to download it. The default is "Disable".
- **Behavior after issue create/edit**—The three options in this drop-down are: **Close window and/or refresh homepage**, **Display issue details**, and **Display confirmation page only**. **Close window and/or refresh homepage** closes the Issue page window. **Display issue details** displays the Issue details page in a new window. **Display confirmation page only** displays a **View Issue** button and a **Close Window** button. Clicking the **View Issue** button displays the Issue details page. On a heavily used system (one with many agents and Issues) the **Display confirmation page only** option provides the best performance, while the other two options are about equal in terms of their affect on system performance.

- **Quick Descriptions/Signatures**—If you select the link, a window is displayed that allows you to create pre-defined text with which to populate the Description field in the Create Issue and Edit Issue pages. This can be used to create a personal signature, or to have common answers readily available. To use a quick description when completing a Create Issue or Edit Issue page, select the name of the quick description from a drop-down list located in the Description field title bar. Additional information for creating, editing, and deleting quick descriptions is below.
- **Require Password for Issues**—Require a password to save changes to an Issue. This is enabled on a per-workspace basis, i.e., to enable this in another workspace, change workspaces, then return to the Preferences page and enable it.

### Create a Quick Description/Signature

To create a quick description:

1. Select Preferences and then click the Quick Description/Signatures link in the Issues tab on the Preferences page. A pop-up is displayed.
2. Enter a name for the quick description/signature in the Create section, then enter your password and click GO. A multi-character field is displayed.
3. Enter the content for the quick description/signature into the multi-character field and click GO.
4. The description is saved and the Quick Description pop-up is displayed to allow you to create, edit, or delete additional quick descriptions/signatures.

Once a quick description or signature has been created, a drop-down box appears on the Create Issue and Edit Issue pages in the Description field title bar. The drop-down box contains the name(s) of the quick description(s) in the Workspace. If the Agent selects a name from the drop-down, the Description field is populated with the pre-defined text. The Agent can still enter additional text in the Description field.

### Edit a Quick Description/Signature

To edit a quick description:

1. Select Preferences and then click the Quick Description/Signatures link in the Issues section on the Preferences page. A Quick Descriptions pop-up is displayed.
2. Click on the name of the quick description or signature in the Edit section, then enter your password and click GO. A multi-character field is displayed.
3. Make the changes you want to the text in the multi-character field. You can delete, add, or alter text as you see fit. When you are done making changes, click GO.
4. The content is saved and the Quick Description pop-up is displayed to allow you to create, edit, or delete additional quick descriptions/signatures.

### Deleting a Quick Description/Signature

To delete a quick description/signature, which removes the quick description or signature from the drop-down box on the Create Issue and Edit Issue pages:

1. Select Preferences and then click the Quick Description/Signatures link in the Issues section on the Preferences page. A Quick Descriptions pop-up is displayed.
2. Click on the name of the quick description/signature in the Edit section, click the Check this box to delete the selected Quick Description/Signature checkbox, then enter your password and click GO.
3. The quick description/signature is deleted and the Quick Description/Signature pop-up is displayed to allow you to create, edit, or delete additional quick descriptions or signatures.

## Homepage

This tab is used to define the list of Issues displayed on the FootPrints home page. By default, My Assignments is chosen. The My Assignments selection lists your most recent open assignments and is the recommended choice for most users. It is the fastest to display and allows you to be continuously updated on your assignments. However, the user can choose instead to display any built-in or custom list.

### NOTE

The options chosen below are, in effect, on a per-Workspace basis. To change your preferences in another Workspace, change to that Workspace and re-configure the List Preferences.

The options are:

- Select the Lists that will be available on the Homepage—The lists that are displayed in the drop-down in the main window of the Homepage. One or more lists can be highlighted by holding down the CTRL key while clicking on the list. The choices are:
  - My Assignments—The most recent active Issues assigned to you. Shown by default.
  - My Assignments and Requests—Active Issues assigned to you and unassigned Requests from customers.
  - My Team's Assignments—Active Issues for your Team (only displayed if you belong to a Team).
  - My Assignments in All Workspaces—Active Issues assigned to you in all Workspaces (only displayed if you belong to multiple Workspaces).
  - My Active Approvals—Lists all Issues for which the Agent is an approver, the Agent may or may not have yet voted, and voting has not been completed. (Applies to Change Management approvers only.)
  - My Active Approvals and Assignments—Lists all Issues for which the Agent is an approver, the Agent may or may not have yet voted, and voting has not been completed, as well as the Agent's assignments in the current workspace. (Applies to Change Management approvers only.)
  - My Vote Required—Lists all Issues for which the Agent is an approver, the Agent has not yet voted, and voting has not been completed. (Applies to Change Management approvers only.)
  - My Vote Required and Assignments— Lists all Issues for which the Agent is an approver, the Agent has not yet voted, and voting has not been completed, as well as the Agent's assignments in the current workspace. (Applies to Change Management approvers only.)
  - All Issues—All Issues in the Workspace database (only available if you have rights to see all Issues in the Workspace).
  - Global Issues—All active Global Issues for the Workspace.
  - Deleted Issues—Deleted Issues (administrators only).
  - Requests—Requests submitted by customers (see below).
  - Saved Searches—Displays personal and shared custom searches.
  - Knowledge Base—Displays Solutions from the Knowledge Base.
- Default Display—The default list of issues generated automatically on the FootPrints Homepage when logging into FootPrints is specified here. Choose from one of the highlighted lists. One of the options is New Issue, which makes a create Issue page the default homepage.

**NOTE**

Whichever list you choose as the default, you can always view a different list by choosing another option from the Display drop-down box on the Homepage.

- Homepage Auto-Refresh Interval—Normally, the default Homepage list refreshes each time you click Workspace Home or perform any action that brings you back to the Homepage. Optionally, you can set your preferences to automatically refresh the Homepage list at intervals of 15, 30, or 60 minutes. If you configure FootPrints to refresh every 30 minutes and then go to lunch, when you come back the list is refreshed, with no user intervention required.
- Maximum Issues per Screen—The maximum number of Issues that display at one time on the Homepage.
- Default Sorting—Sort list by a designated field (including Workspace and Address Book fields) and choose a field for secondary sorting (where there is a match in the primary sorting column, the secondary sorting column determines the order in which the Issues are displayed). Choose descending (from lowest to highest) or ascending (highest to lowest) order.
- Homepage columns—Choose which columns to display and in what order. For example, to display the Issue Type field:
  1. For Type of Field, choose FootPrints fields.
  2. Highlight Issue Type under Available Fields.
  3. Click Add Field. Issue Type is displayed in the Displayed Fields box.
  4. To change the order of fields to be displayed, highlight a field in the Displayed Fields box and click the up or down arrow to move it.
  5. To delete a field, highlight the field in the Displayed Fields box and click Delete.

**NOTE**

Certain columns are displayed automatically on the Homepage, including Issue number and the Quick Action Checkbox dialog. Title is also mandatory, but the placement can be selected in the Fields Displayed dialog box. In addition, by default, My Vote Required is displayed in the Homepage List for those who are designated as approvers to the Change Management feature. The My Vote Required listing cannot be removed from the list.

## Dashboard

FootPrints dashboard components containing lists of specific information. By default, Workspace Totals and Global Issues are displayed. Dashboard components can be displayed in as many as four columns. Users can also make custom components for display on the homepage. The Workspace Totals component displays the number of Issues the workspace contains in different categories. The Global Issues component displays the Title fields of active Global Issues, which are also links to those issues. Buttons that are displayed to the upper right of the components on the homepage allow you to:

- collapse the component (-)
- expand the component (+)
- remove the component (X)

The Dashboard tab of the Preferences page is where you specify which dashboard components are displayed on your homepage in the Workspace. Users can specify different sets of dashboard components for each of their Workspaces. By default, Workspace Totals and Global Issues are displayed. Dashboard components can be displayed in as many as four columns. Users can also make custom components for display on the homepage.

The components that can be added to the dashboard for display on the FootPrints homepage are:

- **Chart**—When you select this component, you then select which chart to display from a drop-down field. Options are Received vs Closed and Active Issues. If you select Received vs Closed you must select the time period for which FootPrints will account and whether to display your Issues only or the entire Workspace's Issues. The component then displays the Issues that were received and the Issues that were closed during the designated period for the designated agent(s).
- **Currently Logged In Users**—Lists the number and IDs of users logged into the current workspace. When specifying this component, you will be asked to set the number of records to display on the first page of the list.
- **Custom Defined**—Enter custom code to display anything you want in the dashboard component. This can be HTML, javascript, etc.
- **Global Issues**—Lists the Global Issues. Links in the Global Issues component can be clicked to access the Issue and create a linked Issue. When specifying this component, you will be asked to set the number of records to display on the first page of the list.
- **Most Recent Solutions**—Displays the most recent solutions in the Knowledge Base. You must designate how much of the solution Title field is displayed.
- **My Assignments**—Lists the Issue number and Title of the user's active assigned Issues. The list entries are linked to the Issues. Clicking on a list entry displays the Issue. When specifying this component, you will be asked to set the number of records to display on the first page of the list.
- **Pending Approvals (if you are a Change Management approver)**—Lists Change Management Issues for which you are an approver and which still require a vote. When specifying this component, you will be asked to set the number of records to display on the first page of the list.
- **Pending KB Approvals (if you are a Knowledge Base approver)**—Lists submitted Knowledge Base solutions for which you are an approver and have not yet been approved. When specifying this component, you will be asked to set the number of records to display on the first page of the list.
- **RSS Feed**—Lists entries from your selected RSS feed. When specifying this component, you will be asked to set the number of records to display on the first page of the list and the URL for the RSS feed.
- **Requests**—Lists customer requests.
- **Saved Search**—Lists saved searches.
- **Today's Appointments**—Lists your appointments for the day.
- **Workspace Totals**—Lists the number of Issues broken down by status. Click on the status to display the Issues in the main frame.

### **Add a FootPrints Dashboard Component**

To add a dashboard component to your homepage:

1. In the Available Components field, click the dashboard component to be displayed. Only one component can be selected at a time. Fields are displayed for any additional settings you need to enter.
2. Enter any additional settings.
3. Click the Add Component button. The dashboard component is displayed as an icon in the Current Dashboard area. Mouse over displayed dashboard components to see what is included in the current dashboard.

4. Enter your password in the Apply Changes field at the bottom of the page and click SAVE. If you skip this step, the changes are not made.

### **Edit a FootPrints Dashboard Component**

1. In the Current Dashboard area, click the dashboard component to be edited. Only one component can be selected at a time. The following buttons are displayed:
  - Complete Edit
  - Delete Component
  - Cancel Edit
2. Change settings as needed.
3. Click the Complete Edit button to save the edits or click the Cancel Edit button to leave the dashboard component settings unchanged.
4. Enter your password in the Apply Changes field at the bottom of the page and click SAVE. If you skip this step, the changes are not made.

### **Delete a FootPrints Dashboard Component**

To delete a dashboard component from your homepage, from the Preferences page:

1. In the Current Dashboard area, click the dashboard component to be deleted. Only one component can be selected at a time. The following buttons are displayed:
  - Complete Edit
  - Delete Component
  - Cancel Edit
2. Click the Delete Component button.
3. Enter your password in the Apply Changes field at the bottom of the page and click SAVE. If you skip this step, the changes are not made.

You can delete all of the dashboard components at once by clicking the Delete All button next to the Current Dashboard area. The deletion is not saved until you enter your password in the Apply Changes field at the bottom of page and click the GO button. Finally, you can delete the dashboard component directly from your homepage by clicking the X in the upper right corner of the displayed component. However, if you delete the component using the X, it will be redisplayed the next time you log into FootPrints.

### **Moving FootPrints Dashboard Components on the Homepage**

Dashboard components can be moved around the homepage using drag-and-drop.

### **Miscellaneous Preferences**

The options below are configured for the entire system. After configuring options, enter your password and click GO.

- Sync Settings—Displays a pop-up window for configuring the two-way calendar synchronization feature. Refer to FootPrints Sync for complete details on using the FootPrints two-way synchronization with external calendars feature.
- Error Alerts (administrators only)—Option to receive a pop-up window when system errors occur. The log is still viewable by selecting Administration | System | Logs, regardless of which option selected here.
- Instant Talk Preferences—Choose whether to allow customers to initiate an Instant Talk session with you. If you choose to not allow them to initiate Instant Talk sessions with you, you'll still be able to initiate Instant Talk sessions with them and with other Agents.

**NOTE**

This option only applies if Instant Talk is enabled.

- "Checkback" Method—Select whether or not to use the Java applet method for checkback. This function runs regularly to check to see if you are available for chats and to check for free concurrent licenses. The default is No Java applet and is recommended for most users. Select the correct method to minimize problems with losing mouse focus while working within FootPrints, or FootPrints "stealing" focus from other active windows on your desktop:
  - Java applet—Recommended for users with older versions of Internet Explorer, and for users with Microsoft Java (often found on Windows 98/2000).
  - JavaScript—Recommended for users with Sun Java on their desktop (often installed on Windows XP/2003 desktops) and with newer versions of Internet Explorer v6. If you encounter problems with page focus when using this checkback method, try using the next selection, JavaScript/HTTP, to solve the problem. "Problems with page focus" refers to a situation where, when checkback causes a page reload, the FootPrints window reacquires the main focus when you are working in some other application. This is a rare problem.
  - JavaScript/HTTP—Should you encounter problems with page focus, as described in the preceding paragraph, use this checkback method. Recommended for users with Sun Java on their desktop (often installed on Windows XP/2003 desktops) and with newer versions of Internet Explorer v6.

## The Numara FootPrints Toolbar

The FootPrints toolbar has options for:

- Home—Displays the FootPrints home page.
- New Issue—Click to display a New Issue page. Mouse over the button to display other options, as follows:
  - New Global—Create a new global issue.
  - Add to KB—Add an existing issue to the Knowledge Base.
  - Quick Issues—Select a Quick Issue from the list of Quick Issues.
- Reports
  - My Reports—Displays a page for running, editing, or deleting saved custom or metric reports.
  - New Report—Create a detailed report from the database.
  - Metrics—Report on statistical and historical data.
  - Cross Workspace—Report on data from multiple FootPrints workspaces.
  - Time Tracking—Create/view time tracking report.
  - Change Management—Create/view change management report.
  - Workspace Flashboard—The Workspace Flashboard is only available to Workspace and System Administrators and reflects activity for the current Workspace.
  - Personal Flashboard—The Personal Flashboard is available to any Agent and reflects the individual's activity and the activity of Teams to which the Agent belongs for the current Workspace.

- Administration (Administrators only)—A complete list of options can be found in the chapters on Administration in the FootPrints Reference Manual.
- More
  - Tools
    - Address Book—Display this workspace’s Address Book (opens in separate window).
    - Workspace Calendar—View appointments and jobs for the whole workspace.
    - Personal Calendar—View your own appointments and jobs.
    - CMDDB—View the Configuration Management Database (with appropriate permissions). The CMDDB is an add-on module that is purchased separately for FootPrints.
    - Search Assets (optional)—If this option is enabled, access the Asset Management database.
  - Support
    - Knowledge Base—Use this link to browse the Knowledge Base or, with appropriate permissions, create a new Solution to a common problem for the Knowledge Base or (for administrators only) create and edit Frequently Asked Question categories.
    - Instant Talk™—Chat online one-on-one with another user.
    - Numara Remote— Numara Remote is an add-on module that allows you to control a user’s desktop remotely for troubleshooting purposes.

The options on the Toolbar may differ, depending on your role. In addition, up to three custom buttons may be configured on the FootPrints toolbar. If you see more buttons on the main toolbar, your administrator may have configured them.

## Below the Toolbar


### Resorting the Homepage

The list displayed on the homepage can be resorted by column. Note that most column headings on the homepage, or any search results page, are hypertext links. The current column being sorted on is designated by a down arrow. To re-sort the list, simply click the column heading. This will sort the list descending by that column (highest to lowest). Click the column heading again, and the list resorts ascending by that column (lowest to highest). Note that the down arrow is replaced by an “up” arrow.

#### NOTE

The homepage cannot be sorted by the assignee field. All other fields, including custom fields, can be sorted. To view Issue data that is sorted by assignee, please use the reports feature.

### Display Drop-Down

Above the home page list is the display drop-down box. This list contains built-in and custom queues and searches. Agents can customize this list via the **Preferences** link on the **FootPrints**. By selecting an option, the homepage list changes to the queue selected automatically. To refresh the current list, click  **Refresh**.

The Display drop-down choices include (some of the choices are only displayed if you are an administrator, a member of a team, a member of multiple workspaces, a Change Management approver, etc.):

- **My Assignments**—The most recent active Issues assigned to you. Shown by default.
- **My Assignments in All Workspaces**—Active Issues assigned to you in all workspaces (only displayed if you belong to multiple workspaces).
- **My Assignments and Requests**—Active Issues assigned to you and unassigned requests from Customers.
- **Team Assignments**—Active Issues for your Team (only displayed if you belong to a Team).
- **My Active Approvals**—Lists all Issues for which the Agent is an approver, the Agent may or may not have yet voted, and voting has not been completed. (Applies to Change Management approvers only.)
- **My Active Approvals and Assignments**—Lists all Issues for which the Agent is an approver, the Agent may or may not have yet voted, and voting has not been completed, as well as the Agent's assignments in the current workspace. (Applies to Change Management approvers only.)
- **My Vote Required**—Displays Change Management Issues on which the Agent's vote is required.
- **My Vote Required and Assignments**—Displays Change Management Issues on which the Agent's vote is required as well as Issues to which the Agent is assigned.
- **All Issues**—All Issues in the workspace database (only available if you have rights to see all Issues in the workspace).
- **Global Issues**—All active Global Issues for the workspace.
- **Deleted Issues**—Deleted Issues (Administrators only).
- **Requests**—Requests submitted by Customers (see below).
- **Saved Searches**—Displays the Issues for Personal and Shared custom searches.
- **Knowledge Base**—Displays Solutions from the Knowledge Base. Select Internal Solutions (available to agents only), Solutions (available to agents and customers), or Solutions in All workspaces, which are solutions available to agents and customers in all Workspaces.

For example, if you choose "Requests", a list of all Customer Requests is displayed. To return to the original view, click "Workspace Home" on the **FootPrints** Toolbar, or choose "My Assignments" as your view. Both of these have the same effect: They return you to your original Home page.

If the current list has many Issues, Next and Previous buttons appear in the top right hand corner of the frame. Use these to page through the complete list.

## Viewing Issues

To view the details of an Issue, click the word "more" in the Subject column of the issue, then click "Full Details". In the same way, you can click "Descriptions" to view only the Descriptions for that Issue, or click "Edit" to view the full Edit page of the Issue.

The Details, Create Issue, and Edit Issue pages can be displayed with expandable/collapsible sections or tabs. The type of display is specified by the user from the Preferences page.

The Details page gives you all of the information on an Issue, including Submit Date, Priority, Status, Description, Contact Information, Issue Information, Assignees, etc. If you don't see all data, use the scroll bar to display the full Issue.

There are also buttons that allow you to work with this Issue. They are:


- **Edit**—Update the Issue (only available if you have Edit permissions to this Issue).
- **Details**—Display details of Issue (default).
- **Link**—Create a static or dynamic link between Issues.
- **Take**—Take the Issue (only available if you have Taking permissions).
- **Copy/Move**—This icon will open a second toolbar with options to copy the Issue within the current workspace, or copy or move the Issue to another workspace
- **Subtask**—This icon will open a second toolbar with options to create a subtask of the Issue, or make this issue a subtask of an existing issue.
- **New Global Link**—Turn the Issue into a Global Issue or GlobalLink.
- **Delete**—Delete the Issue from the workspace (only available if you have Delete permissions for the Issue).
- **Report**—Display a report of this Issue (opens in separate window for printing).
- **Add to KB**—Create a Solution for the Knowledge Base with the details from this Issue (won't affect original Issue).

These options are discussed in more detail in *Working with Issues* and subsequent sections.

## Quick Action Checkbox Dialog


The Quick Action checkbox dialog, available on the **FootPrints** Homepage, allows users to perform an action on one or more Issues. This provides a quick means to update or report on an Issue or to make a change that affects many Issues simultaneously. Some of the functions are only available to administrators, while others are available to Agents and administrators.

To perform a Quick Action on Issues from the Homepage:

1. In the main frame, check the box for each of the Issues you wish to change, or check the All box at the top of the column to select all of the Issues displayed on the current page.
2. Select the action from the drop-down list.
3. Click .

Different options are available depending on the action selected. See below for more details.


## The Following Options are Available to All Internal Users

- **Report**—Display the details of the Issues in a separate window. If custom templates have been created, a drop-down is displayed that lists the available templates (Work Order, RMA, etc.) The Summary report displays all Issues in one window. Custom templates display each Issue in a separate window for printing purposes.
- **Close**—Close the Issues selected. Only Issues to which you have close rights are Closed. When Close is selected:
  - a. A special Close Issues page is displayed.
  - b. You can enter final notes in the Description box. They are appended to all Issues selected.
  - c. Check the boxes to send email to the Assignees, Customer Contacts, and CCs for the selected Issues.
  - d. Click  **GO**. The Issues are closed and updated and emails are sent.

## The Following Options are Available Only to Administrators

- **Delete**—Delete all Issues selected. A confirmation message appears. Click OK to proceed.
- **Status**—Change the status of the Issues selected.
- **Priority**—Change the priority of the Issues selected.
- **Assign**—Re-assign the Issues selected.


When Status, Priority, or Assign is selected:

1. A special Change Issues page is displayed.
2. Select the new priority, status, or assignees for the Issues.
3. If re-assigning an Issue, you can unassign the current assignees of the Issues selected by checking the Remove Previous Assignees checkbox.
4. You can optionally enter notes in the Description box. The notes are appended to all Issues selected.
5. Check the boxes to send email to the Assignees, Customer Contacts, and CCs for the selected Issues.
6. Click  **GO**. The Issues are updated and emails are sent.

## The Following Option is Only Available If You Have "Taking" Rights

**Taking**—Take the Issues and assign them to yourself.

When Taking is selected:

1. A special Take Issues page is displayed.
2. You can unassign the current assignees of the Issues selected by checking the Remove Previous Assignees checkbox.
3. You can optionally enter notes in the Description box. The notes are appended to all selected Issues.
4. Check the boxes to send email to the Assignees, Customer Contacts, and CCs for the Issues selected.
5. Click  **GO**. You are now assigned to the selected Issues.

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## The Address Book Homepage

If you selected Address Book from the FootPrints toolbar, the Address Book Homepage is spawned in its own window. The Address Book homepage is the starting point of your Address Book activities.

The Address Book homepage displays the alphabet across the top of the page a summary list of your contacts. For administrators only, Quick Action checkboxes are located down the right side of the main frame. The Quick Action checkboxes allow an administrator to quickly delete one or more contacts from the list.

## The Address Book Alphabet Index

Click an alphabet character to display contacts whose last name begins with that character.

## The Address Book Summary List of Contacts

The main frame displays a list of the contacts associated with your workspace. The listing includes the contacts' first and last names, email addresses, and user IDs.

In addition to displaying information about each contact, you can view, edit, or perform tasks on each of the contacts listed. You can also create an Issue from a contact's detailed view.

- To view a contact, click the contact's last name link. The Detail View page is displayed, showing the contact's complete contact record.
- To edit a contact, click the contact's last name link and, when the Detail View page is displayed, click the Edit Contact icon above the details.

## The Address Book Quick Search

The top of the page contains a quick search facility for searching the Address Book for a contact. To use Quick Search:

1. Choose a search field with the down arrow, which displays a drop-down box.
2. Enter characters in the text box. The search engine will search for those characters in the field you specified in the first step and display all records that contain them in that field.

## Address Book Toolbar

The Address Book Toolbar in the left frame of your home page has links to all of your Address Book tasks. It remains on the left of every page of the Address Book interface.

The options in the Toolbar are:

- Address Home—Go to your Address Book Homepage.
- Create Contact—Create a new contact in the Address Book.
- Contact Search—Perform detailed search of the Address Book based on our choice of first or last name.
- Report—Displays a brief reporting page in the main frame.


- **Administration (administrators only)**—Displays the Address Book Administration page in the main frame. A complete discussion of Address Book administration can be found in Address Book Administration.
- **Help**—Access online help for FootPrints.
- **Close**—Close the Address Book interface.

The options on the Toolbar will be slightly different depending on your user level. This manual discusses all of the Toolbar options.

## The Address Book Main Frame

The main frame displays a list of the contacts associated with your workspace. The listing includes the contacts' first and last names, email addresses, and user IDs.

In addition to displaying information about each contact, you can view, edit, or perform tasks on each of the contacts listed. You can also create an Issue from a contact's detailed view.

- To view a contact, click the contact's last name link. The Detail View page is displayed, showing the contact's complete contact record.
- To edit a contact, click the contact's last name link and, when the Detail View page is displayed, click the  Edit Contact icon above the details.
- For administrators only, to delete one or more contacts quickly, use the Quick Action Checkbox Dialog.

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# Chapter 4: Implementation and Design

## About FootPrints Implementation and Design

Setting up a **FootPrints** workspace is easy enough to do, but you still must plan and follow a logical approach to setting the workspace up. Quite a few decisions must be made ahead of time so that the setup itself goes smoothly. As a general approach to setting up a FootPrints workspace, Numara Software has some recommendations, as illustrated in the following diagram.

These steps are explained in greater detail in the following sections of this document.

Topics covered in this section are:

- Plan
- Install
- Setup with Workspace Setup Wizard
- Populate the Address Book
- Perform Global Administration
- Perform High-level Workspace Administration
- Configure Fields
- Configure Users and Customers
- Email Management
- Create Workflow Functions
- Set Up Reporting
- Set Up the Knowledge Base

### Plan

For many organizations, **FootPrints** is the first tool used to track issues. Therefore, we recommend some introductory steps that can be done before **FootPrints** installation. This is especially important if you anticipate a complex configuration. Numara Software can provide help with any of these steps.

- **Establish Responsibilities**—Get buy in from those in your organization who will use FootPrints. Include these users to conduct your assessment and develop your organizational policy.
- **Conduct Initial Assessment**—The process you are currently using, whether you are replacing an existing tracking tool or FootPrints is your first tool, should serve as a starting point for creating the workflow that FootPrints will manage automatically.
- **Develop Organizational Policy**—Decide how FootPrints will be used, who will use it, and what business rules FootPrints should enforce.
- **Provide Training**—FootPrints is very easy to use. We encourage attendance at the Administrator Course provided by Numara Software for your designated FootPrints administrator because it maximizes the administrator's understanding in a shorter period of time. It also gives your administrator the opportunity to meet with other FootPrints users and exchange ideas. Extensive, readable documentation for your agent users and customers is available in addition to online help, so that you can easily get new users on board with minimal user training required from you.

## Install

Identify system administrator(s) for FootPrints and technical staff that can support the administrator. No programming is required to set up FootPrints, but if you will be using LDAP, accessing an external database dynamically using the FootPrints Dynamic SQL Link to manage your Address Book data, or you will be loading a large amount of data into the FootPrints Address Book from an external source, some understanding of these activities is required.

### NOTE

The Extended Starter Pack is required to purchase the SQL Link. Please contact your salesperson for details on obtaining the Extended Starter Pack.

### NOTE

After installation, running the Workspace Wizard gets you up and running quickly and enables you to start entering Issues immediately. However, there are a number of system level administrative tasks that you should complete early in the configuration process, which are described in the Perform Global Administration section of the recommended approach.

## Setup with Workspace Setup Wizard

Software installation should take no more than an hour. Be sure to gather all the information you need as specified in the **FootPrints Getting Started Guide for Administrators** or the **FootPrints Reference Manual**.

### Run the Workspace Wizard

The Workspace Setup Wizard provides a broad range of templates for getting started with **FootPrints**. If you have already gathered information from an initial assessment of your organization's needs, you should use this data to configure the templates to best reflect your workflow. Keep in mind that you can always go back and make adjustments to the workspace you're creating. If you are configuring LDAP as your address book, refer to the instructions in the **FootPrints Getting Started Guide for Administrators**. Finally, you will be able to configure some basic system options.

**Step 1.** Select a template that best reflects your business process

**Step 2.** Modify the values of the **FootPrints** built-in fields, including Status and Priority. You can also go back and make these modifications later.

**Step 3.** Modify the template fields: change permissions, add fields, and delete fields. You can also go back and make these modifications later.

**Step 4.** Configure the fields you will need for your customer users. Using LDAP, Dynamic SQL Address Book, or importing data from an external database into the **FootPrints** Address Book will take longer.

**Step 5.** Set up incoming and outgoing email for the workspace, including default rules for notifying customers and agents when Issues are created or edited.

**Step 6.** Configure basic system options, i.e., enable/disable cookies, define the term you would like to use for records (the default is "Issue"), define the date format, and change the logo.

## Populate the Address Book

A **FootPrints** Address Book can be populated with user contact data in a variety of ways:

- By Agents—Contact information can be entered manually by Agents and Administrators in Address Book, or on the "Create Issue" screen.
- By Customers—Customers can enter their own contact information the first time they submit a Request to the system via the Customer Self-Service web interface.
- Imported—Contacts can be imported from a comma-delimited file (discussed below).
- Dynamically—Contact data can be retrieved dynamically from an external database that is either LDAP-compliant (such as Active Directory, Lotus Domino, SunONE or Novell eDirectory) or SQL-based (i.e. SQL Server, MySQL, Access, etc.) using the FootPrints Dynamic LDAP Address Book Link or the FootPrints Dynamic SQL Address Book link (available as add-on modules).

The FootPrints Dynamic Address Book Link feature retrieves contact data dynamically from any LDAP-compliant contact database for the Address Book. The Lightweight Directory Access Protocol (LDAP) is the standard Internet directory protocol. Examples of an LDAP-compliant database include Microsoft Active Directory, Sun ONE Directory Server, and Novell Directory Services.

The FootPrints Dynamic SQL Address Book Link feature retrieves contact data dynamically from supported contact databases for the Address Book via ODBC or via Perl DBI. Open DataBase Connectivity, or ODBC, is a standard relational database access method developed by Microsoft Corporation. The goal of ODBC is to make it possible to access any data from any application, regardless of which database management system (DBMS) is handling the data. FootPrints harnesses this power by providing access to existing ODBC-compliant contact data without requiring that the records be loaded into a separate FootPrints Address Book. The supported ODBC-compliant databases include Oracle, SQL Server, Access, MySQL, DB2, PostgreSQL and Sybase. These are potentially all available on Windows installations, so long as an appropriate driver and System DSN are configured on the machine. For Unix installations, the appropriate DBD must be built on the FootPrints server to access that particular database type.

## Import Address Book Contact Data

Review the **FootPrints Getting Started Guide for Administrators** for instructions for Address Book data import. You will need to perform the following tasks:

- Create the Address Book Data File
- Load External Data into the Address Book

## Create Dynamic Address Book Link

- Select an LDAP Directory or Dynamic SQL Address Book to be used instead of the FootPrints Address Book.
- If you are using the Dynamic SQL Address Book Link, you will need to configure the DSN (Data Source Name) if on Windows or install an appropriate DBD if on Unix. Instructions are available in the online help and the Reference Manual.
- If you are using the Dynamic LDAP Address Book Link, you will need to configure the link based on the Active Directory structure that has been set up for your system.
- Perform LDAP Address Book Field Mapping or Dynamic SQL field mapping.
- Set up additional fields that will be used in your workspace.

## Perform Global Administration

If you ran the Workspace Setup Wizard, many of the basic options that are configured in the System Administration page to change the look and feel of **FootPrints** were completed in Step 6. If you want to make additional changes, you can access these features under Administration | System in the **FootPrints** Toolbar and then choose the option listed below.

- Configure system-wide settings
- Configure multiple language support
- Change the display colors for FootPrints. This task can also be done per workspace.
- Choose the date format
- Rename **FootPrints** fields (Title, Status, Priority...). This task can also be done per workspace.
- Create an archive workspace to save old data.

## Perform High-level Workspace Administration

Workspace Administrators can set options on a per workspace basis. You can create custom workspace fields, add users to a workspace, etc. The Workspace Setup Wizard has configured most of the quick start features. Additional customizations can be made, and **FootPrints** further refined by selecting Administration | Workspace from the **FootPrints** Toolbar. This section lists some of the options you might want to configure soon after installation.

### Basic Workspace Options

Most of these basic workspace options have been configured if you ran the Workspace Setup Wizard at installation. You can change the values here, or set up additional options.

- Configure workspace appearance
  - Define the Priority field
- Enable and define time-tracking
- Configure workspace and agent schedules for availability
- Validate email addresses
- Configure add-on modules :
  - Knowledge-Paks Online (just enter the id and password and enable the feature)

- CRM Bridge
- Miscellaneous:
  - Disable the Address Book
  - Hide Address Book Fields
  - Create a Splash Screen for agents and/or customers
  - Enable/disable Global Issues
  - Define Subtask Closure Procedure
- Define Mail Preferences for incoming and outgoing email, including basic notification rules and templates.

## Saved Searches

Custom searches can be defined to create queues for different service levels, problem types, overdue issues, etc. If shared with the other members in the workspace, these searches are available from the homepage "Display" option.

## Configure Fields

If you created a workspace from a template, you can begin entering Issues without additional customization of the form. You might want to modify some of the field attributes, or wish to add or delete fields. How much customization you do at this point determines how much time it takes to implement your new workspace. Basic field additions, deletions, or changes can be done quickly.

Defining values for drop-down or multi-select fields with many choices is a bit more complicated than creating simple fields. If you want your drop-down or multi-select field to have many selections, and to be used for dependency groups, we recommend creating the list in a separate text file and then importing the selections. Setting up dependency groups can take an hour or more to specify and implement.

Another consideration is whether to implement field-level permissions and which fields to restrict or permit. Field-level permissions involve user roles as well, so you must take the user roles you will create into consideration as well.

You might, at your discretion, access the following options to customize the workspace form:

- Manage the Workspace fields that appear in the Issue Information section of the Issue form.
- Add or delete values in the Status field that appear between Open and Close.
- Create dependencies between Workspace fields.
- Rename built-in **FootPrints** fields (Title, Status, Priority, etc.).
- Define drop-down choices for the Title field, if desired.
- Change the language of the labels of Workspace and Address Book fields.
- Configure the Dynamic Field Mapper to populate fields from an outside source (requires the Dynamic SQL Link add-on module).

## Configure Users and Customers

Agents and customers can be added to **FootPrints** individually, per workspace, through Workspace administration. At the system administration level, Agents and Customers can be loaded into **FootPrints** from a load file. This is especially useful if you have a large number of users to add. Instructions on loading users into **FootPrints** are found in the **FootPrints Reference Manual** or the online help.

### Adding Agents

- Add new Agents to this Workspace.
- Assign roles to the Agents if not using the default.
- Define Teams based on business function.
- Group agents into Teams.
- Modify built-in roles and/or create new ones for agents to reflect access allowed. At this point you can configure field-level permissions per role.
- Assign roles to Agents.
- Configure Agent work schedule.

### Adding Customers

Customers can have their own individual account for **FootPrints**, or share a login, which is especially useful for Knowledge Base access. Depending on your environment, customers can auto-add themselves to **FootPrints**, they can be loaded from an external file, or they can be added individually by a Workspace administrator.

There are some restrictions, based on the method of authentication that you are using. Consult the **FootPrints Reference Manual**, the online help, or Numara Software Support if you have a problem.

- Enable the Customer Service Portal options if you are configuring a workspace for external customer support, or wish to use the Customer Service Portal interface, a single-frame interface for your customers.
- Add new Customers to this workspace.
- Define workspace-wide options for Customers.
- Modify built-in roles and/or create new ones for customers to reflect access allowed
- Assign roles to Customers, or define the Customer Service Portal Toolbar if you are using the Customer Service Portal interface.
- Configure Auto-add customers and forgotten password functions (optional)

## User Preferences

Each Agent (and Customer if the preference is available to the role) can define preferences for how the system behaves for them as individuals. Options include:

- Defining different notification email addresses.
- Defining homepage searches and columns.
- Selecting local time zone and language.
- Configuring defaults for the Issue form.

## Email Management

Much of the initial email configuration is performed during installation. The network administrator must create the email account that **FootPrints** uses for receiving requests and sending notifications.

### Configure Incoming Email

If you have changes to the defaults set at installation, you can:

- Configure Incoming Email for Windows or UNIX.
- Enable/Disable Email Notification.
- Send Introduction/Help Email.
- Configure Email for additional workspaces.

### Configure Outgoing Email Management

For each workspace, outgoing mail rules can be defined. Templates are configured using a content grid optimizing what information should be sent to each group that may receive email notifications from FootPrints. Defaults are set and can be used until customizations are performed at a later time.

- Customize the Contents of Mail grid for all recipient groups.
- Create custom Email templates per status.
- Define when to Send Mail.
- Set up Email Filters to catch unwanted mail.

## Create Workflow Functions

Automating your workflow takes the longest time to implement because you must determine how to best make **FootPrints** reflect your business rules. It also relies on most of the preceding features, so most of the other features must be set up in advance before workflow can be automated. As with all **FootPrints** configuration, workflow rules can be configured at a later time.

## Calendar and Scheduling

- Create a Workspace Work Schedule
- Define schedules for Agents
- Set Workspace Calendar preferences
- If FootPrints Sync is enabled, have the Agents download the FootPrints Sync client or, if you have software deployment, download the FootPrints Sync client and install it for the Agents.

## Quick Issues

- Create Quick Issue Templates for recurring issues.
- Create Master Quick Issue templates and subtasks.

## Auto Assign

- Set up Default Assignment rules for the workspace.
- Create Auto Assignment rules based on drop down field choices.

## Service Level Management

- Configure global SLA parameters.
- Define SLAs and create Escalation processes to support the SLAs.
- Configure the Email that will be sent as notification of escalations.

## Issue Workflow

- Select actions for Dynamic Issue Linking.
- Specify procedures for subtasks.

## Escalations

- Define additional escalation rules for your desired workflow.

## Customer Surveys

- Create a Customer Survey workspace for tracking user feedback.
- Enable the survey feature in the support workspace.

## Set Up Reporting

The report wizard helps you create custom reports for either one-time use or as templates to be run again and again. Custom reports can include graphical data and text data. These saved reports can be scheduled to run at specific times, and the report contents can be emailed to anyone.

Saved reports should capture information needed by your organization to do its job effectively and efficiently.

The types of report templates often generated from **FootPrints** include:

- Number of closed Issues by Agent for specified time
- Number of open Issues by Agent for specified time
- Sum of various types of problems for a specified period
- Average time to close an Issue
- Personal and Workspace Flashboards

## Set Up the Knowledge Base

The Knowledge Base is a place to record, organize, and manage important information for a **FootPrints** workspace. The primary component of the Knowledge Base is a Solution. If you have existing knowledge base information, you can link to it through **FootPrints** if it's web-based, or you can upload Solutions into the workspace. This can be implemented at a later time.

The tasks to perform when implementing the Knowledge Base include:

- Upload existing solutions
- Link to an existing KB website
- Create Knowledge Base Role Permissions for Agents
- Exclude Fields from Solutions
- Create/select approvers
- Create solutions

---

## Additional Tasks

### Numara Configuration Manager

Numara Configuration Manager is an add-on module and must be purchased in addition to the **FootPrints** product. A discussion of setting up Configuration Management is in the Numara Configuration Manager section of this document.

### Planning a Configuration Management Database

The following is a brief description of the steps to take when planning a CMDB using FootPrints Configuration Management:

1. Determine the items you wish to record and manage-Decide what you are going to manage in your configuration. Will it be hardware only? Hardware and software? Hardware, software, documentation, databases, and services? Office space? Furniture? Trucks and cars? Cell phones? Because of the flexibility of the FootPrints CMDB, it is possible to create a configuration that can track all of these configuration items and many others. It's up to your decision-makers to determine what to include and what to exclude and where the cut-offs are. A true CMDB should consist of all items IT is responsible for, to assist the business of the company. There also has to be great thought put into decided how these items will be

related to one another. The relationships are one of the main things that distinguish a CMDB from an asset database.

2. Create a new CMDB in FootPrints. You can choose to use one of the built-in templates, copy an existing CMDB configuration, or build with no types, attributes, or relationships defined if you feel none of the templates match your needs.
3. Define the configuration items that were decided upon in step 1. Configuration items are all of the objects to be managed in your configuration. These can be hardware items like routers, PCs, servers, FAX machines, printers, cell phones, etc. These can be software items like applications. These can be locations like room numbers. Etc. Most of these should be there already based on the template that was selected when creating the CMDB.
4. Define attributes to be included for configuration items in the database. Some examples might include Memory, IP Address, Operating System, and Purchase Price for a desktop, Manufacturer, Version Number, and Maintenance Expiration Date for an application, and Manufacturer, Model, and IP Address for a network printer. If a template was selected for creating the CMDB, the attributes that came with it should be reviewed and modified to meet your needs.
5. Decide on statuses for your CIs. This will show at a quick glance of a desktop is out on someone's desk (Active), on the shelf ready to be used (In Inventory), or retired waiting to be used for parts (Retired). Different CI types can share the same or use different statuses. An application for example will never be "Waiting for Parts" and a Printer will never be "Under Development".
6. Define your relationships. If you decided to use a template, there will already be relationships and relationship constraints defined. Make sure they align with your goals and desired functionality. Examples of types of relationships are "Prints To", "Backs Up", and "Is Connected to". The constraints prevent 2 unrelatable CIs from being linked using that relationship. For example, a Router should never "Print To" a Switch.
7. Decide on a CI ID format. This will represent the CI on all listings of CIs and all pages that refer to that CI. It should provide enough information to allow someone to identify what exact CI it is just by seeing the name. An example format would be "%CI\_TYPE\_NAME%-%%MANUFACTURER%-%%MODEL%" which might display as "Desktop-Dell-Dimension 2400" or "Printer-HP-LaserJet 4100".
8. Setup imports from your data sources. You may be using only Numara Asset Manager to collect your data, or you may be using the database of some other asset tool, along with a database you constructed yourself, along with 2 separate excel files. You may also be manually creating all of your CIs, although this would be time consuming. Set up all of your imports to initially populate your CMDB.
9. If your import was from NAM, you will have relationships defined between the CIs imported. They should be reviewed and updated. If not using NAM, you will have to implement all the relationships between the CIs that came in during the import.
10. Link CIs to Address Book contacts. This could include the main user of that CI, various users of the same CI, or a Service Desk person responsible for that CI.
11. Decide on an update schedule for imports. If you are still planning on maintaining and using those external sources, you should decide on a schedule for update imports and configure it appropriately.

Add additional settings. These include creating reports, setting up Escalations/Automations, Establishing Roles, and testing the linking to Issues functionality.

## Numara Asset Management Platform

Numara Asset Management Platform requires the purchase of one or more of the Numara Asset Management Platform Add-on Modules:

- Numara Asset Management Platform
- Integration with Microsoft® System Center Configuration Manager Inventory
- FootPrints Integration with LANDesk
- FootPrints Deploy powered by Prism

The first decision you need to make with respect to Asset Management is whether to purchase a Numara Asset Management Platform module and which one to purchase.

## Change Management

Change Management is an add-on module for FootPrints and must be purchased in addition to the **FootPrints** product.

When setting up a change management process and phases in FootPrints, you should plan ahead by deciding:

- The criteria for automatically setting off an approval process (including all built-in and custom fields)
- Who approves the various phases of the process
- Whether to grant super-approver status to anyone and to whom to grant it (a “super-approver” is someone who can vote on a Change Management Issue and also can, by using an override checkbox, override all of the voting and approve or disapprove the Issue immediately on his or her own authority).
- The rules for meeting an approval (i.e., whether an Issue is approved or rejected based on one vote, a majority vote, or a unanimous vote)
- What to do when the Issue is approved or rejected (place the Issue in phase of the process, change the Issue status, re-assign the Issue, etc.)
- The email notifications for various stages of approval
- Who has permission to access approval information
- Whether to allow anonymous approvals

## Import Issue Data

You can optionally import data from another system into a **FootPrints** workspace under Administration | System | Workspaces. The data fields must be in the order of the workspace’s schema and the import file must be in comma-delimited form (.CSV).



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# Chapter 5: Installing Numara FootPrints

## Hardware and Software Requirements

Before installing **FootPrints**, check that your hardware and software platforms meet the minimum requirements for **FootPrints**. The minimum requirements for various platforms and purposes are listed in:

- Windows
- Linux/UNIX
- Suggested Hardware Based on Volume

## About Licenses

There are three categories of **FootPrints** license: fixed, concurrent, and customer, as described earlier.

The first time you login to **FootPrints**, after you have performed the installation, a 9-character license code is displayed on the screen. Click the link for the "licensing page". This opens a second window that brings you to the Numara Software automatic licensing page.

### NOTE

The Extended Starter Pack is required to add concurrent licenses, or to add more than fifteen named (fixed) licenses. Please contact your salesperson for details on obtaining the Extended Starter Pack.

## Evaluation Licenses

You may have downloaded a demonstration version of the **FootPrints** software, which comes with an evaluation license. The **FootPrints** Installation Wizard automatically installs the software, creates the necessary aliases in IIS, and creates the SQL or Access database, tables and permissions. After installation, the software can be auto-licensed with a 30 day, full function evaluation license. The evaluation license provides for 5 internal users, Unlimited Customer (end user) access, and the Dynamic Address Book link feature.

## Permanent Licenses

If you have purchased **FootPrints**, you should obtain a permanent license and input it when the prompts request your license. To obtain your permanent license, email the 9-character code to [footprints.support@numarasoftware.com](mailto:footprints.support@numarasoftware.com).

## Customer Licenses

A customer license is unlimited. That is, a single customer ID and password can be shared by an unlimited number of people (each person is uniquely identified by their email address or other unique key). Alternatively, each customer can have his or her own ID and password. In either case, an unlimited number of customers are covered by the customer license.

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# Installing FootPrints

## Information Needed for Installation

- Your email address
- SMTP email server name for email notification (DNS name or IP address)
- If installing the version for SQL database, please have the following information:
  - Name of SQL Server machine
  - SQL Server Administrator account password (blank password by default)
- The FootPrints Installation Wizard automatically installs the software, creates the necessary aliases in IIS, and creates the SQL or Access database, tables and permissions. After installation, the software can be auto-licensed for 30 days with all functionality.

### NOTE FOR SQL SERVER USERS

SQL Server can be installed such that column names are case sensitive; this causes **FootPrints** to fail. If you have installed SQL Server with case sensitive column names, you will need to reinstall it without case sensitive column names before installing **FootPrints**.

### NOTE FOR SQL EXPRESS 2005 USERS

SQL Express 2005 requires Windows Installer 3.1 or later, MDAC 2.8 SP1 or later, and .Net Framework 2.0 or later.

### NOTE FOR BASE STARTER PACK USERS

The Extended Starter Pack is required to purchase the SQL Link. Please contact your salesperson for details on obtaining the Extended Starter Pack.

### NOTE

FootPrints must be installed from the server and not through a terminal services session. Installing FootPrints through a terminal server session will result in a "Page Not Found" error when attempting to access FootPrints.

## Footprints 9.5 for Unix and Linux Functions Under mod\_perl

The mod\_perl program builds the perl processor into your Apache Web server and executes Footprints perl scripts much faster than the basic perl compiler. This greatly improves Footprints performance, especially with a large number of Agents.

Numara Software has tested mod\_perl on both Linux and Sun Solaris systems extensively. Directions for building and testing mod\_perl for Linux and Unix are included in the Footprints install package in a file named README.mod\_perl. Please contact Numara Software Support if you need help with this installation.

## Installation Instructions

### NOTE ON MICROSOFT XP

Because neither Microsoft XP nor Vista are designed to be used as servers, we do not recommend them as platforms for the **FootPrints** server. Microsoft XP and Vista are supported, however, as a client platforms for connecting to **FootPrints** for all users via the browser.

1. The FootPrints software contains installation files for many different platforms. Select the appropriate file to install FootPrints from the following list, then double click the file to begin setup:
  - fpOracle9.exe
  - fpSQL9.exe
  - fpSQLEXPRESS9.exe
  - fpup9Oracle.exe (for upgrades)
  - fpup9SQL.exe (for upgrades)

### NOTE

For UNIX/Linux versions, please read the README for installation instructions.

2. Follow the prompts and enter the information required:
 

**Name**—Your name.

**Company**—Your company.

**Email server**—Enter the full DNS name or IP address for your SMTP mail server.

**User ID**—Enter a User ID. You will be given a password.

### NOTE

Make sure to keep a written copy of your **FootPrints** user ID and password. You need these to log in to **FootPrints** the first time.

**Email address**—Your email address.

**Workspace name**—The name of your first FootPrints Workspace.

**Address Book name**—The name of your first FootPrints Address Book<sup>1</sup>.

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<sup>1</sup> FootPrints table used to keep customer contact and configuration information. For example, the Project Administrator may have set up the Address Book to hold a customer's name, email address, phone number, location, etc. Multiple Address Books can be created within FootPrints, each associated with one or more Projects.

3. **By default, FootPrints is installed to C:\FootPrints.** You can, optionally, browse for a different directory.

**NOTE**

The install path cannot contain any spaces.

4. **When you are asked if you would like FootPrints to setup the web server, answer Yes.** This creates 5 virtual directories in IIS for FootPrints.
5. **If installing the SQL Server database version:**
  - **What is the name of the SQL Server you are using?**—Specify the machine name of the SQL Server machine.
  - **SQL Server Administrator ID**—This is “sa” by default (please consult your SQL Server administrator).
  - **SQL Server Administrator Password**—This is blank by default (please consult your SQL Server administrator).
6. The Installation Wizard now tests the connection to SQL Server. If the connection fails, you will be prompted to enter the information again.
  - **Program Folder**—This defaults to FootPrints.
7. When setup is complete, you must reboot the server.
8. If you decide to not have FootPrints automatically configure IIS for you, you will have to configure IIS on your own. **Complete the FootPrints installation before doing so.** The next steps provide instructions for adding the Perl extension to IIS are below. To add the Perl extension to IIS:
  - **On Windows 2003/2008 Server**, go to Start | Programs | Administrative Tools | Internet Services Manager.
  - In the Management Console, highlight your Default Web Site. In the right pane, there should be five **FootPrints** virtual directories listed: FootPrints, help, MRcgi, tmp, and MRimg.
  - In order to run properly, **FootPrints** requires the following directory aliases to be made in your web server. different IIS versions have different interfaces for entering this information.

Directory	Alias	IIS 6 Permissions
C:\footprints\cgi	MRcgi	scripts and executables
C:\footprints\html	footprints	scripts and executables
C:\footprints\html\help	help	read
C:\footprints\html\tmp	tmp	read
C:\footprints\html\MRimg	MRimg	read

- Highlight MRcgi, right-click the mouse, and select Properties.
- On the Virtual Directory tab, click the Configuration button. If you don't have this button, click the Create button first.
- In the App Mappings tab, click the Add button.
- For Executable, enter:

C:\FootPrints\bin\perl\bin\perl.exe "%s" "%s"

where C:\FootPrints is the FootPrints installation path. For example, if FootPrints is installed to D:\FootPrints, the Perl executable path should be:

D:\FootPrints\bin\perl\bin\perl.exe "%s" "%s"

- For Extension, enter: .pl

- Click OK, then click Apply, and then OK on the App Mappings tab.
  - Click OK on the MRcgi Properties.
  - Close IIS and save any changes.
9. To access **FootPrints**, point your web browser to:
- `http://mywebservername/footprints/`
- where myservername is the URL for the server on which **FootPrints** is installed. To run it locally, the machine name can be used, e.g., `http://mymachine/FootPrints/`.
10. Login to **FootPrints** with the user ID and password created during installation, then click LOGIN or press ENTER.
11. To start using FootPrints, you must obtain a license. The first time you log in, a 9-character license code is displayed on the screen. Click the link to connect to the licensing page. This opens a second window that brings you to the Numara Software automatic licensing page.
12. Fill in the short form on this screen, and click SUBMIT. You will immediately receive a 36-character license string via email. You must enter a valid email address to receive the license.
13. Enter the 36-character license string in the License String field on the FootPrints screen and click GO. Pasting the license string directly from the email (rather than typing it) ensures accuracy. This provides you with a 30-day evaluation license for 5 internal users, Unlimited Customer (end user) access and the Dynamic Address Book link feature.

#### NOTE

If you have purchased **FootPrints**, you should obtain a permanent license and input it on this screen, instead of following the evaluation license process above. Email the 9-character code to [footprints.support@numarasoftware.com](mailto:footprints.support@numarasoftware.com) for your permanent license.

14. The Workspace Setup Wizard is displayed. The Workspace Setup Wizard guides you through setting up the most popular features of FootPrints. You can exit the Wizard at any time, which takes you to the FootPrints Homepage. To configure options at a later time, visit the Workspace and System Administration pages by selecting Administration from the FootPrints Toolbar.
15. Once the Wizard is complete, you are on the FootPrints Homepage. The FootPrints Help appears in a second window. Follow this guide to learn about how to use FootPrints and to configure it with additional fields, users, and settings.

## Application Pools

If questions arise regarding Application Pools when configuring Virtual Directories, contact Numara Software Support for assistance.

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## Uninstalling FootPrints

**FootPrints** can be uninstalled from the Add/Remove programs option in the Control Panel. If you need to manually uninstall **FootPrints**, please follow these instructions:

1. Remove the five **FootPrints** virtual directories from IIS
  - On the server where **FootPrints** is installed, open the Internet Services Manager by selecting Start | Programs | Administrative Tools | Internet Services Manager from the Start menu.

- In the left pane, select SERVERNAME | Default Web Site, where SERVERNAME is name of the web server.
- Delete the following 5 FootPrints virtual directories: MRcgi, footprints, help, tmp, and MRimg. To delete a virtual directory, highlight the name, right-click and select “Delete”.

#### 16. Stop the **FootPrints** Services

- On the server where FootPrints is installed, open a command prompt by selecting Start | Programs | Accessories | Command Prompt, and change to the FootPrints directory using the following command:  
  
`cd C:\FootPrints\bin`  
  
 where **FootPrints** is installed to C:\FootPrints. Change the path accordingly if **FootPrints** is installed to a different directory.
- Stop the scheduler service using the following command:  
  
`FPschedule -u`
- Stop the backup scheduling service:  
  
`FPwatch -u`

#### 17. Uninstall **FootPrints**

- Select Start | Programs | Control Panel | Add/Remove Programs, and choose FootPrints.
- Follow the prompts to uninstall **FootPrints**.

#### 18. Delete the FootPrints folder (C:\FootPrints if installed to the default location.)

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## Applying FootPrints Patches

If you need to apply a patch to FootPrints, use the following procedure:

1. Save the patch\_X.zip file to the FootPrints root directory.
2. Run the mrPatch program from the footprints/cgi directory:
  - **On UNIX:** cd to footprints/cgi, then run ./MRpatch.pl.
  - **On Windows:** run the mrPatch batch file in the footprints/cgi directory. You can do this by double-clicking on the mrpatch.bat file; there's no need to open a command shell first.
3. Follow the prompts to select the patch file and apply it.

The script will automatically back up all files and set the correct permissions on new files.

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# Chapter 6: Create a Project with the Project Setup Wizard

## Workspace Wizard - Introduction

After licensing **FootPrints** and logging in for the first time, the Workspace Setup Wizard is displayed. The Workspace Setup Wizard is intended to help you through setting up some of the most popular features of **FootPrints** for use in help desk, customer service, sales, development, or any other issue tracking needs. While there are many configuration options in **FootPrints**, the Wizard helps you get up and running as quickly as possible with the basic features.

You can navigate through the Wizard using the Next and Back buttons. You can skip any step that you do not want to complete. To exit the Wizard, select Cancel. This brings you directly into **FootPrints**. You can set up the workspace at a later time through the administration pages by selecting Administration from the **FootPrints** Toolbar.

The Workspace Setup Wizard is also available for creating additional workspaces from the System Administration [Workspace Management](#) page.

The workspace templates are described below.

1. For a list of information needed to complete the Wizard fully, click the Information Needed for the Workspace Setup Wizard link.
2. On the first page of the Wizard, you can select a workspace type.
  - **Select Workspace Type**—The drop-down below contains a list of pre-built templates for your first workspace. Select a workspace type and click View Details to see a preview of the fields that are included in the template. If you do not want to use a template, select I Will Make My Own Fields Later. In any case, fields can be added, edited, or changed later from the administration pages.
  - **Select Workspace Name**—This is the display name for the workspace.

Available templates are:

- **Corporate Service Desk**—This is intended for a typical corporate service desk that supports hardware, software, network, and other IT issues for employees of the company.
- **Customer Support**—This template is intended for use by a customer service department that supports outside customers on the company's products and services.

- **IT Service Management**—This is intended for incorporating a CMDB in the Workspace. The IT Service Management template actually creates four separate workspaces: the Incident Workspace, for tracking Incidents, the Problem Workspace, for tracking Problems, the Change and Release Management Workspace, which will provide change management, and the Service Portfolio Workspace, which creates a workspace for building a Service Catalog. The Workspace Wizard follows a different set of steps for the IT Service Management Workspace than it does for other workspaces. If you select the IT Service Management workspace template, go to the Workspace Wizard for IT Service Management section of this document once you complete this page.
- **Asset Requisitioning**—This template is designed for purchasing.
- **Change and Release Management**—This template can be used to track change requests for any number of categories. It is based on the ITIL standard. The Change Management template is only available if the Change Management Add-on module is purchased.
- **Survey**—This template is used for responses to your customer surveys. This template takes you through a slightly different series of steps than the other templates.
- **SOX Financial Control Management**—This template is designed to track process controls that relate to financial procedures and processes. The template was created in response to Sarbanes-Oxley requirements.
- **SOX IT Change Management**—This template is designed to ensure that changes made to financial data comply with Sarbanes-Oxley requirements. The Issue page that is created with this template contains sections that are Status-dependent, meaning that the sections of the Issue expand or collapse depending on the value in the Status field. (Available to Change Management users only.)
- **IT Outsourcing**—This template is designed to keep track of IT issues for an IT Outsourcer who provides Third-Party technical support and services for another organization.
- **HIPAA Patient Management**—The HIPAA Patient Management template was created to help medical facilities track and manage patient personal, insurance, and payment information, as well as visits, services rendered, and future appointments.
- **Facilities Management**—This template helps track maintenance and other facilities requests.
- **Human Resources Management** - This template is used to track individual employee change requests.
- **Service Desk**—This is an ITIL-compatible (Information Technology Infrastructure Library) workspace template for tracking Incidents and Service Requests.
- **Problem Management**—This is an ITIL-compatible workspace template for Incident and Problem Management.
- **Service Portfolio**—This is an ITIL-compatible workspace template for proposing and approving Services for the Service Catalog.
- **Issue Tracking**—This is a generalized template for tracking any kind of issues or workspaces that need to be tracked.
- **Resource Management**—This template is designed to help an IT department track and manage both hardware and software that it might loan or otherwise install.
- **Sales Tracking**—This template is designed to help a sales team track leads, quotes, and perform contact management.
- **Software Change Management**—This template can be used for development and quality assurance teams to track feature requests, bugs, and other issues regarding a company's software products. (Available to Change Management users only.)

- **Training**—This template is useful for an IT department that trains its employees, as well as for other training organizations uses

#### NOTE

These templates contain some fields that have sample choices in them, such as Product (Product 1, Product 2, etc.) and Version Number (Version 1.0, 2.0, etc.). They are intended for evaluation purposes only. To use these fields in your environment, you should edit them to include your actual product names, etc. This can be done at any time from within **FootPrints** by selecting Administration | Workspace | Field Maintenance (for workspace or issue-based fields) or Administration | Address Book | Field Maintenance (for contact fields) from the **FootPrints** Toolbar. Administrators should also note that some of the templates, such as Corporate Help Desk and eSvc Customer Support, create teams in addition to fields.

3. After selecting a template, click "Next".
4. You can now advance to Step 1.

## Information Needed for the Setup Wizard

The following information is needed to complete all steps of the Workspace Setup Wizard. If the information is not currently available, you can skip the corresponding step and configure the feature later from the administration pages within **FootPrints**.

### If configuring Email

- Email server name—For example, email.widget.com
- ID of support email account—For example, support. This is an email account you create on your email server for the exclusive use of FootPrints to process incoming email (e.g., support@myserver.com). All email sent to this account is processed by FootPrints and registered as new Issues within the system or as updates to existing issues.

#### IMPORTANT

Do not use your own email address for this account.

- Password of support email account
- Whether the support email account uses the IMAP or POP messaging protocol

### If configuring an LDAP/Address Book

- LDAP Server Name—For example, machinedomain.internetdomain.com
- LDAP Server Port—For example, 389. An additional option for users beside the standard LDAP port (389) is the Global Catalog port for Active Directory (3268). This enables LDAP to access additional users from trusted domains using a set of common LDAP attributes. The typical scenario in which this would be used is when a large organization has a number of offices that each maintains an Active Directory for its local users. Using the standard port, you might be able to retrieve only a local office's users. Using the Global Catalog port, you can often retrieve everyone, assuming the search base is set correctly.
- LDAP Search Base for Directory Entries—For example, cn=Recipients,ou=widget.com,o=chicagoOffice
- Last Name of Any Person Known to be in the Directory—For example, Smith
- Distinguished Name—Similar to the Search base, but including the LDAP/AD Administrator ID For example, cn=Administrator,cn=Recipients,ou=widget.com,o=chicagoOffice

- Password—Password of the LDAP/ID Administrator specified above.

**NOTE**

The last two are sometimes optional, although it is dependent on the setup of the LDAP server.

**If configuring a Customer Survey**

- Workspace name—The tracking workspace(s) to be associated with the Customer Survey workspace. The Customer Survey workspace uses the Address Book of the tracking workspace.
- FootPrints Database—The database FootPrints is using might have a limit for field names. Included in these characters are some additional hidden characters placed by FootPrints. If you are unable to create a question you desire for a survey as a result of this limit, you may type in a shorter field name, but then create a longer display value using the Language of Workspace and Address Book Fields feature. After completing the Workspace Setup Wizard, access this feature by selecting Administration | Workspace | Fields | Language of Workspace and Address Book Fields from the FootPrints Toolbar.

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## Workspace Wizard Step 1—Workspace Details

In this step, enter a name for your workspace(s) and confirm the template and fields selected in the initial Workspace Setup Wizard screen. These fields can be modified later in the Wizard and can be changed or added to from within **FootPrints** after the Wizard is complete. To select a different template, click Back.

Enter a workspace name in the field.

**NOTE**

The template selected may contain some fields that have sample choices in them, such as Product (Product 1, Product 2, etc.) and Location (First Floor, Second Floor, etc.) They are intended for evaluation purposes only. To use these fields in your environment, you should edit them to include your actual product names, locations, and so on. This can be done at any time from within **FootPrints** by selecting **Administration | Workspace | Field Maintenance** (for workspace or issue-based fields) or **Administration | Address Book | Field Maintenance** (for contact fields) from the **FootPrints** Toolbar.

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## Workspace Wizard Step 2—Built-in Fields

This step allows you to customize some of the built-in **FootPrints** fields for your workspace.

### Priority


The Priority field is used to rate Issues by importance or impact. Options for priority include:

- Maximum Priority—The number selected here defines the range or number of priorities available for Agents to select when creating an Issue. Any number from 1—100 can be selected. This defaults to the number assigned by the workspace template.
- Default Priority—This is the default Priority assigned when users create new Issues. If 2 is selected, new Issues are created with a priority of 2 unless the Agent or an automated

escalation rule changes it. If words are assigned to the Issue (see below), the corresponding word is the default (for example, Medium).

- **Priority Words and Colors**—Words and colors can be assigned to Priorities. Rather than selecting 1, 2, 3, etc., Agents can select Urgent, High, Medium, etc. If colors are selected, they appear on the FootPrints Homepage. Words are assigned by the Workspace Setup Wizard. To change the words, to add a word or words for additional priorities, and to select colors, click the link to Assign Words and/or Colors to Priorities.

To map Priority words and colors:

1. Click the link to Assign Words and/or Colors to Priorities. A small pop-up window is displayed. There are input boxes for each priority level in the pop-up window.
2. Enter a word or phrase for each priority level that is blank, or change the existing word.
3. To select a color, click Pick next to a priority level. Another pop-up window appears with a color map.
4. Select a color. The color box for the priority is populated with the hex code.
5. Click  GO to save your changes.

## Status

The Status field is used to define the workflow of Issues, or the stages that an Issue will move through from beginning to end. Statuses can be added, deleted and reordered here. The dialog is pre-filled with the Statuses defined by the workspace template.

To add a Status:

1. Enter a name for the new Status.
2. Click the Add button. By default, the new Status is listed just before Closed.

To delete a Status:

1. Select the Status in the dialog box (it will be highlighted in blue).
2. Click Delete Status. The Status is removed from the list.

To re-order Statuses:

1. Select a Status in the dialog box (it will be highlighted in blue).
2. Use the Up and Down arrow buttons to move a Status up and down in the list.

### NOTE

Open and Closed are built-in and cannot be changed or re-ordered. You can change the words that represent them from within **FootPrints** on the Status administration page. In addition, there are other built-in Statuses used by **FootPrints** that are not displayed here, including Deleted and Request. Refer to the Workspace Administration topic on [Statuses](#) for more information.

## Time Tracking

The Time Tracking field is used to track the time that Agents spend working on Issues. Time can be tracked automatically by the system or manually by the Agent. Agents can be assigned hourly billing rates to be used in tracking the cost of Issues in addition to the time spent. Time can be tracked for any Agent when creating Issues and when editing Issues. The total time counted over all sessions is accumulated and stored for the Issue. If this feature is not needed, it can be disabled for the workspace.

Time Tracking data can be included in reports or exported to a billing system. For more information on creating Time Tracking reports, please refer to the topic titled [Time-tracking Reports](#).

Options for Time Tracking:

- **Automatic**—If this is selected, a visible clock automatically tracks the time spent by Agents working on Issues. This is useful for a call center or service desk where the Agents do most of their work at their desks. A "Pause" button is displayed on the Issue form to allow the Agent to temporarily pause the clock.
- **Manual**—If this is selected, Agents manually enter the amount of time worked on an Issue. This is useful for desktop support teams or workspaces where users will do much of their work away from FootPrints. There are 2 sub-options:
  - **Permissions**
    - **Optional**—Agents have the option to fill in time spent when creating or editing Issues.
    - **Mandatory**—Agents are required to fill in time spent each time an Issue is created or edited.
  - **Start Date/Time**
    - **Always use current date & time**—By default, the date and time at which the Agent enters the information is automatically recorded by FootPrints.
    - **Manually enter start date & time**—If this option is selected, the Agent can fill in the date and time work began manually. This is useful if Agents often do their work away from FootPrints, and only update their Issues at a later time.
- **Disable**—If this is selected, Time Tracking is disabled for the workspace.

---


## Workspace Wizard Step 2a—Customer Survey

In this step, select the workspace(s) to link to this survey workspace. Whichever workspace(s) you select on this page automatically have their survey results filtered into this survey workspace and have their own individual tickets created. The survey workspace also shares the same Address Book that your selection(s) uses.

- **Workspace to Link Survey to**—Select a workspace from the drop-down list whose survey results will be stored in the Customer Survey Workspace that you are creating.
- **Link to Additional Workspaces**—If the workspace you select from the drop-down list shares its Address Book with other workspaces, you can highlight additional workspaces to be used with the Customer Survey workspace being created. To select more than one workspace from the list, hold down the CTRL key while clicking on the entry.

### NOTE

Only workspaces with unique address books or sharing the same address book can be linked to a single Customer Survey Workspace.

When you have finished making any changes desired to the workspace fields, click  **Next**.

## Workspace Wizard Step 2b–Customer Survey

In this step, you enable customer surveys in the workspace(s) selected in the previous step. Surveys generated from the other workspace(s) are populated in this new survey workspace.

To change these settings later, select Administration | Workspace | Automated Workflow | Customer Surveys from the **FootPrints** toolbar in the originating workspace (not in the survey workspace).

- **Subject**—Enter a subject line for the survey email.
- **Custom Message**—The text entered here will be in the body of the survey email. Certain keywords can be used that will automatically get replaced by their associated values once the email is sent. Click the “**Click here**” link to be presented with a list of those keywords.
- **Survey Rules**—Select when to send customer surveys:
  - Send survey for each customer Issue that is closed.
  - For each customer Issue that is closed, there will be a 1 in X chance of the customer receiving a survey (if they haven't received a survey in the last Y months). You choose the values for X and Y.
    - **For X:** Choosing a value of 2 for X does not mean that every other issue closed sends a survey email; it means that each issue closed has a 1 in 2 (50%) chance of sending out a survey email.
    - **For Y:** Indicate how often customers are allowed to receive surveys. You may not want the same customer to receive more than one survey in a 1, 3, 6, or 12 month period.

### TIP

You may want to send a survey for every issue that gets closed, but only if the person receiving the email has not received a survey in the past 1, 3, 6, or 12 months. Use the second option and set the value of Y to 1 so that each closed issue has a 1 in 1 chance of sending a survey email.

- Send surveys to all linked customers when a Global Issue is resolved. This option can be selected regardless of when surveys are being sent.
- Include Javascript data validation on surveys and HTML Forms. This option can be turned off so that the Javascript validation is not included.

When you have finished making changes desired to the Customer Survey setup, click **Complete the Wizard**. The workspace is created and your survey setup is finished.

## Workspace Wizard Step 3–Configure Issue Information Fields

The workspace fields created by the Workspace Setup Wizard are displayed in the dialog box. They are based on the workspace template you selected. These are the fields that will be displayed in the Issue Information section of the Issue pages later, after the workspace has been built. In this step, as long as there are no dependent fields, you can re-order or delete fields (for more information on field dependencies, refer to [Field Dependencies](#)). If you would like to make additional changes to these fields, select Administration | Workspace | Field Maintenance from the **FootPrints** Toolbar after completing the Wizard.

There is a different Step 3 if you are using the IT Service Management template, which is described in the next topic.

#### NOTE

When creating additional workspaces with the Wizard, the full [Field Maintenance](#) dialog is available for adding and changing fields.

To re-order the fields:

1. Select a field in the dialog box (it will be highlighted in blue).
2. Use the Up and Down arrow buttons to move a field up and down in the list.
3. Continue to re-order the fields as desired. This is the order in which they are displayed in the workspace.

To delete a field:

1. Select the field in the dialog box (it will be highlighted in blue).
2. Click Delete. The field is removed from the dialog and is no longer included in the workspace.

#### NOTE

The Delete button is only visible when your workspace template does not contain any dependent fields. There are instances where deleting dependent fields can cause problems, so the Delete button is not available in the installation version of the Workspace Setup Wizard for those cases.

---

## Workspace Wizard Step 3 for IT Service Management Workspace

This step determines how you will create a CMDB for your Workspace. This step only applies to an IT Service Management Workspace. Options on this page are explained below. When you finish selecting options on this page, click the  **Finish** button.

### Use Template

If you select the Use Template radio button, you must select the CMDB template to use from the drop-down field. When you select a template from the drop-down field, the schema for that template is displayed at the bottom of the page. Drop-down options are:

- **ITIL CMDB**—This template contains configuration item types, attributes and relationships recommended as ITIL best practices.
- **Numara Asset Management Platform**—This template contains configuration item types, attributes and relationships drawn from the Numara Asset Management Platform.
- **All Assets**—This template contains configuration item types, all attributes and relationships. With this template, you would start off with all possible attributes and relationships and then remove the ones you do not want to use.
- **Inventory**—This template contains configuration item types, attributes and relationships relating to facilities management.

## Use Existing CMDB Configuration

If you select the Use Existing CMDB Configuration radio button, a drop-down field containing existing CMDBs is displayed. Select the CMDB you want to copy from the field. When you select a CMDB from the drop-down field, the schema for that CMDB is displayed at the bottom of the page.

## Create on Your Own

If you select the Create on Your Own radio button, CMDB is enabled but no configuration item types, attributes, or relationships are created for you. Instead, you must create all of the configuration item types, attributes, and relationships on your own.

---

## Workspace Wizard Step 4a—Address Book

In this step, you can select the type of Address Book to be used for your workspace. The Address Book is a place to keep the contact information for your end users, whether they are employees, remote users, or Customers. The data can be kept in **FootPrints** or can be dynamically read from an outside source, such as Microsoft Exchange, Active Directory, or other LDAP source. The LDAP option is only available in the evaluation software or if you purchased the Dynamic Address Book Link add-on module with **FootPrints**.

### NOTE

If you purchased the Dynamic SQL Address Book add-on, you must configure the Address Book after you've run the Workspace Wizard. Choose FootPrints Address Book, which is converted later. Refer to [Dynamic SQL Address Book Link](#) in the *Address Book Administration* chapter.

To select an Address Book:

- **Address Book Name**—Enter the name for the Address Book, for example, Employees.
- **Address Book Type** (only requested if you are licensed for Dynamic LDAP Address Book Link)—Select the type of Address Book:
  - **New FootPrints Address Book**—If this is selected, the contact data is kept within the **FootPrints** database. Once the Wizard is complete, you can import contact records from a comma-delimited text file. Please refer to the topic on [Importing Data into the Address Book](#) for more information.
  - **New LDAP/Exchange/Active Directory Connection**—With this option, contact data is read dynamically from an outside source each time it is accessed. No importing or synchronization is necessary. Supported databases include Active Directory, Microsoft Exchange, Lotus Notes, Sun ONE, and Novell eDirectory. If this is selected, you must enter information about the LDAP source in the next step.

### NOTE

This option is only available when creating additional workspaces in **FootPrints**. The LDAP feature can be configured after the Workspace Setup Wizard is complete under Address Book administration. If you are unsure of your Exchange/Active Directory configuration, select FootPrints Address Book. The Address Book can be changed later from the Address Book administration screen.

**Link to an existing Address Book**—This option allows you to use an existing Address Book for the workspace.

Once you have selected an Address Book, click Next. The next step differs based on the type of Address Book selected.

---

## Workspace Wizard Step 4b–Address Book Fields

The Address Book fields created by the Wizard are displayed in the dialog box. They are based on the workspace template you selected. They are displayed in the Contact Information section of the Create Issue form and in the Address Book. In this step, you can re-order or delete the fields. If you would like to make additional changes to these fields, select Administration | Address Book | Field Maintenance from the **FootPrints** Toolbar after completing the Wizard.

### NOTE

When creating additional workspaces with the wizard, the full [Field Maintenance](#) dialog is available for adding and changing fields.

To re-order the fields:

1. Select a field in the dialog box (it will be highlighted in blue).
2. Drag-and-drop fields to move them up and down in the list.
3. Continue to re-order the fields as desired. This is the order in which they are displayed in the Address Book.

To delete a field:

1. Select the field in the dialog box (it will be highlighted in blue).
2. Click Delete. The field is removed from the dialog and is no longer included in the Address Book.

The Address Book also contains two additional properties:

- **Primary Key**—The Primary Key is a unique identifier for each Contact in your Address Book. If the Customer Self-service feature is used, it is the ID that Customers use to log into FootPrints, along with a password. This field should be both present and unique to all Contacts. User ID is the recommended field, and also the default value for all templates.
- **Organizational Field**—The Organizational Field is used to organize Contacts in the Address Book. Examples include Department, Business Unit, or Company. It is an optional property. If one is selected, the Contacts in the Address Book are grouped by the field.
- **Master Contact Record**—Check here to enable the Master Contact Record feature.

---

## Workspace Wizard Step 4b–Configure Exchange/Active Directory

If Exchange/Active Directory Address Book was selected in Step 4a, the LDAP Address Book must be configured in the next few steps. With this option, contact data is dynamically read from an outside source each time it is accessed. No importing or synchronization is necessary. Supported databases include Active Directory, Microsoft Exchange, Lotus Notes, Sun ONE, and Novell eDirectory.

This page requires information about your LDAP source. Please consult with your system or LDAP administrator for more information.

## LDAP Server Name

Enter the full domain name of the machine hosting the contact database server.

### NOTE FOR MICROSOFT USERS

If Exchange and Active Directory are on different servers, the Active Directory Server name should be entered. The Exchange/Active Directory administrator should be able to provide this name. It will usually be of the form: *machinedomain.internetdomain.com*

## LDAP Server Port

This is the port that **FootPrints** uses to communicate with the LDAP contact database to retrieve user contact information. In most cases, the default value of 389 should be used. However, when a machine has more than one directory, a different port number may be used. If port 389 is already in use, administrators often set port 390 as the LDAP port.

## LDAP Search Base for Directory Entries

LDAP (including MS Exchange/Active Directory) stores its data in a tree structure. To enable **FootPrints** to retrieve user information, a search base specifying where to search in the tree and in what order must be specified here. The search base is formed by adding names of the root and each subsequent branch of the tree until reaching the point where a search should commence.

The search base should be the branch of the tree closest to the data being searched. In most instances, all data being sought is in one branch of the LDAP tree. For instance, if the root of the LDAP Directory tree is `o=server.com` and the next branch to be taken was `ou=People`, which contains all the directory information, the search base is: `ou=People,o=server.com`

The form of the search base is different for Microsoft Exchange 5.5, Exchange 2000, and other LDAP servers. Specific instructions are given below for help in finding the correct search base for two of the most popular LDAP-compliant contact databases: Microsoft Exchange 5.5 and Microsoft Active Directory (2000). For other databases, such as Sun ONE Directory Server, Lotus Notes, and Novell Directory Services, please refer to the product documentation for that server, or contact Numara Software Support for help.

### NOTE

If linking to Microsoft Exchange/Active Directory, contacts must reside directly in Exchange/Active Directory as a contact record or user. Contact records that reside in Public Folders are not supported.

## Microsoft Exchange 2000/Active Directory

Exchange 2000/Active Directory usually has a search base beginning with `cn=Users`. For Windows 2000 and later releases using Active Directory, read the value for the following key:

1. On the server where Exchange or Active Directory is installed, select Start | Run from the Start Menu.
2. Enter `regedit` or `regedt32`, and then click Open.
3. Browse to the following key:

`HKEY_LOCAL_MACHINE/System/CurrentControlSet/Services/NTDS/Parameters/Root Domain`

4. Take the value in the above key and create your search base by starting with `cn=Users` and continuing by adding the key found above, separated by a comma. For example, if the value found is `DC=Ntdomain,DC=internetName,DC=com`, you would try:

`cn=Users,DC=NTdomain,DC=internetName,DC=com`

#### NOTE

Spacing, punctuation, and capitalization must be exact for a search base to work correctly. For instance, if one of the values in your search base has spaces and/or punctuation (e.g., `o=My Company, Inc.`), you must place the value in quotation marks (e.g., `o="My Company, Inc."`) and make sure that the spacing, punctuation, and capitalization are correct.

## Microsoft Exchange 5.5

Exchange 5.5 usually has a search base beginning with `cn=Recipients`. The search base can be determined by reading the registry. To find the full search base:

1. On the server where Exchange is installed, select **Start | Run from the Start Menu**.
2. Enter `regedit` or `regedt32`, and then click **Open**.
3. Browse to the following key:  
`HKEY_LOCAL_MACHINE/System/CurrentControlSet/Services/MSExchangeCCMC/Parameters/SiteDN`
4. Take the value in the above key and create your search base by starting with `cn=Recipients` and continuing by adding each key starting with the last (keys are separated by slashes (/)) and adding the last remaining key, separating each new key added with a comma. For example, if you see the following `"/o=company/ou=organization"` you would try as your search base:

`cn=Recipients,ou=organization,o=company`

The parameters for the search base are listed in reverse order from what is displayed in Exchange and commas separate the records rather than forward slashes. See your Exchange administrator if there is any difficulty.

#### NOTE

Spacing, punctuation, and capitalization must be exact for a search base to work correctly. For instance, if one of the values in your search base has spaces and/or punctuation (e.g., `o=My Company, Inc.`), you must place the value in quotation marks (e.g., `o="My Company, Inc."`) and make sure that the spacing, punctuation, and capitalization are correct.

## Last Name of Any Person Known to be in the Directory

Enter the last name (surname) of a contact in the Exchange directory. This is the name that **FootPrints** uses to test the connection to your LDAP server.

## Distinguished Name (Optional)

Some LDAP servers allow an anonymous login. In these cases, no distinguished name and password are needed; however, if your server requires an authenticated bind of a user to access the directory, you should enter distinguished name and password of the administrator user here. Specifying the distinguished name and password can also improve performance in searching and retrieving data from the LDAP server.

The distinguished name of the binding user can be retrieved from your LDAP Administrator or can be found using the techniques discussed above for the LDAP Search Base for Directory Entries. The distinguished name to use for binding is generally `cn=userid` (where `userid` is the ID

for the account used for binding) followed by a comma and then the search base. For example, if the User ID is Administrator:

- For **Exchange 2000**, if the search base is:  
`cn=Users,DC=NTdomain,DC=internetName,DC=com`  
 then the distinguished name is:  
`cn=Administrator,cn=Users, DC=NTdomain,DC=internetName,DC=com`
- For **Exchange 5.5**, if the search base is:  
`cn=Recipients,ou=organization,o=company`  
 then the distinguished name is:  
`cn=Administrator,cn=Recipients,ou=organization,o=company`

Be sure to leave all information of the user in the distinguished name. Do not omit such information as a CN or UID as you would with a search base. Leave blank if binding anonymously.

#### NOTE

Exchange 5.5 usually allows anonymous binding, while Exchange 2000 normally does not support anonymous binding. If you have Exchange 2000, you probably need to fill in the distinguished name and password.

## Password (Optional)

Place the password of the binding user here. This is the password of the administrator specified in the distinguished name above. Leave this blank if you are binding anonymously.

After all of the information is entered, click Next. The Wizard attempts to connect to your Exchange/LDAP/Active Directory server and search for the contact specified above using the search base and other information entered. If the connection is successful, the Address Book Field Mapping page is displayed. If the Wizard is not able to connect to your LDAP server, an error is displayed or the browser times out. Please contact your LDAP administrator or Numara Software Support for assistance.

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## Workspace Wizard Step 4c–Exchange/Active Directory Field Mapping

If the test to connect to the Exchange/Active Directory server is successful, the Field Mapping page is displayed. On this page, you can map attributes from your Exchange/Active Directory server to the FootPrints Address Book.

- **Available LDAP/Exchange Attributes**—A list of available Exchange/Active Directory Attributes is in the LDAP Attribute drop-down box. These are attributes found on the Exchange/Active Directory server based upon the search base provided in your LDAP configuration. To see an explanation of the most common Exchange/Active Directory attributes, click the small Help link above the attribute list.
- **FootPrints Field Names**—The right side of the page contains a list of some default fields. All of the fields in the Address Book schema for the template are highlighted. When one of the field names is highlighted and then Edit is clicked, the LDAP Attribute drop-down box is populated with either a recommended name or the name of the Exchange/Active Directory attribute. Regardless of what appears in the box, you can change the name of

the field. In addition, the Field Type contains a recommended FootPrints field type, which can also be changed. You cannot use the same attribute for more than one field.

1. For each field, select an available Exchange/Active Directory attribute from the drop-down.
2. If there is no corresponding attribute for the field, select Delete. This deletes the field from the Address Book in FootPrints.
3. Although some Exchange/Active Directory attributes are obvious in how they relate to the FootPrints Address Book fields, others are not. The Exchange/Active Directory administrator should assist in mapping attributes to FootPrints Address Book fields.

On this screen, any additional changes desired can be made to the Exchange/Active Directory Address Book fields.

Once you have completed changes in name or field type, click Add Field to send the field to the **FootPrints** Fields box.

- **FootPrints Fields**—The FootPrints Fields box contains all fields currently selected.
- **Primary Key**—The Primary Key is a unique identifier for each Contact in your Address Book. If the Customer Self-service feature is used, it is the ID that Customers use to log into FootPrints, along with a password. This field should be both present and unique to all Contacts. User ID is the recommended field and also the default for all templates.
- **Organizational Unit**—The Organizational Unit is used to organize Contacts in the Address Book. Examples include Department, Business Unit, or Company. It is an optional property. If an Organizational Unit is selected, the Contacts in the Address Book are grouped by that field.

**To re-order the fields:**

1. Select a field in the dialog box (it will be highlighted in blue).
2. Drag-and-drop fields to move them up and down in the list.
3. Continue to re-order the fields as desired. This is the order in which they are displayed in the Address Book.

**To delete a field:**

1. Select the field in the dialog box (it will be highlighted in blue).
2. Click Delete. The field is removed from the dialog and is no longer included in the Address Book.

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## Workspace Wizard Step 5—Email

**FootPrints** can be configured to work with your email server to both send email notification to users about their Issues and to process incoming email submissions for users. The basic email options for your workspace are configured in this step. Additional options are available on the administration pages within **FootPrints**.

1. **Email Notification - When to Send Mail**—**FootPrints** can automatically send email notification to users when Issues are created and edited. Separate rules can be set for both Assignees (Agents assigned to Issues) and Customers (end users who report Issues). For example, you may want email notification sent to the Agent assigned to an Issue for all statuses, but you may only want email notification to go to the Customer who submitted the Issue when it is opened, and when it is closed.

A default template is used for email notifications from **FootPrints**. To change the template, select **Administration | Workspace | Mail Preferences | Contents of Mail** from the **FootPrints** Toolbar after completing the Wizard.

For each of the categories, the options are:

- **Never send mail:** If this option is chosen, no notification email is sent.
- **Always send mail for every creation/edit:** Email is sent to all assignees for each change to an Issue (default).
- **Send mail only for Issues matching the following criteria:**
  - **Priority**—Notification is only sent to the assignees/cc's when the Issue's priority falls into the range chosen here.
  - **Status**—Notification is only sent to the assignees/cc's when the Issue's status matches one of the statuses defined here. Multiple statuses can be selected (Windows users must hold down the CTRL key to highlight multiple statuses).

#### NOTE

The email notification rules selected here can be manually overridden for a particular Issue by the Agent assigned to that Issue. These are simply defaults.

2. **Request Creation**—An email can be sent automatically to one or more internal users when a new Request is submitted by a Customer. This is in addition to notification sent to Assignees as defined above. If selected, you receive an email each time a Customer submits a new Request to **FootPrints** via the web or email. This option can be changed later under **Administration | Workspace | Mail Preferences** after additional users are added to the system.
3. **FootPrints Incoming Email Management**—**FootPrints** can process incoming email requests from users. An email account must be created on the email server for the exclusive use of **FootPrints** (e.g., *support@myserver.com*). All email sent to this account is processed by **FootPrints** and registered as new Issues within the system or updates to existing issues.

#### NOTE

Do not enter your own email address in this section.

To enable this feature:

- a. Select the mail retrieval protocol used by your email server. The choices are:
  - **IMAP** (Internet Message Access Protocol)
  - **POP** (Post Office Protocol)

**To skip this step:** If you do not wish to configure incoming email, select **SKIP SETUP** (this is the default). You can enable incoming email at a later time by selecting **Administration | System | Email | Incoming Email Setup** from the **FootPrints** Toolbar.

- b. Enter the POP/IMAP mail server name for your organization, e.g., *mail.myserver.com* or *123.33.44.55*. This is pre-filled with the name entered during installation.
- c. Enter the email account name of the account you have created on your mail server for the exclusive use of **FootPrints**, e.g., *support*.

#### NOTE

Do not enter your own email address in this section. All mail sent to the account entered here is processed by **FootPrints**. If you enter your own email address, you will no longer receive email.

- d. Enter the password for the email account (this must be entered twice).

- e. Enter the default reply address for this account. We recommend entering the full email address of the account specified above, e.g., *support@myserver.com*.
- f. Enter the From name for this account. This is the name that populates the From line of email notification mail headers, e.g., FootPrints or Widget Support. It is used to respond to **FootPrints** email notification, which can be threaded back to the originating Issue.

When you have completed configuration of email, click **Complete the Wizard** to finish the configuration of the workspace.

## Workspace Wizard Step 6–Other Options

This step allows you to configure some system-wide options for **FootPrints**. These options apply to the first workspace and all subsequent workspaces, although most can be changed per workspace or user, as noted.

### NOTE

This step is only available the first time you setup **FootPrints**.

- **Cookies**—Cookies allow FootPrints to remember a user's ID and password. If this option is enabled, all users will see a checkbox on the login screen that, if checked, will bypass the login screen when they access FootPrints with their local browser. This cookie will contain their FootPrints ID and a unique cookie ID, which will expire in 3 years. This option applies to the whole system.

### NOTE

Because this option poses a security risk (anyone can log in as that user if they have access to the user's machine), do not enable Cookies if security is an issue for your organization. Also, if many of your users access **FootPrints** from public or shared terminals, do not use Cookies.

- **Record Names**—The terms entered here are used throughout FootPrints. Terms can be specified for both Issue database records, and the Contact records in the Address Book. These names can also be changed per workspace.
- **Date Format**—This option determines how dates are represented throughout FootPrints. Users can also set a personal preference for dates. The options are:
  - American—MM/DD/YYYY
  - European—DD/MM/YYYY
  - ISO—YYYY/MM/DD
- **Logo**—This is the logo that will appear on the FootPrints login screen and in the top-left corner of each screen. You can keep the FootPrints logo, or upload your own logo. The image's size should not be larger than 180x68 pixels.

To upload your logo:

1. Click the Attach File button.
2. Browse your local machine or network drive for the logo. The image's size should not be larger than 180x68 pixels (a .GIF file is recommended).
3. When you have selected the file, click Open. The file is copied to FootPrints. A message that the file was copied successfully is shown in the attachment box on the screen.
4. The logo, when displayed in the top-left corner in FootPrints, can optionally be a hypertext link. You can select Yes or No for this option.

5. If Yes is selected, enter a URL for the hypertext link.

By default, when you have completed the Workspace Setup, the Add Agents setup page is displayed, allowing you to add agents to your newly created workspace immediately. If you selected the FootPrints Customer Service template, you are given the option to refresh to either the Customer Service Portal setup page or to the Add Agents page.

You have completed the Workspace Setup Wizard! Click the **Complete** button to finish. You are now on the **FootPrints** Homepage. Go on to the next section, [Configuration and Administration](#), to learn more about **FootPrints** configuration and administration, or browse the Online Help for other topics. You can return to the Help at any time by selecting **Help**.

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## Workspace Wizard for IT Service Management

### Step 1-Workspace Details

For IT Service Management, enter names for the following workspaces in the appropriate fields:

- the Incident Workspace, for tracking Incidents
- the Problem Workspace, for tracking Problems
- the Change and Release Management Workspace, which will provide change management, and
- the Service Portfolio Workspace, , which creates a workspace for proposing and approving items to be included in the Service Catalog.

### Step 2-Select Address Book

In this step, you can select the type of Address Book to be used for your workspace. The Address Book is a place to keep the contact information for your end users, whether they are employees, remote users, or Customers. The data can be kept in **FootPrints** or can be dynamically read from an outside source, such as Microsoft Exchange, Active Directory, or other LDAP source. The LDAP option is only available in the evaluation software or if you purchased the Dynamic Address Book Link add-on module with **FootPrints**.

#### NOTE

If you purchased the Dynamic SQL Address Book add-on, you must configure the Address Book after you've run the Workspace Wizard. Choose FootPrints Address Book, which is converted later. Refer to [Dynamic SQL Address Book Link](#) in the *Address Book Administration* chapter.

To select an Address Book:

- **Address Book Name**—Enter the name for the Address Book, for example, Employees.
- **Address Book Type** (only requested if you are licensed for Dynamic LDAP Address Book Link)—Select the type of Address Book:
  - **New FootPrints Address Book**—If this is selected, the contact data is kept within the **FootPrints** database. Once the Wizard is complete, you can import contact records from a comma-delimited text file. Please refer to the topic on [Importing Data into the Address Book](#) for more information.
  - **Link to an existing Address Book**—This option allows you to use an existing Address Book for the workspace.

## Step 3

- Use Template—If you select the Use Template radio button, you must select which CMDB template to use from the drop-down field. When you select a template from the drop-down field, the schema for that template is displayed at the bottom of the page. Drop-down options are:
  - ITIL CMDB—This template contains configuration item types, attributes and relationships recommended as ITIL best practices.
  - Numara Asset Management Platform—This template contains configuration item types, attributes and relationships drawn from the Numara Asset Management Platform.
  - All Assets—This template contains configuration item types, all attributes and relationships. With this template, you would start off with all possible attributes and relationships and then remove the ones you do not want to use.
  - Inventory—This templates contains configuration item types, attributes and relationships relating to facilities management.
- Use Existing CMDB Configuration—If you select the Use Existing CMDB Configuration radio button, a drop-down field containing existing CMDBs is displayed. Select the CMDB you want to copy from the field. When you select a CMDB from the drop-down field, the schema for that CMDB is displayed at the bottom of the page.
- Create on Your Own—If you select the Create on Your Own radio button, CMDB is enabled but no configuration item types, attributes, or relationships are created for you. Instead, you must create all of the configuration item types, attributes, and relationships on your own.

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# Chapter 7: Populate the Address Book

## Populate the Address Book

A **FootPrints** Address Book can be populated with user contact data in a variety of ways:

- By Agents—Contact information can be entered manually by Agents and Administrators in Address Book, or on the "Create Issue" screen.
- By Customers—Customers can enter their own contact information the first time they submit a Request to the system via the Customer Self-Service web interface.
- Imported—Contacts can be imported from a comma-delimited file (discussed below).
- Dynamically—Contact data can be retrieved dynamically from an external database that is either LDAP-compliant (such as Active Directory, Lotus Domino, SunONE or Novell eDirectory) or SQL-based (i.e. SQL Server, MySQL, Access, etc.) using the FootPrints Dynamic LDAP Address Book Link or the FootPrints Dynamic SQL Address Book link (available as add-on modules).

The FootPrints Dynamic Address Book Link feature retrieves contact data dynamically from any LDAP-compliant contact database for the Address Book. The Lightweight Directory Access Protocol (LDAP) is the standard Internet directory protocol. Examples of an LDAP-compliant database include Microsoft Active Directory, Sun ONE Directory Server, and Novell Directory Services.

The FootPrints Dynamic SQL Address Book Link feature retrieves contact data dynamically from supported contact databases for the Address Book via ODBC or via Perl DBI. Open DataBase Connectivity, or ODBC, is a standard relational database access method developed by Microsoft Corporation. The goal of ODBC is to make it possible to access any data from any application, regardless of which database management system (DBMS) is handling the data. FootPrints harnesses this power by providing access to existing ODBC-compliant contact data without requiring that the records be loaded into a separate FootPrints Address Book. The supported ODBC-compliant databases include Oracle, SQL Server, Access, MySQL, DB2, PostgreSQL and Sybase. These are potentially all available on Windows installations, so long as an appropriate driver and System DSN are configured on the machine. For Unix installations, the appropriate DBD must be built on the FootPrints server to access that particular database type.

This section covers the three administrative methods: data import, the Dynamic LDAP Address Book Link, and Dynamic SQL Address Book Link. Refer to Using the Address Book and Customer Self-Service for more information on entering contacts manually.

- Instructions on Importing Contacts
- Instructions for Dynamic LDAP Address Book Link
- Instructions for Dynamic SQL Address Book Link

## Importing Address Book Contact Data

Customer contact data can be imported into the **FootPrints** Address Book from a flat text file. This allows you to start using **FootPrints** with existing contact data from another database. Internal users can look customers up in the **FootPrints** Address Book when logging an Issue. Customers need only enter an email address or other primary key and **FootPrints** completes the rest of the contact data. The data must first be exported from the existing contact database and formatted as described below. The import can be done by the Workspace or System Administrator, either on the Workspace Administration page under Address Book | Administration | Load Data, or under Administration in the Address Book itself.

### NOTE

**FootPrints** also supports the importing of Issue data. This Issue data must be loaded separately from Address Book data. It is recommended that Address Book data be imported first. Instructions on importing Issue data and how to link those Issues to imported Address Book contacts can be found in the chapter on [System Administration](#).

Topics in the section:

- Load External Data into the Address Book
- Creating the Data File
- Optional Features for Address Book Imports


### Load External Data into the Address Book







### NOTE

This option is not available for any LDAP- or SQL-enabled Address Book. It is only for use with the **FootPrints** Address Book.

Before you begin, the Address Book fields must first be created to match the fields in the data to be imported. Also, the contact data must be placed into a single, flat text file in CSV (Comma Separated Value) format. Details on creating this text file can be found below. Previous releases permitted data to be in either CSV or Field-delimited formats; as of version 8.0 and higher, only the CSV file format is supported.

To load data interactively from the web screens:

6. Select Administration | Address Book | Load Data.
7. Complete the appropriate fields, which are explained as follows:
  - Select Time to Load Contact Information section—The data can be imported immediately, or can be scheduled for a future time. If your import file is large (e.g., more than one thousand contacts) and the **FootPrints** server is in use, we recommend scheduling the import for a time when the server is not being accessed by users.
  - Please browse for the data import file ...—Click the  button to browse your local machine or network drives for the file. A link is also provided to review the schema of the data.

- Data encoding—Select the type of data encoding to use for the import file. Options are server default and UTF-8.
    - Server Default - If you're planning to view the csv file in Excel or other non-UTF-8-aware application, or if you are loading data saved from Excel, you should pick the "server default" choice.
    - UTF-8 - If you are sure that the application used to view the data in the .csv file can handle UTF-8 encoded data, select "UTF-8".
  - Userid or full name of an agent...—There are two different methods for indicating the default submitter of the contact:
    - If no submitter is indicated, the user ID of the administrator performing the data import becomes the submitter for all Issues being imported.
    - Enter a valid one-word FootPrints ID in the field provided. This user becomes the submitter for all of the Issues being imported.
8. After confirming that everything is correct, click  GO at the bottom of the screen to load the data. A new Load External Data page is displayed. The new page displays information about the data to be loaded at the top of the page.
  9. Complete the appropriate fields, which are explained as follows:
    - You may use the parameters in a built-in Field-Mapping List...—On the left side of the schema section of the page, a list of built-in and saved field mappings is displayed (if you have saved mappings previously). To use a saved or built-in mapping, select the mapping from the list and then click the  Use Selected List button. The fields for mapping will be populated from the selected list. To delete a saved list, select the field and then click the  Delete Selected List button.
    - Check here if your Load File...—The checkbox lets you indicate if your import file has a Heading line. Check the box as appropriate. If the box is checked, the first line of the import file will not be loaded as data.
    -  Save Field-Mapping List button—The Save Field-Mapping List button saves the list of mappings you create. When you save the mapping, you are prompted for a name for the saved field mapping. When the save completes, the name is displayed in the list on the left side of the page.
    - Field Mapping—Map the fields in the load file to Address Book fields by selecting the appropriate load file fields from the drop-downs. To skip a field mapping, select Do Not Import from the drop-down. If you select Do Not Import, no data is entered into that field. You can also select Blank Field #1 to leave fields blank.
    - Check here to create/update Master Contact Records with values from your import file...—Check the box to ensure that Master Contact Records are updated for all Address Book entries with information from the import file.
  10. If you are not using a saved mapping, after confirming that everything is correct, click the  Save Field-Mapping List button if you wish to save the mapping for re-use at a later time.
  11. Click the  GO button at the bottom of the page to import the data.
  12. The data is validated. If the data is good, the import proceeds. It takes some time if the import file is large, so be patient. If bad data is present, an error message is displayed with the line numbers of contacts containing errors.
  13. If you scheduled the import to occur in the future, the import does not occur until that time. To remove a scheduled import, click the link to Review a List of Address Book Load events. Imports that have already started cannot be removed.

## Load Data As Batch Process

FootPrints also permits data to be imported into the Address Book on a batch basis without use of the web screens. You must prepare the Upload file as described in the 'Creating the Data File' section. As explained there, Batch Upload files receive no error checking – they are loaded as-is, so it is essential that your Upload file be properly setup and that it contain no errors.

The process is run on a 'command line' basis.

For loading web queue of Address Book imports the command is:

```
perl MRloadBackgroundABData.pl
```

For importing a .csv file to the Address Book, the command:

```
perl MRloadBackgroundABData.pl [args]
```

where [args] are:

- -abnumber=<address book number> (address book number for target address book)
- -file=<path to csv file> (file contains csv in correct format for FootPrints Address Book import)
- -csvEncoding=<'local' or 'utf8'> (optional; defaults to 'local') (applies only to utf8 installations of FootPrints and should be set to 'utf8' if the Upload file is in utf8)
- -updateMasterContact=1 (optional; set to 1 if updating master contact records from imported contacts)
- -updateContactsFromMasterContact=1 (optional; set to 1 if updating contacts from the updated master contact)
- -submitter=<address book submitter> (optional; defaults to 'ABLOAD' and will affect only ability to delete or edit depending on role. This can be set by contact in the file.)

The default is to not update master contact records and to not validate fields in the background except to require that the primary key value be set.

## Related Topics

- Creating the Data File
- Optional Features for Address Book Imports

## Creating the Address Book Data File

To import data into a **FootPrints** Address Book, the data must be contained in a flat text file. CSV files can wrap on multiple lines, with double-quotes, and with commas as the separator. The fields must be in the correct order and data (or a placeholder for optional fields) must be present for each field as outlined below. To create the text file:

1. The system new line separator (i.e., the result of pressing "Enter", "Return", "^M", etc.) should appear at the end of each contact.
2. The fields for each contact must be separated by a comma ",".
3. The actual field names are not specified in the file (i.e., Last Name, First Name, etc.) Instead, the data must be in the order specified in the Address Book Schema. The Schema can be viewed by clicking the Review Schema link on the Load Address Book page. The pop-up window shows you the order of the fields that you must use for your file.
4. As an example, suppose the Address Book contains six Address Book fields, "Last Name," "First Name," "Email address", "Company", "Phone" and "Fax". The Schema would look like this:

(1) Last Name (Text)	(2) First Name (Text)
(3) Email address (Text)	(4) Company (Text)
(5) Phone (Text)	(6) Fax (Text)

*Sample Address Book schema*

Therefore, one line in the text file using the CSV format might look like this:

**Smith,Bob,bsmith@widget.com,Widget,212-555-1234,212-555-3232**

where **Smith** is the Last Name, **Bob** is the First Name, **bsmith@widget.com** is the Email address, the Company name is **Widget**, the phone number is **212-555-1234**, and the fax number is **212-555-3232**.

**NOTE**

The CHECKBOX data type can be loaded. The value for CHECKED is 'on'; for unchecked use either a null field or 'off'.

**Related Topics:**

- Load External Data into the Address Book
- Optional Features for Address Book Imports

**Optional Features**

- Empty fields—All fields in the Schema must be delimited for each Issue. However, optional fields need not contain data. An empty field should be indicated by placing nothing between the field delimiters (commas) or at the end of the line. Suppose the previous example has no value for the "Phone" field:

**Smith=Bob=bsmith@widget.com=Widget==212-555-3232**

Notice the two equals signs, "=", where the previous example has "=212-555-1234".

Example for a CSV file:

**Smith,Bob,bsmith@widget.com,Widget,,212-555-3232**

**NOTE**

Mandatory fields must contain data, or the import fails, with the exception described below under **Field Count Test**. Mandatory fields are indicated in red in the Schema. To import data with missing information, temporarily make the fields optional on the Edit Address Book Fields page. After the import is complete, change the fields back to mandatory. Optional fields must still be accounted for with empty delimiters.

- Field Count Test—By default, each field must be accounted for for each record in the load file. During the data validation step, if any records do not have the correct number of fields (including optional fields accounted for by commas or other delimiter as described above), the load ends. There may be cases where one or more of the last fields in the Schema are optional and there is no data present in the load file, nor are there empty delimiters to represent those optional fields.

For example, if the load file was created in Microsoft Excel, the CSV file created by Excel does not provide comma characters for null fields at the end of the data line. For this case, we have provided an option to skip the Field Count Test. If you select this option, you can submit a load file without the trailing commas normally required for optional, empty fields. By skipping this test, there is a risk that your data may not be loaded properly, so please be careful in preparing your data.

Here is an example of an acceptable record if the Field Count Test is skipped, using the Schema above:

Smith,Bob,bsmith@widget.com,Widget

#### NOTE

Notice that the trailing commas for the two final optional fields (Phone and Fax) are missing. When a CSV file is created by Excel, commas are never included for empty trailing columns, which are normally required by **FootPrints**. By skipping the Field Count Test, a CSV file created from Excel can be used without editing it to add the trailing commas.

- **Wrapped text (embedded new lines)**—Because the text file containing the data to be loaded represents each record in a single line, the records cannot include new line characters.
- **Number fields**—For Integer or Real Number fields, all values must be numeric.
- **Date fields**—Data for Date fields must be in the ISO date format, YYYY-MM-DD, e.g., 2003-09-22, even if your Date Format system or user option is set to an alternate format, such as American or European.
- **Date/Time fields**—Data for Date/Time fields must be in the ISO date format, YYYY-MM-DD HH:MM:SS, e.g., 2003-09-22 11:22:35, even if your Date Format system or user option is set to an alternate format, such as American or European.
- **Drop-down Choice Fields**—Choice field data is not verified. It is your responsibility to ensure that data for such fields matches the list of values you established when you created the choice field.
- **Multi-select Fields**—Multiple values separated by semi-colons can be imported for a multi-select field, e.g., choice1;choice2;choice3
- **Comments**—You may make your data file easier to read by using blank lines and comment lines beginning with a # sign.
- **Deleted fields**—An Address Book may have had certain fields deleted over time. These deleted fields are not displayed in the Schema; they must be ignored in the text file.

#### Related Topics

- Load External Data into the Address Book
- Creating the Data File

## Dynamic Address Book Link for LDAP

The **FootPrints** Dynamic Address Book Link feature retrieves contact data dynamically from any LDAP-compliant contact database for the Address Book. The Lightweight Directory Access Protocol (LDAP) is the standard Internet directory protocol. Examples of an LDAP-compliant database include Microsoft Exchange 5.x/2000, Sun ONE Directory Server, and Novell Directory Services. If this option is used, **FootPrints** dynamically accesses the outside database for contact information in the Address Book.

#### NOTE

This feature is an optional add-on module and must be activated on your **FootPrints** server for the option to appear. Please contact your Numara Software salesperson or reseller if you would like to purchase this option.

**This section contains the following topics:**

- Selecting an LDAP Directory for the Address Book
  - Creating a New Workspace
  - Convert an Existing Address Book
- LDAP Address Book Configuration
  - Name for LDAP Address Book
  - LDAP Server Name
  - LDAP Server Port
  - LDAP Search Base for Directory Entries
  - Anonymous Binding or Using Distinguished Name and Password
- LDAP Address Book Field Mapping
  - Available LDAP/Exchange Attributes
  - FootPrints Field Names to Map to LDAP/Exchange
- LDAP Field Setup
  - LDAP Attributes
  - Displayed Name and Field Type
  - FootPrints Fields
  - Customer Primary Key Select
  - Organizational Unit
- Using an LDAP Address Book
  - Limitations

**NOTE**

Throughout this section, the names “LDAP Address Book” and “LDAP Directory” are used to refer to any LDAP-compliant contact database, including Microsoft Exchange.

**Selecting an LDAP Directory for the Address Book**

There are two ways to select an LDAP Directory for an Address Book:

- Create a new Workspace
- Convert an existing Address Book

These two options are discussed below.

**Create a New Workspace**

New workspaces are created by selecting to the Administration | System | Workspaces link on the **FootPrints** Toolbar. Only the System Administrator has access to this option.

The instructions below refer specifically to linking to an LDAP Address Book when creating a new workspace. For complete instructions on creating Workspaces, please refer to the section on [Workspaces](#) in the chapter on System Administration.

There are three options for creating a new workspace:

- **Use the Wizard to create my workspace**—The System Administrator has the option to create a new **FootPrints** Address Book, Link to an existing Address Book, or link to an LDAP Address Book.

- **Create the workspace on my own**—The System Administrator has the option to create a new **FootPrints** Address Book, link to an existing Address Book, or link to an LDAP Address Book.
- **Use an existing workspace configuration**—Only the existing Address Book for the originating the workspace or a new **FootPrints** Address Book is allowed. If the Address Book for the originating workspace is an LDAP one, the new workspace links to the same LDAP database using the same fields.

In options 1 and 2, select link to an LDAP Address Book and the next page displayed (after the other workspace options are selected) is the LDAP Configuration page. In option 3, to link to an LDAP Address Book, the options are: a. select **FootPrints** Address Book and then convert the Address Book later (see below) or b. convert the Address Book associated with the originating workspace to an LDAP Address Book (also see below).

### Convert an Existing Address Book

An existing FootPrints Address Book can be converted to an LDAP Address Book at any time. This is done from the Address Book Administration Edit Options page under Change to LDAP/Active Directory Address Book. Click the radio button for Change to LDAP, enter your password, and click **GO**. The LDAP Configuration page is displayed.

When converting from a **FootPrints** Address Book to an LDAP Address Book, the references between Issues and address contacts may be affected. Contacts are linked to Issues based on the primary key in the Address Book. In order to ease the transition, you can map existing Address Book fields to LDAP field attributes. Although not all fields map directly to the LDAP attributes, for those that do map directly, you can search the Address Book for a particular contact and any existing Issues with contact data that matches the primary key in the new LDAP Address Book are associated with that contact.

### Dynamic Address Book Link (LDAP) Address Book Configuration

For FootPrints to access an outside contact database (e.g., Active Directory, Lotus Domino Server, etc.) for user contact information, the information described below must be entered. Please consult with your System Administrator if you need to gather some of this information. If the LDAP Address Book has been converted from a FootPrints Address Book, it may be converted back by checking a checkbox that appears at the top of the page.

#### Name for Address Book

This is an arbitrary name used to identify the Address Book in **FootPrints**, e.g., Widget Company Users. The field in the wizard is pre-filled with the name entered during installation, but it can be changed here. The name of the Address Book is visible to users in the Address Book.

#### LDAP Server Name

Enter the full domain name of the machine hosting the contact database server.

#### LDAP Server Port

This is the port that FootPrints uses to communicate with the LDAP contact database to retrieve user contact information. In most cases, the default value of 389 should be used. However, when a machine has more than one directory, a different port number may be used. Often when port 389 has already been used, administrators set port 390 as the LDAP port. An additional option for users beside the standard LDAP port (389) is the Global Catalog port for Active Directory (3268). This enables LDAP to access additional users from trusted domains using a set of common LDAP attributes. The typical scenario in which this would be used is when a large organization has a number of offices that each maintains an Active Directory for its local users. Using the standard port, you might be able to retrieve only a local office's users. Using the Global Catalog port, you can often retrieve everyone, assuming the search base is set correctly.

## LDAP Search Base for Directory Entries

LDAP (including Active Directory) stores its data in a tree structure. To enable FootPrints to retrieve user information, a search base specifying where to search in the tree, and in what order, must be specified here. The search base is formed by adding names of the root and each subsequent branch of the tree until you reach the point where a search should commence. The search base should be the branch of the tree closest to the data being searched. In most instances, all data being sought are in one branch of the LDAP tree. For instance, if the root of the LDAP Directory tree is `dc=server, dc=com` and the next branch to be taken is `ou=Users`, which contains all the directory information, the search base would be: `ou=Users, dc=server, dc=com`

If users exist in multiple search bases, place each on a separate line. They will be searched in order for authentication from top to bottom.

The form of the search base is different for various LDAP servers. Please speak to your LDAP administrator, refer to the product documentation for that server or contact Numara Software support for help.

### NOTE

Spacing, punctuation, and capitalization must be exact for a search base to work correctly. For instance, if one of the values in your search base has spaces and/or punctuation (e.g., `o=My Company, Inc.`), you must place the value in quotation marks (i.e., `o="My Company, Inc."`) and make sure that the spacing, punctuation, and capitalization are correct.

## Last Name of Any Person Known to be in the Directory

Enter the last name (surname) of a contact in the LDAP directory. This is the name that FootPrints uses to test the connection to your LDAP server. The name should contain values for all the LDAP attributes (fields) you plan to use.

## Distinguished Name (Optional)

Some LDAP servers allow an anonymous login. In these cases, a distinguished name and password are needed; however, if your server requires an authenticated bind of a user to access the directory, you should enter the distinguished name and password of the Administrator user here. Specifying the distinguished name and password can also improve performance in searching and retrieving data from the LDAP server.

The distinguished name of the binding user can be obtained from the LDAP Administrator or can be found using the techniques discussed above for the LDAP Search Base. The distinguished name to use for binding is generally `cn=userid` (where `userid` is the ID for the account used for binding) followed by a comma and then the search base. For example, if the User ID is Administrator:

- **For Active Directory:**

If the search base is: `cn=Recipients,ou=organization,o=company`

Then the distinguished name will be:

`cn=Administrator,cn=Recipients,ou=organization,o=company`

Active Directory also provides some alternatives in lieu of a distinguished name. For example, if you know the domain and `userid` of a user, you could place in the distinguished name field: `DOMAIN\userid`

An additional alternative for Active Directory is to use the `userprincipalname` of a user, which is typically of the form: `userid@domain.com`

- **For Exchange 2000:**

If the search base is: `cn=Users, DC=NTdomain,DC=internetName,DC=com`

Then the distinguished name will be: `cn=Administrator,cn=Users, DC=NTdomain,DC=internetName,DC=com`


Be sure to leave all information of the user in the distinguished name. Do not omit such information as a CN or UID as you would with a search base. Leave blank if binding anonymously.

#### NOTE

Active Directory normally does not support anonymous binding. If you have Active Directory, you may need to fill in the distinguished name and password.

### Password (Optional)

Place the password of the binding user here. This is the password of the Administrator specified in the distinguished name above. Leave blank if binding anonymously.

After all of the information is entered, click  **GO**. **FootPrints** attempts to connect to your LDAP/Active Directory server and search for the contact specified above using the search base and other information entered. If you are creating a new Address Book, if the connection is successful then the configuration is complete. If you are converting an existing Address Book to LDAP and the connection is successful, the Address Book Field Mapping page is displayed. If **FootPrints** is not able to connect to your LDAP server, an error is displayed or the browser times out. You can contact your LDAP administrator or Numara Software Support\_ if you need assistance.

### LDAP Address Book Field Mapping

The LDAP Address Book Field Mapping screen appears after LDAP Address Book Configuration is complete only if an existing Address Book is being converted. New Address Books do not require this step. This screen is also displayed if the LDAP configuration for an Address Book is altered.

When an LDAP Address Book configuration has been changed, the administrator can minimize the disruption to the database caused by the change. When creating new Issues, contact information is stored according to the Address Book fields selected. Were these fields to change, part of the contact information would be lost. By mapping the new LDAP Address Book fields to previously existing Address Book fields, disruption is minimized.

#### Available LDAP Attributes

A list of available LDAP Attributes is in the left column at the bottom of the page. These are attributes found on the LDAP server based upon the search base provided in your LDAP configuration. Each of these attributes is available to match to the current schema, as described below.

#### FootPrints Field Names to Map to LDAP

The second column at the bottom of the page contains a table, which contains two columns. The first column is a list of all fields in the current schema. The second column contains a drop-down select box for each of those fields. This select box allows the administrator to delete the field or to map the field to any of the LDAP attributes which were listed as available for use. Although some LDAP attributes are obvious in how they relate to the **FootPrints** fields, others are not. The LDAP administrator should assist in mapping LDAP attributes to **FootPrints** fields.

It is important that a proper mapping is made so that the contact information previously entered in the ticket entries matches the Address Book and you are required to delete or map every field.

Once all selections have been made and the  **GO** button is pressed, the Administrator enters the LDAP Field Setup page.

## LDAP Field Setup

System or Workspace Administrators can get to the LDAP Field Setup page in one of two ways:

- Following the Field Mapping page after a change in LDAP configuration.
- Selecting Administration | Address Book | Field Maintenance from the FootPrints Toolbar.

The sections on the LDAP Field Setup page should be filled in as described below.

Fields on this page are set and edited in the same fashion as the fields in the Workspace Field Maintenance page, with the exception of the LDAP Attributes field. Refer to the [Adding Fields](#) topic in the Workspace Field Maintenance section of this document for details.

### LDAP Attributes

A list of available LDAP Attributes is provided in a drop-down field. These attributes, found on the LDAP server, are based on the search base provided in your LDAP configuration. You cannot use the same attribute for more than one field. The LDAP “manager” field is available only if the address book field type is “Supervisor.”


### Using an LDAP Address Book

Once the LDAP Address Book is fully configured, the contact data in the Address Book is automatically pulled from the LDAP directory. The LDAP Address Book looks virtually the same as a **FootPrints** Address Book. LDAP Address Book data is not stored in a **FootPrints** Address Book table; it is always taken directly from the LDAP directory. However, the contact data for a particular customer, when chosen using the Select Contact button on the Create Issue or Edit Issue pages, will be saved along with the history of the Issue.

The contact data saved in an Issue is a snapshot of the data taken from the LDAP database at the time the Select Contact was performed. If the customer’s data changes at a later date (e.g., the customer’s phone number changes), it is not reflected in the history of the Issue. It will be reflected the next time that contact data is accessed from the LDAP directory.

### Limitations of LDAP Address Book

Using an LDAP directory, once properly configured, is no different than using a **FootPrints** Address Book, with the following exceptions:

- **FootPrints** permits only read access to an LDAP directory. Write access is not available in the current release.
- If a server limit is set on the number of contacts to be returned for an LDAP query and one is attempting to look at any query that would return a number of results greater than the server limit, some of the results are missing and the missing results may be randomly dispersed throughout. This most commonly appears when browsing through the entire Address Book. Any more specific search for a contact work correctly even if the contact does not appear when browsing the Address Book. To correct this problem, the number of results returned for an LDAP query can be raised on the LDAP server (Active Directory, Sun ONE Directory Server, etc.)
- The Address Book Homepage and the Select Contact page do not allow browsing using A-Z links. In addition, the Address Book Homepage does not list the first fifty contacts in the Address Book; instead, it displays the Address Book search. Because LDAP does not support browsing of contacts, and many users have large LDAP Address Books with various response times, the browsing options were removed from the interface to prevent time-outs. To find a contact, fill in one or more fields and click  GO. The non-LDAP FootPrints Address Book is not affected.

## Dynamic SQL Address Book Link

The **FootPrints** Dynamic SQL Address Book Link feature retrieves contact data dynamically from supported contact databases for the Address Book via ODBC. Open DataBase Connectivity, or ODBC, is a standard relational database access method developed by Microsoft Corporation. The goal of ODBC is to make it possible to access any data from any application, regardless of which database management system (DBMS) is handling the data. **FootPrints** harnesses this power by providing access to existing ODBC-compliant contact data without requiring that the records be loaded into a separate **FootPrints** Address Book. The supported ODBC-compliant databases include Oracle, SQL Server, Access, MySQL, and DB2.

### NOTE

If a customer process has an Access database open, **Footprints** may not be able to read that Access database until the customer process closes. If you encounter this situation, check the permissions for the folder in which the database (.mdb) file is located and make sure that the folder is enabled for read and write permissions for everyone. When the folder is enabled with read and write permissions for everyone, the database should be available to **FootPrints** and the customer process at the same time.

**FootPrints** dynamically accesses the outside database for contact information in the Address Book. This feature is an optional add-on module and must be activated on your **FootPrints** server for the option to appear. Please contact your Numara Software salesperson or reseller if you would like to purchase this option.

### NOTE

This feature is part of the Dynamic SQL Database Link add-on module and must be licensed. Please contact your salesperson for more information on obtaining a license to enable this feature.

### This section contains the following topics:

- Selecting a data source for the Address Book
  - Linking to an Existing Address Book
  - Convert an Existing Address Book
- Naming the Data Source
- Dynamic SQL Address Book Configuration
  - Linking to the Data Source
  - Selecting the table used from the Data Source
  - Data Source Table Mapping
  - Address Book Field Setup
    - Displayed Name and Field Type
    - FootPrints Fields
    - Customer Primary Key Select
    - Organizational Unit
- Using a Dynamic SQL Address Book
  - Limitations

## Selecting a Data Source for the Address Book

There are two ways to link to a data source for an Address Book:

- Create a new Workspace
- Convert an existing Address Book

These two options are discussed below.

### Create a New Workspace

New workspaces are created by selecting the Administration | System | Workspaces link on the **FootPrints** Toolbar. Only the System Administrator has access to this option.


The instructions below refer specifically to linking to an ODBC Address Book when creating a new Workspace. For complete instructions on creating Workspaces, please refer to [Workspaces](#) in the chapter on System Administration.

There are two options for creating a new workspace:

- **Create the workspace on my own**—The System Administrator can create a new **FootPrints** Address Book, link to an existing Address Book, or link to an ODBC Address Book.
- **Use an existing workspace configuration**—Only the existing Address Book for the originating Workspace or a new **FootPrints** Address Book is allowed. If the Address Book for the originating workspace is in ODBC format, the new workspace links to the same ODBC database using the same fields.

In option 1 select the Create a Dynamic SQL Address Book Link and the next page that is displayed (after the other Workspace options are selected) is the ODBC Configuration page. In option 2, if you would like to link to an ODBC Address Book, the options are: a. select **FootPrints** Address Book and then convert the Address Book later (see below), or b. convert the Address Book associated with the originating workspace to an ODBC Address Book (also see below).

### Converting an Existing Address Book

An existing **FootPrints** Address Book can be converted to a Dynamic SQL Address Book at any time. This is done from the Address Book Administration Address Book Type page. Under Select Address Book Type, click the radio button for Dynamic SQL Address Book Link (SQL Server, Oracle, MySQL or Access), enter your password, and click  **GO**. The Configure Address Book Connection to Dynamic SQL Address Book (Step 1) page is displayed. For more information about configuring the Address Book, please review Setting up a Relational Database.

When converting from a **FootPrints** Address Book to a Dynamic SQL Address Book, the references between Issues and Address contacts may be affected. Contacts are linked to Issues based on the primary key in the Address Book. In order to ease the transition, you can map existing Address Book fields to ODBC field attributes. Although not all fields map directly to the ODBC attributes, for those that do map directly you may still search the Address Book for a particular contact and any existing Issues with contact data that matches the primary key in the new ODBC Address Book is associated with that contact.

## Naming the Data Source

Data sources must be named before **FootPrints** can link to them. On Windows, ODBC data sources are configured by selecting Data Sources from the Windows Administrative Tools, which opens the ODBC Data Source Administrator. Your System Administrator can help you with this task if necessary. You must have the proper ODBC drivers installed on your system. **FootPrints** currently supports Access, SQL Server, MySQL, and Oracle.

1. Select System DSN, which allows the data source to be visible to all the system users, including FootPrints.
2. Select Add. A list of available drivers pops up.
3. Select the driver that corresponds to the correct data source.
4. Select Finish.
5. In the next pop-up, enter a descriptive name under Data Source Name.
6. Depending on the type of data source you selected, select the location of the database.
7. Configure any necessary security options, including specifying the name and password that FootPrints will use to access the data source.

## Special Notes for Access Users

1. Open Access.
2. Select Tools/Options. The View tab should be in the front.
3. Near the top under the section called Show, check the System objects checkbox.
4. Open the database file using Access.
5. Select Tools/Security/User and Group Permissions. Make sure that the user with which you log into the database is highlighted (by default this is Admin).
6. Highlight the MSysObjects database located on the right side (if you don't see it, you probably didn't do Step 1 correctly)
7. Check the box for Read Data. Read Design is checked automatically as well.
8. Press the Apply button. The setup should work correctly.

### NOTE

**FootPrints** supports linking to table queries for Access and table views for other databases that have this feature. Your database administrator can help you determine how your external databases are configured.

## Dynamic SQL Address Book Configuration

For **FootPrints** to access an external database for the Address Book, information about the external data source must be entered. If you don't have this information, check with your Database or System Administrator. This section describes how to configure the link to the external data source. To access the configuration wizard, select Administration | Address Book | Configure Dynamic SQL Address Book.


### Topics included in this section are:

- Linking to the data source
- Selecting the table that will be used from the data source
- Mapping fields from the data source to FootPrints
- Adding additional fields from the table to FootPrints

## Linking to the Data Source (Windows version)

Step 1 of Address Book Configuration is as follows:


- **Name for Address Book**—This is an arbitrary name used to identify the Address Book in FootPrints, e.g., Widget Company Users. The field in the wizard is pre-filled with the name entered during installation, but it can be changed here. The name of the Address Book is visible to users in the Address Book.
- **Data Source Name**—From the drop-down list of databases available to you, select the one you want your FootPrints Workspace to use as the Address Book. If you don't see the one you need, you may need to name the data source.
- **Database Type**—The database types currently supported for FootPrints running on Windows include SQL Server, Access, MySQL, and Oracle. Based on the Data Source Name you selected, FootPrints places a default value in this field based on data drivers associated with the data source.
- **Server User**—This is the name of the database login ID for the data source. If you do not have this information, check with your System or Database Administrator. If you configured the data source name, use the server user ID that you specified.
- **Server Password**—This is the password of the server user. If you configured the data source name, use the server user password that you specified. Your Database Administrator should have this information.

When you have finished with Step 1, click  [Next](#).

## Linking to the Data Source (UNIX version)

Step 1 of Address Book Configuration is as follows:

- **Name for Address Book**—This is an arbitrary name used to identify the Address Book in FootPrints, e.g., Widget Company Users. The field in the wizard is pre-filled with the name entered during installation, but it can be changed here. The name of the Address Book is visible to users in the Address Book.
- **Hosting Server**—From the drop-down list of databases available to you, select the one you want your FootPrints Workspace to use as the Address Book. You can only connect to the same database type that FootPrints is using
- **Oracle SID or MySQL Database**—The database types currently supported for FootPrints running on Windows include SQL Server, Access, MySQL, and Oracle. Based on the Hosting Server you selected, FootPrints places a default value in this field based on data drivers associated with the data source.
- **Server User**—This is the name of the database login ID for the data source. If you do not have this information, check with your System or Database Administrator. If you configured the data source name, use the server user ID that you specified.
- **Server Password**—This is the password of the server user. If you configured the data source name, use the server user password that you specified. Your Database Administrator should have this information.

When you have finished with Step 1, click  [Next](#).

## Selecting the Table That Will Be Used from the Data Source

In Step 2 of Address Book Configuration, you define the table in the data source that you use for the Address Book.


- **Select a Table**—Click on the drop-down list of tables for the data source and select the table that contains the data you want to use in your workspace.

When you have finished with Step 2, click  [Next](#).

## Mapping Fields from the Data Source to FootPrints

In Step 3, you associate fields in your external data source with the fields that are displayed in the Contact Information section of your Issue. For example, to map Last Name, First Name, and User ID to fields in your external data source, you must:

- Last Name—Select the field from the drop-down list of fields in the external data source that corresponds to the Last Name in the Address Book.
- First Name—Select the field from the drop-down list of fields in the external data source that corresponds to the First Name in the Address Book.
- User ID—Select the field from the drop-down list of fields in the external data source that corresponds to the User ID in the Address Book.

Continue mapping fields from the external data source to **FootPrints** contact information. When you have finished click  [Next](#).


### NOTE

Your list of fields will vary depending upon your Workspace. For example, depending on what your Workspace is tracking, you might be mapping employee information or facilities information.

## Adding Additional Fields from the Table to FootPrints


In Step 4, the last step in the configuration process, you can add additional fields to the Address Book that are available in the external data source table. The final page for configuring the additional fields is identical to the page you use to add new fields to a **FootPrints** Address Book or a **FootPrints** Workspace, with the addition of the External Database Field drop-down list.

To configure additional fields for the Address Book:

1. Click on the drop-down list of fields in External Database Field.
2. In the Name field, enter the name that FootPrints uses for this information. You can use the same name used in the external data source.
3. Define the Permissions for FootPrints users.
4. Click  Create Field. The field is added to the Field List.
5. Continue adding fields until you have all the fields from the external data source that you want to include in the Address Book.
6. Select a Primary Key from the field list to be used to find issues related to the specified contact.

### NOTE FOR ACCESS USERS

If any records in the external database are missing data in the Primary Key field you select, FootPrints cannot find that record. This is a specific characteristic of Access.

7. If required, select a field to be used as the Organizational Unit. This is useful for reporting and searching.
8. When you have finished, click  **Finish**.

## Using a SQL Address Book

Once the Dynamic SQL Address Book is fully configured, the contact data in the Address Book is automatically pulled from the external directory. The SQL Address Book looks the same as a **FootPrints** Address Book. The SQL Address Book data is not stored in a **FootPrints** Address Book table; it is always taken directly from the external directory. However, the contact data for a particular customer, when chosen using the Select Contact button on the Create Issue or Edit Issue pages, is saved along with the history of the Issue.

**NOTE FOR ACCESS USERS**

If any records in the external database are missing data in the Primary Key field you select, **FootPrints** cannot find that record. This is a specific characteristic of Access.

The contact data saved in an Issue is a snapshot of the data taken from the SQL database at the time the Select Contact was performed. If the customer's data changes at a later date (for example, the customer's phone number changes), it is not reflected in the history of the Issue. It is reflected the next time the customer's contact data is accessed from the SQL directory.

**Limitations of SQL Address Book**

Using a SQL directory, once properly configured, is no different than using a **FootPrints** Address Book, with the following exceptions:

- **FootPrints** permits only read access to an external directory. Write access is not available in the current release.
- If a server limit is set on the number of contacts to be returned for a SQL query and if you are attempting to look at any query that would return a number of results greater than the server limit, some of the results are missing and the missing results may be randomly dispersed throughout. This most commonly appears when browsing through the entire Address Book. A more specific search for a contact works correctly even if that contact does not appear when browsing the Address Book. To correct this problem, the number of results returned for a SQL query can be raised on the external server (Exchange, Sun ONE Directory Server, etc.)



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# Chapter 8: Perform Global Administration

## Configure System-wide Settings

General system preferences can be configured on this page. To access this page, select Administration | System | Appearance | System Preferences from the **FootPrints** Toolbar.

The directory on the server where **FootPrints** is located on your system is displayed at the top of the screen.

The following options are also available:

- Define the SMTP server (originally defined during installation)—This is the email server to which email notifications are sent.
- FootPrints Base URL—This is the URL for the FootPrints server. Change this if the server address of the FootPrints server changes or if FootPrints is installed to an SSL-enabled server (e.g., https).
- Choose the name for FootPrints records, e.g., Issue, Entry, Ticket, etc.
- Choose the name for Address Book records. We recommend keeping this as the default (Contact).
- Select the default font for FootPrints.
- Maximum Incoming Body Size—Define the largest body size in bytes for any incoming email.
- Search Frame Logo—By default, the FootPrints logo is displayed in the top left corner of every FootPrints page. This can be changed here to your company logo. The image must be no larger than 180x68 pixels. In addition, by default the logo is a clickable link that connects to the Numara Software web site ([www.numarasoftware.com](http://www.numarasoftware.com)). You can change the destination of this link to your own web site or disable the link altogether. Logos can also be defined per workspace on the Workspace Options screen.
- Login Screen Logo—This image can also be customized. It can be any size.
- Currency Symbol—Change the default currency symbol displayed in Time Tracking reports. Any symbol can be entered and you can select to display the symbol before or after the currency amount.
- Multi-line text field size—Optionally change the default height and width of multi-line text field input boxes throughout FootPrints, including the Description field, and custom

multi-line text fields. These fields can also be individually defined by the Workspace Administrator.

- System administrator to refer users to when error messages are displayed—Select an administrator for users to contact when they encounter an error.

When you are finished making changes, click  **GO** to submit the changes.

---

## Configure Multiple Language Support

**FootPrints** provides a number of system language options. You can create your own language directory and translate **FootPrints** into your language of choice for localization. No programming is required; only plain text files need to be translated. In addition, you can use this feature to change only some of the embedded text in the **FootPrints** pages without translating the whole program. For example, it can be used to change the title of the built-in field Description to Notes in every page in which that field appears. For complete information on multiple language support, refer to the **Numara FootPrints Reference Manual**.

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## Change the Display Colors for FootPrints


You can change the background colors, table colors, and some text colors in **FootPrints** from this page. The Color Editor lets you select the colors for eight different areas within **FootPrints**, including:




- Body Background—Background color of FootPrints (defaults to off-white).
- Table—All tables throughout FootPrints (defaults to light green).
- Highlighted Text—Any highlighted text throughout FootPrints (defaults to red).
- Page Header Text—All header and title text (defaults to dark blue).
- Dialog Heading—Heading bars of most FootPrints pages.
- Dialog Heading Text—All header text that appears in the dialog heading bars (defaults to light blue).
- Home page List 1—One of two alternating colors for the Homepage list of Issues (defaults to light blue).
- Home page List 2—One of two alternating colors for the Homepage list of Issues (defaults to light green).
- Home page Text 1—One of two text colors use throughout FootPrints pages, including the Toolbar text (defaults to dark blue).
- Home page Text 2—The other of two text colors use throughout FootPrints pages, including the Toolbar text (defaults to dark green).

### NOTE

To get maximum value from the Color Editor, make sure your browser can display all of the colors at your disposal. To change your color palette, go to Start | Settings | Control Panel, choose Display and go to Settings to make sure your monitor can display more than 256 colors (Windows only).

To change colors:

1. Select one of the ten choices listed above.
2. Either:
  - Select a color in the Color Palette or
  - Type the hex value of a color (in hex code format, i.e., 000000-FFFFFF) in the Hex color value field, then click  Apply.

A box is displayed below the Color Palette showing the old and new colors.
3. You can adjust the color choice at any time before you click the  **Finalize Change** button to implement the color change. You can continue to change other colors on this page
4. When you are satisfied with all of your changes, click  Finalize Changes to apply them.
5. To restore all colors to their default values, click the  Restore button.

To insure proper functionality, you may have to clear out your browser's cache, refresh the screen, and/or close and re-open the browser to see all of the new colors correctly.

---

## Choose the Date and Time Formats

This option determines how dates are represented throughout **FootPrints**. Users can also set a personal preference for dates. This affects all projects and can be changed at any time. It does not affect the internal format **FootPrints** uses to store dates, only how dates are displayed. The options are:

- **American**—MM/DD/YYYY
- **European**—DD/MM/YYYY
- **ISO**—YYYY/MM/DD

Times can be represented in 12 hour and 24 hour format. This will affect the display and entry of times in custom date time fields. This setting will also affect all workspaces.

To specify the date and Time formats:

1. Select Administration | System from the FootPrints toolbar, then select Date and Time Formats from the Appearance section of the administration page.
2. Select the date format by clicking a radio button for the desired format.
3. Select a time format by clicking a radio button for the desired format.
4. Enter your password and click SAVE.

---

## Rename FootPrints Fields

**FootPrints** comes with a number of built-in fields and options that, while they can be customized, cannot be removed. The fields can be customized in that the labels for these fields can be changed for display throughout the system or Workspace. When a change is made to a field label, it is displayed dynamically in all **FootPrints** forms, including Create Issue, Edit Issue, Advanced Search, and Advanced Reports. Customizable internal fields include:

- **Title**
- **Status**

- **Priority**
- **Description**—The Description field can also have its size (the number of rows and columns) customized.
- **Assignee**
- **Request**


Along with changing the names of **FootPrints** fields, the default names of the following built-in statuses can also be changed from the System Administration option:

- **Open**
- **Closed**


#### NOTE

Open and Closed can be changed per Workspace on the Status Administration page.

## Change FootPrints Fields for a Workspace

1. Select Administration | Workspace | Fields | FootPrints Fields from the FootPrints Toolbar.
2. Enter new names for one or more fields. Include both the both the singular and plural names for each field changed.
3. Once completed, enter your password to save and click  GO.

## Change FootPrints Fields System-Wide

1. Select Administration | System | Appearance | FootPrints Fields from the FootPrints Toolbar.
2. Enter new names for one or more fields. Include both the both the singular and plural names for each field changed.
3. Once completed, enter your password to save and click  GO.

#### NOTE

These settings are system-wide; however, workspace settings override system settings.

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## Create an Archive Workspace to Save Old Data

#### NOTE

If you have the FootPrints Base Starter Pack and not the Extended Starter Pack, an archive workspace counts as one of the three workspaces to which you are limited. With the Extended Starter Pack, you can create an unlimited number of workspaces. Contact your Numara Software sales representative if you are interested in obtaining the Extended Starter Pack.

Selected issues can be completely removed from a **FootPrints** Workspace using the Database Maintenance feature. Specifically, issues that have been changed to the Deleted status are good candidates for archiving since Issues that have spent significant time as Deleted are no longer needed on a regular basis, but can be stored for reference information. These issues can be stored as read-only in a separate archive Workspace, which is useful for cleaning up the database by removing obsolete issues from a Workspace. Fewer issues in a Workspace leads to faster searching and reporting times, speeding up database access times.

**IMPORTANT**

Make a backup of your **FootPrints** database before performing any purge function.


**NOTE**

This feature is not available in the **FootPrints** database versions. To get the benefit of this feature, you must upgrade to one of the SQL/ODBC-based versions for Windows (MS SQL Server, Access, etc.) or DBD/DBI-database versions for UNIX/Linux (Oracle, MySQL, Postgres, etc.)

**NOTE**


Enabling archiving uses one workspace, and counts towards the limitation of three workspaces for Numara Software customers who own the Base Starter Pack. Please contact your salesperson for details on obtaining the Extended Starter Pack.

The archive function removes issues that meet specified search criteria in the source Workspace, copies those issues to the archive Workspace that you specify, and then removes those issues from the Workspace's issue table.

1. Select Administration | System | Workspaces, then click the  GO button in the Database Maintenance section.
2. Select the Archive option as the Action to Take.
3. The Status and Date Criteria of Applicable Issues section allows you to define the selection criteria for Purge. This can be based on either the Issue's current status, the date it was last edited/created, or a combination of both.
  - By default, only the Deletedstatus is highlighted.
  - Highlight additional statuses as needed.
  - Choose issues based on one specific date that they were created or last edited or choose all issues before or after a particular date.
  - Choose AND to select issues that must meet both the status and date criteria
  - Choose OR to select issues that meet either the status or the date criteria.

**TIP**

Set up an escalation rule that automatically changes the status of closed issues to Deleted for issues that are a certain age. Then you can skip this step and just use the default highlighted status of Deleted.

4. Type in your password and click  GO.
5. Matching Issues For Purge—All issues that meet the Purge search criteria are listed here and highlighted. Review the list to ensure you are purging issues that meet your intended criteria. You can deselect issues by holding the CTRL key and left clicking the issue with your mouse. Only highlighted issues are purged.
6. SQL Query—FootPrints displays the query that was used to retrieve the issues that have met the archive search criteria for your review.
7. Archive Location—Each "source" Workspace has a designated "destination" archive workspace. The first time you archive Issues, you must provide a name for the archive Workspace.
  - **Name of new archive workspace**—The first time you archive Issues from a given Workspace, you must set up some archive Workspace information. Give your archive Workspace a name. It is suggested that you use a name that is similar to the original Workspace for your archive Workspace, but not too similar. If your Workspace's name is Helpdesk try using Archived Helpdesk instead of Helpdesk (Archive). This tells you which Workspace is archived, but does not confuse people by starting with the same name.

- **Name of new workspace's address book**—You can choose to create a new Address Book for the archiveWorkspace or link to the existing one. You must provide a Workspace name if you are creating a new one. If linking to an existing Workspace, check the Link to current workspace's address book instead box if you do not want to create and archive the Address Book. We suggest you link to the original.
  - All subsequent archive attempts from the same Workspace present an option to use the same archiveWorkspace or create a new one. Your business needs determine whether you want one or multiple archive Workspaces for a single source Workspace. If you are reporting on data by year, you might consider creating separate archive Workspaces for each year, especially if you have many issues to archive that you use for reporting.
8. **Scheduled Run-Time**—Archive jobs can be run immediately or at a time when server activity is light (if you have a large job with many issues to archive).
    - **Start Immediately**—Run immediately. Immediately means the archive begins the next time the **FootPrints** scheduled service runs, which could be up to one minute from the time you enter your password and click **GO**.
    - **Start at the following data and time**—Enter the date and time you want to run the job. Since the entire process could take a long time to finish, depending on the number of records selected, you may want to schedule large jobs when there is little server activity to avoid server overload, e.g., on weekends or late at night.
  9. **Scheduled Jobs Pending In Current Workspace**—This section lists those jobs scheduled to run in the future, as configured in the previous step.
  10. Type in your password and click **GO**. After clicking the **GO** button, click **OK** when asked to confirm that you want to complete the purge. After clicking **OK**, FootPrints schedules the purge to run as a background process based on the time set up in the Scheduled Run-Time step. This include jobs scheduled to run immediately.
  11. When the purge runs, FootPrints generates a dump (.dmp) file for any Issues removed so that they can be easily restored. FootPrints saves this file in the Workspace's directory on the server. For example, Workspace #1's recovery files are stored in the `footprints\db\MASTER1\MR\DumpsFromPurges` directory.

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## Chapter 9: Perform High-level Project Administration

Project Administrators can set options on a per project basis. You can create custom project fields, add users to a project, etc. The Project Setup Wizard configures most of the quick start features. Additional customizations can be made, and **FootPrints** can be further refined by selecting Administration | Project from the **FootPrints** Toolbar. This section lists some of the options you might want to configure soon after installation. These options are:

- Configure project appearance
- Define the Priority field
- Enable and define time-tracking
- Validate email addresses
- Configure add-on modules :
- Configure miscellaneous project options

---

### Configure Workspace Options

Workspace options encompass specifying things like the workspace name, the order in which the issue, contact, and other sections are displayed, the number of columns that are displayed on the Create Issue and Edit Issue pages, and other, basic workspace functions affecting appearance and layout.

To configure the Project options, select Administration | Project, and then select the Workspace Options link from the General section of the workspace administration page. The Workspace Options page is displayed. The following sections discuss some of the basic options you can change from the Workspace Options page. Refer to the Numara FootPrints Reference Manual for a complete description of all of the options on this page.

---

## General Tab

### Workspace Name

This feature allows you to change the current workspace's name (rename workspace), which was given when the workspace was first created. To change the name, erase it and replace it with the new name. This does not affect the workspace's data or database directory.

### FootPrints Terminology

The name for records in the current workspace can be changed here. For example, in a Help Desk workspace, a record might be called "Case", while in a Software Development workspace, a record might be called "Change Request". Both the singular and plural forms can be specified. The name chosen here is reflected throughout the workspace. The default name for records is the system-wide preference.

### HTML Description Editor

The standard Description input area can be replaced by a WYSIWYG editor that allows the Description to contain HTML formatting, allowing you to make text bold or use different fonts and colors. Internet Explorer v5.5 or greater is required for this feature to work. This feature defaults to enabled, and individual agents can disable it or enable it in their preferences. If you would like to disable it for all users in the workspace (i.e., make this feature unavailable to users), uncheck this option.

### Validation of Email Address Fields

If enabled, the values given to email address fields are required to contain the '.' and '@' characters. Email fields that are the primary key for the address book are not validated by this option. In order to apply this to the primary key, set values for the Customer Email Address Format from the Customer Options administration page. To set those values, select Administration | Workspace | Customer Options, then scroll to the Primary Key Options section of the page.

### Disable Address Book

If this workspace does not require it, the Address Book feature can be disabled, simplifying many **FootPrints** forms for the members of this workspace. If the Address Book is disabled, the Address Book link is removed from the **FootPrints** Toolbar and Address Book fields no longer appear in any **FootPrints** forms, including the Create Issue page, Edit Issue page, and Search page.

Disabling the Address Book also affects Customers. **FootPrints** cannot link Customer Requests to Customer Address Book contact information if the Address Book is disabled.

#### NOTE

If there is at least one Customer account for this workspace and you want Customer Requests linked to their Address Book contact information, the Address Book must be enabled.

### Global Issues

The use of Global Issues may be enabled on a workspace-by-workspace basis. Change your preference to enable or disable the use of Global Issues for this workspace. For more information, refer to Global Issues in the Nuamra FootPrints Reference Manual.

## Workspace Logo

Each workspace can have be customized with any image in the top left-hand corner. Browse for the image on your local machine or network. The image's size should not be larger than 180x68 pixels. In addition, the logo image can, optionally, be set as a hyperlink to a URL of your specification. The default image is the system-wide preference. Finally, you can specify text that will appear as a pop-up when the cursor is moved over the logo image in the field labeled If yes, alt text is.


## Display Total Number of Matching Issues on Homepage and Searches

When enabled, the total number of matches to a search or Homepage is displayed, e.g., Matches 1 - 20 displayed of 150 total matching Issues. To speed up searches in a large workspace, it can be disabled to not include the total number, e.g., Matches 1 - 20 displayed.

## Splash Screen

An optional splash screen can be displayed when users first log into **FootPrints**. This page can be customized (in HTML) to contain workspace information, updates, important messages, etc. One page can be created just for internal users and, simultaneously, a different page can be displayed for Customers.

To add a splash page:

1. Enter plain text or HTML into the box provided on the General Tab. To make this easier, you can create an HTML page in an HTML editor, copy the HTML, and then paste it into this box.
2. Choose Agent User to display the page to internal users or Customer to display the page to Customers.
3. Check Splash Screen to have the page displayed in a separate window when users log into FootPrints.
4. Check Linked on Home page to have a link on the Workspace Homepage to the splash page (the Workspace name in the upper right corner of the home page becomes a link to the page).
5. If you select Linked on Homepage, you have the option to choose an icon to display next to the Workspace name on the home page (this icon links to the splash page).
6. Enter your password and click  GO.

---

## Issue Page Tab

### Number of Columns on Create and Edit Page

The Create Entry and Edit Entry pages display workspace and address book fields in columns to save space. Choosing more columns reduces the amount of scrolling you need to do on these pages. Choosing fewer columns better accommodates large field names and small screen resolutions. Choices are 1, 2 or 3 columns. This option also determines the number of columns displayed on the Details page.

## Order Sections

This option allows the Workspace Administrator to change the display order of the sections of the Issue Details pages. The defaults are:

- Title/Priority/Status
- Related Issues
- Solution Approval
- Address Book Fields
- Issue Information
- Attachments

To change the display order of the sections, highlight a section name and use the up and down arrows to reorder them. When you are finished, click GO at the bottom of the page.

### NOTE

Disabled fields, such as Address Book, are included in this list. However, if they are disabled they do not appear on the Issue Details screens.

## Assignee Picker Field Width

You can specify the width of the assignee picker field in pixels. The default size is 170 pixels wide. This option is provided because of problems similar to the problems with the Drop-down/Multi-select field width; when options in those field are too long to be displayed properly, they may be truncated.

## Drop-down/Multi-Select Width

To achieve visual flow and alignment within Issue forms, all user-defined choice fields are drawn with the same fixed width. Sometimes, however, choices for these fields are too long to fit into the drop-down or multi-select and are truncated. If you see this is a problem in your organization, you can configure the width to allow each drop-down and multi-select field to be exactly as long as necessary to accommodate its longest choice. The drawback to this configuration option is that disabling the formatting may disrupt the formatting of the form layout.

## Address Book Fields to Exclude

If the Address Book has not been disabled, you can select Address Book fields to exclude from the Create and Edit Issue pages. Excluded fields are also excluded from the Select Contact search.

However, these fields are available from the Address Book. Excluded fields can be specified for each workspace that uses an Address Book.

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## Quick Edit Tab

The Quick Edit feature provides an interface to quickly edit existing issues from the homepage using a limited set of configured fields. This should speed up workflow. Administrators must determine which fields are used the most often by agents and which fields are used the least and configure the Quick Edit feature accordingly. By polling agents, an administrator may, for example, find that the majority of agents open issues to edit the status and description fields and frequently do very little else. Enabling this feature and configuring it to display only frequently

used fields means agents can more quickly conclude their business on an issue page without having to search for the relevant fields.

Quick Edit is configured on a workspace-by-workspace basis.

---

## Time Tracking Tab

If the Time Tracking option is enabled, the amount of time spent creating and editing an Issue can be recorded using the time-tracking system. This data can be used to build reports and can be useful in conjunction with agent billing rates.

### Methods Available

Set the time tracking method. Options are:

- **Automatic**-A clock, visible on the Issue page, automatically tracks time during Issue creation and editing. That is, when the Issue is open during creation or editing, the clock tracks the amount of time spent on the Issue. When an Issue is submitted, the clock stops. The clock restarts when a new editing session is initiated. The time is appended for each additional edit and a history is available showing the time spent during each session. This is useful for a call center or service desk where the agents do most of their work at their desks. The pause option (described below) is only available with automatic time tracking. If automatic time tracking is not selected, the pause option is greyed out.
- **Manually Enter Hours & Minutes**- Agents type in the amount of time spent in hours and minutes. This is done for creation as well as for each editing session. The time is appended for each additional edit and a history is available showing the time spent during each session. The Require Time Tracking option (described below) is only available when this method or the Set Start and End Times method is selected. If neither is selected, the Require Time Tracking option is greyed out.
- **Set Start and End Times**- Agents specify when work began and when work completed. FootPrints calculates the time spent based on the information supplied by the agent. This is done for creation as well as for each editing session. The time is appended for each additional edit and a history is available showing the time spent during each session.

### Allow Clock to Be Paused

Specify whether a pause button is displayed in the time tracking section of the Issue. The pause button can be used for a more accurate time tracking if, for example, an agent must stop work on one Issue for some period of time, but keeps the session with that Issue active.

### Require Time Tracking

This option is only available when the Manual or Start and End Times method of time tracking is used. The options for this function are Optional and Mandatory. If Optional is selected, agents have the option to fill in time spent when creating or editing Issues. If this is selected, the Agent can enter the same start date/time and end date/time, effectively registering zero time spent on the ticket. If Mandatory is selected, agents are required to fill in time spent each time an Issue is created or edited. If this is selected, the agent cannot enter the same start date/time and end date/time. Instead, the agent must enter an end date/time that comes after the start date/time.

## Time-Tracking Comments

This option adds a comments field below the time tracking data on the Create Issue or Edit Issue pages. The field is limited to 255 characters. Comments in the time tracking field can be viewed through a time tracking report, a custom report, or by clicking the Time Tracking button from the Details page of an Issue.

## Start Date/Time

Select whether to always use the current date and time or to manually enter the start date and time. By default, the date and time at which the agent enters the information is automatically recorded by **FootPrints**. If the Manually enter start date & time option is selected, the agent can manually fill in the date and time when work began. This is useful if agents often do their work away from **FootPrints** and only update their Issues at a later time.

---

## Add-on Module Options

### Knowledge-Paks Online

Knowledge-Paks® OnLine, a product of RightAnswers, contain thousands of solutions to common desktop and other IT Issues. Refer to Enabling Knowledge-Paks in the Numara FootPrints Reference Manual for more information.

### Sales/CRM Integration

Enable this feature to allow a read-only link to this FootPrints workspace from a Sales/CRM application. The link displays the Issues for a single Contact.

You should also enter a Key Value in the Key Value field to secure the link. Otherwise, anyone with the correct URL could view the data. The key entered here becomes part of the link that the Sales/CRM application creates. The key can be any combination of numbers and it must be at least 6 characters long.

Example Sales/CRM Links:

- With key:
  - `http://cetus/MRcgj/MRentrancePage.pl?PROJECTID=1&ABN=ContactDataHere&EXT_LINK=1&EXT_LINK_KEY=KeyValueHere`
- Without key:
  - `http://cetus/MRcgj/MRentrancePage.pl?PROJECTID=1&ABN=ContactDataHere&EXT_LINK=1`

---

## Toolbar Tab

The Toolbar Tab of the Workspace Options page is where you configure the buttons displayed on the FootPrints toolbar. Some buttons are displayed by default. You can select items that are displayed in the sub-menu for the More button of the toolbar to be displayed as individual buttons on the toolbar. Items that are selected to be displayed on the toolbar are not removed from the More sub-menu. In addition, sub-menus for the buttons on the toolbar are not configured on this page. By default, the toolbar displays buttons for:

- Home
- New Issue
- Reports
- Administration (for administrators only)
- More

To select buttons for the toolbar, from the Toolbar Tab of the Workspace Options administration page:

1. Click on an item in the Toolbar Options list.
2. Click the Add button. The selected item is displayed in the Selected Options list. Repeat this step until you have selected all the items that you want to make into buttons on the toolbar.
3. Enter your password and click SAVE.

To remove buttons from the toolbar, repeat the procedure above, but instead of clicking the Toolbar Options list and then the Add button, click the Selected Options list and then click the Remove button.



---

## Chapter 10: Configure Fields

The fields found in **FootPrints** forms are highly customizable by workspace. Custom workspace and Address Book fields are defined by the workspace Administrator. Other built-in **FootPrints** fields, such as Title, Status, and Description, can be further defined as well. All fields dynamically appear in all **FootPrints** forms, including Create Issue, Edit Issue, Advanced Search, and Advanced Reports.

Before any custom workspace or Address Book fields are created, you should decide which information you want associated with the Customer record in the Address Book and which will be entered on a per-Issue basis. Information that would remain fairly constant for the Customer, such as last name, first name, email address, and phone number should become Address Book fields. Information that pertains to an individual Issue, such as problem type, call type, etc. should become workspace fields.

The field options available are:

- Field Maintenance—Manage workspace fields.
- Statuses—Add/edit a custom status
- Priorities—Set priority options
- Dependencies—Set fields to be dependent on the values of other fields
- FootPrints Fields—Rename FootPrints fields (Title, Status, Priority, etc.)
- Titles—Define drop down choices for the Title field
- Schema—Show the workspace's schema
- Language of Workspace Fields—Manage the Language of the Labels of Workspace fields.
- Quick Descriptions—Manage Quick Descriptions.
- InstaCalc—Configure fields for performing mathematical calculations in FootPrints Issues.

---


## Workspace Field Maintenance

Workspace fields are used to track information for Issues in the current Workspace. The fields configured here are displayed in the Issue Information section of the Create Issue and Edit Issue pages. They are also available automatically as criteria for searches, reports, escalation rules, and auto-assignment.

If the Workspace Setup Wizard was used to create the current Workspace, the default fields for the template are displayed in the dialog box. If no wizard was used and this is the first time you have visited this page, the dialog box is blank. Create, edit, delete, and re-order fields on this page.

This page is accessed by selecting Administration | Workspace | Field Maintenance from the FootPrints Toolbar.

### NOTE

For Service Level Agreement (SLA) maintenance, an existing drop-down field is the basis for the SLA. The original field is created on the Field Maintenance page. However, once the drop-down has been created, additional SLA options for the drop-down are not added on the Field Maintenance page. To add another service level, go to the SLA setup page and add the additional option there using the  **Add new SLA** button. This adds the new option and allows you to configure it at the same time.

For information on field types, refer to Field Types.

## Restrictions

With respect to any size limits for fields, there is very little danger of exceeding the limits of most databases. Nevertheless, there are limits of which administrators should be aware. When the number of fields in an individual workspace grow into the hundreds, performance may begin to degrade or data may begin to be truncated. Administrators should at least be aware of this possibility. There are two ways in which field proliferation could get out of hand. One is through the use of field dependencies. The other can occur by using field-level permissions to combine multiple workspaces into a single workspace. Both of these features are extremely valuable and help to simplify life for the user. Administrators should not in any way avoid using these features. They are mentioned here only because of the slim chance that they could cause a problem through field proliferation.

## Reserved Words


For a list of FootPrints Reserved Words, open the mrReservedWords.pl file in the FootPrints/cgi directory.

## Adding Fields

The page for adding fields to a Workspace is accessed by selecting Administration | Workspace | Field Maintenance from the **FootPrints** Toolbar.

The following information describes the various options on the Field Maintenance page and the pages that you access from the Field Maintenance page when you are adding a field.

4. **Name**—Enter a name for the field. This is the name of the field in all **FootPrints** forms.
5. **Field Type**—This defines the type of data the field accepts. Refer to [Field Types](#) for descriptions.
6. **Permissions**—The permission level chosen here determines both the access and requirement for users for the field.
  - **Access**—This option determines who can see the field and who can write to it.
    - **Internal**—Only internal Agent and administrator users (including custom Agent roles) can view and enter data in the field. The field appears in the Create Issue and Edit Issue pages for internal users only.
    - **Public Read-Only**—Same as internal, plus Customers can view the field data but not write to the field. The field appears in the Create Issue and Edit Issue pages for internal users. Customers only see the data in their Requests when it is entered by an internal user.
    - **Public Read-Write**—Same as Internal, plus Customers can view the field data and enter data in the field when creating a new Request. The field appears in the Create Issue and Edit Issue pages for internal users and in the Customer Submit Request form.
    - **Public Read-Write-Edit**—Same as Public Read-Write, plus Customers with edit access can also update the field. This option is only available if the Customer Edit license is purchased.
  - **Required**—The second drop-down determines whether the field is required.
    - **Optional**—The user has the option to enter or not enter data in the field.
    - **Mandatory**—The user must enter data into the field in order for the page to be accepted if it is submitted. If a user tries to submit an Issue without data in a mandatory field, an error message is displayed to the user, along with instructions to go back and enter the information. Mandatory fields appear in red on the Create Issue and Edit Issue pages for internal users and in the Customer Submit Request form.
7. **Field Length**—This option applies to character single-line, integer, and real number fields only. For these fields, the administrator has the option of defining a field length. If defined, users must enter data of the specified number of characters when creating or editing an Issue or Request. Choices for defining field length are:
  - **Unrestricted**—No field length restriction (the default).
  - **Exactly**—Enter a number in the first box for the exact number of characters users must enter in the field. Leave the second input box blank.
  - **At least**—Enter a number in the first box for the minimum number of characters field data must contain. Leave the second input box blank.
  - **At most**—Enter a number in the first box for the maximum number of characters field data can contain. Leave the second input box blank.

- **Between**—Enter two numbers defining a range of the number of characters accepted for field data.
8. **Field Size**—Only applies to multi-line character fields. Define the number of rows and column for the text box. Refer to Display of Multi-line Fields<sup>2</sup> for additional information.
  9. **Define Choices**—For drop-down and multi-select field types, choices are defined in a pop-up after adding the field (refer to Drop-down and Multi-select Fields for additional information).
  10. **Default calendar link**—Only applies to Date/Time fields. From the drop-down, select whether the field will, by default, have no link to the personal or workspace calendars, be linked to the personal calendar only, or be linked to both the personal and workspace calendars.
  11. When you have completed making your selections, click Add Field. The field is added to the Field dialog box on the right. The field is not added to the Workspace until you enter your password and click  **GO**.

To see how the issue page will look without saving the configuration or leaving the Field Maintenance page, click the PREVIEW button. A new window is displayed showing the issue page as you have constructed it so far. This is a preview, but the configuration is not saved until you enter your password and click SAVE.

#### NOTE

Restrictions on the number of fields in the Workspace being added depend on the database being used. Refer to Field Limit Specification in the chapter on Database Administration. The **FootPrints** database only allows 100 fields per workspace. To add contact fields, refer to Address Book Field Maintenance.

## Adding a Date/Time Stamp to Internal Fields

You can add a date/time stamp to multi-line character fields. The date/ time stamp is displayed beside the field when you edit the Issue or view the Issue on the Details page. When you create a multi-line character field by selecting Character (Multiple Line) as the Type or edit an existing multi-line character field, a checkbox labeled "Add timestamp to field data" is displayed. Checking the box adds the date/time stamp.

If you use the date/time stamp option, the field acts like the Description field in that you cannot edit existing data in the field, only add to it.

## Drop-Down and Multi-Select Fields


A drop-down field offers the user a list of choices from which to select. A multi-select field allows the user to select multiple choices from a dialog box. An unlimited number of choices can be defined per drop-down or multi-select field. After adding one of these fields, a pop-up window appears where the choices and options for the field are defined.


<sup>2</sup>. Multi-line fields are displayed in the same row with other fields based on field size: Fields 69+ columns wide remain alone in a row; fields 46-68 columns wide will occupy a row with 1 other field (2 fields total); fields that are 45 columns or less wide are treated like other fields, and will be displayed with 2 other fields in a row (2 fields total). To force a multi-line character field to take up a whole row regardless of size, insert a <BR> tag in the field header for that field and/or the field after it.


To define choices:

1. Add choices—Type the first choice to appear in the field under Actions and click the Add (+) button. The choice is displayed in the Choices field. Continue to add as many choices (up to 1000) as desired.
2. Re-order choices (optional)—To reorder the choices, highlight a choice and click the up or down arrow to move it through the list.
3. Resort Ascending—Automatically re-orders the values in the list alphabetically from A to Z. Values with an integer as the first character are sorted before those beginning with a letter in the order 0-9.
4. Resort Descending—Automatically re-orders the values in list alphabetically from Z to A and 9-0.
5. Reuse Choice List—Select this option to reuse the choices from another drop-down field, either in this Workspace or another Workspace. This selection copies the choices but there is no link between the fields.
6. Import Choice List—If you have many choices, you may want to create a text file outside of FootPrints (for example, in Notepad or Excel) and import them here. The file should contain one choice on each line. For example:

```
Hardware
Software
Network
Printer
etc.
```

Browse for the file in the pop-up that appears and click Open. After you click  GO, the choices are displayed in the dialog box.

7. Remove—To delete a choice from the list, highlight it and click Remove.
8. Reset—To delete all choices and start over, click Reset.
9. Default Choice—Optionally select a default for the field. This is the choice that is pre-selected when a user creates a new Issue. It is only available for drop-down fields.
10. After all choices are added, click  GO. The values are saved.

The field is not added to the Workspace until you enter your password and click  SAVE on the Field Maintenance page.

The choices can be changed later by editing the field and selecting Edit Field Choices.

## Preview Issue Page

Administrators can preview the issue page when they are working on the Field Maintenance page and can view it based on user roles. For example, if the administrator wants to see what the page would look like for an agent, he or she can select that view or, alternatively, can view it for a custom agent role that has read and write permissions for some statuses, but has hidden fields for other statuses.

To view a preview of the issue page:



1. Select Administration | Workspace, and then select the Field Maintenance link from the Fields section of the Workspace Administration page.
2. Click the PREVIEW button located in the lower right portion of the Field Maintenance page. A new window is displayed showing the issue.
3. To view the page as it would be seen by the various roles in the workspace, select a role from the User Role drop-down field at the top of the Preview page.

4. To exit the Preview page, close the window.

## Edit Field

The page for editing fields in a Workspace is accessed by selecting Administration | Workspace | Field Maintenance from the **FootPrints** Toolbar.

To edit a field:

1. Select the field to be edited from the dialog box on the Fields Maintenance page and click  Edit.
2. The Field Maintenance dialog is highlighted in a darker color until the edit is complete.
3. Make any needed changes to the field.
4. If the field is a drop-down or multi-select field and you would like to edit the choices in the field, click Edit Field Choices.
5. Click Complete Edit to complete the edit or Cancel Edit to cancel the changes.
6. Enter your password and click  GO.

To see how the issue page will look without saving the configuration or leaving the Field Maintenance page, click the PREVIEW button. A new window is displayed showing the issue page as you have edited it so far. This is a preview, but the configuration is not saved until you enter your password and click SAVE.

### NOTE ON DATA

Editing a field does not affect the data in existing Issues.



### NOTE ON CHANGING FIELD NAMES AND TYPES

**FootPrints** does not allow you to change the field type and does not allow you to change the field name except for SQL Server or MySQL databases. For all other databases, if you want to change the field type or field name, you must delete the field and create a new one.

## Delete Field/Tab

The page for deleting fields/tabs in a Workspace is accessed by selecting Administration | Workspace | Field Maintenance from the **FootPrints** Toolbar.

To delete a field/tab:

1. Select the field/tab in the dialog box (it will be highlighted in blue).
2. Click  Remove. The field/tab is removed from the dialog, and is no longer included in the Workspace.
3. Enter your password and click  GO.

**NOTE**

Deleted data fields are no longer viewable, and **FootPrints** forms no longer contain that field. The column is also deleted and the data no longer accessible. To undelete a field (assuming you've made a backup of your database), contact Numara Software for instructions.


## Deletion Behaviors

When deleting fields, a warning is displayed.

Deletion is not permitted if a field is part of some other feature (such as a field dependency). In those instances, the relationship between the field and the other feature must first be severed before the field can be deleted.

Deleting tabs/sections moves all fields in that tab to the previous tab. If there is no previous tab, the field(s) go to top of next tab. If there is no previous or next tab, then the tab cannot be deleted.

## Re-order Workspace Fields

To re-order the fields, on the Field Maintenance page, drag-and-drop them within the Field List. When you are done, enter your password and click  **SAVE**. To see how the issue page will look without saving the new order or leaving the Field Maintenance page, click the PREVIEW button. A new window is displayed showing the re-ordered fields. This is a preview, but the new order is not saved in the configuration until you enter your password and click SAVE.

### NOTE

Changing the order of the Workspace fields on this page does not affect the database. It only affects the display of fields in the **FootPrints** forms.


## Advanced Field Permissions

The page for setting advanced field permissions (otherwise referred to as "field-level permission") in a Workspace is accessed by selecting Administration | Workspace | Field Maintenance from the **FootPrints** Toolbar. Any field-level permissions that you set via the Field Maintenance page apply to either all Agents or all Customers. To set field-level permissions for specific roles (e.g., to set permissions for just Read-Only Customers or a set of Agents you might have designated as Networking Agents), you use a different part of the interface. Refer to the [field-level permissions topics](#) under User Roles for details.

To set field-level permissions:

1. Select the field to be edited from the dialog box on the Fields Maintenance page and click Edit.
2. The Field Maintenance dialog is highlighted in a darker color until the edit is complete.
3. Select the Advanced Field Permissions link. The Choose Role Type page is displayed.
4. Click a link to set the permissions on this field for All Agent Roles or All Customer Roles. If you select All Agent Roles, the permissions you set for the field apply to all internal agent roles, including system and workspace administrators. If you select All Customer Roles, the permissions you set for the field apply to all Customer roles. If you want a specific role to have a different set of permissions for a particular field, you can always change it in the Administration | Workspace | User Roles page (refer to Field-level Permissions for Built-in Fields and Field-level Permissions for Custom Fields for details). When you click the link, a Custom Field Permissions page is displayed.
5. Use the radio buttons to set whether to hide the field on all screens or to set a permission level based on the status of the Issue.
6. If you chose to set permissions based on status, specify the permission you wish to apply to each status. That is, when the Issue is assigned a status, the permission you select here

applies to the field while it is in that status. The roles that will be affected by your choices are listed at the bottom of the window.

7. Enter your administrator password and click the  GO button. The permission settings are saved.

#### NOTE



If you have HTML/text inserted above a field, hiding the field with field-level permissions can also hide the HTML/text that you inserted. There are situations in which you may want that HTML/text insertion to still be shown. Refer to [Insert HTML/TEXT Headers](#) for details on setting whether the insertion is shown or not shown.

## Insert HTML/Text Headers

If you would like to include instructions or other information about Workspace fields in the Create Issue, Edit Issue, and Submit Request pages, you can optionally insert text or HTML headers above any custom Issue field, custom [Address Book Field](#), and the Attachments field. In addition, if any of the fields are set to be hidden fields, you can choose to display the HTML/text header even if the field is hidden. You may want to display the HTML/text header even when the field is hidden if, for instance:

- You use field headers to break up the Issue Information section into different subsections. The field may be associated with the first field in this section even though it really applies to all the fields in that section.
- You use field headers to put an additional GO button(s) throughout a long Issue Information section.
- A field header must be associated with the first field in a row if you want all three fields to remain on that row. The field header is really above the third field. If the first field disappears, the field header above the third field disappears.

To include custom headers:

1. Click the Insert HTML/Text Headers Above Fields link on the Field Maintenance page. Each Workspace field is listed in the table in the pop-up that appears.
2. Insert text or HTML code before one or more fields as needed.
3. Click in the checkbox for each field for which you want the text or HTML code to be displayed. The text or HTML code is not displayed if the checkbox is not checked. This feature allows the user to create text or HTML code and leave it for later to be displayed or to temporarily disable the text or HTML code.
4. In the Display column, if you have any fields that are hidden for a particular status, select from the displayed drop-down field. A drop-down is displayed for fields on the Create & Edit Issue pages and a second drop-down provides the same options for the Issue Details page. The drop-down field has the following options:
  - always—Always show the inserted header regardless of whether the field is hidden.
  - if field is shown—Show the inserted field header only when the field is visible.
  - if row is shown—Show the inserted field header only when the row in which the field appears is visible.
5. After you finish adding headers, click  GO. The page is dismissed and you are returned to the Field Maintenance page.
6. Enter your password and click  GO.

## Notes on the Field Headers Page

- The Field Name field displays the name of the field.
- Check the box in the Enabled field to include the header. If you don't check the box, the content you entered for the field header remains in this form, but is not displayed when you access the Create Issue, Edit Issue, or Submit Request page.
- The Alignment drop-down allows you to align the header left, center, or right.
- Enter plain text or HTML code in the Text or HTML to Insert Above Field field.
- To start the field associated with the header on a new line, enter a line break **<BR>** at the end of the header.
- With respect to **%%Variable%%** expressions, some field data from the Issue can also be used in the field headers, as follows:
  - Issue Number—**%%MRID%%**
  - Title—**%%TITLE%%**
  - Priority—**%%PRIORITY%%**
  - Status—**%%STATUS%%**
  - Submitter—**%%SUBMITTER%%**
  - Workspace ID—**%%PROJID%%**
  - Workspace and Address Book fields—**%%FIELD NAME%%** where "FIELD NAME" is the name of the field in upper case.

## Link a Field Header to a URL

When the following sample Javascripts are entered in the Text or HTML to Insert Above Field field, the field header becomes a link to the URL and the data in the field is passed to the URL.

The following script works for drop-down fields only. The following sample script uses a field named "Product" for this example. Use your own field name in place of the word "Product", "url =" must point to the URL to which you want to pass the value, and use the "+prod" where you want to place the value of the field into the URL.

```
<SCRIPT LANGUAGE="JavaScript"> function ProductInfo(){var
prod=document.regform.Product.options[document.regform.Product.selectedIndex].value; var url =
'/MRcgi/product.pl?PROD='+prod; var ProductInfo=window.open(url);}</SCRIPT><a
href=javascript:ProductInfo();>Click for Product info</a>
```

The following field works for single-line character fields only. The example field name is "Company Documentation", and the value of variable "CompanyVal" is what is passed from the text field. Again, "url =" must point to the URL to which you want to pass the value.

```
<SCRIPT LANGUAGE="JavaScript"> function CompanyInfo(){ var CompanyVal
=document.regform.Company__bDocumentation.value; var url = '/tmp/Attachments/Workspace7/' +
CompanyVal; var CompanyInfo=window.open(url);}</SCRIPT><a href=javascript:CompanyInfo();>Click for
Document</a>
```

## Statuses




The Status field is used to define the workflow of Issues or the stages that an Issue moves through from beginning to end. Statuses can be added, deleted, and reordered here. The dialog is pre-filled with the Statuses defined by the Workspace template.

### NOTE



Open and Closed are built-in and cannot be changed or re-ordered. You can change the words that represent them from within **FootPrints** on the FootPrints Fields administration page. In addition, there are other special, built-in statuses used by **FootPrints** that are not displayed here, including Deleted and Request. You can change the name displayed for a Request from this administration page.

## Managing Statuses




To add a status:

1. Select Administration | Workspace | Statuses.
2. Enter a name for the new status.
3. Click the  Add Status button. By default, the new status is listed in the List of Statuses field one position above Closed.
4. If you are finished working on this page, enter your password and click GO. The new status is not actually added to the Workspace until you have entered your password and clicked GO.

To re-order statuses:

1. Select Administration | Workspace | Statuses.
2. Select a status in the dialog box (it will be highlighted in blue).
3. Use the Up and Down arrow buttons to move a status up and down in the list.
4. If you are finished working on this page, enter your password and click GO. Changes to status order are not actually made in the Workspace until you have entered your password and clicked GO.

To delete a status:

1. Select Administration | Workspace | Statuses.
2. Select the status in the dialog box (it will be highlighted in blue).
3. Click  Delete Status. The status is removed from the List of Statuses field.
4. If you are finished working on this page, enter your password and click GO. Deletions are not actually made in the Workspace until you have entered your password and clicked GO.

### NOTE

Deleting a status does not affect the data in your existing **FootPrints** Issues. To change the status of an Issue whose status has been deleted to another status, you must edit the Issue. If there are many Issues with this status, first search for all Issues with the status that you are going to delete. Change the status of these Issues, then delete the unwanted status as described above.

Along with adding custom statuses, you can change names of the following built-in statuses:

- Open
- Closed
- Request




## Homepage Workspace Totals

The Status counts displayed on the Homepage can be specified from the Administration | Workspace | Statuses page. This option controls the statuses displayed in the Workspace Totals dialog for all internal users in the current Workspace. The defaults are: Open, Active, Closed, Request, Internal Solution, and Public Solution. "Active" refers to all statuses except for Closed, Deleted, and all Solution-based statuses.



### NOTE

This feature is not available in the **FootPrints** database versions.




To add a status to the Workspace Totals:

1. Select Administration | Workspace | Statuses.
2. Select the status from the All Statuses dialog box and click  Add Status.
3. If you are finished working on this page, enter your password and click  GO. Changes are not actually made in the Workspace until you have entered your password and clicked  GO.

To re-order statuses in the Workspace Totals:

1. Select the status in the Selected Status dialog box (it will be highlighted in blue).
2. Use the Up and Down arrow buttons to move a status up and down in the list.
3. If you are finished working on this page, enter your password and click  GO. Changes are not actually made in the Workspace until you have entered your password and clicked  GO.

To remove a status from the Workspace Totals:

1. Select the Status in the Selected Status dialog box (it will be highlighted in blue).
2. Click  Delete Status.
3. If you are finished working on this page, enter your password and click  GO. Changes are not actually made in the Workspace until you have entered your password and clicked  GO.

### NOTE



The changes made in this dialog do not affect the statuses in the database or Issue forms; they only affect the Workspace Totals dialog on the Homepage for the current Workspace.

## Priorities

The Priority field is used to rate Issues by importance or impact. The Priority field is managed by selecting Administration | Workspace from the FootPrints toolbar, and then selecting the Priorities link in the Fields section of the administration page. Options for priority include:

- **Maximum Priority**—The number selected here defines the range or number of priorities available for Agents to select when creating an Issue. Any number from 1–100 can be selected. This defaults to the number assigned by the Workspace template.
- **Default Priority**—This is the default priority assigned when users create new Issues. If, for example, 2 is selected, new Issues are created with a priority of 2 unless the Agent or an automated escalation rule changes it. If words are assigned to the Issue, the corresponding word is the default (for example, Medium).
- **Priority Words and Colors**—Words and colors can be assigned to priorities. Rather than selecting 1, 2, 3, etc., Agents can select Urgent, High, Medium, etc. If colors are selected, they are displayed on the FootPrints Homepage. Words are assigned by the Workspace Setup Wizard. To change the words, to add word for additional priorities, and to select colors, click the link called To link Priority numbers to words, and to color code Priorities, click here.
- **Display Priority on Homepage**—Determine whether a priority is displayed in the Priority column on the homepage list of issues. By displaying only the higher priorities or specialized priorities, those issues stand out more when an agent is viewing the list of issues on the homepage.
- **Abbreviation**—Specify the abbreviation to be used when a priority is displayed. For example, you might have a priority of Urgent displayed as "URG".

To map priority words and colors, specify which priorities are displayed on the homepage, or define an abbreviation:

1. Click the "here" link in the Priority Display Settings section to change numbers to words and to color code Priorities. A pop-up window is displayed. In the pop-up window there are input boxes for each priority level.
2. Enter a word or phrase for each priority level that is blank, or change the existing word.
3. To select:
  - **Color**—Select a color by clicking the word "Pick" next to the priority. A color map is displayed from which you can select a color by clicking on it. The hex code for that color is displayed in the color box for the priority.
  - **Display Priority**—To specify that a priority is displayed on the homepage, click the empty checkbox next to the priority. To turn off the display of a priority, click a populated checkbox next to the priority.
  - **Abbreviation**—Type in the letters you want displayed in the Priority column on the homepage. If nothing is entered, the entire priority name is displayed.
4. Click  GO to save your changes. You are returned to the Workspace Options page.
5. After completing any activities you may be conducting on this page, enter your password and click  GO at the bottom of the Workspace Options screen to activate them.

## Field Dependencies

By default, all Workspace fields in a **FootPrints** Workspace are displayed in the Issue Information section of the Create Issue and Edit Issue pages. Depending on your needs, you may, for example, prefer to have some fields only appear depending on the problem type selected, or you might want to have the list of choices in a drop-down restricted by the choice made in the preceding drop-down. Both of these options are available in **FootPrints** and can be used alone or in combination. Multiple dependencies can be configured per Workspace, and multi-level "dependency groups" can be created to funnel the user to categories and sub-categories with different choices, depending on what is selected for each drop-down.

There are two kinds of field dependencies supported in **FootPrints**:

- **Pop-up Window Containing Dependent Fields**—Designate a drop-down choice field as a decision field which, depending on the user's choice, displays a pop-up window with fields that are specific to that choice. For example, a field called Error Message can be displayed in a pop-up window only if the user selects Software Error from a Problem Type field.
- **Dynamic Drop-down Dependency Groups**—Designate a set of drop-down choice fields to create an unlimited number of categories and sub-categories for which the available choices are restricted in each field based on what was selected in the previous field. This feature can be used for simple two-field dependencies (e.g., a software application with dependent version numbers), or complex, multi-level groups of dependent fields that guide the user to drill-down and select more and more granular data to define the problem. For example, if a user selects Hardware from a Problem Type field, the next drop-down displays a list of hardware types (PC, NIC, Mouse, Keyboard, etc.) If the user picks NIC, the next drop-down lists known network card problems, etc.

### Pop-Up Window Dependent Fields



This feature allows you to designate a drop-down choice field as a decision field which, depending on what choice is selected by the user, displays a pop-up window with fields that are specific to that choice. For example, a field called Error Message can be displayed in a pop-up window only if the user selects Software Error from a Problem Type field.

Before you begin:

- Before setting up the Pop-up Window Dependent Fields, you must first create the decision field and all of the fields that appear in the dependent pop-up windows. All fields for all dependencies must exist (create new fields on the Administration | Workspace | Field Maintenance page) before you can create dependencies. In addition, a single drop-down field should be created to be the key decision field.
- If one of the "subset" fields appears for multiple dependencies but with different values in each instance of dependency, create one choice field containing all values for all dependencies. For example, a field called Version number can be made containing all of the possible version numbers for Hardware, Software, and Network problems. The different values for Version number can be assigned to the different key decision values of Hardware, Software, and Network. This step is optional.

To designate the decision field:

1. Once the drop down field is created, select Administration | Workspace | Dependencies from the **FootPrints** Toolbar.
2. On the main Dependencies page, select Popup Window Containing Dependent Fields. A new page is displayed with a drop-down menu.

3. From the drop-down menu, select a decision field from all of the available drop-down fields in the workspace and click  **GO**.
4. To clear the contents of an already created decision field, select the checkbox next to Remove all configured pop-up dependencies and click  **GO**. The top half of the next page allows you to define the dependent fields. If your decision field has three possible values, a choice box for each value is displayed, each choice box containing a list of all workspace fields.
5. Highlight the fields to include for each key value (use the CTRL key to highlight multiple fields). Only select the fields for each choice that you want to appear in the pop-up window. Fields that are not selected continue to appear on the main Create Issue screen.


The bottom section of this page allows you to define the behavior of these fields under special circumstances. That is, the choice you make in the bottom section controls what happens when a user changes a choice in the decision field after already entering data into the dependent fields.

6. Select one of the following options:
  - When changing the selected choice of the decision field, retain none of the values previously entered into the original choice's pop-up window. (the default, recommended for most configurations)
  - When changing the selected choice of the decision field, retain the values previously entered into the common fields contained in the original choice's pop-up window and the current choice's pop-up window.
  - When changing the selected choice of decision field, retain the values previously entered into all of the fields contained in the original choice's pop-up window.

This next step is optional. For additional drop-down fields found in the workspace (not including the main decision field), a series of choice boxes for each of your possible values is displayed in the bottom half of the page. Continuing with the above example, for each of your three key values in the decision field there is a choice box for each choice field in the workspace. If there are four choice fields defined (other than the decision field) in the workspace, there are twelve choice boxes (four for each of the three decision values).

By default, all values are selected. You can optionally use one or more of the fields displayed here to pick different values of the same choice field for the different values of the decision field. Only de-select the values for a particular set of fields that you want to limit (use the CTRL key to highlight multiple fields). Otherwise, do not de-select any values.

7. Select or de-select the values for those fields that you want to appear in the choice boxes, depending on the value the user chooses for the key field. For example, if the key decision field is Problem type and the sub-field Version number is displayed for all three of the decision field values, different values of Version number can be associated with Hardware, Software, and Network. For example, if version number contains six values, 97, 2000, 2.5, 8.7, 4.x, and 5.x, the following associations might be made:
  - Choice: Hardware, Field: Version number—select 2.5 and 8.7
  - Choice: Software, Field: Version number—select 97 and 2000
  - Choice: Network, Field: Version number—select 4.x and 5.x

All other values for Version number for each of the three choices above should be de-selected. All other values for any other fields should remain selected.
8. After selecting the values that will appear for each of the choice fields, click  **GO**.

Multiple decision fields can be created using the method above.

Now when you create an Issue, the Issue Information section contains the decision field. When a value is selected in a decision field, a pop-up box is displayed, containing the additional dependent fields for that value. Using our example, if Software is chosen, Version number is displayed with the only options being 97 and 2000. In addition, any other fields associated with Software (chosen in the top section of the Dependencies screen) are displayed.

## Dynamic Drop-down Dependency Groups

The Dynamic Drop-down Dependency Group option allows you to designate a set of drop-down choice fields that display a number of categories and sub-categories of which the choices are restricted in each field based on what was selected in the previous field. It can be used for simple two-field dependencies (for example, a software application with dependent version numbers) or complex, multi-level groups of dependent fields that guide the user to drill-down, selecting more and more granular data to define the problem.

For example, if a user selects Hardware for Problem Type, the next drop-down displays a list of hardware types (PC, NIC, Mouse, Keyboard, etc.) If the user picks NIC, the next drop-down lists known network card problems, etc. There is no limit to the number of fields that can be a part of a dependency group.

Before setting up the Dynamic Drop-down Dependency Groups:

- You must first create the drop-down fields that will be part of the dependency group with all of the possible choices for each field. You create new fields on the Administration | Workspace | Field Maintenance page. As an example:

### NOTE ON EXAMPLES





The examples here outline setting up a group of three dependent fields for Problem Type, Issue Type, and Root Cause for a standard IT help desk. Dependency groups can be created for any type of process, with any number of fields and choices.

- a. You could make three drop-down fields called Problem Type, Issue Type, and Root Cause.
  - b. For Problem Type, the choices could be Hardware, Software, Network, and Printer.
  - c. The Issue Type field would contain all of the possible sub-categories for each of those choices: Hardware types like CD-ROM, Mouse, Phone, etc., Software types like Acrobat, Word, etc., Network Issue types like Reset Password, Can't connect to network, etc.
  - d. The Root Cause field would contain any further categorization needed for each of the Issue types. For CD-ROM, the choice might be Can't open tray, Can't access drive, etc.
- The fields for the dependency group must all be of type public or internal. We recommend all fields are all either mandatory or optional. If the fields are mixed mandatory and optional, the earlier fields in the group should be mandatory, while the later one are optional.
  - The fields should be arranged in the order of the desired dependency.
  - You may want to map all of the possible choices and paths out on paper before you create the fields.

To create a Dynamic Drop-down Dependency Group:

9. After creating the fields you need to complete this procedure, select Administration | Workspace | Dependencies.
10. Select Dynamic Drop-down Dependency Groups. The Create/Edit Drop-down Dependency Group page is displayed. This page contains two dialog boxes: Available

Fields and Fields in Group. The Available Fields are any drop-down fields in the workspace that aren't already part of a dependency group. The Fields in Group are the fields that are to be part of the dependency.

11. Select the first field you want in the dependency group and click the  arrow button.
12. Continue to select the other fields for the dependency group. There is no maximum number of fields in a group, but the minimum requirement is two. It is recommended that you order the fields in the workspace in the same order as selected above by selecting Order Fields before you continue. This places the dependent fields in the group in the correct order.
13. Enter a name for the Dependency Group and click . The next page displays a multi-select box for each value in the first field in the group. For example, if the field is Problem Type, there is one box each for Hardware, Software, Network, and Printer.
14. All of the values for the second field in the group, Issue Type, are listed in each multi-select box. For each problem type, select the values that should appear in the Issue Type field if the user selects that problem type. For example, in the Hardware box, select CD-ROM, Mouse, Phone, etc., in the Software box, select Acrobat, Word, etc. Hold down the CTRL key to select multiple values.
15. Issue Type values can be selected for more than one Problem Type. Issue Type values must be selected for at least one Problem Type or they will never appear in the Issue form.
16. When all items have been selected, click . The next screen contains a multi-select box for each Issue Type. The boxes each contain all of the possible Root Causes.
17. Select the Root Causes for each Issue Type. For Issue Types that have no defined Root Cause, do not select anything. The Root Cause field will not appear for those Issue Types.
18. When you are finished, click  **SAVE**.

### The View Button

The Create/Edit Drop-down Dependency Groups page contains a View button. Clicking the View button displays the Drop-down Dependency View, which provides a visual illustration of the dependency tree for the dependency groups that you are editing. Fields are listed in columns. When you click on a field name, the field is highlighted. In addition, the field that precedes and field(s) that succeed the selected field are also highlighted, thus showing the dependencies..

If, having selected a field, you click the Display Selected link, a the Drop-down Dependency View page is displayed. This page provides a further illustration of the selected field's dependencies in the tree structure. You can click a button to print the structure from the pop-up window or click a button to close the window.

### Using Field Dependency Groups

When a Field Dependency Group is configured, the first field in the group initially appears in the Create Issue page. As the user selects from the first field, the second field appears, with the choices relevant for that field. When the user selects a value for that field, the third field appears with the choices relevant for that next, dependent field displayed.

On the Advanced Search, Report, and Escalation pages, the fields appear with all of the possible values for each field as criteria. Select the relevant values for your search, report, or escalation rule.

## Important Notes on Dependencies

- **Editing Drop-down Choices**—When editing a drop-down field that is used in a dependency, you must go through the dependency setup again and edit it there.
- **Multiple Dependencies**—Multiple sets of dependencies can be created and dependency group and pop-up windows can be combined.

### NOTE

Dependency groups greater than seven levels cause a stack overflow on Internet Explorer.

- **Field Permissions**—All fields in the same dependency group must be either internal or public. The system prevents you from creating a dependency group that contains a mixed group of internal and public fields.
- **Mandatory vs. Optional**—The fields in a dependency group can be a mix of mandatory and optional. But while configuring a group, if a field later in the group is mandatory, you must select at least one value for that later field for each value in the current field. Otherwise, there may be a mandatory field that contains no values.
- **Internet Explorer's Display of Dependencies**—Internet Explorer hides dependent fields until the parent field is selected. Once selected, the child field is displayed and highlighted.
- **HTML form and Field Dependencies**—FootPrints does not support the use of field dependencies in the incoming email HTML form. The form contains all of the fields and choices on one screen.

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## Dynamic SQL Field Mapper

This feature enables data from an external table to be populated in an Issue into one or more fields. The lookup is performed by clicking a "Select" button and is based on a "lookup key" field, such as "User ID", "Asset Name", etc.

One or more lookup key fields can be designated within a Project. The lookup key field can be either an Issue Information or Address Book field. Associated Issue Information or Address Book fields can then be designated to be populated with data from the external database.

Refer to the Numara FootPrints Reference Manual for complete information on the Dynamic SQL Field Mapper.

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## InstaCalc

Simple mathematical formulas can be incorporated into FootPrints Issues.

All mathematical formulas follow standard order of operations and the use of unary minus and parentheses is permitted.

### NOTE

To create a mathematical formula, you must first create the integer and/or real number fields to be used in the formula, including a "result" field for the result of the formula. To create integer or real number fields, refer to [Adding Fields](#).

Once you have created the fields, including a result field, you can create the mathematical formula.


**NOTE**

InstaCalc does not work with dependency fields. Do not include dependency fields in your InstaCalc formulas.

Operators are \* (multiply), / (divide), + (add), and - (subtract). You can also use parentheses in formulas. The Math Formula feature validates parentheses in the formulas displays an error message if you have unmatched parentheses, parentheses in incorrect order (i.e., a closing parenthesis prior to the opening parenthesis), parentheses with no data within them, etc.

## Create a Mathematical Formula with InstaCalc

To create a mathematical formula that will appear in an Issue:

1. Select Administration | Workspace from the FootPrints Toolbar, then select InstaCalc from the Fields section of the main frame.
2. Select a field to contain the result of the formula from the Formula Result Field drop-down field.
3. To enter the formula in the Enter Formula field, use a combination of typing information directly into the field, clicking the operators buttons to select the operation, and selecting fields from the Insert Field Variables field and then clicking the Insert arrow to move the field variable into the Enter Formula Field. When you insert a field, the value that is entered in the field by the agent is used in the formula. For example, if a field named "Cost" is inserted into the formula, then a multiplication operator, and then a field named "Quantity", when an agent later completes an Issue, the result of the formula would be the cost multiplied by the quantity.
4. You can use other elements on this page to perform other actions, as follows:
  - If at any time you wish to clear the entire formula, click the Clear button. For new formulas, the Undo button works exactly the same as the Clear button.
  - Blank fields radio buttons:
    - All fields in the formula must be filled in**—No blank fields may be left in the formula. If a formula is completed and a field is blank, there will be no result in the results field.
    - Blank fields will be given a default value**—If a blank field is left in the formula, the field will be assigned a default value specified in the Default Value field on this page.
5. When you have finished entering your formula, click the  **SAVE** button.

### Example:

The following is an example of how to enter a mathematical formula:

Select Result field.

**Existing InstaCalc Formulas**

No InstaCalc Formulas have been configured.

**Configure InstaCalc Formulas**

InstaCalc Result Field:

Make a Selection  
Make a Selection  
First\_Math\_Field  
Second\_Math\_Field  
Third\_Math\_Field  
Total

+

-

\*

/

(

)

Insert Field Variables:

First\_Math\_Field  
Second\_Math\_Field  
Third\_Math\_Field  
Total

<-- Insert

Clear

Undo

When calculating the formula:

☒ All fields in the formula must be filled in.

☐ Blank fields will be given a default value.

Default Value:

Type 12 and then click the operator button

**Enter InstaCalc Formula**

+

-

\*

/

(

)

12

Insert First\_Math\_Field

**Enter InstaCalc Formula**

+

-

\*

/

(

)

12\*

Insert Field Variables:

First\_Math\_Field  
Second\_Math\_Field  
Third\_Math\_Field

<-- Insert

Insert an open parenthesis, then the Second\_Math\_Field, a plus sign, the Third\_Math\_Field, and finally a closing parenthesis into the formula.

Add the result of the First\_Math Field calculation to the calculation in the parentheses by clicking in the formula and then clicking the plus sign.


## Edit a Mathematical Formula with InstaCalc

To edit an existing mathematical formula:


1. Select Administration | Workspace from the FootPrints Toolbar, then select InstaCalc from the Fields section of the main frame.
2. Select the result field of the formula you want to change from the Formula Result Field drop-down field.
3. Edit the formula in the Enter Formula field as described in Step 3 in the Create a Mathematical Formula with InstaCalc above. If you want to reset the formula to the original state before you began changing it, click the Undo button. To delete the entire formula, click the Clear button.

### NOTE

The Undo button only resets the values in the formula fields. If you have changed the Blank Fields radio buttons, the selections are not reset with the Undo button, nor is the Default Value changed. If, for example, you changed an operator in the formula from + to \* and then changed the Default Value for blank fields from 0 to 1, you will have to change that value back manually.

4. When you have finished editing the formula, click the  SAVE button.

## Deleting a Mathematical Formula with InstaCalc

1. Select Administration | Workspace from the FootPrints Toolbar, then select InstaCalc from the Fields section of the main frame.
2. Select the result field of the formula you want to delete from the Formula Result Field drop-down field.
3. Click the Clear button.
4. Click the  SAVE button.



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# Chapter 11: Configure Users and Customers

This set of functions is intended for user management on a workspace-wide basis. There are also some system-wide user management options; these are detailed in the chapter on System Administration.

The workspace-wide user options include:

- Agents
  - Add Agents—Add new Agents/Administrators to this workspace.
  - Edit Agents—Edit the properties of Agents.
  - Teams—Create and edit Teams of Agents for assignment in this workspace.
- Customers
  - Add Customers—Add new Customers to this workspace.
  - Customer Options—Configure options for Customers.
- Roles
  - User Roles—Define and manage permission roles for Agents and Customers.

---

## Agents

This section discusses some of the basic functions for managing agent users.

- Agent User Types—Explains the different types of Agents.
- Add Agents—Add new Agents and existing Agents from other workspaces to the current workspace.
- Change to Customer
- Teams

## Agent User Types

The term "Agent" in **FootPrints** is used to refer to both a type of license, and to a specific built-in user Role that is applied to users.

### License

Agent users require a license. There are two kinds of licenses that Agents can have:

- **Fixed**—The user is assigned a single license, and logs into FootPrints with his own unique ID and password. Only one user can use this type of license. The license is always available to the user.
- **Concurrent**—A concurrent license can be used by an unlimited number of people, but only one can be logged in at a time. Each user sharing a concurrent license has a unique ID and password, but can only log in if a concurrent license is available. If five concurrent licenses are purchased and twenty-five people are sharing those licenses, only five individuals can be logged in to FootPrints at one time. When the sixth person tries to log in, that person receives a message stating that there are no available licenses. When one of the five users who is logged in logs out of FootPrints, a license is freed. Refer to Concurrent Licenses under System Administration for more information.

#### NOTE

The Extended Starter Pack is required to add concurrent licenses, or to add more than fifteen named (fixed) licenses. Please contact your salesperson for details on obtaining the Extended Starter Pack.

### Role

Role refers to the level of access to the FootPrints system that is allowed to the new user. FootPrints comes with a number of built-in roles. In addition, the Workspace Administrator can create custom Roles to give different levels of access to different users. The Roles listed here apply to "Agent" users. Customers have their own Roles.

### Built-in Agent Roles

- **Agent**—A standard, full-strength user. Common uses for this user type include: Help Desk Agent, Call Center Agent, Developer, Engineer, Manager and Workspace Member. Agent users have the ability to use all of the basic functions of FootPrints, including creating, viewing, editing Issues, and running queries. Can use a fixed or a concurrent license.
- **Workspace Administrator**—In addition to Agent User privileges, the Workspace Administrator can administer a workspace, including adding custom fields, setting options, and adding users. Can use a fixed or a concurrent license.
- **System Administrator**—In addition to Agent User and Workspace Administrator privileges, the System Administrator has control over the whole FootPrints system, including administration of any workspace, adding new workspaces, and administering licenses.

#### NOTE

System Administrators must have a fixed license.

Please refer to the topic on User Roles for more information on customizing Role properties.


## Add Agents

To add a new user to a **FootPrints** workspace, select Administration | Workspace | Users | Add Agents from the **FootPrints** Toolbar. From the resulting page, you can create new **FootPrints** Agent and administrator users, as well as add existing **FootPrints** users to the current workspace.


### Add a New User to the Current Workspace

#### NOTE

If the user is already a member of another **FootPrints** workspace, refer to Add an Existing FootPrints User to the Current Workspace.

1. Enter the new user's name. When you enter the name, use the full name, e.g., Jill Smith.
2. Enter a FootPrints user ID. This is the ID used to log into FootPrints, e.g., jsmith. The user ID must be a single word with no spaces.
3. Enter the user's email address.
4. Choose a Role<sup>3</sup> for the user.
5. Optionally select a Supervisor for the user from the list of agents in the workspace. Supervisors can be used to designate where emails are sent when escalating Issues.
6. If the System administrator has defined only a single authentication method, and it is a non-FootPrints authentication method, be sure that the user ID you select corresponds to a user ID on the system against which you are authenticating. If two authentication methods are available, you can select the method the agent is to use to log into FootPrints. A FootPrints user ID is required even if you are using non-FootPrints authentication.
7. Choose a password for the new user (this is requested twice for accuracy).
8. Enter a value for Billing Rate if you want to calculate a fee based on time spent by the user working on Issues. This is the hourly rate in dollars. This field is optional.
9. If the system supports both concurrent and fixed licenses, there is a choice to select the type of license for the user.
10. Check the Accessibility checkbox if the Agent that you are adding is vision-impaired and will be using a screen reader.
11. Enter the user's time zone. This is an optional field.
12. Enter a date format. This is an optional field.
13. Enter a language preference. This is an optional field.
14. Enter your password and click  GO.

### Add an Existing FootPrints User to the Current Workspace

1. Choose the users you want to add from the Other FootPrints Agents list (hold down the CTRL key to highlight multiple users).
2. Enter your FootPrints password.
3. Click the  GO button. The users are added to the Users who belong to this workspace list.

#### NOTE

<sup>3</sup> A user type assigned to one or more users to define permissions. Both built-in roles and custom roles can be assigned to users. Examples of built-in roles include Agent, Customer Read/Submit, and Project Administrator.

Adding an existing Agent, Workspace Administrator, or System Administrator to a workspace does not require an additional license. A user with a fixed license can participate in any number of workspaces within a single **FootPrints** installation using the same license.


### Adding Users to Multiple FootPrints Workspaces

An Agent or Workspace Administrator can belong to multiple workspaces. You can add a user to a new workspace from the Add Agent User page for that workspace. System Administrators are automatically members of all **FootPrints** workspaces. Adding an Agent to multiple workspaces does not affect the number of licenses available. That is, an Agent who is a member of multiple workspaces still only uses one individual license.

## Change to Customer

When an existing Agent is added to a new Workspace, by default, the Agent receives the same user role that he has in his default (or first) Workspace. It is possible to make an Agent (or user with another custom Agent-type role) a Customer in another Workspace. This allows the user to act as an Agent in their default workspace, creating Issues, getting assigned to Issues, adding to the Knowledge Base, etc., while allowing him to submit Requests as a Customer in another workspace.

To make an Agent a Customer in the current Workspace:

1. Select Edit Agents under Administration | Workspace | Users & Roles on the FootPrints Toolbar.
2. In the Change to Customer section at the bottom of the Edit Agent page, select a Customer role for the user.
3. Enter your password and click  GO.

The user is now a Customer in the current Workspace, but still an Agent in his default Workspace.

#### NOTE

When an Agent changes to a workspace in which he is a Customer, he can switch back to a workspace in which he is an Agent without having to log in again. If the user is a Customer in multiple workspaces, he must first switch back to a workspace in which he is an Agent to have access to the other Customer workspaces. This prevents conflicts with Address Books that have different primary keys.

### Restrictions on Changing Agents to Customers

- An Agent cannot be a Customer in his default workspace. You must change the default workspace before you can change the Agent's role to a Customer.
- System Administrators can never be changed to a Customer in any workspace.
- If you want to change the user back to an Agent, you must first remove the user from the workspace (from the Edit Customer page) and then re-add him as an Agent.
- When an Agent switches to a workspace in which he is a Customer, the Agent must log out and log in again to switch back to being an Agent.

#### NOTE

If a user is a customer in one Workspace and an Agent in another Workspace, the Agent Workspace will always become that user's default Workspace. Also, when you add a customer to a Workspace and set the role to an Agent role, the new Workspace will be automatically selected as the default.

## Teams

For assignment purposes, Agents can be organized into Teams, such as “Application Support”, “Network Support”, “Development”. Issues can be assigned to the whole Team or to individual users within the Team. This allows an Agent to assign an Issue to a group of people, such as a development Team, without needing to know the individual person who will work on the Issue.


Various assignment options are available to handle automatic Team assignments, including round-robin assignment. Issues can be reported on by Team and custom user roles can be created to handle access to Issues by members of a Team. Agents can be organized into Teams by selecting Administration | Workspace | Teams from the **FootPrints** Toolbar. The Agents must first be created and be members of the Workspace before they can be added to a Team. Round robin and the other team assignment rules are only applied if no member of that team is already assigned to the ticket or is being assigned to the ticket along with the team.

The following topics are in this section:

- Creating Teams
- Using Teams
- Editing Teams
- Deleting Teams
- Managing Team Membership

### Creating Teams

To organize users into Teams:

1. Select Administration | Workspace | Teams from the FootPrints Toolbar.
2. Select the  GO button to create a new team. The Create a New Team page is displayed.
3. Enter a name for the Team in the Team Name field. Example names might be “Developers” or “Level 1 Support Team”.
4. Select members for the Team from the Available Agents multi-select field. The individuals listed in the Available Agents field include the Workspace’s administrators. To select a member, highlight a user’s name and click the right arrow button to add the user to the Members field. An unlimited number of users can be added to a Team and users can belong to multiple Teams. The pool of potential team members comes from the list of agents who are members of the current workspace.
5. If you wish to designate someone as a Team leader, after you have selected the Team members, select the Team leader from the Team Leader drop-down field.

#### NOTE

To see a list of current Team Membership for all teams, click the link for Current Teams.

6. You can select the assignment method for Team members on this page as well. The options are:
  - Leave assigned to Team—This is the default. When a Team is assigned to an Issue, the Team name appears in the Assignee field for that Issue (on the Homepage, in reports, etc.) Individual Team members can still be assigned by taking the Issue or via auto-assignment, escalation, or manual assignment.
  - Assign individual member(s)—Select one or more Team members to assign to each new Issue that is assigned to the Team. The user(s) selected here are assigned to every new Issue that is assigned to the Team. If you want different Team members assigned to

Issues based on another field, such as Problem Type or Location, use the Auto Assignment or Escalation feature.

- **Assign all members**—If this option is selected, all Team members are assigned individually to each new Issue that is assigned to the Team.
- **Dynamically assign based on round-robin rule**—When a Team is created with this assignment option, the first Issue assigned to the Team is assigned to the first individual in the Team list. Each subsequent issue is assigned to the next Team member, and so on, restarting at the first position when the last person in the list has been assigned. This option is applied to Issues that are assigned to a Team manually, via auto-assignment, or via an Escalation rule. This is useful for balancing the workload of Agents within a Team. Agent availability within the round-robin assignment is determined by one or both of the following options:
  - **Use agent availability based on an assignment time or a date field**—If selected, the Agent is considered available if shown as available in the Availability Matrix for the time and date selected here (for example, "Work Scheduled Date"), including Agent Work Schedule and Workspace Calendar appointments to which the Agent is invited. If "Assignment Time" is selected, the time that the auto-assignment rule is applied is used to determine availability.

#### NOTE

When selecting a date in a round-robin Team assignment, the date must be specified in the Workspace's work schedule.


- **Use personal appointments in determining Agent availability**—In addition to taking the Agent's Work Schedule and Workspace Calendar appointments into account, appointments that only appear on the Agent's Personal Calendar are taken into account when assigning if this is checked.

#### NOTE

Assignment options are not applied until the Issue is actually submitted.

#### NOTE

Additional assignment options are available using the [Auto Assign](#) and [Escalation](#) features. To use round-robin assignment in conjunction with these, enable the options above and select the Team name in the Auto-assignment or Escalation rule.

7. Choose how email notifications are to work in the Member Privileges section of the page. There are three options:
  - **Always**—All Team members receive email notification about Issues whether they are assigned only to the Team or to the Team and one or more members of the Team.
  - **Only when no individual agents are assigned**—Team members only receive email notification about Issues when the Issues are assigned to the Team only and not assigned to individual Team Members.
  - **Never**—Team members do not receive email notification about Issues assigned to the Team. The frequency and content of the emails sent are regulated by the [Workspace Mail Preferences](#). If the Workspace Mail Preferences are set to send mail to Agents on Open and Closed statuses, but not in Pending Status, and **Always** is selected in the option above, then Team members receive email notification about all Team Issues when they are in Open and Closed statuses, but not when they are in Pending status. Agents assigned individually to an Issue receive email according to the [Workspace Mail Preferences](#), regardless of the rule above or whether the Team is assigned.
8. When you are finished configuring the Team, enter your password and click  **GO**.

The Team is now created and Issues can be assigned to Teams from the Create and Edit Issue pages. Additional Teams can be created using the same method, with users as members of only one Team or multiple Teams.

## Using Teams

Once Teams are configured, it affects the Assignees field throughout **FootPrints**, including on the Create and Edit Issue pages, the Search and Report pages, and the Escalation page. Agents are now organized by Team in those dialogs and Issues can be assigned to both Teams and individual users.

### Some Features of Teams

- Viewing Issues—Users can view the Issues assigned to their Team from the Display drop-down on the Homepage. If a user belongs to multiple Teams, an option for each Team is available.
- Permission within Team—Users can be confined to viewing Issues, taking Issues, editing Issues, etc., based on their Team membership via user roles. Refer to User Roles and How Roles and Teams Work Together for more information.
- Email Notification—When an Issue is assigned to a Team (refer to Assignments with Teams below), if the option is configured to send email to Team members, all users receive an email.
- Taking—When a user takes an Issue that is assigned to the Team, the Team can still be assigned. Although the user is responsible for working on the Issue, the Issue also shows up on reports and searches for the whole Team.
- Multiple Teams—Users can be members of multiple Teams.
- Searches and Reports—When Teams are configured, you can search and report on Issues by Team or by user. Refer to Advanced Searches and Reports for more information.
- Assignment and Teams—Refer to Assignments with Teams below.

### Assignment with Teams

To assign an Issue to a Team or user when Teams are enabled:

1. On the Create Issue page, each Team is listed in the Workspace Members field. Select a Team to expand it. The first option is always to Assign Team. All Team members are listed under this option.
2. To assign the Issue:
  - only to the Team, select Assign Team and click the right arrow. The Team name is now listed under Assignees.
  - to a user from the Team, select the user's name and click the right arrow. Notice that the Team name is now listed under Assignees and the user's name is listed, indented, under the Team name.

#### NOTE

Multiple users can be assigned from the Team.

3. To assign users from another Team, click the Team name again in the left field to shrink the list, then select another Team to expand it and assign users from the new Team.

In addition to being listed under their Teams, all Workspace members are listed under the heading of Individual Users. Assign a user from this heading when you want to assign an Issue without it showing up as an assignment for a Team. Users who are not members of any Team are also listed here.

While a user can belong to multiple Teams, he can only be assigned to an Issue individually once.

## Other Assignment Options

In addition to the manual assignment described above, a number of options are available for assignment of Issues to Teams and Users:

- **Default Assignment**—This determines who is initially assigned when an Agent first opens a new Issue. This option can be overridden manually by the user or automatically by the system. This is configured on the Administration | Workspace | Auto Assign page. Options include assignment to the Issue creator, assignment to the creator's Team, assignment to the creator's Team and the creator, assignment to none, and assign to all. Refer to Auto Assign for more information.
- **Team Assignment Options**—Default options can also be set on the Create/Edit Team page. These options include leaving the Issue assigned to Team only, assign to one or more individual members (e.g., assign new Issues for the Team to the manager), assign all members, and round-robin.

### NOTE

These options are not applied until the Issue is actually submitted. Refer to [Creating Teams](#) for more information.

- **Auto Assign**—Teams and users can also be assigned to Issues automatically by the system using the Auto Assign feature, configured under Administration | Workspace | Auto Assign. This allows you to assign an Issue automatically to a Team or user based on the value selected in a drop-down field. For example, if Problem Type is Hardware, assign the Hardware Team. Auto-assignment occurs dynamically on the Create Issue page when the user selects the value from the drop-down. Refer to Auto Assign for more information.
- **Escalation**—For more complex assignment rules involving multiple criteria, Escalation rules can be used. A Team or user can be assigned to an Issue based on any combination of criteria, including Status, Priority, Contact and Workspace fields, and so on. Escalation rules are applied at the time the Issue is submitted (for instant Escalations) or after a specified period of time (for time-based Escalations). Refer to Escalation for more information.

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## Customers

Customers in **FootPrints** have access to many self-service features. Depending on their permission level, Customers can submit Requests, track the status of their Requests, search the Knowledge Base, etc. The Customer user type is appropriate for both employee and external Customers of your organization.

Customers have a number of components:

- **User Account**—This is the ID and password of the Customer. Users can have unique IDs and passwords or they can share a generic ID and password. This record is kept in the password file.
- **Contact Record**—The contact information for the user is kept in the FootPrints Address Book (or dynamically read from an LDAP or other External Database/SQL source). The data kept depends on the fields in the Address Book.

- **Primary Key**—The Customer User Account and Contact record are linked via the Primary Key<sup>4</sup> field. This is a field in the Address Book, such as User ID or Email Address, that uniquely identifies the user.
- **Role**—The permission level for the user. Built-in and custom roles are available.

## Roles

Role refers to the level of access to the **FootPrints** system that is allowed to the user. FootPrints comes with a number of built-in Customer roles. In addition, the Workspace Administrator can create custom roles to give different levels of access to different users. The roles listed here apply to Customers. Agents have their own roles.

### Built-in Customer Roles

- **Read KB**—View and search the Knowledge Base.
- **Read KB/Requests**—View and search the Knowledge Base and check the status on Customer's own Requests (entered by an internal Agent user, or via email).
- **Read/Submit**—In addition to Read KB/Requests functionality, can submit Requests via the web interface. This is the most popular Customer role.
- **Read/Submit/Edit**—In addition to Read/Submit functionality, these users have limited edit privileges of their own Requests (only available if the Customer Edit license is purchased).

Refer to User Roles in the Numara FootPrints Reference Manual for more information on customizing role properties.

## Add a New Customer

To add a new Customer to a **FootPrints** workspace, select Administration | Workspace | Customers | Add Customers from the **FootPrints** Toolbar. From this page, you can create new **FootPrints** Customers as well as add existing **FootPrints** users to the current workspace.

To add a new Customer to the current workspace

1. Choose the account type. A Shared account can be used by many people (who identify themselves with a unique key, such as email address). A Unique account is intended for one user only and allows you to specify a unique password for the user.

### NOTE


If the user is already a member of another **FootPrints** workspace, refer to [Add Existing Customer User to Current Workspace](#).

2. Create a **FootPrints** user ID. This is the ID entered to log into **FootPrints**. The format of the ID depends on the account type:
  - **Shared account**—The ID can be any string with no spaces, such as "customer", "guest" or "accounting".
  - **Unique account**—The ID must be in the format of the Primary Key for the Address Book associated with the current Workspace. This is set under Address Book Field Maintenance. For example, if Email address is the primary key, the ID should be in the form of the user's email address, e.g., jsmith@widget.com. If the Address Book field Customer ID is the primary key, then the ID might be in the form jsmith.

### NOTE

<sup>4</sup>The key field in the FootPrints Address Book that is used by FootPrints as a reference to identify the customer contact. Examples include "Email Address" and "User ID".

If the System administrator has defined only a single authentication method and it is a non-**FootPrints** authentication method, be sure that the user ID you select corresponds to a user ID on the system against which you are authenticating. If two authentication methods are available, you can select the method the agent uses to log into **FootPrints**.

3. Choose a Role for the user.
4. Select the customer's authentication method
5. Enter a password for the new user (this is requested twice for accuracy). A password is not required if the authentication method is not FootPrints authentication.
6. Enter customer preferences for time zone, date format, and language.
7. Enter your password and click  GO.
8. If a Unique user is created, a Contact Information page is displayed. Enter the contact information for the user. This creates a contact record in the Address Book. If the user already has a contact record in the Address Book (based on their primary key), the page is not displayed, but the user account is automatically linked to that contact record via the primary key<sup>5</sup>.

Customers can also be automatically added to the system from a network password or LDAP source, or they can create their own accounts. These features are detailed in the topic on Auto Add Customers under System Administration.

## Add Existing Customer User to Current Workspace

Customers can belong to multiple Workspaces. Customers from other Workspaces can be added to the current Workspace from the Add Customer page. The Workspaces must share the same Address Book and primary key.

To add an existing Customer to the current Workspace:

1. Select Administration | Workspace | Customers | Add Customers from the FootPrints Toolbar. Users from other Workspaces can be added in the top section of the page.
2. If you know the user ID, enter it in the field provided.
3. To browse from a list of users, click Select Customer. A pop-up window is displayed. If there are a large number of Customers in the system, the pop-up window may take a long time to display.

There are three options in the pop-up:


- Unique Customers—Customers from other Workspaces with unique IDs.
- Shared Customers—Shared, generic customer IDs.
- Agents—Agents from other workspaces can be added as Customers to the current workspace. Agents added as Customers from this dialog receive Unique Read/Submit Customer access. This can be changed later under Edit Customer.

### NOTE

Only Customers from Workspaces that share the same Address Book with the current Workspace are listed.

4. To add a user to the Workspace, click the user ID in the pop-up. It is added to the User ID dialog box. Multiple IDs can be entered space-separated either manually or by using the Select Customer dialog.

<sup>5</sup>The key field in the FootPrints Address Book that is used by FootPrints as a reference to identify the customer contact. Examples include "Email Address" and "User ID".

5. When you are finished adding Customers to the Workspace, enter your password and click  **GO**.

### Notes on Customers in Multiple Workspaces

- Customers who belong to multiple Workspaces can change Workspaces using the Change Workspace icon on the FootPrints Toolbar. To give Customers a drop-down of available Workspaces when they first log into FootPrints, enable the Workspace Menu Customer option.
- If you need to associate an existing Workspace with an existing Address Book from another Workspace in order to allow Customers to access both Workspaces, please contact Numara Software Support for instructions on linking the new Workspace to another Address Book.
- Adding or removing a Unique Customer account that was created with the Auto Add Customer feature removes that user from the group of Customers who were Auto-Added, including any defaults set for the Auto-Added Customers. Refer to the chapter on System Administration for more information on this option.

## Customer Options

There are two interfaces for customers to access FootPrints for self-service:

- Traditional Customer Self-service—Classic FootPrints customer Homepage with three frames, including left-hand toolbar. Requires users to log in before accessing any features. Supports roles and multiple workspace access.
- Customer Service Portal—Simplified, single-frame page that can be embedded within your existing web site's frames. Customers can access Knowledge Base without logging in. There is no support for different roles and the Customer Service Portal must be customized per workspace. Some available options, such as submitting and viewing Requests, do require identification by the customer. This is a simplified way of providing customer self-service and it is primarily geared for external customer support. If you enable the Customer Service Portal, a set of options associated with it are displayed on this page. Refer to Customer Service Portal Administration for details on those options

Workspace-wide options for Customers are configured on the Customer Options page. These options affect all Customers in the current Workspace. For more information on Customer options, please refer to the online help or the Numara FootPrints Reference Manual.

## Customer Service Portal Administration

The Customer Service Portal allows customers to access **FootPrints** and search the Knowledge Base without first logging in. Some available options, such as submitting and viewing Requests, require identification by the customer. This is a simplified way of providing customer self-service, and it is primarily geared for external customer support.

### NOTE

If this option is enabled for the workspace, it will supersede all customer roles defined for the Workspace. It also means that the customers who are members of the Workspace where single-frame is defined cannot access other workspaces through this interface.

### Enabling Customer Service Portal

1. FootPrints is set to the traditional FootPrints interface by default. Enabling the Customer Service Portal is done in the first section of the Customer Options page.

2. Select Administration | Workspace | Customer Options to get to the Customer Options page.
3. Click the Customer Service Portal radio button to enable the feature for customers of this Workspace. Users may also achieve this same result if they clicked the Customer Service Portal button from the final step of the Workspace Setup Wizard. When you click the Customer Service Portal radio button, the page changes to provide you with the appropriate options.

Other options for the Customer Service Portal include:

- Enabling Customer Service Portal
- Defining Login Type
- Creating a Welcome message
- Defining the Available Options
- Selecting and customizing the icons for the toolbar
- Define the entry point for the portal

Refer to the Numara FootPrints Reference Manual for further information on defining these aspects of the Customer Service Portal.

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## Roles

**FootPrints** comes with a number of built-in permission roles (also called "user types") to assign to users of the system. Each role includes a variety of permission options that dictate what users can and cannot do within a **FootPrints** Workspace. Options include creating and editing Issues, access to searches and reports, adding to the Knowledge Base, and more. The administrator can define and change which actions users of that role type can perform. In addition, an unlimited number of custom roles can be created.

There are two categories of roles in **FootPrints**. They are:

- **Agents**—These roles apply to full-strength users of FootPrints, such as help desk agents, customer service representatives, technicians, developers, project managers, etc. Users that can be added to an Agent-based role must have an Agent or administrator-strength license, either fixed or concurrent.
- **Customers**—These roles apply to end-users of FootPrints, such as external customers, internal clients, employees, outside vendors, etc.

### NOTE

This feature is optional. If you do not want to set permissions for different sets of users (for example, if you have a small department using the Workspace, all of whom fit into one or two categories), then the built-in roles that come with **FootPrints** may be sufficient. This feature is useful for creating very detailed permissions for different levels of users or can be used to change just one or two options for a set of users. It can also be used to create special permissions for a single user.

## Creating System vs. Workspace Roles

Roles can be defined at both the workspace and system level. System roles are not automatically assigned to users. Instead, they can be created by the System Administrator to be used by Workspace Administrators in their workspaces. This is an easy way to create standard roles that can be maintained in one place and are constant throughout the system.

- To create a system role, select **Administration | System | User Roles** from the FootPrints Toolbar. Once a system role is created, it can be linked from the **Workspace User Role** page.
- To create a **Workspace** role, select **Administration | Workspace | User Roles** from the FootPrints Toolbar. Once a role is created, one or more users can be assigned to that role on the **Add/Edit Agent** or **Customer** pages.

## Built-in Roles

On the **User Roles** administration page, a list of roles is listed in a drop-down box. If no custom roles have been created, the list only includes the built-in roles. These are the roles that come with **FootPrints**.

They include:

- **Agents**
  - **Agent**
  - **Workspace Administrator**
  - **System Administrator**
- **Customers**
  - **Read Knowledge Base**
  - **Read Knowledge Base and Requests**
  - **Read/Submit**
  - **Read/Submit/Edit** (Only available if the **Customer Edit** license is enabled).

Refer to **User Types** for an explanation of these built-in roles.

## Create a Role



To create a new role, click the **Create New Role** button from the **System** or **Workspace Administration User Roles** page.

- To create a system role, select **Administration | System | User Roles** from the FootPrints Toolbar. Once a system role is created, it can be linked to from the **Workspace User Role** page.
- To create a **Workspace** role, select **Administration | Workspace | User Roles** from the FootPrints Toolbar. Once a role is created, one or more users can be assigned to that role on the **Add/Edit Agent** or **Customer** pages.

This topic discusses the following:

- **Create a New Role from Scratch**—Create a new custom role type to apply to one or more **Agents** or **Customers**.
- **Copy an Existing Role**—Copy the properties of an existing role (custom or built-in) to use as the template for a new custom role.
- **Link to a System Default Role**—Use a system role in the current **Workspace** (not available on the **System Administration User Roles** page).



## Create a New Role from Scratch

1. Select Administration | System | User Roles or Administration | Workspace | User Roles from the FootPrints Toolbar.
2. Enter the name for the role in the Name of role field. This is the name displayed on the Add Agent or Add User pages when selecting a role for a user.
3. Select the role type (Agent or Customer) by clicking the appropriate radio button. The role created can be applied to either Agents or Customers. An Agent is anyone with a full-strength license (fixed or concurrent). These users can potentially create, update, and close Issues, get assigned to and change the status of Issues, add to the Knowledge Base, etc. A Customer is a user of the Customer Self-service interface, i.e., someone who has a problem or question that needs attention. These users can potentially submit and track their own Issues and search the Knowledge Base. Refer to User Types for more information.
4. Enter your administrator password and then click  GO. The User Role Properties page is displayed, pre-filled with the options from the originating role or with the default values.
5. Select the permission options desired for the role. The options available are different for Agents and Customers.
6. Details for setting Agent permission options can be found in Agent Permission Options. Details for setting Customer permission options can be found in Customer Permission Options.
7. When you are finished selecting permission options, enter your password and click  GO. All users who are assigned the role inherit the permissions selected for that role.

## Copy an Existing Role

The properties of an existing role (custom or built-in) can be used as a template for a new custom role. This is useful if you want to make a new role that is similar to an existing role, with only a few changes.

To copy a role:

1. Select Administration | System | User Roles or Administration | Workspace | User Roles from the FootPrints Toolbar.
2. Select a role from the Role to copy drop-down list in the Copy an Existing Role section of the page. All roles, including system roles, those from the current Workspace, and those from other Workspaces are listed.
3. Enter the name for the role in the Name of New Role field. This is the name displayed on the Add Agent or Add User pages when selecting a role for a user. The name entered must be different from the originating role.
4. Enter your administrator password and then click  GO. The User Role Properties page is displayed, pre-filled with the options from the originating role or with the default values.
5. Modify the permissions for the new role as needed. Modifying the permissions for this role does not affect the originating role; it is used as a template only.
6. Details for setting Agent permission options can be found in Agent Permission Options. Details for setting Customer permission options can be found in Customer Permission Options.
7. When you are finished, enter your password and click  GO. All users who are assigned the role inherit the permissions selected for that role.

### NOTE

The new role and the original role used as a template are not linked in any way. Changes made to one do not affect the other. The exception to this is linking to system default roles.

## Link to a System Default Role


### NOTE

This option is not available on the System Administration User Roles page.

The System Administrator can define system roles that remain constant throughout all Workspaces. For example, a standard "Director" role can be created for the system that gives the same level of permission to users assigned to that role no matter which Workspace they are in.

While system roles are created by the System Administrator, they are not put into use until a Workspace Administrator links to one from his or her Workspace.

To link to a system role:

1. Select Administration | System | User Roles or Administration | Workspace | User Roles from the FootPrints Toolbar.
2. In the Link to a System Default Role section, select a system role from the drop-down list. All system roles that are not yet linked to from the current Workspace are listed.
3. Enter your administrator password and then click  GO. The role is now available in the Workspace and can be selected when creating or editing a user.

### Editing a Linked System Default Role

To keep a system role constant throughout all workspaces, it should only be edited by the System Administrator on the system User Roles page. A linked role can be edited by the Workspace Administrator from the Workspace User Roles page, but this unlinks the role from the system. Refer to Edit Roles for more information.

## Agent Permission Options

The permission options available for Agents can only be modified by an administrator. The page from which these permissions are modified is accessed by selecting Administration | Workspace | User Roles or Administration | System | User Roles, then selecting an Agent role from the drop-down list, and then clicking the Edit Role Properties button. This topic in the document describes the sections of the page and the options for each section.

### NOTE

Some of these options were formerly available on the Workspace Options page (v5.6.1 and below), where they applied to all Agents.

1. Read Permissions—These options determine which Issues the user can view and search in the Workspace. There are three options:
  - Can only view their own assigned Issues—The user can only view Issues to which he is assigned.

### NOTE

Users can also always see Solutions and Customer Requests.

- Can only view Issues that are assigned to them or to their team—The user can view Issues that are assigned to him and those Issues that are assigned to his Team (only applies if the user is a member of a Team).
  - Can view all Issues in the workspace—The user can view all Issues in the Workspace regardless of assignment.
2. Field Permissions
    - Built-in Fields
      - Create Issue—Options are for when agents create new issues only.

- Specifying Assignees—Options are Allowed (agent may specify assignees) or Not Allowed.
  - Create New Issues With Statuses Of—Specify which statuses the agent may select when creating a new issue. Check as many boxes as appropriate.
  - Descriptions are mandatory for new Issues created with Statuses of—Require an entry in the Description field when a new issue is created with the specified status. Check as many boxes as appropriate.
  - Edit Issue—Options are for when agents edit an existing issue only.
    - Editing Title—Options are Allowed (to edit the Title field) or Not Allowed.
    - Editing Priority—Options are Allowed (to edit the Priority field) or Not Allowed.
    - Editing Assignees—Options are Allowed (to edit the Assignees field) or Not Allowed.
    - Change Status—Options are Any, None, or Selected. If Selected is chosen, a grid is displayed. Specify which statuses the agent can change from and to using the checkboxes in the grid. Check as many boxes as appropriate. The vertical list of statuses are the current statuses and the horizontal list shows the statuses to which the agent may change the value. For example, you may not want a custom agent role to have permission to close an issue. In that instance, you would uncheck the Closed checkboxes in all instances. On the other hand, you might have as status for requiring an approval before an issue is closed, in which case you would only check a Closed checkbox permitting the issue to go from Approved to Closed.
    - Editing Inactive (a special Status used only for Subtask Sequencing)—Options are Allowed (to edit a subtask that is currently inactive) or Not Allowed.
    - Mandatory Description Appends—Options are Any, None, or Selected. If Selected is chosen, a grid is displayed. Specify when an entry in the Description field is required using the checkboxes in the grid, i.e., require a description entry when the status is changed from one status to another. Check as many boxes as appropriate. The vertical list of statuses are the current statuses and the horizontal list shows the statuses to which the agent may change the value. For example, you may require a description entry when the agent changes the status of an issue from Open to Closed.
  - Ordering Subtasks—Options are Allowed (to set a subtask sequence) or Not Allowed.
  - **Custom Fields**—Refer to [Field-level Permissions for Custom Fields](#) for details.
3. **Issue Creation**—These options all concern Issue creation.
- Creating New Issues—This option determines if the user can create new Issues from scratch, including regular Issues and Quick Issues.
  - Copy/Move Issues—If this is allowed, the user can copy Issues within the same Workspace or copy or move Issues to another Workspace. This is useful in creating an Issue in which the information is repeated.
  - Creating New Global Issues—If this is allowed, the user can create Global Issues for important or frequently reported Issues.
  - Can use the following quick Issue templates—Optionally exclude some Quick Issues from Agents. By default, all defined Quick Issues are defined for Agent access.
4. **Edit Permissions**—These options relate to the editing of Issues, Requests, and other Issue types by the user.
- Editing Issues—Which Issues can the user edit:

- Can only edit their own assignments—The user can only edit Issues assigned to him.
- Can edit Issues that are assigned to their own Team—The user can edit Issues assigned to him and those assigned to his Team (if he belongs to a Team).
- Can edit any Issue without being assigned—The user can edit all Issues in the Workspace regardless of assignment.
  - Editing Requests—The user can edit Customer Requests (those that haven't been assigned yet) without actually taking them (i.e., without assigning themselves).
  - Editing Public Solutions—The user can edit existing Solutions in the public Knowledge Base.
  - Editing Internal Solutions—The user can edit existing Solutions in the internal Knowledge Base.

**NOTE**

The two previous options do not apply to Pending Solutions, only to published Solutions. Whether an Agent can edit a Pending Solution is based on whether the Agent is an Approver and whether the Agent is the one who submitted the Solution for approval. Refer to [Knowledge Base Approvals](#) for more information.

- Taking Issues—"Taking" refers to an Agent editing an Issue to which he is not assigned and assigning that Issue to himself. There are three options:
  - Cannot take any Issues—Taking is not allowed for the user.
  - Can take Issues that are assigned to their own Team—The user can take Issues that are assigned to his Team (if he is a member of a Team).
  - Can take any Issue—The user can take any Issue in the Workspace.

**NOTE**

If a user has edit rights to Issues, this overrides the Taking option.

- Taking Requests—If this is allowed, then the user can take new Requests submitted by Customers and work on them (and at the same time assign himself).
  - Deleting Issues:
    - Agents cannot delete any Issues
    - Agents can only delete Issues that they submitted
    - Agents can delete any Issue
  - Can use the following Quick Actions from the Homepage—Only the checked Quick Actions are displayed in the Quick Action dialog on the homepage for the agent role being edited. All checkboxes default to being checked (all actions are allowed).
5. Knowledge Base—These options determine whether the user can create Solutions in the Knowledge Base. There are two types of Solution: Public (which Customers and Agents can view) and internal (only Agent users can view)
- There are two permission options, one for each Solution type:
    - Ability to add to the Public Knowledge Base
    - Ability to add to the Internal Knowledge Base
  - For each type of Solution, there are three options plus another permission:
    - Yes—User can create Solutions which are published immediately.

- Needs Approval—User can create Solutions, but they need to be approved by an Approver (an Administrator or other Workspace Member) before they can be published to the Knowledge Base.
- No—User cannot create Solutions of this type.
- Ability to change Status within pending Statuses—User can change the status within statuses that are pending but not approved.

**NOTE**

If Needs Approval is selected for one of the Solution types, you must designate one or more Knowledge Base Approvers for the Workspace. This is done on the Workspace Administration | Knowledge Base page.

6. Address Book—These permission options relate to creating and editing contacts in the FootPrints Address Book.

**NOTE**

These options do not apply if an LDAP or SQL Address Book is used in the Workspace.

- Creating new Contacts—The user can create new contact records in the Address Book for the current workspace.
  - Can Edit—If All Contacts is selected, the user can edit any contact record in the Address Book for the current workspace. If Only Contacts that they created is selected, the user can only edit contact records that they originally created in the Address Book. If the user cannot create new contacts and Only Contacts that they created is selected, the user cannot edit any contacts.
  - Can View Contacts
    - Can view all contacts in the Address Book
    - Can view only contacts with the same organizational unit as the Agent. The Agent must be added to the Address Book in order for this role property to work correctly. The organizational unit field must be populated for the Agent and the Agent's account ID must match the User ID field in the Address Book.
    - Cannot view contacts
  - Creating new Master Contacts—Options are Allowed or Not Allowed.
  - Editing Master Contacts—Options are Allowed or Not Allowed.
7. Searching and Reporting—This set of permission options determines what access the user has to searches and reports. Depending on what is selected, the user's toolbar is updated to show only permitted report and query options. Also, the data returned in the searches and reports is determined by their Read Permissions (see above). The following options are available:
    - Custom Reports
      - No Access—User cannot access custom reports.
      - Personal Reports Only—User can create, run and save reports for himself, but has no access to Shared reported created by other users.
      - Run Shared Reports Only—User cannot create, run, or save their own custom reports, but can run shared reported created by other users.
      - Personal Reports (Full Access) and Run Shared Reports—User can create, run, and save their own custom reports and can run shared reported created by other users.
      - Personal and Shared Reports Full Access—User can create, run, and save their own custom reports and can create, run and save shared reports for other users.

**NOTE**

The data that is returned in these reports is based on the user's Read Permissions. For example, if the user can only view his own Team's Issues, any custom reports he runs (personal or shared) returns only his Team's data.

- Cross-workspace Reports—Same options as Custom Reports. User can run cross-workspace reports that include data from any workspace to which the user belongs.

**NOTE**

This option applies to the current workspace. If Cross-workspace Reports are not allowed for the user in the current Workspace but are allowed in another one of his workspaces, the user can run a cross-workspace report from the other Workspace that contains data from this Workspace.

- Address Book Reports—Same options as Custom Reports.
- Issue Searches
  - Personal Searches Only—User can only run, save, and edit personal searches.
  - Personal Searches and Run Shared Searches—User can run, save, and edit personal searches, and can run shared searches created by other users.
  - Personal and Shared Searches Full Access—The user can run, save, and edit personal searches and shared searches for other users.
- Cross Workspace Issue Searches—Search Issues across the Workspaces to which the Agent has access. Same options as Issue Searches.

**NOTE**

The data that is returned in these searches is based on the user's Read Permissions. For example, if the user can only view his own Team's Issues, any custom searches he runs (personal or shared) only returns his Team's data.

- Address Book Searches—Same options as Issue Searches.
- Time Tracking Reports
  - No Access—User has no access to Time Tracking reports.
  - Full Access—User has full access to Time Tracking reports.
- Metric Reports—Same options as Time Tracking reports.
- Flashboard—User has access to the personal flashboard, the Workspace flashboard, or both.

**NOTE**


This option is not dependent on the user's Read Permissions. The user can access all data in the Workspace for Metric reports.

## 8. Time Tracking

- See Time Tracking Info for Other Users—User has access to time tracking information for other internal users.
- See Rate and Cost Info—User has access to rate and cost information for other internal users.
- Edit existing Time Tracking entries—Choices are Allowed or Not Allowed.

## 9. Change Management

- View all change management history—The user has access to the change management history information.

- Ability to override approval/disapproval voting—The user can override the votes in any phase of any change management process and end the phase immediately. This removes the override ability from the Issue pages, but Workspace Administrators can still override votes by selecting Administration | Workspace | Change Management, then selecting the Issue Approval States link on the Change Management page, and then selecting a voting option from the drop-down menu in the Override column of the table. This Workspace Administration function is not a true voting function, but an administration function to move an Issue within a phase.
  - Miscellaneous
  - Instant Talk—If Instant Talk is enabled for the Workspace and this option is enabled, the user can initiate a chat session with other users.
  - Numara Remote—If this add-on module is licensed, enable or disable the use of it for the role.
  - Workspace Administration—Workspace Administration rights can optionally be given to the users of this custom role.
  - Workspace Administration Rights—Check the boxes to specify the functions that this role can administer as a Workspace Administrator.
  - CMDB Access—If this add-on module is licensed, disabling this for the role means the CMDB button is not displayed in the FootPrints toolbar, effectively preventing any access to the CMDB homepage and any functions that page provides.
  - Workspace Calendar—User can create and edit appointments in the Workspace Calendar. Users can always create and edit appointments in their Personal Calendars. In addition, users can edit an appointment in the Workspace Calendar if they are an invitee of the appointment, regardless of this permission option.
  - Change Personal Preferences—Choose Yes to allow users with this role to set their own password, time zone, date format, screen size setting, and language and delete their login cookie from the Preferences page or choose No to deny the privilege.
  - FootPrints Sync—Select whether users with this role can download the FootPrints Sync client.
  - FootPrints Dashboard—Specify the maximum number of dashboard components for Agents in this Workspace. The maximum number that an administrator can specify is 10 and the minimum is 1.
10. When you are satisfied with the permissions selected for the role, enter your password and click  **GO** . All users who are assigned the role inherit the permissions defined.

## Field-level Permissions

Field-level permissions, as a rule, are not likely to be created as part of an initial design. Rather, it is expected that the Issues page will be created first, and then a need for field-level permissions will be found. At that point, an administrator will go back and either create a new field that is to be restricted to specific roles or restrict an existing field to certain roles. In addition, it is not expected that new roles will be created to accommodate field-level permissions. However, while adding roles to accommodate field-level permissions is not expected, this section describes how permissions are applied to existing fields, creating new fields to be restricted with field-level permissions, and creation of new roles to accommodate field-level permissions, just so that all the bases are covered.

## Customer Permission Options

Customer permissions can be set if you have a Customer license. You can define multiple roles for your Customers using the built-in Customer roles and then define different permission sets for each role. Note that roles are not available if you are using the Customer Service Portal.

The permission options available for Customers can only be modified by an administrator. The page from which these permissions are modified is accessed by selecting Administration | Workspace | User Roles or Administration | System | User Roles, then selecting a Customer role from the drop-down list, and then clicking the Edit Role Properties button. This topic in the document describes the sections of the page and the options for each section.

### NOTE

Some of these options were formerly available on the Customer Options screen (v5.6.1 and below), where they applied to all Customers.

1. Requests—These options determine what the user can do with Requests.
  - Viewing Requests—There are three options:
    - Can only view their own Requests—The user can only view his own Requests, including those entered by him via the web, email, or entered by an Agent for him (based on the user's primary key).
    - Can view their own Requests and their Organization's Requests—The user can view his own Requests and those of his Organizational Unit (only applies if an Organizational Unit field is enabled in the Address Book).
    - Cannot view Requests—The user has no access to Requests. This option is appropriate if the user only needs to search the Knowledge Base.
  - Creating Requests—There are several options:
    - Creating Requests—User can create new Requests via the web interface for himself only. This is the default for Customer Read/Submit and Customer Edit roles.

### NOTE

Customers cannot enter Requests for other users. If you would like to create a role that allows the user to create Requests for other users, be assigned to Issues, etc., you must create an Agent role.

- Entering Priority of Requests—Customer users can optionally enter a priority when creating Requests (disabled by default). If this is not allowed, the default priority for the workspace is assigned automatically when the user submits a Request. This option only applies if the user is allowed to create Requests.
- Change Priority of Requests—Customer users can optionally change a priority when editing an existing Request (disabled by default). If this is not allowed, the default priority for the workspace is assigned automatically when the user submits a Request. This option only applies if the user is allowed to create Requests.
- Update Contact Info—User can update his own contact information when submitting a Request, which then updates the Address Book. This option only applies if the user is allowed to create Requests and if the FootPrints Address Book is used (does not apply to LDAP or Dynamic SQL Address Books, which are read-only).
- Can add CC: addresses to Requests—Customers can add email addresses that FootPrints includes in the list of Request recipients. They do not have to be email addresses of FootPrints users.
- Can use the following quick Issue templates—Customers can use specified Quick Issue templates, like Password Reset. Customers do not have access to Master/Subtask Quick Issues.

- Editing Requests—With a Customer Edit License, customers can edit public Read/Write/Edit fields as defined by the Workspace Administrator.
  - Closing Requests—Allow customers to change their own request status to Closed.
  - Global Issues—Customer can subscribe to Global Issues created by Agents or administrators.
  - Enable HTML Description Editor—Allows customers to use the same HTML Description Editor available to agents. The Description Editor provides a richer range of functions for changing the appearance of text, such as colors, indents, font changes, etc.
2. Field Permissions
- Default permissions—The workspace-wide field permissions defined on the field maintenance and advanced field permissions pages are applied.
  - Advanced Permissions (based on Status)—If you select Advanced Permissions, the controls are displayed to set advanced field permissions based on status for this role. Those permissions supercede the advanced field permissions set for the workspace as a whole. For details on setting advanced field permissions, refer to the topic on Advanced Field Permissions.
3. Reports
- Run Pre-defined Reports—Allow customers to run pre-defined reports.
  - Create Custom Advanced Reports—Allow customers to create their own custom reports. This would require customers to be fairly sophisticated in their understanding of FootPrints reports.
  - Allow Running "large" Reports—If there are more than 750 issues in the report, FootPrints considers it large.
4. Miscellaneous
- Instant Talk—If Instant Talk is enabled for the Workspace and this option is enabled, the user can initiate an Instant Talk chat session with an available Agent. If it is disabled, the Instant Talk option is not available for the Customer on the FootPrints Toolbar.
  - Knowledge Base—User can search the public Knowledge Base and has access to the public FAQs. Customers can never view internal Solutions.
  - Initial Content—The Homepage that Customers see when they first log into FootPrints can be customized per role. Under certain circumstances, this role property may not function. For example, this property may not function if browse mode is enabled or the login method is primary key only. The options are:
    - All Solutions—All Knowledge Base solutions.
    - My Requests—A list of the user's personal requests is displayed.
    - My Service Requests—A list of the user's Service Catalog requests is displayed. This only applies if you have the Numara Configuration Management add-on module and Service Catalog has been enabled.
    - My Organization's Requests—A list of the user's Organizational Unit's requests is displayed.
    - Submit Request—The Submit Request form is displayed.
    - Service Catalog—The initial Service Catalog page. This only applies if you have the Numara Configuration Management add-on module and Service Catalog has been enabled.
    - Global Issues—A list of Global Issues is displayed.

- Knowledge Base Categories—Select the Knowledge Base category. The list of Issues that are in that category is displayed.
- Customer Service Portal—If the Customer Service Portal is enabled, the options for customizing the toolbar are displayed on this page. Refer to the topic on Customer Service Portal administration for details.
- Customer Welcome Message—The Welcome message displayed at the top of the Homepage can be customized per role. This is a good place to communicate to users of that role what they can do in FootPrints, how they can get help, important messages, etc. The message can contain any text and can also contain the following variables for the user's name, etc.:

Variable	Description
<b>_FROMNAME_</b>	Email "from" name (if different from "FootPrints")
<b>_USERNAME_</b>	User's name
<b>_ADMINEMAIL_</b>	Workspace Administrator's email address
<b>_PROJNAME_</b>	Workspace Name

*Customer Welcome message variables*

- Change Personal Preferences—User can change his own preferences, including changing password, time zone for date/time display, date format, screen size setting, and language.
- Service Catalog Access—If the Configuration Management Service Catalog feature is enabled, you can decide whether a Service Catalog link is displayed in the workspace toolbar.

#### NOTE

Change Personal Preferences only applies to unique customer accounts; shared accounts do not display a **Preferences** option to the customer.

5. When you are satisfied with the permissions selected for the role, enter your password and click  **GO**. All Customers who are assigned the role inherit the permissions selected.

## Assign Roles to Users

Once a custom role is created, users can be assigned to the role in the following ways:

- Edit Role Membership (described below)—From the Roles Administration page, you can assign one or more users to a role.
- Add Agent—On the Add Agent page, all Agent roles are available to assign to a newly created Agent.
- Edit Agent—On the Edit Agent page, all Agent roles are available to assign to an existing Agent.
- Add Customer—On the Add Customer page, all Customer roles are available to assign to a newly created Customer.
- Edit Customer—On the Edit Customer page, all Customer roles are available to assign to the existing Customer.
- Auto-Add Customers—Auto-added Customers can be assigned to any custom or built-in role.
- User Import—Users imported from a comma-delimited text file can be assigned any built-in or custom role.



Refer to the individual topics listed above for complete instructions on adding/editing users with the various methods.

### Edit Role Membership

Once you have created a role, you can assign one or more users to that role from the Edit Role Membership page. This allows you to quickly assign and re-assign multiple users at once to a role.

1. To use this feature:
2. Select Administration | Workspace | User Roles from the **FootPrints** Toolbar.
3. On the User Roles administration page, select a role from the drop-down list and click Edit Role Membership. The Role Membership page is displayed. This page lists the current users who belong to the role on the left in the Members field and other Workspace members on the right in the Other Workspace Members field. The other Workspace members are listed with their current assigned Role.
4. To:
  - Assign a user to this role, select the name from the Other Workspace Members field and click the left arrow button. The user's name is displayed in the Members field.
  - Unassign a user from this role, select the name from the Members field and click the right arrow button. You are prompted to reassign roles on the next page for any users unassigned on this page.

A summary of the changes you've made are listed in the box below for your reference.

5. When you are finished assigning and unassigning users to and from this role, enter your password and click  GO.
6. If any users were unassigned from the role on the previous screen, a list of users is displayed, each with a drop-down list of roles. Select the new role for each user, then click  GO.

The users now have the permissions of the new roles assigned to them. You can change their role at any time from this page or from the Edit Agent page.

## Agent Preferences Template

The Agent Preferences Template enables the workspace administrator to create a template for user preferences. The template applies to a user role or roles. For example, the workspace administrator might specify some columns to be displayed on the homepage for help desk agents and a different set of columns to be displayed for supervisors. Users can change those preferences individually on their User Preferences page.

There are two basic steps for Agent Preferences Templates. First you must create a template or templates and then you must assign the template or templates to the user roles. After that, you can edit the templates and reapply them or delete templates as needed.

### Create Agent Preference Template

To create an agent preferences template:

1. Select Administration | Workspace from the FootPrints Toolbar. The Workspace Administration page is displayed in the main frame.
2. Select Agent Preferences Templates under the Roles heading in the main frame. The Agent Preferences Templates page is displayed in the main frame.
3. Click the Add button Create/edit Templates section of the main frame. The Create New Template page is displayed in the main frame.

4. In the first section of the page, named Create New Template, enter a name for the template in the Template Name field.
5. In the Homepage List Preferences section, set the preferences for the list of Issues that is displayed in the main frame of the Workspace homepage. For a complete description of the options in this section, refer to the Homepage List Preferences topic.
6. In the Issues section, select the preferences for how Issues are displayed, whether spellchecking is enabled in the Description section of Issues, etc. For a complete description of the options in this section, refer to the Issue Preferences topic. The only exception is that the Agent Preferences Template does not include the Quick Descriptions/Signatures option.
7. In the Security section, the security option restricts others from updating an agent's assigned Issues (for example, if the agent is away from his or her desk) by requiring a password. If enabled, a password is required each time the agent creates or edits an Issue. Refer to for complete details.
8. In the FootPrints Sync section, specify whether the role(s) to which this template applies use the FootPrints Sync feature or one-way synchronization with Outlook. From the link, you can customize the FootPrints Sync options. Refer to Numara FootPrints Sync for complete details on the settings that apply to this feature.
9. In the Misc. section, choose whether to allow customers to initiate an Instant Talk session with the agent. If Instant Talk is set to Not Allow, the agents are still able to initiate Instant Talk sessions with one another.

**NOTE**

This option only applies if Instant Talk is enabled.

10. When all options are set, enter the password in the Apply Changes section and click the GO button. This creates the template. The template has not yet been applied to any roles, however. To apply the template to a role, return to the Agent Preferences Templates page. Refer to the Assign Template to Role topic for details.

### Assign Template to Role

Once you have created a Agent Preferences Template, you can assign the template to a role or roles so that the preferences take effect. To do so:

1. Select Administration | Workspace from the FootPrints Toolbar. The Workspace Administration page is displayed in the main frame.
2. Select Agent Preferences Templates under the Roles heading in the main frame. The Agent Preferences Templates page is displayed in the main frame.
3. All of the roles in the current workspace are listed in the Assign Template to Role section. Use the drop-down fields to the right of the roles to select the template assigned to each role or leave the drop-down set to None (i.e., no template will be applied).
4. To the right of each drop-down menu is a checkbox to update the user preferences for existing users. If you leave that box unchecked, the preferences of current agents and/or customers remain unchanged. If you update the existing users, all of the user preferences for the selected roles will be changed to the values you selected for that template. This could cause some unhappiness with your current users, so exercise caution in checking this box. Regardless of whether you choose to update existing users, templates are applied to any users who are added to the workspace after you assign templates to roles.
5. Complete the assignment by entering the administrator password into the Password field and clicking the GO button.



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# Chapter 12: Email Management

**FootPrints'** Email Management feature gives you many capabilities to use in conjunction with the web interface. The system can send customized email notifications to users and process incoming email submissions and updates. Users can submit, track, update, and query Issues from any email client, including Microsoft Outlook and Lotus Notes.

The email notification feature includes extensive rules for when notification mail is sent to users regarding their Issues, what the emails contain, notification to Agents and administrators regarding automatic escalation, etc. Outgoing email notification requires an SMTP mail server that is accessible to the **FootPrints** server. The incoming email feature allows users to send email to **FootPrints**, which are converted into new Issues, allows users to update their Issues via email, and supports email queries. This feature requires at least one POP3 or IMAP account set up for the exclusive use of **FootPrints**.

This chapter contains the following sections:

- System Administration
  - Incoming Email Management
- Workspace Administration
  - Outgoing Email Management
  - Incoming Email Management
  - Email Filters

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## System administration

System email notification settings are configured under Administration | System | Features | Email | Email Notification.

- **Enable Email Notification**—When disabled, no email notification is sent by **FootPrints**. This overrides any Workspace settings or user preferences that may be set. This option is useful if you can't connect to a mail server.
- **SMTP Server**—Specify the SMTP server (Windows only).
- **Default Reply Address**—This is the address that is displayed in the From and Reply to fields of all outgoing notification email sent by **FootPrints**. Any direct replies to **FootPrints**

notification email go this address. Individual replay addresses can also be specified for individual Workspaces. Refer to [Incoming Mail Setup](#) for additional information.

- **Default “From” Name**—Specify a name here for mail sent by **FootPrints**. This is the name displayed in the From field of email notification. By default, this is FootPrints. This name can be changed, for example, to your company or department name. Different From names can be defined for individual Workspaces. Refer to [Incoming Mail Setup](#) for additional information.
- **Default “Domain” Name**—Specify a domain for mail sent by **FootPrints**. This is the email domain that is added on to email addresses where the user has no domain specified. For example, if customers are configured to only enter their email ID names (e.g., jsmith) and your organization’s email domain is @widget.com, enter widget.com here and **FootPrints** appends that domain when sending an email to a user, e.g., jsmith@widget.com.
- **Default Sendmail Command (UNIX/Linux only)**—Specify a sendmail command here for mail sent by **FootPrints** (UNIX and Linux only). This is the sendmail command **FootPrints** uses if you use something other than the Unix/Linux sendmail program for email processing.
- **Pager/Wireless Servers**—Define certain email domains that should receive shortened email notification. Enter the email domains that **FootPrints** should recognize for sending mail to wireless devices. Any email notification that goes to these domains follows the email format defined on the Email Preferences page (in Workspace Administration) for pager/wireless. Enter a space-separated list of domains, e.g., palm.net skytel.net motorola.com.
- **Send Introduction Email**—If this option is selected, users can receive an introductory email the first time a notification email is sent to their email address. [Formatting Introduction Email](#)
- **Mass Mail**—The Mass Email feature allows you to send a broadcast email to contacts in the Address Book. [Mass Mail Settings](#)

Once you finish updating the Mail Preferences page, enter your password and click  **GO** to activate the changes.

## Incoming Email Management

**FootPrints Incoming Email Management** can be configured to process incoming email submissions. Users can create Issues, update Issues, and submit queries via email. At least one POP or IMAP email account must be created on your email server for the exclusive use of **FootPrints**. One email account can also be specified for each Workspace. This section describes how to set up the incoming email feature for Windows and UNIX.

Incoming email is configured for the entire system by selecting Administration | System | Features | Email from the **FootPrints** Toolbar. Some incoming email preferences can also be configured per Workspace.

The following options are covered in this topic:


### System Incoming Email Preferences

- System Incoming Email Preferences
- Incoming Email Setup
- Other System Incoming Email Preferences
  - Customer Response flag
  - Incoming mail size

- Recovering Lost Incoming Email


## System Incoming Email Preferences

- **Configure Incoming Email**—Define email account(s) for processing incoming email submissions from users.
- **Debug Incoming Mail**—This option enables incoming email debugging, allowing Numara Software Support to assist you in finding configuration or other incoming email problems.
- **Choose Error Notification Address**—When an incoming mail processing error occurs, an error message is sent to the submitter of the email. In addition, an email is sent to a System Administrator and the text of the original submitted email is saved to a file on the server. In this section, choose which administrator should receive these emails. If Ignore Errors is selected, an error message is still sent to the submitter, but no error message is sent to a System Administrator and the mail is not saved.
- **Mail Filters**—Optionally create a list of phrases which are used to reject incoming email messages, as in "vacation" messages.


After you finish updating the Mail Preferences page, enter your password and click  **GO** to activate the changes.

## Incoming Mail Setup

Incoming email must be configured before users can submit Issues via email, update Issues via email, reply to Issues via email, or submit email queries to the database. At least one POP3 or IMAP email account must be set up for the exclusive use of **FootPrints**. Otherwise, **FootPrints** deletes the mail from the POP3 account, but won't enter it as a request and the mail is lost.

To configure email, select Administration | System | Features | Email from the **FootPrints** Toolbar. In the section entitled Incoming Mail Setup Feature, click  **GO**. One email account can be configured for whole system or individual email accounts can be associated with each Workspace on this page.

### Configure Incoming Email

1. Create a mail account on your mail server. This must be done on your mail server and not from within **FootPrints**. For example, you could make a new mail account called support on your mail server. In this example, all mail sent to support@myserver.com is automatically processed by **FootPrints**.
2. Ensure that you have created at least one customer account. Incoming mail from external users does not work without this.
3. Select Administration | System | Features | Email from the **FootPrints** Toolbar.
4. In the Incoming Email section, click the Configure Incoming Email button.
5. Click  **Add** on the Incoming Email Setup for FootPrints page.
6. Select the mail retrieval protocol: IMAP (Internet Message Access Protocol), POP (Post Office Protocol), or IMAP/SSL (IMAP/Secure Socket Layer).


#### NOTE

Client certificates are not supported. FootPrints supports SSLv2 and SSLv3.

7. Enter the POP/IMAP mail server name for your organization either as a DNS name or IP address, e.g., mail.myserver.com or 123.33.44.55.
8. Enter the support email account name, e.g., support.

**IMPORTANT**

Do not enter your own email account in this field. Any email sent to the account specified here is processed by **FootPrints** as incoming email. If you enter your own email address, any email sent to your account, regardless of the source, will be processed by **FootPrints** automatically.

9. Enter the password for the email account (must be entered twice).
10. Enter the default reply address for this account. We recommend entering the full email address of the account specified above, e.g., support@myserver.com.
11. Enter the From name for this account. This name is used to populate the From of email notifications, e.g., FootPrints or Widget Support.
12. Select a Workspace for this account. This is the default Workspace for incoming email for the account specified above. If this is the only account defined for incoming email for **FootPrints**, then all email goes into the Workspace selected here (unless the Workspace is defined in the email subject in the form PROJ=n).
13. Enter your password and click  **GO**.

Additional accounts for other workspaces can be specified following the instructions above.



In order for incoming email to work properly, you must open the TCP Port associated with the mail server and provide the Port numbers for IMAP and POP3. IMAP needs Port 143 and the POP3 server needs Port 110.

**NOTE**

Incoming and Outgoing Email are processed by the **FootPrints** scheduling service. On Windows, FPSchedule.exe is automatically set as a service on the **FootPrints** server. This service handles incoming email, outgoing email notification, escalations, mass emails, and scheduled reports.

**Editing and Deleting Email Accounts**

Incoming email accounts can be changed and deleted from the Incoming Email Setup screen, which is accessed by selecting Administration | System | Features | Email from the **FootPrints** Toolbar and then, in the Incoming Email section, clicking the Configure Incoming Email button.

- To change the properties of an account, click  **Edit** for that account and change the values as desired.
- To delete an account, click  **Delete** for that account. The account is deleted. For UNIX, the corresponding .forward file must also be deleted.

**Other System Incoming Email Options****Customer Append Flag**

When a high volume of **FootPrints** notification email is being sent, it may be desirable to flag email notifications that are generated by a customer responding to an email. This can be accomplished with the following change:


1. Edit the C:\FootPrints\cgi\MRlocalDefs file (using WordPad).
2. Add the following line to the file:  
`$CUSTOMER_PREPEND_EMAIL_SUBJECT = 'Customer Response:';`
3. Save the file, but do not save it with a .txt extension.

Now all email notifications received by Agents and administrators that are the result of a customer response contain the words Customer Response in the subject of the mail.

## Size Limits for Incoming Email

The size of incoming email, and email attachments, can be limited. This limit can be kept low to handle possible email loops that may occur when an assignee's vacation message is enabled. The default limit is 200K.

To set limits for incoming email:

1. Select Administration | System | System Preferences from the **FootPrints** Toolbar.
2. To change the size limit for emails (not including attachments), enter a new value in the Maximum Incoming Body Size field (in bytes).
3. After changing the value, click  **GO**.
4. File attachment sizes can be restricted under System | Features | [Attachments](#).

## Recovering Incoming Email

If **FootPrints** processes an incoming mail and fails while writing to the database, it generates an error message similar to the following (the message is saved in the system log and possibly also emailed to the System Administrator):

An email message submitted to **FootPrints** by mmarrison@test.com was not posted, due to an error code of '78'. The sender has been notified. The contents of the email have been saved for you in the file

/usr/local/footprints/temp/IncomingMailErr\_3511

Once you have resolved the problem and **FootPrints** is able to handle incoming mails again, you can reintroduce the lost messages to **FootPrints** manually by following these steps:

1. Open up a command prompt.
2. If you are running Windows, add perl to your path:

```
set path=c:\footprints\bin\perl\bin;%path%
```

Once you have completed these steps, perform the following:

- On UNIX:
 

```
/usr/local/footprints/cgi/MRincoming.pl < /usr/local/footprints/temp/IncomingMailErr_3511
```
- On Windows:
 

```
perl c:\footprints\cgi\MRincoming.pl < c:\footprints\temp\IncomingMailErr_3511
```

---

# Workspace Administration

## Outgoing Email Management

**FootPrints** supports email notification for both technical Agent/administrator users and external customer users. Notification emails are passed directly to your SMTP mail server (defined during **FootPrints** installation). To change your SMTP server name, select Administration | System | Features | Mail from the **FootPrints** Toolbar.


The following outgoing email management options are covered in this section:

- Configure Email Templates
- Custom Email Templates
- Email Notification Rules
- Default Email Address for Users

## Configure Email Templates


Email notifications can be customized to include any Issue information, as well as custom canned messages. Different templates can be created for assignees, customers, and people copied on Issues. A special template can also be created for emails sent to wireless devices, such as pagers, cell phones, or PDAs.

The standard **FootPrints** Email templates can be changed by selecting from the checkboxes and options in the Contents of Mail grid. Completely custom templates designed in HTML or text are also supported.




To configure email templates, select Administration | Workspace | General | Mail Preferences from the **FootPrints** toolbar. Next to the heading Email Templates, click  **Configure Email Notification Templates**. A grid is displayed. It consists of many different options that can be included in notification email (represented by rows) and five columns that indicate the type of user/situation in which the option is to be enabled.

The columns are:

- **Field Name/Attribute**—Lists the field types and options available to be included in notification email.
- **Assignee**—Options checked in this column are included in notification email sent to internal users, including Agents, Workspace Administrators, and System Administrators.
- **Customer**—Options checked in this column are included in notification email sent to customers.
- **CC**—Options checked in this column are included in emails sent to anyone specified in the CC box of an Issue.
- **Wireless/Pager**—Options checked in this column are included in mail sent to pager/wireless email addresses.


Any field or option checked in a particular column is included in all notification email sent to that level of user/situation. Some of the options include an  **Edit** button; this indicates that the feature has further options.





The options available on this page are:



- **Customize subject of email**—The information you want to appear in the subject line of the email. Data keywords can be used, as well as static text.
- **Short list of what just changed**—A summary of what was changed in the Issue that caused the email to be sent. If you click the  icon in each of the columns, a pop-up window is displayed that allows you to specify whether to include changes to internal Issues or Employee fields.
- **Text at top of message**—Customizable message that is displayed near the top of the notification email. A different message can be made for each type of user class by clicking the  icon in that column, entering the message in the text box, and clicking  **SAVE**. The checkbox must also be checked in that column. In addition, variables can be placed in the greeting to include the subject of the email, the user's name, etc. Refer to [Mail Variables](#) in the Custom Email Templates section for additional information.
- **Workspace Name**—The name of the Workspace is displayed in the body of the notification email.
- **Title**—The Title of the Issue is displayed in the body of the notification email.
- **Number**—The Issue number is displayed in the body of the notification email.

- **Link to Details Page**—A hyperlink to the Details page of the Issue in **FootPrints** (requires password authentication).

#### NOTE

If you are using a custom login page for customers (e.g., group.html), that URL can be specified for Customers by clicking the  icon in the customer column and entering the URL. This does not automatically bring the Customers to the Details page of their Issue; after entering their email address, the main customer page is displayed. Contact Numara Software for details on turning the custom customer login page into a Perl script that directly displays the details of their Request when using the hyperlink.

- **Last Edit Date**—The last date the Issue was edited.
- **Last Edit Time**—The last time the Issue was edited.
- **Priority**—The priority of the Issue.
- **Status**—The current status of the Issue.
- **Creation Date**—The date on which the Issue was created.
- **Creation Time**—The time at which the Issue was created.
- **Creator**—The submitter of the Issue.
- **Show Subtask or Global Entry Relationship**—If the Issue is a Master, Subtask, Global, or GlobalLink, include this reference in the email.
- **Description**—The Issue's description, with time/date/user stamps. Two options are available by clicking the  icon: Most Recent Description and All Descriptions.
- **Assignees**—The list of users/Teams assigned to the Issue.
- **CC's**—Any email addresses that are listed in the CC section of the Issue. Both permanent and one-time CCs are shown, denoted by one of these labels: (permanent); (permanent, but not CC'd on this edit); (this edit only)
- **Issue Information**—Workspace field data. By default, customers only see Public fields and internal users see all fields. Individual fields can be selected for inclusion by clicking .
- **Address Book Fields**—Address Book data. By default, customers only see Public fields and internal users see all fields. Individual fields can be selected for inclusion by clicking .
- **Linked CIs**—Include list of CIs linked to the issue in the email notification. Up to 100 linked CIs can be displayed in the email.
- **List attached files**—A list of files attached to the Issue are displayed in the body of the email.
- **Attach attached files**—Attached files are sent with the notification email. Rules regarding attachments can be set by clicking the  icon in the Field Name/Attribute column. They are:
  - *Never send any attachment over n kilobytes*—Where *n* is the maximum number of kilobytes.
  - *Send each attached file on every edit*—All attached files are included with all notification email for the Issue.
  - *Send each attached file only on the first time the file is attached*—Attached files are only included with notification mail when they are initially attached to the Issue.
  - *Allow the user performing the edit to override these settings*—Internal users can choose whether or not to include attachments upon editing an Issue.

- **Complete Issue History**—A summary of the Issue's history appears in the body of the notification email.
- **Text at bottom of message**—Customizable message that appears at the end of the notification email. A different message can be made for each type of mail by clicking the  icon in that column, entering the message in the text box, and clicking  **SAVE**. The checkbox must also be checked in the column. In addition, variables can be placed in the greeting to include the subject of the email, the user's name, etc. Refer to [Mail Variables](#) in the Custom Email Templates section for additional information.
- **Send mail as text**—Notification mail is sent as plain text.
- **Send mail as html**—Notification mail is sent in HTML format.

**NOTE**

If both text and html are checked, **FootPrints** includes both formats in the message. For most Windows-type email readers (Outlook, Lotus Notes, etc.), only the HTML is seen.

- **Custom formatting for text message**—Create a custom email template for **FootPrints** notification email layout and custom formatting in plain text (refer to [Custom Email Templates](#)).
- **Custom formatting for HTML message**—Create a custom email template for **FootPrints** notification email layout and custom formatting in HTML (refer to [Custom Email Templates](#)).

**NOTE**


For Issue Information and Address Book fields, custom email template settings override settings you specify on this page, regardless of whether the custom formatting is for text or HTML messages. For example, if your Specify Email Content page specifies that the message is to contain only public fields in the Issue Information section and you specify an internal field in the custom email template, the custom email template overrides the other settings. refer to [Custom Email Templates](#) for details on how to include the settings on this page with the custom email.

After filling out the grid, click  **SAVE**. All notification email includes the options indicated for the various user/mail types.

## Custom Email Templates

As an alternative to using the layout options in the Contents of Mail grid for email notification, custom email templates can be created using plain text or HTML. The template can contain any combination of **FootPrints** fields using special keywords, and any custom text, in any layout desired. Different templates can be created for each mail notification type: Assignee, Customer, CC, and Wireless/Pager. If a custom email template is enabled, it overrides most of the other options selected in the Contents of Mail grid (exceptions are listed below).

To create a custom email template:

1. Select Administration | Workspace | General | Mail Preferences | Configure Email Templates from the **FootPrints** Toolbar.
2. Select the column for which you want to create a template: Assignee, Customer, CC or Wireless/Pager.
3. Check the box in that column for one of the two following options: Custom formatting for text message or Custom formatting for HTML message. These can be found at the bottom of the grid.
4. For whichever option you checked, click  **Edit**.
5. In the pop-up window, click the link to see a list of keywords for this Workspace. Each field has a corresponding keyword, including built-in fields, Workspace fields, and Address Book fields. These can be inserted into the email template. When the email is sent, the value for that field is inserted into the mail for that field.
6. Use any text or HTML editor to create the email template.

For a text email template:

- Only ASCII text can be used. Boldface, colors, underlining, etc. are not accepted. We recommend using "Notepad" on Windows, or an editor like "emacs" or "Pico" on UNIX/Linux to create the template.
- Use your own text, formatted in any way supported in ASCII.
- Keywords must be in the exact format specified to work correctly.

For an HTML email template:

- An HTML editor can be used (Dreamweaver, etc.), or a text editor can be used if you are comfortable writing HTML.
- Use your own text, formatting, bold, underlining, colors, hypertext links, etc. To include a field from **FootPrints** in the email, simply insert the corresponding keyword.
- Keywords must be in the exact format specified to work correctly.



**Example:**

To insert the Issue Number into a sentence:

**The reference number for your Issue is %%ATTRIB\_\_NUMBER%%.**

So, when an email notification is sent for Issue Number 3486, the sentence above displays as follows:

**The reference number for your Issue is 3486.**

7. When you finished creating the template, save the file.
8. Back in the custom template pop-up window (step 5), use the Browse button to upload the new email template from your local machine.
9. Click  **GO**.
10. On the main Contents of Mail screen, click  **GO**. Ensure that the box is checked for the template created and uploaded.
11. Now email notification for the current Workspace is in the new format for the selected user type. A different custom template can be created for each type by following these instructions.

## Sample Template (Text)

Hi %%FIRST-NAME%%!

This is an email notification regarding your Issue “%%ATTRIB\_\_TITLE%%”.

The reference number for this Issue is %%ATTRIB\_\_NUMBER%%.

Notes:

%%ATTRIB\_\_DESCRIPTION%%

## Sample Email Generated from the Template Above

When replying, type your text above this line.

Hi Bob!

This is an email notification regarding your Issue “Forgot password”.

The reference number for this Issue is 5429.

Notes:

Entered on 1/16/2001 at 11:48:50 by Jill Smith:

Customer cannot receive email. A technician is scheduled to call Monday, September 22 @ 2pm PST.

### NOTE

The message “When replying, type your text above this line” is inserted even though it is not part of the template. This message is inserted automatically by **FootPrints** for all “Assignee”, “Customer”, and “CC” email notifications. “Wireless/Pager” mail templates do not contain this sentence.

## Exceptions

Enabling a custom email template overrides most of the other settings selected in the Contents of Mail grid for that email type. There are a few exceptions:

- **Description**—If the Description variable (%%ATTRIB\_\_DESCRIPTION%%) is included in the template, select the descriptions to include in the “Description” row of the grid by clicking the Edit button. The options include “All Descriptions” and “Most Recent Only”.

Keywords also include %%ATTRIB\_\_FIRST\_DESCRIPTION%% and %%ATTRIB\_\_ALL\_DESCRIPTION%%. If you use these keywords, you do not need to use the edit button and select the “All Descriptions” or “Most Recent Only” options.

%%ATTRIB\_\_FIRST\_DESCRIPTIONS%% provides the most first description entered, %%ATTRIB\_\_MOST\_RECENT\_DESCRIPTION%% provides the most recent description, and %%ATTRIB\_\_ALL\_DESCRIPTIONS%% provides all of the descriptions.

- **Link to Details Page**—If a custom URL is defined for this option and the variable is included in the template (%%ATTRIB\_\_LINK\_TO\_DETAILS%%), the custom URL is included in the email link. In addition, in HTML email templates, the words Click here to view Issue in Browser are included as part of the link. In text email, only the URL is included.
- **Workspace Fields**—While individual Workspace fields can be specified in a template, they can also be included a group with the variable %%ATTRIB\_\_PROJFIELDS%%. If this is

used, the selection of Workspace fields chosen under Edit Email Attribute is included. Any Workspace fields you specified on the Specify Email Content page are included when the custom email template message is sent.

- **Address Book Fields**—While individual Address Book fields can be specified in a template, they can also be included a group with the variable `%%ATTRIB__ABFIELDS%%`. If this is used, the selection of Address Book fields chosen under Edit Email Attribute is included. Any Address Book fields you specified on the Specify Email Content page are included when the custom email template message is sent.
- **Attach attached files**—To include file attachments when using a custom email template, you must check the box for this option in the grid. Various options for file attachments can also be set by clicking the Edit button in this section of the grid. To list file attachments, use the `%%ATTRIB__ATTACHED_FILE_LIST%%` attribute.
- **Send mail as Text**—This must be selected to send text email notification.
- **Send mail as HTML**—This must be selected to send HTML email notification.

## Mail Variables

If the custom email template is not used, some variables can still be inserted into the canned message placed at the top or bottom of the email notification, such as the user name, subject, etc. When one of these variables is placed in the greeting message composed under Text at top of message or Text at bottom of message, emails sent by **FootPrints** include the dynamic data specified.

The table below contains the list of valid keywords:

Variable Name	Description
<code>_WHONAME_</code>	Name of user who created/edited Issue
<code>_WHOMAIL_</code>	Email of user who created/edited Issue
<code>_PROJECTNAME_</code>	Workspace Name
<code>_ISSUETITLE_</code>	Title of Issue

*Email variables*

Here is a sample greeting which includes 2 variables:

Hi `_WHONAME_`! Thank you for registering your request `_ISSUETITLE_` with us using FootPrints. Your request is very important to us, and we will respond as soon as possible. To respond to this message, simply reply and type your message at the top. If you experience any problems using FootPrints, please send email directly to support@widget.com.

In the example above, the user's name is substituted for `_WHONAME_` and the subject of the email (i.e., the title of the Issue) is substituted for `_ISSUETITLE_`.

### NOTE

These variables only work in the canned email messages; they do not work for the custom email templates described in the last topic.

## Email Notification Rules

Workspace Email Notification Rules for outgoing emails are configured by selecting Administration | Workspace, then clicking the Mail Preferences link in the General section of the main frame.

This section allows you to choose the criteria for email notification sent to users regarding their Issues. It is split into three sections: Assignees, Customers, and CCs. Different rules for email notification can be defined for each group. For example, you may want email notification sent to the Agent assigned to an Issue for all statuses, but you may only want email notification to go to the customer who submitted the Issue when it is opened and when it is closed.

For each of the two categories, the options include:

- **Never send mail**—If this option is chosen, no notification email is ever sent automatically.
- **Send mail only for creation**—If this option is chosen, notification email is automatically sent on creation of a new Issue only.
- **Always send mail for every creation/edit**—Email is sent to all assignees for each change to an Issue.
- **Send mail only for Issues with the following Priorities and/or Statuses.**—If this option is chosen, the lists of priorities and statuses is expanded, allowing the user to select one or more in each category. In addition, boolean operators AND and OR are supported.
  - **Priority**—Mail is only sent to the assignees/CCs when the Issue's priority falls into the range chosen here.
  - **Status**—Mail is only sent to the assignees/CCs when the Issue's status matches one of the statuses defined here. Multiple statuses can be selected (hold down the CTRL key to highlight multiple statuses).

#### NOTE

The email notification rules selected here can be overridden for a particular Issue by the Agent assigned to that Issue (upon manual edit). These are simply defaults.

In addition to the rules specified above, three other rules can be defined:

- **Send Email Notification for Every Issue**—Email addresses entered here receive email notification for every change to every Issue in the current Workspace, i.e., any time any Issue is created or edited in any way. This is in addition to the criteria chosen above. Multiple email addresses should be separated by a space. If an agent account is removed but that agent's address is still in this list, that agent address will continue to receive emails from FootPrints.

#### NOTE


The email format used for this feature is that chosen for assignees under Contents of Mail.

- **New Customer Request Notification**—You can exclude email responses for customer requests or, alternatively, send email notification to one or more Workspace members whenever a customer submits a new Request. To prohibit email from being sent when customer requests are submitted, select the Don't send email for each new Customer Request radio button. To enable notification, choose Send email to the following users for each new customer Request submitted radio button and highlight the user's name in the list. Hold down the CTRL key to highlight multiple users. If an agent's account is removed, you must also remove that agent from this list in order to stop the sending of customer request notifications.

#### NOTE

The email format used for this feature is that chosen for assignees under Contents of Mail.

- **Creating Solutions from Issues**—When a new Solution is created from an existing Issue, users associated with the originating Issue are emailed by default. If Don't send mail to addresses from original Issue is selected, these users are not copied on the Solution.
- **Append GMT offset to timestamps**—Enable this feature to show the Greenwich Mean Time offset to the timestamp in the email.

After you finish updating the Mail Preferences page, you must enter your password and click  **GO** to activate the changes.

## Default Email Address for Internal and External Users

Email notification to internal and external users are handled differently:

- **Internal Users**—By default, the email address entered when the Workspace or System Administrator created the user on the Add Users screen is used for email notification for the user. Two additional email addresses can be defined for pager and other wireless services on the Edit Agent page (or on the user's My Preferences page). Users can change their default email address or choose to have mail sent to more than one address on the My Preferences page as well.
- **Customers**—Outgoing email to customers on their own Requests is based on the Email address field in the Address Book. This field is mandatory if customers are to receive email and must be of type Email. Customers receive updates regarding their Requests automatically, based on the rules defined by the Workspace Administrator.

## Incoming Email Management

Most incoming email options are defined by the System Administrator. There are a few options that can be configured on a per Workspace basis by the Workspace Administrator. They are found under Administration | Workspace | General | Mail Preferences | Incoming Email.

- **Create Issues**—Determine whether customers and/or agents can create new Issues via incoming email.
- **Edit Issue Via Email**—By default, only users associated with Issues and administrators can update Issues via email for a Workspace. This includes the assignees, the contact, and CCed users for the Issue. Alternatively, you can limit updates to only associated non-agent users (the contact and CCs). You can override the limitations by selecting Anyone can update any Issue via email for this option. Any user can then update an Issue via email for this Workspace.
- **Security Code**—In a project where you do want your agents to be able to reply to issues, and you don't want to take away meaningful functionality, the Security Code option adds an extra barrier to anyone trying to spoof an agent's address. When enabled, every notification mail and escalation mail will have a code added to the end of the email (example, FPCODEX5RGtwlYMiPzfz2n6zpY3kq21u4). If this option is enabled, edits via incoming mail are rejected unless they contain the security code. There is a 7-day grace period after enabling this option, during which FootPrints accepts replies without the code. This is to help ease the transition for someone who wants to enable it in a production system. If you need a longer period of time for the transition period, contact support for instructions. This option is disabled by default.
- **Email Queries**—These options provide a way for administrators to completely shut off incoming email functionality for agents and/or customers on a per workspace basis.
- **Mandatory Fields for Incoming Email**—By default, all users, including Agents, administrators, and customers, must include mandatory Workspace field data in incoming email submissions. Agents and administrators must include both internal and public mandatory Workspace field data, while customers must include public mandatory Workspace field data.

This option allows users to submit email to **FootPrints** without mandatory field data while still having to enter the data when submitting an Issue via the web interface. In this way, customers are free to send free-form emails to **FootPrints** to submit a Request, but must

still give more detailed data when filling out a Request via the Customer Self-service web interface. There are three choices for this option:

- **Mandatory fields are mandatory for everyone**—This is the default. Users must include mandatory Workspace field data (in the form *fieldname=data* or using the [HTML Form](#)) in all incoming email submissions.
- **Mandatory fields for agents, optional for customers**—If this option is selected, internal (Agent and administrator) users are still required to include both public and internal mandatory field data when submitting an Issue via email, but customers can submit Requests via email with missing mandatory field data. We recommend this option if you would like to make it easier for customers to submit their Requests via email, but require internal users to give more detail. All users must still fill out mandatory fields when using the web interface.
- **Optional for everyone**—All users, including Agents, administrators, and customers, can submit new Issues via free-form email to **FootPrints** without including any field data. All users must still fill out mandatory fields when using the web interface.
- **Auto Assign Agent**—If enabled, an Agent responding to a new customer Request via email is assigned to that Request automatically. This does not apply to Issues already assigned; it only applies to new Requests submitted by customers via email or via the Customer Self-service web interface.
- **Change Sender**—If allowed an incoming email can substitute a sender different than the actual sender of the email.
- **Auto Select Status**—The status of an Issue can be changed automatically when an Agent or customer responds to an Issue via email. There are four options:
  - **Agent Response**—Select the status that customer Requests should be changed to if an Agent responds via email. This feature only applies if the Auto Assign Agent feature is enabled.
  - **Auto Assign Status**—The status of any Issue can be changed automatically when an Agent or customer responds to the Issue via email.
  - **Customer Response**—Select the status that Issues should be changed to automatically when the customer responds via incoming email.
  - **Responding to Closed Issues**—Closed Issues can be handled separately from the Customer Response option above. Customer responses to closed Issues can remain closed or can be changed to a different status.
- **Field Permissions**—Select which fields agents and customers can view and write via incoming mail. Per-role advanced field permissions are not used for incoming mail.

After you have finished updating the Mail Preferences page, enter your password and click  to activate the changes.

For complete details on using FootPrints email, refer to the Numara FootPrints Reference Manual.

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## Email Filters

This feature allows you to block **FootPrints** from sending and receiving email from certain email accounts or domains. This feature can be used to prevent **FootPrints** from sending mail to or receiving mail from a Mailer Daemon account, block known spammers, and temporarily block email for a **FootPrints** user who is on vacation. Filters can be created per Workspace and defaults can be set for the entire system.

There are four options:

- **No Accept**—Do not accept email submissions from the specified addresses or domains.
- **No Send**—Do not send email notifications to the specified addresses or domains.
- **Only Accept**—Only accept email submissions from the specified addresses or domains.
- **Only Send**—Only send email notification to the specified addresses or domains.

To create an email filter:

1. To:
  - **Create a Workspace filter**, select Administration | Workspace | General | Mail Preferences | Email Filters.
  - **Create a system filter**, select Administration | System | Features | Email | Email Filters.
2. Select one of the four filter types using the radio buttons below the text box.
3. Enter the address or domain in the text box.

The following rules apply:

- One address per line, with nothing else on that line.
- Lines containing a # sign and empty lines are ignored.
- Spaces are ignored.
- Incomplete addresses can be used. For example, you can use yourserver.com. **FootPrints** checks if the address contains the partial address or domain name specified.

**Examples:**

To block a domain:


yourserver.com

To block a particular address:

jsmith@yourserver.com

To block any address with the word mailer in it:

mailer

4. Use the radio buttons to switch between the different filter types. Your changes are saved.
5. When you are finished, click  **GO**.

Workspace filters override system filters for that Workspace.

6. If a user's email address was entered to block mail while on vacation, set a reminder for yourself to remove the filter when the user returns.



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## Chapter 13: Configure Workflow

Automating your workflow takes the longest time to implement because you must determine how to best make **FootPrints** reflect your business rules. It also relies on most of the preceding features, so most of the other features must be set up in advance before workflow can be automated. As with all **FootPrints** configuration, workflow rules can be configured at a later time.

Topics in this section are:

- Auto-assign
- Escalation and Business Rules
- Service Level Management
- Quick Issue Templates
- Preventive Maintenance
- Issue Workflow
- Scheduling and Availability
- Customer Surveys

---

### Auto Assign

Issues can be assigned to different users and Teams automatically based on the choice selected in a drop-down Workspace field. For example, if the Workspace contains a Workspace field called Problem type, and Problem type contains hardware, software, and network as its three choices, Issues could be assigned automatically to different **FootPrints** users and Teams depending on which choice is selected for that Issue or Request by the Agent or Customer creating the Issue. In this way, the hardware Team is automatically assigned to hardware problems, the software group is automatically assigned to software problems, etc. Default assignment can also be configured on this page.

To configure default assignment and Auto Assignment, select Administration | Workspace | Auto Assign from the **FootPrints** Toolbar, then scroll to the appropriate section of the page.

## Default Assignment

When an Agent opens a new Issue, you can control who is assigned by default to that Issue with the options described below. The option selected here determines who is listed in the Assignees dialog box on the Create Issue page when an Agent opens a new Issue.



There are five options:

- Assign to creator—The Agent creating the Issue is assigned.
- Assign to creator's Team—The Agent's Team is assigned automatically. If the Agent belongs to multiple Teams, the first Team in the list is selected.
- Assign to creator's Team and creator—The Agent is assigned along with the Agent's Team to the Issue.
- Assign to none—The Assignees box is blank when an Issue is created by an Agent. This option should be selected if Auto-Assignment is configured for most or all possible choices for at least one field.
- Assign to all—All users are assigned. This is appropriate if the Workspace only contains a small group of Agents.

The default assignment option only affects who is listed as the Assignee when an Agent first creates an Issue. The option selected here can be overridden by the Auto Assignment options selected below, manually by the Agent (with permissions), by Team assignment rules, or by an Escalation rule.

## Field-Based Auto Assign


To configure Auto-Assignment:

1. Select Administration | Workspace | Auto Assign from the FootPrints Toolbar.
2. Create or modify an assignment rule—To create or modify an assignment rule, select the field you want to modify or for which you want to create a rule from the drop-down field, then click the  GO button. The Choose Assignees page is displayed. Select the assignees for each choice in the selected drop-down field, then enter your password and click the  SAVE button. When an incident/problem is submitted with that specified value in that field, the incident/problem is assigned to the specified agent(s) or team(s).
3. Current Auto Assignment Summary—The Current Auto Assignment Summary displays a summary of the current auto assignment rule(s).
4. General auto assign options
  - Auto assign on create/edit
    - Create only—Auto Assignment only occurs when the Issue is first created. Any subsequent changes to the Auto Assign field(s) have no effect on assignment.
    - Create and Edit—Each time an Auto Assignment field is edited, Auto Assignment rules are re-applied. This is useful if Auto Assignment is being used to assign an Issue from one group to another, for example, from Support to Development, then to QA, etc.
  - Add to or replace existing assignees
    - Add new assignees—Any users assigned manually will remain assigned in addition to any users auto-assigned.

- **Unassign existing assignees**—When users are Auto Assigned, any users added manually or Auto Assigned by a previous edit are removed. This is useful if Auto Assignment is being used to assign an Issue from one group to another, for example, from Support to Development, then to QA, etc.




#### NOTE


If Auto Assign is configured for more than one drop-down field, the Add New Assignees option is recommended. If the Unassign option is selected, the Auto Assignment rule for one field may unassign users who were assigned by another field choice. Therefore, to assign Issues based on multiple criteria, use [Escalation](#) rules. In addition, auto assignment occurs during the ticket creation; if dynamic drop-downs are used, escalation rules, which occur at the end of the ticket creation or edit, should be used to do these kinds of assignments

- **Drop-Down Fields**—This section contains one sub-section for each drop-down Workspace field in the current Workspace. Each section is broken down into each choice for the field, with a list of Workspace members and Teams for each choice.
5. For each choice, you can choose to Auto Assign Issues to one or more users or Teams. Highlight a user's ID or Team name in the list for that value. Use the CTRL key to highlight more than one user or Team.
  6. It is not necessary to configure Auto Assignment for each choice in a single field or for more than one drop-down field. It is completely optional. More complex assignment based on multiple criteria, including contact fields, time, etc., can be accomplished with Escalation rules.
  7. When you are finished, click  GO.
  8. New Issues for which a configured value is selected are automatically assigned to the users or Teams specified on the "Auto Assign" screen. The users receive notification email, and the Issue appears in their Assignments lists.
  9. If the Auto Assignment feature is enabled for a public field, Requests submitted by Customers are also automatically assigned and given a status of Open. They skip the Request bin.
  10. Auto Assignment is done in addition to any assignees chosen manually on the Create Issue or Edit Issue page. Auto Assignment rules are applied directly on the Create Issue and Edit Issue pages for Issues created by Agents. Requests submitted by Customers are assigned instantly when the Customer submits the Request via the Customer Self-service interface. Assignment for Email submissions is processed when the email is received by FootPrints.

## Escalation and Business Rules

Escalation rules are created under Administration | Workspace | Escalation from the **FootPrints** Toolbar. A list of existing escalations (if any) is displayed. You have several options from this page:

- **Create a new escalation**—To set up a new escalation, click  Add Escalation. A number of steps for setting up a new escalation rule are displayed.
- **Edit**—Highlight an existing escalation in the list and then click  Edit to change it.
- **Delete**—Highlight an existing escalation in the list and then click  Delete to delete the escalation.

- **Escalation Details**— Highlight an existing escalation in the list and then click  Escalation Details to view summary of the escalation criteria and actions.
- **On/Off**—Turn existing escalations on or off without going to the Escalation Setup page. When you turn an escalation on or off, a pop-up appears for you to enter your password and save the change.
- **Configure Escalation Email**—Define templates for escalations. You can perform this either before or after you've created the escalation rules.
- **Summary of all Escalations**—View a pop-up window that lists all properties of all escalations in the workspace. Print the summary by clicking the Print button at the bottom of the page.

The order of escalation rules on the escalation page determines which rules take precedence. The order can be changed by dragging and dropping the rules. When you drag and drop a rule in the list, you must place the dragged rule on top of the rule you want to replace in the order. The rule you are replacing is moved and the dragged rule replaces it. This type of move requires that you enter your password the first time you move an escalation rule, but subsequent moves during the same session do not require the password.

## Setting up an Escalation Rule

This section covers the following steps to create an escalation:

- **Step 1: Basic Escalation Options**—Name the escalation rule and specify if it should be turned on.
- **Step 2: When to Run**—Define the type of escalation.
- **Step 3: Additional Criteria**—Select criteria used to escalate Issues.
- **Step 4: Escalation Action(s)**—Select one or more actions to occur when an Issue meets the escalation criteria.
- **Step 5: When to Run Escalation**—Choose when an Issue should be checked to see if it meets the escalation criteria.
- **Step 6: Create New Escalation**—Save the escalation information.

### NOTE

Master Issues cannot be closed by an escalation rule.

### Tab 1: When to Run

There are two kinds of escalation rules: instant and time-based. Instant escalation rules are run at the time an Issue is created, edited, or both. Time-based escalations are only applied after an Issue has remained open or unedited for a specified amount of time. Depending on which option is chosen, a number of sub-options are available.

- **Instant Escalation**—If you select this option, one of the following additional options can be selected. Note that, when an escalation is based on a status change, if there is a status change for a Global Issue and it changes all of the linked Issues, this is problematic when the escalation is instant. Therefore, that type of escalation must be time-based not instant:
  - **Instantly escalate Issue after it has been created and/or edited**—Choose one or both of the following:
    - Instant Escalation upon creation of Issue
    - Instant Escalation upon editing of Issue

- Instantly escalate Issue received as a copy:
  - **From Workspace**—Specify the workspace from which the Issue is being received to trigger the escalation.
- Time-Based Escalation—If you select this option, the following additional options become available (only one can be selected):
  - Time unedited/Age—Select the amount of time that must pass since the Issue was created (Age) or since anyone edited it (Time unedited) before it is escalated. Minute, hour, day, and week increments are available. Combinations of hours, minutes, days, and weeks can be selected. The time is based on a 24/7 schedule.
  - Time unedited/Age based on “Work Time”—This option also counts the time since an Issue was created or last edited, but uses the workspace Work Calendar rather than the standard 24/7 schedule. Regular working days and hours, as well as holidays, can be configured for the organization by clicking the link for Work time or by selecting Work Calendar from the Workspace Administration page. When using the Work Calendar, only one unit of time can be chosen (minutes, hours, days, or weeks). Complete instructions for the Work Calendar can be found earlier in this chapter.
- Re-escalate Issue—This option applies to both types of escalations. When selected, the system will apply or re-apply the escalation rule to an already escalated Issue. Recurring age-based escalations are also allowed; each escalation will only run once when the Issue sufficiently ages. So, for example, you can create separate age-based recurring escalation rules for 5 minutes, 10 minutes, 1 hour, 2 hours, and 1 week, and each escalation rule will only be applied once to an Issue when it is sufficiently aged for that rule.

Example:

- The support hours are Monday-Friday from 8am to 6pm (as configured in the workspace Work Calendar).
- An escalation rule states that an Issue must be unedited for 6 hours before it is escalated.
- A new Issue comes in at 4pm on Friday.
- In the above case, the Issue will be escalated at 12pm on Monday (6 working hours later).

#### NOTE

Escalated Issues lose their urgent status once they are edited. If an Issue is reported as escalated, it is not escalated again until it has lost its urgency (by being edited) and then becomes urgent again. The exception to this is if Re-escalate Issue is selected under the Time criteria.

Choose when to check an Issue against escalation criteria. There are two options:

- Anytime—The escalation can be run at any time (the default).
- Follow the Sun—“Follow the Sun” escalations allows you to assign or reassign Issues to Agents in different locations and time zones depending on the time of day or day of the week that the Issue is created or escalated. The time and day specified here are based on the FootPrints server time. This integrates the escalation time on the server with when the escalation rule is to be applied. Some examples are:
  - Escalate Issues received off hours to someone’s pager (time intervals when support team is not available).
  - Escalate Issues and route them based on the time of day, e.g., Issues submitted 9am-5pm EST are routed to the East Coast US Help Desk; those submitted 5pm-1am EST

are routed to the Tokyo Help Desk; those received 1am-9am EST are routed to the London Help Desk.

To set Follow the Sun criteria:

1. Select Follow the Sun
2. Select the time range for the escalation rule.
3. If this escalation should run during a span of time that includes a change of date, you must specify the time spanned during both dates in order to cover the entire period. For example, the four hours between 8:00pm and 2:00am can be covered by selecting 8:00pm-11:59pm above and, additionally, Midnight-2:00am in the second set of time criteria.
4. Check the boxes corresponding to the days of the week that the escalation is required to run.

### **Tabs 2 and 3: Issue and Contact Criteria**

The criteria chosen here determine which Issues are automatically escalated. Available criteria include virtually all options that appears on the Advanced Search page, including Status, Priority, Assignee, Workspace fields, Address Book fields, etc. (see the section on [Advanced Search](#) for more information).

#### **NOTE**

If your rule requires that Create/edit must be by an agent, but a Customer Request status (such as Request) is used as a criterion for escalating an Issue, then it becomes possible for Customer Requests to be escalated (i.e., an escalation created by a Customer).

### **Tab 4: Advanced Criteria**

In the Advanced Criteria tab, enter other criteria. These criteria are not matched to data in fields, but instead provide a filter for the Issues that are returned.

- Issue Types to Include—Specify whether Advanced Issue types, including Subtasks and Global Issues, are returned. Options include:
  - All Issue Types—All Issue types are returned.
  - Regular Issues—Regular (non-Global or Master/Subtask) Issues are returned.
  - Include Master Issues—Master Issues<sup>6</sup> that contain subtasks are returned.
  - Include Subtasks—Subtasks of Master Issues are returned.
  - Include Global Issues—Global Issues<sup>7</sup> are returned.
  - Include GlobalLinks—All users' Issues linked to a Global Issue are returned.
  - Group Master Issues with Subtasks/Global Issues with Global Links—Available for Reports only. These options override the sort order selected in the report.
- Date—If dates are specified, the search returns only Issues from the time period specified. Date Field Search Options\
- Age—Returns Issues created in the time specified. Number of days and hours can be specified. Modifiers are also provided, including "Greater Than", "Less Than", "Equal to",

<sup>6</sup> A type of FootPrints Issue that contain Subtasks, each with a different task that must be completed before the Master Issue is Closed. The Master issue is the "parent" in a parent/child relationship between the Master Issue and its Subtasks.

<sup>7</sup> A special FootPrints Issue type used to designate important or frequently reported Issues that will affect many users. Global Issues can be broadcast to all Agents, are displayed on the Agent Home page, and can optionally be displayed for Customers to subscribe to. Whenever a new Issue is reported with the same problem, the Agent (and optionally the Customer) can link the Issue to the known Global Issue (called GlobalLinks). Global Issues can be closed with the GlobalLinks together at one time.

“Greater than or Equal to”, “Less than or Equal to”, and “Not Equal to”. As an example, to return Issues greater than 1 day old, choose “Greater than” and fill in “1” for “Days”.

**NOTE**

Age is always 24/7 and does not use the Workspace Work Calendar.

**NOTE**

Date/time fields can only be searched by date, not time.

- **Multiple Criteria**
  - **And/Or**—Select whether the criteria you entered are all required to be fulfilled before triggering the change management approval process (And) or only one of them must be fulfilled before triggering the approval process (Or).

## Tab 5: Actions

### 5. Notification

- **Email**—One or more email actions can be selected.
  - **Send a summary mail**—When the escalation routine is run and matches are found, an email is sent to the specified addresses. The email contains a summary of escalated Issues for the Workspace. If you enter multiple email addresses, separate the addresses with a space. Summary mails are not coded to use uploaded custom formatted files. To use an uploaded mail template, edit the escalation to modify Email Notification from “Send a summary mail to ....” to “Send Single Issue notification mail to ...”
  - **Send mail to Assignees**—When an Issues is escalated, an email is sent to all Assignees of each escalated Issue. Select the email address type to use for this escalation rule:
    - **Agent**—the Agent's agent email address.
    - **Pager**—the Agent's pager email address.
    - **Wireless**—the Agent's wireless email address.

**NOTE**

The different email address types are defined for each user on the Edit Agent Administration page, or on the My Preferences page by the Agent.

- **Send mail to the Supervisor of each Assignee**—An email is sent to the Assignees' Supervisor(s). Refer to Add Agents or Edit Agent User for information on designating Supervisors.
- **Send mail to the Team Leader of each Team**—An email is sent to each Team's Team Leader. Refer to Creating Teams for information on designating Team Leaders.
- **Send mail to Contact**—An email is sent to the Customer contact for the escalated Issue.
- **Send mail to the last agent to edit (or submitter if none) if last edit was by an agent**—An email is sent to either the last agent to edit the Issue or, if no editing has been done on the Issue, send mail to the person who submitted the Issue.
- **Send single-Issue notification mail to the following space-separated email addresses**—Send an email to the specified email addresses only once for this escalation.
- **Email Template**—Select or define an email template to be used for this escalation. If you elect to configure an email template, you can refer to Escalation Email for further instructions.
- **Broadcast Message**—One or more broadcast message types can be selected.

- Display pop-up notification to the following users—Specify a user or users to receive a broadcast message from FootPrints.
- Display pop-up notification to the Assignees—Agents assigned to the escalated Issues receive a broadcast message from FootPrints.

6. **Workflow**—One or more workflow actions can be selected.

- **Priority**—Automatically raises or lowers the Issue's priority as specified. You can also change the priority of all escalated Issues to a specific priority.
- **Status**—Automatically change the status of the escalated Issue.
- **Workspace/Address Book Fields**—Automatically change specified Workspace/Address Book fields. If you check this box, you must click the Click here to configure field edits link to specify the changes.
  - **Click here to configure field edits**—This page allows you to update Workspace and Address Book fields via an escalation. In addition to editing other fields, you can change the Title field or append a description to the Description field. Fill in the fields with the appropriate data and then click the "GO" button.
    - **Add field variables on left to target fields on right**—This feature allows you to populate a field with the value from another field upon escalation. Select a field from the left drop-down and then select a field from the right drop-down. When an Issue is escalated, the field in the right drop-down is populated with the value of the field in the left drop-down.
    - **Address Book Fields**—Specify the changes to be made to Address Book fields upon escalation, i.e., select the data that is to populate the field after the escalation. If you do not change a field, it is unchanged after the escalation.
    - **Workspace Fields**—Specify the changes to be made to Workspace fields upon escalation, i.e., select the data that is to populate the field after the escalation. If you do not change a field, it is unchanged after the escalation.

**NOTE**

If you notice that dependent fields are being displayed with a null value when an escalated Issue is edited, it may be that the dependent field was configured with an incorrect value in the escalation rule. If you configure a dependent field to be changed to an invalid choice as a result of an escalation, the dependent field is populated with null data. For example, if the first field were set to Software and the dependent field were changed to Printer when escalated, and Printer is not a valid choice for the Software dependent drop-down, when the Issue is edited, the dependent field will show no selection. The drop-down for the dependent field will contain the normal, valid choices, so it can be corrected at that time. To correct the problem at its source, edit the escalation rule and replace the incorrect choice with the correct choice.

- **Assignment**—Highlighted users are assigned to the escalated Issue. If Add Selected Users is chosen, the original assignees of the Issue remain assigned. If Re-Assign is chosen, the original assignees are unassigned. Teams and/or individual users can be selected. Re-assignment can also automatically be made to Team Leaders or Assignees' Supervisor(s) by checking the appropriate box.
- **Sub-tasks for this Issue**—Automatically creates sub-tasks for the Issue using the Master Quick Issue template that you select from the drop-down list.
- **Copy Selected Fields of Escalated Subtasks to Master**—When enabled, administrators can select subtask fields to be copied to the associated master task when this escalation runs on subtasks. Copies are made even if escalations do not change the subtask. Master task fields that are changed by this copy are identified in the master task history. Master task fields that already contain the desired values are not changed. If all selected fields match

each other then no copies are made and no entry is logged in the history of the master task. This configuration is ignored by Issues that are not subtasks.

- When enabled, a field picker is displayed. Select the fields that are to be copied to the master issue from the subtask by highlighting the field in the Available Project Fields list and then clicking the Add Field button. Remove a field that was previously selected by highlighting it in the Field to Copy list and then clicking the Remove Field button (this only removes the field from the list, not from the issue form).

#### NOTE

Sub-tasks are not created for an escalated Issue if the Issue is itself a sub-task, a GlobalLink, a Global Issue, or a Solution.

- Cross-workspace—The Issue is automatically copied or moved to the Workspace specified. If Copy with a Dynamic Link is selected, the Issues update each other when field data changes. If Include Related Subtasks is checked, then when a Master Issue is copied or moved across Workspaces, the related subtasks are also copied or moved.

#### NOTE

Subtasks are not accepted by the receiving Workspace unless the receiving Workspace is configured for Cross-workspace copy/move of subtasks. Refer to the topic for [Issue Workflow](#) for more information on setting this option.

- Color—The Issue is displayed on the FootPrints Homepage with the specified color.
- External Action—An external application can be run by the rule. This feature is especially useful for running scripts. The application must be one that can run and stop on its own without any user intervention. In addition, if the program involves running a graphical user interface (GUI), it may not be able to display the interface to a screen, which could cause the application to hang and fail. Therefore, the application should also be one that can run from a command line rather than a GUI. Enter the full path to the program, e.g., D:\Programs\AppLite\applite.exe. Some field data from the escalated Issue can also be passed to the program as arguments:
  - Issue Number—%%MRID%%
  - Title—%%Title%%
  - Priority—%%Priority%%
  - Status—%%Status%%
  - Submitter—%%SUBMITTER%%
  - Workspace ID—%%PROJID%%
  - Workspace and Address Book fields—%%FIELD NAME%% where "FIELD NAME" is the name of the field in upper case.

External actions run applications from the CGI directory. Make sure that directory has permission to run the application or the external action will fail.

- Surveys—If checked, a customer satisfaction survey is sent to the contact when the escalation occurs.

## 7. When to Run Escalation

- Any Time—Escalate the Issue at the moment the Issue is found to match escalation criteria.
- Follow-the-Sun—Run at the time and on the days specified. You can also specify multiple times.

## Unassigning One Agent While Keeping the Rest Assigned

The administrator may need to build an escalation in which one agent, who is always the same agent, is removed from the assignments list while others, who vary from Issue to Issue, remain assigned to the Issue. In this instance, it would not be possible to use the standard escalations page to unassign everyone and then re-assign the Issue because the agents who are to remain would vary from Issue to Issue. An example where this might be needed is in the case of an Issue requiring an approval. The approver might be the same agent every time, but the other assignees could vary. This re-assignment can be accomplished via an escalation, but not by using the Assignment section of Step 4: Escalation Actions. Instead, you would use the External Action function to run a command from FootPrints' API. To do so, specify the following as an external action:

```
C:\footprints\bin\perl\bin\perl C:\footprints\bin\mrUnassign.pl %MRID%% userID
```

### Tab 6: Name/Save

After criteria and actions are chosen, you can name the escalation, decide whether to turn it on or off, and then save it

- Escalation Name—Give a name to the escalation rule, for example, Gold Level Issues.
- Escalation On/Off—To activate this escalation rule, the On radio button must be selected (the default). If an escalation rule is turned off, the settings are saved until the rule is re-activated or deleted.

Enter your password and click **SAVE**; the escalation rule is enabled. When an Issue matches the criteria of the rule, the specified actions occur. If an escalation rule fails for any reason, the Workspace Administrator receives an email notification.

### Scheduler Service

Escalations are run by the **FootPrints** Scheduler service. On Windows, FPSchedule.exe is automatically set as a service on the **FootPrints** server. On UNIX, a cron job is automatically created that runs the MRrunScheduledScripts.pl file. This service handles incoming email, outgoing email notification, escalations, mass emails, and scheduled reports.

## Escalation Email




The information that is included in escalation email can be configured to include certain fields. To configure the default escalation email for a Workspace, select Administration | Workspace | Escalation from the **FootPrints** Toolbar, then click the Configure Escalation Email link on the main Escalation Setup page. To configure the email template for a particular rule (doing this for a particular rule does not affect the template), select Configure in Step 4: Escalation Actions on the Set Up Escalation page. The form you use to set up the escalation email is the same regardless of whether you are configuring the email for a template or for a particular rule.

### NOTE


The Specify Email Content for Escalations page was changed significantly in the 7.0 release of **FootPrints**. However, **FootPrints** is entirely backwards compatible with earlier releases and, if you have escalation email templates from an earlier release, they work exactly as before in release 7.0+. If you upgrade to a 7.0+ release and make any changes to the existing default template, you must access each escalation rule and re-save it. In this instance, where you have changed the default template following an upgrade, existing escalation rules will not work unless you re-save them.

1. Either select Administration | Workspace | Escalation from the FootPrints Toolbar, then click the Configure Escalation Email link on the main Escalation Setup page to configure the






email template, or select the Configure link in Step 4: Escalation Actions on the Set Up Escalation page. A pop-up window is displayed.

2. If previous templates have been created, you can select one to edit or delete by clicking the appropriate radio button and then selecting the template from the drop-down list. To create a new template, click the Create radio button and then click GO using the Default selection, or choose an existing template, making that the basis for the new template, and click GO.
  - Subject of Mail—Click the  icon to configure the information that appears in the Subject line of the email. The following options are displayed.
    - Single Issue notification mail—Applies to single Issue notifications that go to Assignees or contacts.
    - Summary report mail—Applies to summary email notifications (which may list multiple Issues).
    - Allow replies to escalations—If the box is checked, the Issue number and workspace ID are included in the subject, allowing users to respond to the email.
  - Short list of what just changed—A summary of what was changed in the Issue that caused the email to be sent. If you click the  icon in each of the columns, a pop-up window is displayed that allows you to specify whether to include changes to internal Issues or Employee fields.
  - Text at top of message—Customizable message that is displayed near the top of the notification email. Click the  icon to display the page to create the message. The checkbox must also be checked in that column. The following variables can be placed in the greeting to include the subject of the email, the user's name, etc.:
    - · \_WHONAME\_ : Name of user who created/edited Issue
    - · \_WHOMAIL\_ : Email address of user who created/edited Issue
    - · \_PROJECTNAME\_ : Workspace Name
    - · \_ENTRYTITLE\_ : Title of Issue
    - · \_ENTRYNUMBER\_ : Issue number
  - Workspace Name—The name of the Workspace is displayed in the body of the notification email.
  - Workspace ID—Each Workspace is assigned a number within FootPrints. You can include that number.
  - Title—The Title of the Issue is displayed in the body of the notification email.
  - Issue Number—The Issue number is displayed in the body of the notification email.
  - Link to Details Page—A hyperlink to the Details page of the Issue in FootPrints (requires password authentication).

#### NOTE

If you are using a custom login page for customers (e.g., group.html), that URL can be specified for Customers by clicking the  icon in the customer column and entering the URL. This does not automatically bring the Customers to the Details page of their Issue; after entering their email address, the main customer page is displayed. Contact Numara Software for details on turning the custom customer login page into a Perl script that directly displays the details of their Request when using the hyperlink.

- Last Edit Date—The last date the Issue was edited.

- Last Edit Time—The last time the Issue was edited.
- Priority—The priority of the Issue.
- Status—The current status of the Issue.
- Creation Date—The date on which the Issue was created.
- Creation Time—The time at which the Issue was created.
- Creator—The submitter of the Issue.
- Show Subtask or Global Entry Relationship—If the Issue is a Master, Subtask, Global, or GlobalLink, include this reference in the email.
- Description—The Issue's description, with time/date/user stamps. Two options are available by clicking the  icon: Most Recent Description and All Descriptions.
- Assignees—The list of users/Teams assigned to the Issue.
- CC's—Any email addresses that are listed in the CC section of the Issue. Both permanent and one-time CCs are shown, denoted by one of these labels: (permanent); (permanent, but not CC'd on this edit); (this edit only)
- Issue Information—Workspace field data. By default, customers only see Public fields and internal users see all fields. Individual fields can be selected for inclusion by clicking .
- Address Book Fields—Address Book data. By default, customers only see Public fields and internal users see all fields. Individual fields can be selected for inclusion by clicking .
- List attached files—A list of files attached to the Issue are displayed in the body of the email.
- Attach attached files—Attached files are sent with the escalation email.
- Complete Issue History—A summary of the Issue's history appears in the body of the escalation email.
- Text at bottom of message—Customizable message that appears at the end of the escalation email. A different message can be made for each type of mail by clicking the  icon in that column, entering the message in the text box, and clicking  GO. The checkbox must also be checked in the column. In addition, variables can be placed in the greeting to include the subject of the email, the user's name, etc. The Text at top of message option above describes the variables.
- Send mail as text—Notification mail is sent as plain text.
- Send mail as html—Notification mail is sent in HTML format.

**NOTE**


If both text and html are checked, **FootPrints** includes both formats in the message. For most Windows-type email readers (Outlook, Lotus Notes, etc.), only the HTML is seen.

- Custom formatting for text message—Create a custom email template for FootPrints escalation email layout and custom formatting in plain text (refer to Custom Email Templates).
- Custom formatting for HTML message—Create a custom email template for FootPrints escalation email layout and custom formatting in HTML (refer to Custom Email Templates).

**NOTE**

For Issue Information and Address Book fields, custom email template settings override settings you specify on this page, regardless of whether the custom formatting is for text or HTML

messages. For example, if your Specify Email Content page specifies that the message is to contain only public fields in the Issue Information section and you specify an internal field in the custom email template, the custom email template overrides the other settings. Refer to [Custom Email Templates](#) for details on how to include the settings on this page with the custom email.


3. Enter a name at the bottom of the page under which this escalation email is to be saved.
4. When you are finished configuring the template, click  **SAVE**.

When you have finished configuring the escalation email template, it includes the fields and other options selected for the escalation rules that use this template. Escalation email notifications are flagged with the "Urgent" flag (!) in Microsoft Outlook and Lotus Notes.

## Per-Issue Reminders

This escalation feature can be used to create reminders on a per-Issue basis. This allows an Agent, for example, to set a follow-up date for an Issue and receive an email reminder on that date.

To set up per-Issue reminders:

1. Create an internal optional Workspace field called Follow-Up Date of type date field.
2. Create an escalation with the following criteria (may be slightly different depending on your system):
  - Name: Per-Issue Reminders
  - Escalation On/Off: Choose On
  - Actions: Send mail to the Assignees checked, select one or more email types, Color=Red
  - Time Unedited: 5 minutes
  - Criteria:
    - Status=Highlight "Request", "Open", and any custom statuses to get reminders on active Issues, or "Closed" to get reminders on Closed Issues (or highlight all statuses except for "Solution" to get reminders on any status Issue).
    - For Follow Up Date, choose equal to and check the box for Current Date (do not fill in any dates).
3. Enter your password and click  **SAVE**.

To set a reminder, simply edit an Issue and fill in a follow-up date. On the day of the follow-up date, the Agent receives an email reminder and the Issue is highlighted in red on the Homepage.

Reminders can also be sent by the FootPrints Calendar based on the data in a date/time field. Refer to FootPrints Calendar for more information.

## Viewing/Printing a Summary of Escalations

You can view a summary list of the properties of all of the escalation rules and send the summary to a printer.

To view the summary:


1. Select Administration | Workspace | Escalation from the FootPrints Toolbar. A list of existing escalations is displayed.
2. Click the Summary of all Escalations link in the lower right corner of the section. A pop-up displays tables of the escalations and their properties.

3. To print the summary, scroll down the page and click the Print button at the bottom of the page. Click the Close button to close the page.

---

## Service Level Management

Service Level Management provides the means for integrating your service level agreements (SLAs) into FootPrints. If you need an SLA to be based on multiple fields, please use the [AutoField](#) feature.

1. To create a Service Level field, select Administration | Workspace from the **FootPrints** Toolbar, then select Service Level Management from the main frame in the Automated Workflow section. If this is the first time service levels are being configured for this workspace, the Initial Service Level Management Setup screen is displayed.
2. Select a field type to be used to track service levels:
  - **Address Book field**—Select this option if you would like to associate service levels with customers (i.e., contacts in the Address Book). For example, Gold, Silver and Bronze levels can be created, guaranteeing customers a certain level of service. This option is good for Customer Service Portal workspaces or for workspaces where a VIP flag needs to be set for certain customers.
  - **Workspace field**—Select this option if you would like to associate service levels with incident type or another issue-based field. For example, network outage can have a different resolution time than request for new monitor. This option is good for help desk Workspaces, or for Customer Service Portal Workspaces where the product or service involved in the incident (defined in a Workspace field) determines the level of service.
  - **Priority**—Select this option if you would like to associate service levels with an Issue's priority. Consequently, higher priority levels can have different resolution times than lower levels.
3. In the Field Description section, the three fields associated with Service Levels are defined. For each field, a new field can be created or an existing field can be used.
  - **Service Level Field**—Assign a name for the main service level field (the default is Service Level). This field is a drop-down field (choices are defined later). To select an existing field, click the radio button on the right and select from the drop-down. If this option is grayed out, no drop-down fields are available and a new field must be created.
  - **Service Level Response Time**—Assign a name for this field (the default is SLA Response time). This date/time field represents the time by which a response must be made to the Issue. This is not the same as resolution, but instead acknowledges the Issue.
  - **Service Level Expiration Date**—Enter a name for this field (the default is SLA Expiration Date). This is the date the service contract expires for the associated customer or incident type. This field (a date field) is for reference only, but escalation rules can be created to notify the Customer or Agent when the contract expires. An existing date field can also be selected, if one is available.
  - **Service Level Due Date**—Assign a name for this field (the default is SLA Due Date). This date/time field represents the date and time by which an Issue must be resolved. The due date is calculated for each new issue automatically by the system based on the service level and time of issue creation. An existing date/time field can also be selected if available.
4. After defining the three fields, enter your password and click  GO. The individual service level agreements can now be defined. Before defining the Service Level Agreements, set the Pending Statuses List.

5. Pending statuses are excluded from SLA reports. Any events that occur or time spent in a pending status is excluded from Service Level Reporting. To specify the pending statuses:
  - Click the Edit button of the Pending Statuses List.
  - Choose the statuses you want to set as pending in the Available Statuses field. You cannot select Open and Closed statuses as pending, but you can select any other statuses.
  - Click the Add Status button. The pending statuses are displayed in the Selected Statuses field. To remove a status from the pending list, click on the status in the Selected Statuses field and then click the Delete Status button. This only removes the status from the list of pending statuses; it does not delete the status from the Workspace.

## Defining Service Level Agreements

An unlimited number of service level agreements (SLAs) can be defined here. The names, resolution times, and contract descriptions of each SLA depend on the service level field type, the capacity of the service desk, and the requirements of the customers and their service contracts.

For example, in a corporate help desk, SLAs may be defined for different incident types, such as "Network outage", with a resolution time of 2 hours, or "request new speakers", with a resolution time of 2 weeks.

### TIP

Because missed service level due dates can produce negative SLA reports, and unhappy customers, it is important to set realistic expectations when creating SLAs. Over time, as the system is used and service level metrics are tracked, you should see an increase in issues that meet or exceed their service levels.

1. Name—Enter a name for the Service Level, for example, Gold or Network outage. This is the name that is displayed.
2. Description of Contract—Enter the details of the service level contract, for example, "Resolve in 2 hours". A virtually unlimited amount of text can be entered. The description is available to agents in a pop-up window when viewing a customer's Issue.
  - Attach a new description file (optional)—An electronic file, such as a Word document or text file, can be uploaded containing a detailed service level description. This attachment is available to agents in the SLA Information pop-up window from the customer's Issue screen.
3. Response Time— Enter the amount of time allowed for Issue response for this service level. Time can be specified in minutes, hours, days, and/or weeks. The response time auto-populates an SLA Date/Time field (which you can designate). If, for example, 2 hours is entered and an Issue comes in at 9am on Friday, the associated Date/Time is automatically set to 11am on Friday. This differs from the resolution time in that the Issue is supposed to be resolved by the designated time with resolution time, but with response time, only a response to the Issue needs to be sent within the designated period. There are two additional choices for calculating response time:
  - Real Time (default)—Time is calculated on a 24-hour, 7-day week, 365-day per year basis. So, if an Issue is received at 4pm on Friday, and the response time is 2 hours, the due date will be set to 6pm on Friday.
  - Work Schedule Time—Time is calculated using the Workspace Work Schedule. For example, if an Issue is received at 4pm on Friday (with a two-hour response time) and the Workspace Work Schedule is defined as 9am-5pm Monday-Friday, the due date is Monday at 10am.

### NOTE

One day of work calendar time is equal to the number of workday hours of work calendar time, not necessarily the next day that work is scheduled.

#### NOTE

If you specify work schedule time, but you haven't defined the Workspace Work Schedule, real-time is used.

4. **Resolution Time**—Enter the amount of time allowed for Issue resolution for this service level. Time can be specified in minutes, hours, days, and/or weeks. The resolution time auto-populates the SLA Due Date field. If, for example, 2 hours is entered and an Issue comes in at 9am on Friday, the due date is automatically set to 11am on Friday. There are two additional choices for calculating resolution time:
  - **Real Time** (default)—Time is calculated on a 24-hour, 7-day week, 365-day per year basis. So, if an Issue is received at 4pm on Friday, and the resolution time is 2 hours, the due date will be set to 6pm on Friday.
  - **Work Schedule Time**—Time is calculated using the Workspace Work Schedule. For example, if an Issue is received at 4pm on Friday (with a two-hour resolution time) and the Workspace Work Schedule is defined as 9am-5pm Monday-Friday, the due date is Monday at 10am.
5. **Escalations Associated with SLA**—If this is a new service level, there are no associated escalation rules. Escalation rules can be defined in the next step.
6. **SLA Response Time**—If Auto-populate based on the Submission Time + Response Time is selected, the designated Response Time field is automatically set by the system when Issues are created based on the response time defined for this service level. For example, if the response time is one hour, and the Issue is received on Friday October 1 at 2pm, the response time field is automatically set to Friday October 1 at 3pm. This is done dynamically on the Create Issue page when submitted by an Agent or by the system for Issues submitted by Customers via the web or email. If you do not want the system to auto-populate this field, select Do not auto-populate. You can also opt to leave the field Empty.
7. **SLA Due Date**—If Auto-populate based on the Submission Time + Resolution Time is selected, the Due Date field is automatically set by the system when Issues are created based on the resolution time defined for this service level. For example, if the resolution time is two hours, and the Issue is received on Friday October 1 at 2pm, the due date is automatically set to Friday October 1 at 4pm. This is done dynamically on the Create Issue page when submitted by an Agent or by the system for Issues submitted by Customers via the web or email. If you do not want the system to auto-populate this field, select Do not auto-populate. You can also opt to leave the field Empty.
8. When you are finished, enter your password and click Save SLA to create the service level. The page refreshes to the Service Level Agreement Administration page.

To create additional service levels, click the Add New SLA button on the Service Level Agreement Administration page and repeat the above process. An unlimited number of service levels can be created. Each is listed as a drop-down choice in the Service Level field.

#### NOTE

Metric reports are available for service-level agreements.

## Creating Escalation Rules for Service Levels

One or more escalation rules can be created for each service level. Rules can be created to auto-assign Issues, change the priority or status, send email notification, and more. An unlimited number of escalation rules can be created for each service level.

To create an escalation rule:

1. Select Workspace | Administration | Service Level Agreements. Under Existing Service Level Agreements, select Add a New Escalation under the desired service level. The escalation setup page is displayed. Please refer to the topic on Escalation for more information on the options on this page.
2. As an example to clarify your next actions, if requests from "Gold" level users should be escalated to high priority immediately and assigned to the Workspace Administrator, the following escalation might be created:
  - Name: Gold Level
  - Escalation On/Off: Choose On.
  - Escalation Time: Check Instant Escalation.
  - Actions:
    - Send Email to Workspace Administrator
    - Priority—Change to High
    - Color code—Red
    - Status—Change to Open (assuming Issues may be submitted by Customers as Requests or may be entered by an internal user)
    - Assignment—Re-assign to Workspace Administrator.
  - Criteria: Status="Request" or "Open" (highlight both), Service Level=Gold

#### NOTE

The associated service level in the Service Level field is highlighted by default.

3. Now all new Requests and Issues submitted where the SLA level is Gold in the Address Book immediately receive a priority of High and are assigned to the Workspace Administrator. The Administrator also receives an email (or page) and the Issue appears in red on the FootPrints Homepage.
4. One or more escalation rules can be made for each service level (or no rules can be created). If you want an Issue's priority to escalate as the Issue ages, you can create multiple rules based on age using the re-escalate Issue checkbox.

#### NOTE

To make a rule based on Due Date, use the Age rather than the Due Date field.



## Quick Issue Templates


Quick Issues are templates that contain pre-filled information for frequently reported customer Issues, such as "Password Reset", "Service Request", etc. For example, a Quick Issue template for "Password Reset" would start out pre-filled with a description of the problem, the problem categories pre-filled with Network and Password Reset, and perhaps a status of Closed. The Agent only needs to fill in the user's contact information to submit the Issue. The Workspace Administrator can create an unlimited number of templates, which are available to all Agents and customers from the FootPrints Toolbar.

For details on Master and Subtask Quick Issue Templates, refer to the Numara FootPrints Reference Manual.

## Creating Quick Issue Templates

To create a new Quick Issue template:


1. Select Administration | Workspace from the FootPrints Toolbar, then select Quick Issue under the Automated Tasks section of the Workspace Administration page.
2. If this is the first Quick Issue template, in the top section of the Quick Issue Administration page, enter a name for the template (this is displayed in the FootPrints Toolbar) and click  GO. The name is limited to 20 characters. A longer Title can be given in the actual template.
3. When creating subsequent templates, the Manage Quick Issue Templates dialog is displayed in the top section of the administration page. To create a new template, select the radio button for Create a new Quick Issue Template, enter the name, and click  GO.
4. The Create Quick Issue template page is displayed. This page is similar to the regular Create Issue page, but with fewer fields. Address Book fields, time tracking, etc. will be filled in by the Agent when an Issue is created with the template.
5. The available fields are:
  - Title—This is the Title of the Issue. It can be as long as needed.
  - Priority—This is the default priority for Issues created with the template. It can be changed by the Agent when creating the Issue, as needed.
  - Status—This is the default status of Issues created with the template. It can be changed by the Agent when creating the Issue. If the type of Issue the template relates to is usually resolved during the initial call, Closed can be selected as the Status for the template.
  - Issue Information—One or more Workspace fields can be set here for the template. Any fields not filled out here can still be filled out by the Agent when creating a new Issue from the template. Mandatory fields do not have to be populated when creating the template (although they can be), but must be filled out when the Agent creates an Issue. For example, you may have a mandatory field for Follow-up Date that depends on when the Issue is created. Do not fill this field out when creating the template; instead, it is mandatory for the Agent to fill out when creating an Issue with template. A field like Problem Type, however, would be appropriate to set in the template, as this remains constant for Issues created with the template. Exception: Date fields (but not Date/Time fields) contain a checkbox for Current Date. If this is checked in the template, it is pre-filled with the current date when an Agent creates an Issue. This would be useful for a field like Date Reported.
  - Description—This can contain a pre-filled description of the problem and/or Solution. The Knowledge Base can be used in the template to select the Solution if it already exists there.
  - Attachments—One or more files can be attached to the template. New Issues created with the template automatically contain links to the attachments. This is useful for standard Request types for procedures, patches, or other documents.
  - Assignees—Optionally select one or more Assignees or Teams to be assigned to Issues created with the template. If no assignees are selected, the default Auto Assignment rules apply to Issues created with the template. For example, if the default rule is to assign an Issue to the Agent creating it, an Issue created by an Agent using the template is assigned to the Agent.
  - Email settings follow the rules for the Workspace.

6. When you are done populating fields, click  GO.
7. The template is created. The Quick Issue Administration page is displayed. From here, you can edit or delete the template or create new templates.
8. The template appears on the FootPrints Toolbar for all Agents under the new heading  Quick Issue.

## Define Quick Issue Ordering

By default, Quick Issue templates appear in the **FootPrints** Toolbar in the order in which they were created. They can be easily re-ordered by the Workspace Administrator at any time.

To change the ordering of Quick Entry templates as they appear on the Toolbar menu:

1. On the Quick Issue Administration page, scroll to the bottom section, Define Quick Issue Ordering. This contains a dialog box listing all of the Quick Issue templates (including Master Quick Issues).
2. To:
  - **move a template**, highlight the template name and use the up and down arrow buttons to change its position.
  - **sort templates alphabetically (A-Z)**, click Sort Ascending.
  - **sort templates in reverse alphabetical order**, click Sort Descending.
3. When you are satisfied with the order, click  GO. The re-ordering is reflected for all users in the Workspace.

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## Preventive Maintenance

The Preventive Maintenance feature enables the FootPrints user to provide proactive service management with Quick Issue Templates that automatically create new issues on a recurring basis, which can be used for periodic server maintenance, ensuring password changes on strategic accounts every X days, regular auditing of systems for SOX compliance, or any other regularly scheduled maintenance event.

## Create a Preventive Maintenance Template

To create a Preventive Maintenance template:

4. Select Administration | Workspace from the FootPrints Toolbar, then select the Preventive Maintenance link from the Automated Workflow section of the main frame.
5. In the Manage Preventive Maintenance frame, select the Create button. Two additional fields are displayed:
6. Template Name-Enter a name for this template. Keep it brief, but try to make it descriptive so that you'll be able to identify the task at a glance later.
7. Master-The Master checkbox is for designating the Issue as a Master Issue. If you create the Issue as a Master Issue, you will make subtasks in a new step that follows.
8. Click the GO button. You may be prompted for your password at this point. Enter it and click the GO button in the pop-up password window. The Create a Preventive Maintenance Template page is displayed.


9. The Preventive Maintenance Template page is completed in the same way that you would complete a Quick Issue template. Enter the information you want in the Issue when it is created. The fields on the Preventive Maintenance Issue are the same ones as on regular Issues in the workspace, so you may want to think about adding fields that are specifically for Preventive Maintenance, if they are needed. Note that the template page does not identify any required (i.e., mandatory) fields. Required fields will still be required when an Issue created from the template is edited. Note that, after the Preventive Maintenance template is created, when scheduling the recurring appointment for the template (see below), the Invitees field for the appointment is populated with the Assignees from the template (if there were any). If Invitees are added to the appointment, they are also added to the Assignees in the issue(s) generated by the recurring appointment. Both the template's Assignees and the appointment's Invitees become Assignees in generated issues.
10. When you have finished entering the Issue information, click the SAVE button. The Preventive Maintenance administration page is displayed and the new template is listed in the Templates field. The next step is to schedule the date on which an Issue is created from the template.

## Scheduling a Preventive Maintenance Template

1. Click on the template that you wish to schedule in the Templates field.
2. Click on the Schedule button.
  - **Title**—Enter a Title for the appointment. This is the subject of the appointment, such as Quarterly Meeting. If it is important for other users to know who is involved in the appointment at a glance, you may want to include the names of the people involved in the Title, e.g., Bob S. to work on Server.
  - **Start Time**—Select a time for the appointment to start. If a time was selected from the Day View, it is pre-filled here. Hours are listed in one drop-down (1-12 or 0-23 depending on your preferences), with minutes available in 5-minute increments (from 0-55) in a second drop-down. If the 12 hour clock is used, a third drop-down is available to select AM or PM. If an appointment lasts all day, select None for Start and End times. These appointments are displayed at the top of the Day View with no time associated.
  - **End Time**—Select a time for the appointment to end. If a time was selected from the Day View, this will default to 1 hour after the Start Time. If the 12-hour clock is used, remember to select the correct option for AM or PM. If None is selected for Start Time, it should also be selected for End Time.
  - **General Info tab**—The General Info tab has the following options:
    - **Location**—Optionally enter a location for the meeting or Appointment, e.g., Board Room or Customer Site.
    - **Link Issues Using the Field**—If the current Workspace contains at least one Date/Time field, you can optionally link the appointment to an Issue. When creating the appointment from the Calendar, this automatically creates a new Issue with data from the appointment. Select the Date/Time field to populate with the appointment Start Time from the drop-down. Select No Link if you do not want to create and link to an Issue. Refer to [Linking Appointments to Issues](#) for complete information on this feature.
    - **Use Data from Issue**—By default, the template shown here is the one you selected before you clicked the Schedule button. This field is provided to allow you to set the Schedule of a different template if you decide that the one you selected previously is not the one you want to schedule. When you initially create a schedule, you will likely remain with the default selection. Use the drop-down to select the template whose data will be used to populate the Issue you are scheduling.

### NOTE ON USE OF CALENDAR


Customers, members of other Workspaces, and non-users of **FootPrints** are not available to be Invitees. The **FootPrints** Calendar is intended for use by **FootPrints** Agent/administrator users. If non-Workspace Members must be notified of an appointment, the email notification you receive can be forwarded to them (see below). Users can also be copied on any Issue linked to an appointment.

- **Description**—The Description can be used to include any notes or details of the appointment.
- **Invitees tab**—One or more members of the current Workspace can be invited to the appointment. Invitees become Assignees on the generated Preventive Maintenance issue. Examples of invitees would be members of a committee who attend a committee meeting or a technician who is scheduled to work at a customer's site or an entire Team at once for a Team meeting. To invite a user, select the name on the left and click the right arrow button. Select  **Check Availability** to see who is available for the appointment. Refer to the chapter on scheduling for more information. To invite an entire Team at one time, click the team name, then select Assign Team, then click the right arrow button. The appointment is propagated to the Availability calendar for all the individual members of the team. The ability to invite a Team is only supported in the Day View.
  - **Check Availability**—Before inviting Agents to an appointment, you can check Agent schedules to determine the best time for scheduling the appointment.
- **Email Confirmation**—FootPrints can send users email confirmation about an appointment. This is in addition to any email notification the users receive regarding FootPrints Issues (including linked Issues). Email notifications include all of the information about an appointment as well as an optional link to synchronize the appointment with the Microsoft Outlook Calendar (the link is for those not using the FootPrints Sync add-on module). The options are:
  - **Email me**—If this is checked, you receive an email notification about this appointment (regardless of whether you are invited to the appointment).
  - **Sync w/Outlook**—If this is checked, notifications include an attachment that synchronizes the appointment with the user's Microsoft Outlook Calendar (refer to Syncing Appointments—this is not for FootPrints Sync users).
  - **Email Invitees**—If this is checked, all users invited receive an email notification for the appointment.
  - **Set reminder**—If a reminder is set, users receive a second email notification before the appointment starts. The reminder is sent before the appointment as specified by the person who created the appointment. Time period available before the appointment starts are: 5, 10, 15, or 30 minutes, 1-5 hours, 1 day, 2 days, and 1 week.

### NOTE

The time specified for the email notification to be sent is based on the internal clock of the **FootPrints** server. If an appointment is set to begin at 1:00 PM, Monday, December 2, 2005, and the reminder is set for 30 minutes, the email is sent at 12:30 PM of that day based on the time on the server where **FootPrints** is installed.

- **Recurrence tab**—Appointments can optionally be set to recur at regular intervals. The appointment is displayed on the Calendar for each day that it recurs. The options are:
  - **None**—No recurrence. The appointment occurs just the one time. Recurrence is left off by default, but if you have clicked the Activate Recurrence checkbox, you can click it a second time to turn it off.

- **Daily, Weekly, Monthly, Yearly**—Click the radio button to select the frequency with which the appointment occurs. It can be once every day, once a week, once a month, or once a year.
    - **Daily**—Set the recurrence for every X day(s) of the week (i.e., enter "1" for the recurrence to be every day, Sunday through Saturday, "2" for every other day, "3" for every third day, etc.) or only on weekdays (i.e., Monday through Friday) in combination with the every X day(s) schedule.
    - **Weekly**—Set the recurrence for every X weeks (i.e., enter "1" for the recurrence to be every week, "2" for every other week, "3" for every third week, etc.) and select which day(s) of the week it is to occur by clicking the appropriate checkbox. You can select more than one day per week. For example, you could create an appointment for every second week on Monday and Wednesday.
    - **Monthly**—The appointment recurs on a monthly basis. By default, there is no end date. Specify the date on which it is to occur (for example, the 19th of the month) by selecting the radio button and entering the date, as well as the frequency (every X months) of the appointment (i.e., enter "1" for the appointment to take place every month, "2" for the appointment to take place every other month, etc.). Alternatively, select the second radio button, then use the drop-down fields to designate in which week of the month (first week, second week, etc.) the appointment occurs, the day in that week, and the frequency.
    - **Yearly**—The appointment recurs on a yearly basis. By default, there is no end date. Specify the date on which it is to occur (for example, September 19th) by selecting the radio button and entering the date of the appointment. Alternatively, select the second radio button, then use the drop-down fields to designate in which week of the month (first week, second week, etc.), the day of the week, and the month of the year in which the appointment occurs.
  - **No end date**—When this is checked, the appointment recurs without end.
  - **End by**—Specify the date on which the appointment ceases to recur.
3. Click  **SAVE** to create the appointment. The appointment is added to the Calendar and email notifications are sent to users (if selected). The appointment is displayed in the Day, Week, and Month view of the Calendar.

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## Issue Workflow

The Issue Workflow feature allows you to define workspace-wide options for Issue behavior under specific circumstances, e.g., subtask creation and closure, linking and moving issues. It is accessed by selecting Administration | Workspace from the FootPrints toolbar, and then selecting Issue Workflow from the Automated Workflow section of the administration page. The options are:

- **Copy/Move Issues Into This Workspace**—Define the workspaces from which issues can be copied/moved into the current workspace.
  - **All Workspaces**—Issues can be copied/moved from any other workspace into the current workspace.
  - **Selected Workspaces**—If this radio button is selected, additional fields are displayed. Click a workspace in the Workspaces list and use the arrows to move the workspace into the Allowed list. To remove a field from the Allowed list, click the workspace and use an arrow button to move it into the Workspaces list. When an agent tries to

copy/move an issue into the current workspace, the agent will only be able to copy/move issues from the Allowed list of workspaces into the current workspace.

- Dynamic Issue Linking—Select which actions should be performed on Issues in this workspace when they are being automatically updated as a result of a dynamically linked Issue having been updated. The options available are:
  - Update Title—Checked by default
  - Update Status—Checked by default
  - Update Description—Checked by default
  - Update Priority—Checked by default
  - Update Issue Information Fields—Checked by default
  - Update Contact Information Fields in Issue—Checked by default
  - Copy New Attachments
  - Update Contact in Address Book
  - Add Contact to Address Book if New


#### NOTE

In the case of Issues dynamically linked across different workspaces, statuses, priorities, fields, etc. that are not present in this workspace do not carry over to the Issue in this workspace. Dynamically linked Issues are not updated at all when a Customer performs an edit.

Also, note that, when using Issue Workflow rules, dynamically linked Issues in the receiving Workspace are updated even if the agent's role would not normally allow that agent to update those fields if the Issue Workflow allows the update. In the case of customers, however, dynamically linked Issues are not normally updated, regardless of the customer's role properties in the receiving Workspace.

- Status for Moved Issues—Select the status for the source Issue when moving an Issue from the current Workspace to another Workspace. The default is Closed.
- Subtask Closure Process—Upon the closure of the last non-closed subtask, FootPrints can either automatically close the Master Issue or send an email to the assignees of the Master Issue informing them that all subtasks have been closed without changing the Master Issue status. The default is to automatically change the status to Closed.
- Subtask Sequencing—This feature sets default Status names for the sequencing of Master Issues. An inactive Status has been built into FootPrints for Subtasks that are not due to be performed in the sequencing queue. This can be renamed by typing in the Name of Inactive Subtask Status field. By default, when a Subtask becomes active in the sequence, its Status is set to Open, but you can select a different Status upon activation from the Status Upon Activation of Subtask field. By default, when a Subtask is completed, its Status is set to Closed, but you can select a different Status upon completion from the Status Upon Completion of Subtask field.
- Subtask Automatic Status Change—Upon changing the status of a Master Issue to one of the statuses selected below, FootPrints can automatically change the statuses of each subtask to that of the Master Issue.
- Copy Subtasks Into This Workspace—When performing a cross-workspace copy of a Master Issue, FootPrints can either copy or not copy the subtasks as well.
- Template Subtask Field Inheritance—Choose which fields will inherit their value from the Master Issue when a Subtask gets created from a Subtask Template. Manually created Subtasks always inherit all fields. If there is a value for the Subtask field in a Subtask Template and the field is set on this page to inherit its value from the Master Issue, the

field will take the value from the Master Issue and not the Subtask Template. For details on Subtask Templates, refer to Create Subtask Templates.


When you have selected the necessary Issue workflow options, type in your password and click  **GO**.

## Scheduling and Availability

A Workspace Work Schedule can be defined for a Workspace and for individual Agents. Regular working hours, days off, and holidays can be defined by the Workspace Administrator. Escalation rules can be configured to follow the calendar. Holidays and exceptions to the regular schedule are also defined here. In addition, administrators can set a schedule for a second shift.

Select Administration | Workspace | Calendar and Scheduling | Work Schedule to access the administrative options for these features.

Schedules are created for the entire Workspace and for individual Agents. The corporate schedule, as reflected in the Workspace Work Schedule, can be tied to the Agent schedule for company holidays, or separated if Agents need to be available to work when the organization is officially closed. These options can be defined as follows:

- Define Work Schedule for Workspace and Individual Agents—The work schedule for the Workspace default and for individual Agents can be defined here, including normal working days and hours, vacations, and holidays. Select the Workspace or an agent from the drop-down, click , and proceed to:
  - Manage the Workspace Schedule
  - Manage the Agent Schedule
- Define options for Availability—The following options are available for determining availability of Agents throughout FootPrints:
  - Auto Check Availability—If enabled, the availability of assigned Agents is automatically checked when creating or editing Issues based on the current date/time or based on the value in a date/time field (such as Work Scheduled Date)
  - Date Fields for Availability—When viewing the availability matrix from the Create Issue, Edit Issue, or Appointment page, one or more date or date/time fields can be used as criteria for determining Agent availability in addition to the current date/time. Select the fields to be included.

### NOTE

If no date fields are highlighted here or no date fields exist in the workspace, the current date/time at the time of assignment is used to determine availability when assigning Issues.

Type in your password to save changes and click  **GO**.

## Using Availability with Round-robin Team Assignment

In addition to using Agent availability when creating appointments or assigning Agents to Issues manually, Agent availability can be taken into account when auto-assigning Issues using the Round-robin Team Assignment feature. When enabled, this option assigns each Issue that is assigned to the Team to the next available Team member in the list. It is applied when Issues that are assigned to a Team manually, via auto-assignment, and via an Escalation rule. Refer to Round-robin Team Assignment for more information.

## Manage Workspace Schedule



The work schedule can be defined for the Workspace as a whole or for individuals in the Workspace, including normal working days and hours, vacations, and holidays, by selecting Administration | Workspace | Calendar and Scheduling. In addition, a second shift can be defined for the entire Workspace or for individuals in the Workspace.

To define the work schedule:





1. Select Administration | Workspace | Calendar and Scheduling. The Calendar and Scheduling page is displayed.
2. The current Workspace name is displayed in the drop-down in the Work Schedule section. If other schedules were created in the current Workspace, they are also displayed in the drop-down. The Workspace radio button is populated by default. If you wish to set a schedule for an Agent in the Workspace, you must select the Agent radio button. To set the work schedule for a different Workspace, select the Workspace from the drop-down field. The drop-down displays all of the schedules created under the current Workspace only.

### NOTE

If a work schedule is defined for an Agent, the Agent's work schedule is used in determining availability. If there is no work schedule for an Agent, the Workspace work schedule is used.

3. Click the Add or the Edit button. The Work Schedule page is displayed.
4. FootPrints allows you to define more than one work schedule per workspace. In the Custom Work Schedule section, name this schedule.
5. To define the Workspace Work Schedule, select options in the following sections on this screen:
  - Normal Work Week—Define the normal work days and working hours for the Workspace. For each day of the week, do the following:
    - For each day worked, check the Work Day box and select a time range by entering start and stop times in the drop-down boxes.
    - For 24-hour work days, check the 24 Hour Day option.
    - Use the  Toggle shift button to set a second shift work schedule. The  Toggle shift button displays a second set of work schedule times for the selected day.
  - Holidays/Exceptions—Define special days when the normal work days and hours are not in effect.
    - Add New Holiday/Exception—To add a new holiday or exception to the Workspace calendar, specify the following:
      - Type—For days off, such as a holiday, select Day Off. For extended closing periods, select Date Range. For half-days or other exceptions (including, for example, a special Saturday that is worked), select Partial Day.
      - Name—Give the holiday or exception a name, like Independence Day, Closed for Inventory, etc.
      - New Date—Provide the date of the holiday or exception.
      - End Date—When Date Range is selected, also provide the date when the holiday ends (this should be the last day of the holiday, not the first day back).
      - Start Time/End Time—When Partial Day is selected, you must provide the start and end time of the special time that is included in the work schedule (not the time that will not be worked). This is useful when you need to define additional work days for a busy season or to define a half-day. For example, if 8am-12pm is

selected on a day where the normal work hours are 8am-5pm, the default Agent's schedule only shows availability for 8am-12pm for that day.

- Click  Add New to add the holiday or exception.
  - Modify Existing Holiday/Exception—To modify an existing holiday or exception, select it from the list and click  Modify. The characteristics of the holiday/exception populate the options in that section. Make the changes.
  - Delete Existing Holiday/Exception—Select the holiday/exception to delete and click  Delete.
  - Reporting Options—Using these reporting options only make sense when you have the same number of work hours defined for each day in the week.
    - Make this the default work schedule—If you wish to use the schedule you've defined for the Workspace when calculating the age of issues for reporting purposes, check this box.
    - Time Format—Define the format for presenting time-based calculations for reporting.
    - Define Work Day—Define the number of hours in a work day for reporting calculations. If the Time Format is specified as "Days, Hours, Minutes" and the work schedule is in effect, then a work day is defined as the number of hours you specify in the Define Work Day field.
  - SLA Options
    - Define Work Day—Define the number of hours in a work day for reporting purposed when defining reports for SLAs. One day of work schedule time is configured to be equal to this many hours of the work schedule time calculating the SLA due date, not the next day for which work is scheduled.
6. To apply any changes made in this section, enter your password and click  GO.

## Manage Agent Schedule





The Workspace Administrator can create and manage Agents' work schedules. If their role permissions allow, Agents can also create and modify their own schedules through the **FootPrints** personal Calendar.

1. To manage an individual Agent's work schedule as an Administrator, under Administration | Workspace | Other Options | Calendar and Scheduling | Work Schedule, click the Agent radio button, select an Agent from the drop-down list, then click the Add or the Edit button. The Work Schedule page is displayed.

### NOTE

If a work schedule is defined for an Agent, the Agent's version of the work schedule is used in determining availability. If there is no work schedule for an Agent, the Workspace work schedule is used.

2. The Agent's work schedule can be defined here, including normal working days and hours, vacations, and holidays. If an Agent does not have a work schedule defined, the Workspace schedule is used to determine availability.
3. The following options are available:
  - Normal Work Week—Define the normal work days and working hours for the Agent. For each day of the week, do the following:
    - For each day worked, check the Work Day box and select a time range by entering start and stop times in the drop-down boxes.

- For 24-hour work days, check the 24 Hour Day option.
  - Holidays/Exceptions—Define special days when the normal work days and hours are not in effect.
    - Add New Holiday/Exception—To add a new holiday or exception to the schedule, specify the following:
      - Type—For days off, such as a holiday, select Day Off. For vacations and extended leaves, select Date Range. For half-days or other exceptions (including, for example, a special Saturday that is worked), select Partial Day.
      - Name—Give the holiday or exception a name, like Independence Day, Closed for Inventory, etc.
      - New Date—Provide the date of the holiday or exception.
      - End Date—When Date Range is selected, also provide the date when the holiday ends (this should be the last day of the holiday, not the first day back).
      - Start Time/End Time—When Partial Day is selected, you must provide the start and end time of the special time that is included in the work schedule (not the time that will not be worked). This is useful when you need to define additional work days for a busy season or to define a half-day. For example, if 8am-12pm is selected on a day where the normal work hours are 8am-5pm, the default Agent's schedule only shows availability for 8am-12pm for that day.
    - Click  **Add New** to add the holiday or exception.
  - **Modify Existing Holiday/Exception**—To modify an existing holiday or exception, select it from the list and click  **Modify**. The characteristics of the holiday/exception populate the options in that section. Make the changes.
  - **Delete Existing Holiday/Exception**—Select the holiday/exception to delete and click  **Delete**.
4. To apply any changes made in this section, enter your password and click  **GO**.

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## Customer Surveys

When this feature is enabled, a customer satisfaction survey can be automatically emailed to customers when their Issues are closed. The email, with the survey attached, is sent to the customer according to the rules specified under Administration | Workspace | Automated Workflow | Customer Surveys.

### IMPORTANT

Check local laws governing automated surveys before enabling the feature.

Surveys contain field data from the originating workspace (as opposed to the Customer Survey workspace), but the field names in the survey are all from the Customer Survey workspace and should be set there.

### NOTE

A Customer Survey workspace does not count towards the limitation of three workspaces for owners of the Base Starter Pack. Additional survey workspaces will count towards the limitation. Please contact your salesperson for details on obtaining the Extended Starter Pack.

### NOTE

For the survey option to work correctly, outgoing email notification must be enabled for the system (under Administration | System | Email).

To enable this feature:

1. Select Administration | Workspace | Automated Workflow | Survey from the FootPrints Toolbar.
2. Place a check in the box to enable this workspace to send Customer surveys.
3. Choose whether you want to have surveys tracked in a FootPrints workspace associated with this workspace or if you want to create and use your own survey.

#### NOTE

If you wish to use a **FootPrints** Workspace, you must create that Workspace in advance using the Workspace Setup Wizard and selecting the Customer Surveys template.

- Track Surveys in a FootPrints Workspace—If you select this option, a drop-down list of survey workspaces that have been created and associated with this workspace is displayed in the Step 2: Configuration section.
    - Choose a Workspace to Send the Surveys to—You must have another FootPrints Workspace already in built if you want FootPrints to track the survey results. Use the Customer Survey workspace template from the Workspace Setup Wizard to create this workspace. You can create a new workspace using the Administration | System | Workspaces | Create A New Workspace option. Step 4b of the Workspace Setup Wizard allows you to setup all the survey options for this workspace. A template is created for the survey workspace that is attached to the survey email. When the customer fills this template out and submits it, the results automatically go into the survey workspace.
  - Create and track your own survey—If you select this option, you have the following option in the Step 2: Configuration section:
    - Reply address for survey email—Enter the email address to which replies to survey emails should be sent. In Step 4 you may have set up the survey results to go into another Workspace. You may also want the replies to the survey email to go into this Workspace. In that case, use the email address for this other Workspace. Incoming email address can be set up on the Administration | System | Email page. Also, you may not want FootPrints to track the survey results at all. Enter the email address to which you want people to send email when they reply to the survey email. This address can belong to a person who is responsible for reading the survey results or to another application's email address.
    - Attach File—You may not be tracking your survey results in another FootPrints Workspace. You must create the survey outside of FootPrints and then attach it here if you want a survey attached to your survey email. Only .txt and .html files are supported. Options are also provided to replace the attachment you've attached previously or to delete the attachment.
4. **Step 2: Configuration**
- Subject of the survey email—Enter a subject line for the survey email.
  - Custom Message—The text entered here is included in the body of the survey email. Certain keywords can be used that are automatically replaced by their associated values once the email is sent. Click the Click here link to view a list of keywords.
5. **Step 3: Survey Criteria**—Select when to send customer surveys:
- Send surveys for Issues with Closed Status - When selected, Step 4: Frequency displays options that are appropriate for sending surveys based on the Issue status.

- Send surveys for Issues based on Escalation Rule(s) - When selected, Step 4: Frequency displays options appropriate for sending surveys based on an escalation rule.
- An Add New Escalation link allows you to create an escalation rule on the fly. Clicking the link displays the page for setting up an escalation rule.


#### 6. Step 4: Frequency

- If sending surveys based on status.
  - Send surveys each time Issues get Closed
  - Customers have a 1 in X chance of receiving a survey if they haven't received a survey in the last Y months. Select the values for X and Y.
    - For X: Choosing a value of 2 for X does not mean that a survey email is sent for every other issue that is closed. It means that each issue closed has a 1 in 2 (50%) chance of resulting in a survey email.
    - For Y: Indicate how often customers are allowed to receive surveys. You may not want the same customer to receive more than one survey in a 1, 3, 6, or 12 month period.
  - Allow on demand surveys - Checking this box adds a checkbox to the create/edit Issue screen to send the survey when the Issue is submitted regardless of other choices in this section and regardless of status.

#### NOTE

You may want to send a survey for every issue that is closed, but only if that person has not received one in the past 1, 3, 6, or 12 months. Use the second option and set the value of Y to 1 so that each closed issue has a 1 in 1 chance of sending a survey email.

#### 7. Step 5: Miscellaneous

- Send surveys to customers and agents- Leave unchecked to send surveys to customers only or check this box to have surveys sent to both customers and agents.
  - Send surveys to all linked customers when a Global Issue is resolved. This option can be selected regardless of when surveys are being sent out.
  - Include Javascript data validation on surveys and HTML Forms. This option can be turned off so that the Javascript validation is not included.
  - Allow anonymous survey submissions - When the survey is returned, it comes back with the original issue information deleted.
8. Enter your password in the Apply Changes section and click  **GO**.

### Add Survey Question

If you've chosen to track surveys in a **FootPrints** workspace, you must create the survey questions to be sent out. To create the survey questions:

1. Change to the survey workspace.
2. Select Administration | Workspace from the FootPrints Toolbar and then select Survey Question Configuration from the Fields section of the main frame. The Survey Question Configuration page is displayed. In other, non-survey workspaces, the link in this position is labeled "Field Maintenance".
3. You can Add, Edit, or Delete a survey question from this page. Click the Add Question button. The Question Setup section is displayed.

- **Type Question-** Enter the survey question in this field. Responses are in the form of selecting a value from a set of numbers or words, so the question should be appropriate to that form of survey. Some examples might be:

My experience with Widgets International was helpful:

Strongly Agree      Agree      Neutral      Disagree      Strongly Disagree

On a scale of 1 to 6, with 6 being the highest, how highly do you rate our speed of response?

1                  2                  3                  4                  5                  6

- **Make this question mandatory** - Checking this box makes answering the question a requirement. If the question is made mandatory and the customer or agent tries to return the survey without answering a mandatory question, the customer or agent is notified that the question must be answered prior to returning the survey.
  - **Define Scale** - This drop-down field allows you to reuse the answer scale from another question.
  - **Max Scale Value** - Sets the number of values in the answer scale. The maximum allowable number of values in the scale is 10.
  - **Enter the caption that will be associated with each value** - By default, answer scale is populated with numeric values. You can change those to words or a combination of words and numbers.
  - **Caption alignment** - Choose whether to place the caption for the answer scale to the right, left, above, or below the field for entering the value.
  - **Include a comments box with this question?** - Check the box to include a field for entering comments with the question. If you check the box, drop-downs are displayed for you to select the size of the box that is displayed in the survey. The answers given by the customer are not limited to the size of the box. The column and row drop-downs only determine what size box is visible.
  - **Include a question header?** - Check the box to include a heading with the question. If you check the box, a multi-line character field is displayed for you to enter the text for the header and a drop-down is displayed for you to choose whether to align the heading flush left, flush right, or centered above the question.
4. Click the **Finish Question** button to add the question to the survey. Repeat these steps to add more questions to the survey.
  5. When you have finished adding questions, enter your password in the **Apply Changes** field and click the **GO** button. If you skip this step, the questions are not added to the survey.

## Using Scaled Surveys to Get Averages

Because integers represent the responses to survey questions, you can run a Metric Report to determine averages for answers. To do so you would need to:

- Create at least one survey scaled report, for example, "Rate the service you received on a scale of 1-5, with 1 being Excellent and 5 being Poor".
- Create a Custom Metric and Graphics Report. Refer to Custom Reports for details on how to create the report. Additional information for Metric Reports can be found in Metrics and Graphics.
- When building the report, in Step 3, choose to get an Average of your survey question.
- You can get a subtotal of these values. For example, you might choose to subtotal them by "Original Assignee".

## Change Survey Question Order

When you have more than one question in your survey, the questions are displayed in order of appearance on the Survey Question Configuration page.

To change the order in which survey questions are displayed:

- Change to the survey workspace.
- Select Administration | Workspace from the FootPrints Toolbar and then select Survey Question Configuration from the Fields section of the main frame. The Survey Question Configuration page is displayed.
- Click on the survey question in the Current Questions list.
- Click the **Move Up** or **Move Down** arrow buttons to move the question up and down in the order.



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## Chapter 14: Configure Reporting


**FootPrints** is capable of producing a variety of report types. This Getting Started document only describes the custom reporting function in detail. For details on reporting and other report types, as well as how to set up the Auto Run feature to automatically run reports at desired times or intervals, refer to the **Numara FootPrints Reference Manual**. A detailed description of the Reporting function can also be found in the **FootPrints User Guide**.

The Custom Reports feature allows you to create report templates based on any combination of criteria, with many formatting options. Formatting options include headings, columns, sorting, and color graphs. Single and two-level metrics based on any fields can be included. Report output can be exported to another application (such as Excel) and can be scheduled to be run on a regular basis.

### NOTE

The names of many of the fields in **FootPrints** can be changed by the administrator (Title, Priority, Status, Description, etc.), as well as the name of the records (Issue). Custom fields can also be created. For clarity, this manual always refers to **FootPrints** records as “Issues” and uses the default terms for the other field names.

To create a custom report, select Reports | New Report from the **FootPrints** Toolbar. The Custom Report Wizard is displayed:

1. **Step 1: Style**—Select the output style of the report. Choices are:
  - Columns—Issue data is displayed in fixed columns. One Issue is displayed per row. Columns can be selected from any available fields.
  - Wrapped—Each Issue returned is displayed in its own mini-table. Line breaks can be used to wrap data to multiple rows, for example, to place the Description in its own row. This style is useful for printing reports that contain many fields.
  - Metrics and Graphics—Create custom metrics and graphs of counts, averages and sums on any field. Single and two-level metrics are supported. Output options include table, bar, and pie charts.
  - Export—Export data to a text file that can be saved to your local desktop. Use this format to import FootPrints data into a spreadsheet or other programs
  - Include metrics...—Column and Wrapped reports can also contain metric charts and graphs. Check this box to include metrics in a Column or Wrapped report (not available for Export option).
2. Click  **GO** to display the rest of the report options. The steps on the next page depend on the report style selected in Step 1.

3. **Step 2: Heading**—Define what is included in the heading at the top of the report output. Available for all styles except Export. Options include:
- Title—This is displayed at the top of the report.
  - Date—The date the report is run (updates each time the report template is re-run).
  - Time—The time the report is run (updates each time the report template is re-run).
  - Workspace name—The name of the Workspace.
  - Logo graphic—The logo image displayed in the current Workspace.

There are two possible steps 3. One is for column and wrapped reports and the other is for metric reports and combo reports.

4. **Step 3: Heading**—Select the columns to display in the report. All fields are available. This option is available for all styles except Metrics. For example, to display Title:
- For Type of Field, choose FootPrints Fields.
  - Highlight Title under Fields.
  - Click Add Field. Title now is added to the Selected Fields box.
  - **Email History**—The Email History field is a special field that includes the email history in the report. This provides an audit trail in reporting. Because this type of report searches every record included in the report for every email notification, using this field can cause a slowdown in the reporting.
  - **History**—The History field is a special field that includes the Issue history in the report. This provides an audit trail in reporting. Because this type of report searches every record of every change to the Issues that are being reported, using this field can cause a slowdown in the reporting.
  - **Re-order**—To change the order of fields to be displayed, highlight a field in the Selected Fields box and click the up or down arrow to move it.
  - **Line Break**—Insert a line break (Wrapped style only).
  - **Description**—Choose which descriptions to include in the report and when to wrap the data (only applies if Description is included in the Selected Fields box). You can include the original, newest, two most recent, or three most recent descriptions in your report.

#### NOTE

An Original Description option is not available for the **FootPrints** database.

- **Assignees**—If Assignees is selected, the full names of the assignees are displayed in the report (e.g., Bob Smith). This is not suitable for importing the report output into another Workspace, as user ID's must be specified in a data import file. To create a file that includes assignees user IDs (e.g., Bob Smith), use the System Administration Export Workspace Data option.
- **Metrics**—Create custom metrics and graphs of counts, averages, and sums on any field. The option is available for Metric style, and for Column and Wrapped style if the Combo checkbox is checked. Metrics and Graphics Options

#### NOTE

This section only determines which fields to display; it does not determine the selection criteria for the report. The criteria are chosen later in the report.


5. **Step 4: Select Criteria**—Choose the criteria, using issue fields, for the report. Only select the criteria you want to search on. It is important to understand the meaning of relative periods and aging in order to obtain accurate information, especially as the searching and reporting functions of **FootPrints** rely on the same types of criteria. If a search is requested

on Issues for "the previous three months," and the date is the 15th of May, then the period searched or reported on will be from February 15th through May 14th, inclusive. That is, the report or search will exclude the current date and give the three month period prior to the current date. This is to ensure that reports and searches yield consistent results. If reports and searches included the current date, then the results might differ depending on the time of day at which the search or report was performed.

6. **Step 5: Contact Criteria**— Choose any additional criteria, using address book fields, for the report. Only select the criteria you want to search on.
7. **Step 6: Advanced Criteria**— The FootPrints Advanced Reporting criteria section uses the same mechanism as the Advanced Search. Refer to section above on Advanced Search for detailed explanation of criteria.


#### NOTE

It is important to understand the meaning of relative periods and aging in order to obtain accurate information, especially as the searching and reporting functions of FootPrints rely on the same types of criteria. If a search is requested on Issues for "the previous three months," and the date is the 15th of May, then the period searched or reported on will be from February 15th through May 14th, inclusive. That is, the report or search will exclude the current date and give the three month period prior to the current date. This is to ensure that reports and searches yield consistent results. If reports and searches included the current date, then the results might differ depending on the time of day at which the search or report was performed.

**Step 6: Run Report**—Click  **GO** to run the report. To save the report, enter a name before you run it. Choose Personal to save the report for yourself. Choose Shared/Internal to share your report template with other internal **FootPrints** users. Shared/Public reports are available to all users including customers (the report only contains data the user is allowed to see). Shared/Public reports appear on the customer Pre-Defined Reports page. Each time a saved report template is run, it returns the latest matching data.

#### NOTE

Saving the report here only saves the report formatting options and criteria chosen in this form, not the results of the report. This feature can be used to run the same report in the future, for example, once a week. Each time the report is run, it returns the latest data from the current Workspace. Saving report output is covered in the topic on [Saving and Printing Report Data](#).

8. After clicking  **GO**, the report is displayed in a separate browser window. Large reports sometimes take a few minutes to run. To view the details of an Issue, click the Issue number (or whatever field is in the first column) in the report. This displays the Details page for that Issue in the main **FootPrints** frame.

The report can be saved or printed from the browser window. If the Export style was selected, a Save As dialog box is displayed. Save and name the report to your local hard drive.

#### NOTE ON PERMISSIONS

Reports can be restricted based on a user's Role<sup>8</sup>. Custom Reports may not be available or some options may not appear if your role does not allow access. Please consult your **FootPrints** administrator for more information.

<sup>8</sup> A user type assigned to one or more users to define permissions. Both built-in roles and custom roles can be assigned to users. Examples of built-in roles include Agent, Customer Read/Submit, and Project Administrator.



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## Chapter 15: Configure the Knowledge Base

The Knowledge Base is a place to record, organize, and manage important information for a **FootPrints** Workspace. This can include, but is not limited to: Solutions to common problems, answers to Frequently Asked Questions, patches, and documents. By utilizing the **FootPrints** Knowledge Base feature, you can turn the past experiences of individual customers and Agents into a database of Solutions for all Workspace members. This can assist in Agents in finding resolutions to recurring problems and in empowering customers to find answers to their questions without submitting a Request.

The following administration options are available for the Knowledge Base:

- Knowledge Base Approvals—Require Solutions to be approved before being published.
- Manage External Knowledge Bases—Add, edit, and re-order the external Knowledge Bases available for searching by Agents.
- Field Availability—Exclude some fields from the Solution form.
- Auto-filter Fields
- FAQ Administration—Create and manage FAQ categories in the Knowledge Base.

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### Knowledge Base Approvals

By default, Agents in **FootPrints** can submit Solutions to both the Public and Internal Knowledge Bases. Using role permissions, you can limit certain users from submitting to the Knowledge Bases and/or require some users to receive approval before their Solutions are published. This allows the administrator to have better control over what information is published to customers and to review Solutions before customers see them.

### Knowledge Base Role Permissions for Agents

To limit users from creating Solutions or to require them to first get approval, you must change the permissions for the users' Role.


To configure Knowledge Base permissions for a User Role:

1. Select Administration | Workspace | User Roles from the FootPrints Toolbar.

2. Select the role from the drop-down and click Edit Role Properties.
3. If you have never configured roles for this Workspace, you can select the default Agent role to apply the permission to all Agents in the Workspace.
4. If you have one or more custom roles, you can choose to apply the permission to one or more roles.
5. If you would like to require only certain Agents to get approval to publish Solutions, and you've never configured roles, you can create a new role and then apply it to those users. Refer to User Roles for complete information.
6. In the Knowledge Base section of the Agent Role Properties page, there are two permission options:
  - Ability to add to the Public Knowledge Base—For creating Public Solutions.
  - Ability to add to the Internal Knowledge Base—For creating Internal Solutions.
7. For each type of Solution, there are three options:
  - Yes—User can create Solutions that are published immediately.
  - Needs Approval—User can create Solutions, but they must be approved by an approver (an administrator or other Workspace member designated as an approver; refer to Selecting approvers for more information) before they can be published to the Knowledge Base.
  - No—User cannot create Solutions of this type.
8. If Needs Approval is selected for one of the Solution types for at least one role, then you must designate one or more Knowledge Base Approvers for the Workspace. This is done on the Workspace Administration | Knowledge Base page (see below).
9. In the Edit section of the Roles page, there are two additional permission options for Solutions:
  - Editing Public Solutions—If this is enabled, the user can edit existing Solutions in the Public Knowledge Base.
  - Editing Internal Solutions—If this is enabled, the user can edit existing Solutions in the Internal Knowledge Base.

**NOTE**

These two options do not apply to approvals of pending Solutions, only to published Solutions. Whether or not a user can edit a pending Solution is based on whether the user is an approver and whether the user is the one who submitted the Solution for approval.

10. When you are finished changing the Knowledge Base permissions, scroll down to the bottom of the screen, enter your password, and click  **GO**.


**NOTE**

The permissions selected above only apply to creating and editing Solutions. Agents can always view and search the Knowledge Base, both Internal and Public.

## Selecting Approvers

When Agents are required to receive approval before publishing Solutions, one or more users must be designated as approvers. These users (usually administrators) receive email each time a Solution is submitted for approval and can approve, edit, or reject the Solution.


To select Approvers:

1. Select Administration | Workspace | Knowledge Base from the FootPrints Toolbar.
2. A list of all internal users in the Workspace is displayed in the Knowledge Base Approvals section. Select the users that you want to be approvers for the Knowledge Base from this list. Multiple users may be selected by holding down the CTRL key.
3. By default, any administrators in the Workspace are pre-selected as approvers. You can leave them selected, designate only one or more of them, or select a completely different user or users.
4. Users selected as approvers should have permission to submit Solutions without approval.
5. Users selected as approvers can approve all pending Public Solutions and pending Internal Solutions for the Workspace for all users that require approval. You cannot designate certain approvers for certain users or different approvers for Internal and Public Solutions.
6. When you are finished selecting the Knowledge Base approvers, scroll to the bottom of the screen, enter your password, and click  GO.

## Knowledge Base Role Permissions for Customers

Customer users cannot create, edit or submit Solutions for approval. Customers can only view Solutions in the Public Knowledge Base, and view Public FAQs. There *is* a permission option for Customer Roles that determines whether those Customers can view the Public Knowledge Base and FAQs.

To configure Knowledge Base permissions for a Customer User Role:

1. Select Administration | Workspace | User Roles from the FootPrints Toolbar.
2. Select the customer role from the drop-down and click Edit Role Properties.
3. If you have never configured roles for this Workspace, you can select the default Customer Read/Submit role to apply the permission to all Customer Read/Submit users in the Workspace.
4. If you are using multiple built-in or custom customer roles, you can apply the permission to one or more of these roles. Refer to User Roles for complete information.
5. There is an option for Knowledge Base in the Miscellaneous section of the Customer Role Properties page. If Yes is selected, users can view and search the Public Knowledge Base and FAQs. If No is selected, the Public Knowledge Base is hidden from the users. Customers can never view the Internal Knowledge Base or FAQs.
6. The next option, Default home page, can be configured to display Solutions or FAQs to the customers when they first log into FootPrints (assuming they have permission to view the Knowledge Base), or to display their Requests or the New Request form (if they are not allowed to view the Knowledge Base).
7. When you are finished changing the Knowledge Base permissions, scroll to the bottom of the screen, enter your password, and click  GO.
8. If the users of that role are not allowed to view the Public Knowledge Base, the Search Knowledge Base options are removed from their interface.

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## Manage External Knowledge Bases

Agents can search external Knowledge Bases from the Search Knowledge Base option in the Create Issue and Edit Issue pages and from the **FootPrints** Toolbar. When a user enters a keyword and submits the search to an external Knowledge Base, the results are displayed in a new browser window.

**FootPrints** comes with a number of popular external Knowledge Bases pre-configured. The Workspace Administrator has the ability to remove or re-order these selections and to add the list of external Knowledge Bases. For complete instructions on managing external knowledge bases, refer to the **Numara FootPrints Reference Manual**.

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
## Field Availability

By default, solutions contain many of the same fields found in Issues, including Title, Description, and Issue Information (workspace) fields. Some other fields that are never included in solutions, including Contact Information, Time Tracking, and Assignment, as they do not apply to solutions.

There may be some workspace fields that also do not apply to solutions, such as Follow-up Date. You can exclude these fields from appearing in solutions, both on the Create Solution screen and in the Details of a solution.

Additionally, some fields that appear in solutions may not be appropriate for issues. You can include fields in solutions and exclude them from issues.

To exclude some workspace fields from solutions:

1. Select Administration | Workspace | Knowledge Base from the FootPrints Toolbar.
2. Highlight the fields to be excluded from solutions in the Select fields to be hidden in Solutions list in the Field Availability section. To highlight multiple fields, hold down the CTRL key.
3. Enter your password and click  GO.

Solutions in the Knowledge Base no longer contain the fields excluded.

## Notes and Restrictions

- Excluded fields are excluded from both Internal and Public Solutions.
- Workspace fields that are part of a dynamic dependency group or that normally appear in a pop-up dependency window cannot be excluded.
- Public fields that are excluded are no longer visible to Customers when they view Public Solutions or to Agents when creating and viewing Public Solutions.
- Internal fields that are excluded do not appear for Agents when creating and viewing both Internal and Public Solutions (internal fields are never visible to customers).
- Existing Solutions that contain data for the excluded fields no longer display the data.

---

## Auto-filter Fields

The Auto-filter Fields feature allows you to select fields to use as a filter when searching the Knowledge Base from the create/edit issue form. An automatic solution filter is applied to knowledge base searches from the issue form based on values populated in the selected field(s). In other words, when a field is selected as a filter and an agent searches the Knowledge Base from a create/edit issue form, the results of the search are all solutions that have matching information in the selected field. For example, if the filter field is "Product" and an agent performs a Knowledge Base search from an issue in which the Product field is populated by the value "NetSmither", the Knowledge Base search returns only solutions that have the term "NetSmither" in the Product field.

To select fields to use in searching the Knowledge Base from a create/edit issue form:

1. Select Administration | Workspace | Knowledge Base from the FootPrints Toolbar.
2. In the Auto-filter Fields section of the page, highlight a field in the select field list, then click the arrow button to move it into the Filter Fields list. Repeat this action until you have selected all the fields you want to use.
3. Enter your password and click the SAVE button.
4. To remove selected fields from the Filter Fields list, highlight the field and use an arrow button to move it back into the Selected Fields list, then enter your password and click the SAVE button.

---


## FAQ Administration

The FAQ (Frequently Asked Questions) categories are available to the Agent when searching the Knowledge Base. FAQs are also available to customers who have access to **FootPrints**. These categories are created and maintained by the Workspace Administrator for each Workspace. The categories are defined by advanced search criteria and named and saved by the administrator. Each time a category is accessed, it returns the latest Solutions that match the criteria defined for that category.

## Create FAQ Category

To create an FAQ category:

1. Select Administration | Workspace, then select Knowledge Base in the mainframe under Other Options. The Knowledge Base administration page is displayed. The FAQ Setup section is the first section on the Knowledge Base administration page.
2. To make a public FAQ category, i.e., accessible to both agents and customers, select the PUBLIC link. To make an internal FAQ category, i.e., accessible to agents only, select the INTERNAL link.
3. To add the FAQ category, click the Add New Category button. The Search Criteria page is displayed.
4. Select the criteria for the FAQ. Options include Title, Description, Keyword, Date and Age, and all Workspace fields for the current Workspace. For example, to return Solutions with the word "password" in the Solution, enter password for the keyword.
5. Select the Advanced options, which allow you to determine the order of display for the Solutions within the category. The Solutions that are returned can be ordered by virtually any field, including popularity.


6. At the bottom of the form, name the FAQ and click  GO.
7. The current matching Solutions are displayed in the main frame. In addition, the category appears in the FAQ list for Agents and customers in the current Workspace. Each time someone accesses the FAQ, the latest Solutions that match the criteria selected are returned.

#### NOTE

On all FAQ administrative pages, as you descend or ascend through categories and sub-categories, a "trail of breadcrumbs" is left to assist you in navigating the different levels of the categories. The breadcrumbs are live links and you can ascend through category levels by clicking on the breadcrumbs. The figure below illustrates this.

## Create FAQ Sub-categories

To create an FAQ sub-category:

1. Select Administration | Workspace, then select Knowledge Base in the mainframe under Other Options. The Knowledge Base administration page is displayed. The FAQ Setup section is the first section on the Knowledge Base administration page.
2. To create a sub-category to a public FAQ category, select the PUBLIC link. To create a sub-category to an internal FAQ category, select the INTERNAL link.
3. Click on the name of the FAQ category in the list of FAQ categories underneath the PUBLIC/INTERNAL.
4. Click the GO TO button. A list of sub-categories, if there are any, is displayed.
5. To add a sub-category, click on the Add New Sub-category button. To add an additional level of sub-category to an existing sub-category, click on the existing sub-category, click the GO TO button again, then click on the Add New Sub-category button. The Search Criteria page is displayed.
6. Select the criteria for the sub-category. Options include Title, Description, Keyword, Date and Age, and all Workspace fields for the current Workspace. For example, to return Solutions with the word "password" in the Solution, enter password for the keyword.
7. Select the Advanced options, which allow you to determine the order of display for the Solutions within the sub-category. The Solutions that are returned can be ordered by virtually any field, including popularity.
8. At the bottom of the form, name the sub-category and click  GO. The sub-category is created and you are returned to the previous page. The new sub-category is displayed in the list.

## Change the Order of FAQ Categories/Sub-categories

To change the order in which FAQ categories/sub-categories are displayed:

1. Select Administration | Workspace, then select Knowledge Base in the mainframe under Other Options. The Knowledge Base administration page is displayed. The FAQ Setup section is the first section on the Knowledge Base administration page.
2. Select the appropriate link, PUBLIC or INTERNAL, to display the FAQ category or sub-category that is to be edited.
3. Click on the category in the list of FAQ categories. If you want to edit a sub-category, click on the GO TO button. Continue to select sub-categories and click the GO TO button as necessary to navigate to the category that you want to edit.
4. Click on the category or sub-category that you want to edit in the list of categories/sub-categories.



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## Chapter 16: Additional Tasks

There are five additional tasks that may be performed as part of the initial **FootPrints** setup. These are:

- Import Issue Data
- Set Mobile Options (only if you have purchased a FootPrints Mobile add-on module)
- Asset Management Setup (only if you have purchased an Asset Management add-on module)
- Configuration Management with Service Catalog Setup (only if you have purchased the Configuration Management add-on Module)
- Change Management Setup (only if you have purchased the Change Management add-on module)

---

### Import Issue Data

You can optionally import data from another system into a **FootPrints** workspace under Administration | System | Workspaces. The data fields must be in the order of the workspace schema and the import file must be in comma-delimited form (.CSV). Refer to the **FootPrints Reference Manual** for more information.

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### Set Mobile Options

The Numara FootPrints Mobile add-on module combines real-time, dynamic access to Numara FootPrints via a web browser on Microsoft® Windows Mobile, RIM® Blackberry®, and Apple® iPhone® devices, with Numara FootPrints Sync functionality for calendar, task and contact synchronization. This module allows agents to manage their assignments, search the knowledge base, etc. on the go and without the need of a PC.

The inherent drawback of mobile devices is the small viewing area. Configuration of the Mobile Options page, therefore, is concerned with selecting the fields you want to be viewed via the mobile device. When users view a FootPrints Issue on their mobile devices, they will see only the

fields selected here for the create or edit page. However, users will be able to view both the limited number of fields selected here on the details page as well as the full details.

With the exception of dependent fields, all field types (text fields, date/time fields, etc.) are available for the mobile device.

#### NOTE

Auto-assign does not work for the mobile interface. Autofield works on mobile, so that could be used as an alternative to Auto-assign.

To configure mobile device options:

1. From the FootPrints Toolbar, select Administration | Workspace, then select Mobile Options from the Other options section of the main frame. The Mobile Interface Fields page is displayed.
2. The Mobile Interface Fields page contains four multi-select fields:
  - Create/Edit Contact Information
  - Create/Edit Issue Information
  - Details Contact Information
  - Details Issue Information
3. The multi-select fields display all of the fields that are present in a full FootPrints display on a Create/Edit or Details page. Highlight the fields that you want displayed on the mobile device for each of the pages using the normal multi-select controls (i.e., mouse clicks combined with the CTRL or SHIFT key). For example, when displaying contact information, you might only want to display the contact's first and last name, phone number, and email address and exclude such information as his or her department, employee number, and job title.
4. When you have finished selecting fields, enter your password and click **SAVE**.

Be sure to test your selections after you've made them. You'll want to see how everything looks on a mobile device before making this available to other users and it might require some adjustment along the way.

## Mobile View Limitations

Administrators can restrict the fields viewed by users on their mobile devices, but some things work differently on the mobile device than they do in the full version of FootPrints. The first is that fields with dependencies cannot be displayed on the mobile device. When selecting fields for mobile display, dependent fields are not available to the administrator at all.

The second restriction is that Advanced Field Permissions do not fully apply to mobile devices. If a field is hidden at all times from a user, then it will be hidden in the mobile view. However, if a field is sometimes hidden and sometimes visible, then it will always be visible in the mobile view regardless of the circumstances under which it is hidden in the full FootPrints. In addition, if a field is writable in one status but not writable in another status in the full FootPrints, it is always writable in the mobile view. Administrators should take these limitations into consideration when selecting fields for the mobile view.

Other restrictions are:

- There is no way to stop a ticket from being closed via FootPrints Mobile.
- There is no way to stop some agents from using FootPrints Mobile. Once licensed, any agent can use it.
- Descriptions cannot be pulled from the Knowledge Base.
- You cannot select a contact from a Quick Issue template.
- Automatic Time Tracking is not supported.
- There is no link to the calendar from the Date-Time field.

---

## Configuration Management with Service Catalog Setup

Configuration Management is an add-on module for FootPrints and must be purchased in addition to the **FootPrints** product. It is ITIL-compatible and provides Service Catalog functions as well as a wide range of configuration management functions. In addition, it can be integrated with Numara Asset Management Platform to provide a highly ITIL-compatible solution. Refer to the **Numara FootPrints Reference Manual** for complete details of configuring Numara Configuration Management. The material on configuration management includes planning suggestions as well as detailed instructions on the Numara Configuration Management software.

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## Change Management Setup

Change Management is an add-on module for FootPrints and must be purchased in addition to the **FootPrints** product. Change Management is accessed by selecting Administration | Workspace from the **FootPrints** toolbar, then selecting Change Management from the Automated Workflow section of the administration page.

When setting up a change management process and phases in **FootPrints**, you should plan ahead by deciding:

- The criteria for automatically setting off an approval process (including all built-in and custom fields)
- Who approves the various phases of the process
- Whether to grant super-approver status to anyone and to whom to grant it
- The rules for meeting an approval (i.e., whether an Issue is approved or rejected based on one vote, a majority vote, or a unanimous vote)
- What to do when the Issue is approved or rejected (place the Issue in phase of the process, change the Issue status, re-assign the Issue, etc.)
- The email notifications for various stages of approval
- Who has permission to access approval information
- Whether to allow anonymous approvals

Refer to the **Numara FootPrints Reference Manual** or the **FootPrints Change Management Guide** for more information.

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## Asset Management Setup

Asset Management for the help desk gives you the ability to track users' desktop configurations, including hardware, software, and network information, and to access that information in real-time while working on a user's Issue.

**FootPrints** offers five options for Asset Management:

- Numara Asset Management Platform
- Integration with Microsoft® Systems Management Server (SMS) Inventory
- FootPrints Integration with LANDesk (Windows only)
- FootPrints Deploy powered by Prism

For complete details on all aspects of Asset Management, refer to the online help or the **Numara FootPrints Reference Manual**.

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# Glossary

**Address Book**

FootPrints table used to keep customer contact and configuration information. For example, the Project Administrator may have set up the Address Book to hold a customer's name, email address, phone number, location, etc. Multiple Address Books can be created within FootPrints, each associated with one or more Projects.

**Agent**

A standard, full-strength user of FootPrints. Common uses for this user type include: Help Desk Agent, Call Center Agent, Developer, Engineer, Manager and Project Member. Agent users have the ability to use all of the basic functions of FootPrints, including creating, viewing, editing Issues, and running queries.

**Appointment**

A record of the FootPrints Calendar. Used to schedule meetings, service calls, and other types of appointments for FootPrints Agents. Can be optionally synced to the user's Outlook Calendar.

**Assignees**

FootPrints users assigned to work on an Issue.

**Contact**

The default name given to a record in the FootPrints Address Book. Normally contains a customer's name, email address, phone number, etc.

**Customer**

A user account type in FootPrints. This type of account is intended for both internal and external customers, and other groups of people who require only partial access to the data. A Customer account is very cost-effective, and allow customer users to submit and track their own Requests via the Customer Self-service interface, and to search the Knowledge Base. The word "Customer" is used throughout this documentation to refer to both employee customers and external customers who access FootPrints.

**Customer Read KB**

Customer role that only allows the user to view and search the Knowledge Base.

**Customer Read KB/Requests**

Customer role that only allows the user to view and search the Knowledge Base, and track the status of his/her Requests.

**Customer Read/Submit**

Customer role that only allows the user to submit and track his/her own Requests, and search the Knowledge Base.

**Customer Read/Submit/Edit**

Customer role that only allows the user to submit, track and edit his/her own Requests, and search the Knowledge Base.

### **Decision field**

The single drop-down field that, when a value is selected, determines whether certain project fields appear in a pop-up window when creating or editing an Issue. This only applies when the "Field Dependencies" Pop-up Window option is enabled in a project.

### **Description**

The built-in FootPrints field that contains all notes entered by users regarding an Issue. It is a multi-line text field, and acts as a journal for an Issue. Each addition to the description includes a time/date/user stamp. The Description can be displayed on the FootPrints Homepage, on an Issue's Details screen, and in reports. A full-text search can also be performed on the Description field.

### **Details**

The Details Screen displays all the information about a FootPrints Issue. The details are displayed by clicking the title of an Issue from the FootPrints Homepage. Data can include Title, Status, Priority, Creator, Date and Time submitted, Description, Project field data, Contact data, and file attachments.

### **Display drop-down**

A dialog on the FootPrints home page that contains built-in and custom queues and searches, such as "My Assignments". By selecting an option, the list of Issues on the home page is updated to that queue.

### **Drop-down field**

A type of custom Project and Address Book field. A drop-down choice field offers the user a drop-down list of choices from which to pick. An unlimited number of values can be defined per drop-down choice field.

### **Dynamic Address Book Link**

The FootPrints feature that allows any LDAP-compliant contact database to be linked to FootPrints. Supported contact databases include Microsoft Exchange 5.x/2000, Netscape iPlanet, Lotus Notes and Novell Directory Services.

### **Global Issue**

A special FootPrints Issue type used to designate important or frequently reported Issues that will affect many users. Global Issues can be broadcast to all Agents, are displayed on the Agent Home page, and can optionally be displayed for Customers to subscribe to. Whenever a new Issue is reported with the same problem, the Agent (and optionally the Customer) can link the Issue to the known Global Issue (called GlobalLinks). Global Issues can be closed with the GlobalLinks together at one time.

### **GlobalLink**

The child or related Issue linked to a Global Issue. A Global Issue is a special FootPrints Issue type used to designate important or frequently reported Issues that will affect many users. Global Issues can be broadcast to all Agents, are displayed on the Agent Home page, and can optionally be displayed for Customers to subscribe to. Whenever a new Issue is reported with the same problem, the Agent (and optionally the Customer) can link the Issue to the known Global Issue (called GlobalLinks). Global Issues can be closed with the GlobalLinks together at one time.

### **Individual user**

A full-strength user of FootPrints. Built-in types include Agent, Project Administrator, and System Administrator. Custom Roles can also be created to assign different permissions to different groups of users. Each individual user is assigned an individual account and password and is the only person using that account. This type of account is intended for internal users of the system, such as Help Desk Agents, Customer Service Representatives, Engineers, and Administrators.

### **Issue**

The default name given to a FootPrints record. Each Issue is a numbered record in the FootPrints database around which all help desk and problem tracking activity centers. The name for this may be different (Ticket, Entry, etc.) depending on how your system is configured. An Issue can be opened, assigned, worked on, and closed by Agent users and Administrators.

**Knowledge Base**

The Knowledge Base is a place to record, organize and manage important information for a FootPrints project database. This can include, but is not limited to: solutions to common problems, answers to frequently asked questions, patches, and documents. By utilizing the FootPrints Knowledge Base feature, you can turn the past experiences of individual customers and agents into a database of solutions for all project members. This can assist in Agents finding quicker resolutions to recurring problems, and in empowering Customers to find the answers to their questions without submitting a request.

**LDAP Address Book**

Any LDAP-compliant contact database linked to using the FootPrints Dynamic Address Book link feature. Supported contact databases include Microsoft Exchange 5.x/2000, Netscape iPlanet, Lotus Notes and Novell Directory Services.

**Login**

The first page that FootPrints displays when the URL for your Footprints system is requested by a user's web browser. Also, the act of starting a FootPrints session.

**Master Issue**

A type of FootPrints Issue that contain Subtasks, each with a different task that must be completed before the Master Issue is Closed. The Master issue is the "parent" in a parent/child relationship between the Master Issue and its Subtasks.

**Multi-select field**

A type of custom Project and Address Book field. A multi-select field offers the user a dialog box from which they can select multiple, pre-defined choices. An unlimited number of values can be defined per multi-select field.

**Organizational Unit**

An Address Book field used to organize contacts, such as "Department", "Company Name", "Business Unit", or "Location". Must be enabled by the Administrator.

**Personal Calendar**

A web-based calendar for a FootPrints Agent that can contain appointments, meetings, and jobs for that user.

**Primary key**

The key field in the FootPrints Address Book that is used by FootPrints as a reference to identify the customer contact. Examples include "Email Address" and "User ID".

**Priority**

A built-in field in FootPrints used to determine the severity or impact of an Issue. Priorities are customizable, and may include numbers (1,2,3) or words (High, Medium, Low).

**Project**

FootPrints stores and tracks information in projects. A project is a separate sub-database within the system, which can have its own custom fields, options and users. There is no limit to the number of projects that you can create within FootPrints. You may choose to keep all of your data in a single project, or you can create multiple projects. For example, one project can be used for help desk activity, while a second project is used for internal bug tracking.

**Project Administrator**

A built-in User Role in FootPrints. In addition to all Agent user privileges, the Project Administrator can administer a project, including adding custom fields, setting options, and adding users.

**Project Calendar**

A web-based calendar for a FootPrints Project that can contain appointments, meetings, and jobs for members of that Project.

**Project field**

Custom field created by the Project Administrator to store information about a particular Issue. There is no limit to the number of fields allowed per project (NOTE: The FootPrints database only allows 100 fields per project).

**Quick Issue**

Quick Issues are templates that contain pre-filled information for frequently reported Customer Issues, such as "Password Reset", "Service Request", etc. For example, a Quick Issue template for "Password Reset" would start out pre-filled with a description of the problem,

the problem categories pre-filled with "Network" and "Password Reset", and perhaps a Status of "Closed". The Agent only needs to fill in the user's contact information to submit the Issue. The Project Administrator can create an unlimited number of templates, which are available to all Agents from the FootPrints Toolbar.

### **Request**

An Issue submitted by a Customer that has not yet been assigned. Also the Status assigned to Issues submitted by Customers. Agent users can then "Take" the Request to work on it, or Requests can be automatically assigned to one or more Agent users by the system. Your FootPrints Administrator can tell you how Requests are to be handled in your organization.

### **Role**

A user type assigned to one or more users to define permissions. Both built-in roles and custom roles can be assigned to users. Examples of built-in roles include Agent, Customer Read/Submit, and Project Administrator.

### **Solution**

A record in the FootPrints Knowledge Base. Can be a solution to a common problem, frequently asked question, patch, or step-by-step procedure. Solutions can be created from scratch, or from existing Issues. Solutions are public, and can be viewed/searched by Customers (as well as Internal users).

### **Status**

The state of a Footprints Issue. Each Issue has a Status field, which tracks the workflow of an Issue from "Open" status, the default state of a new Issue, to "Closed" status. The Project Administrator can easily add new statuses to a project database, such as "Assigned", "Pending" or "Testing".

### **Subtask**

A type of FootPrints issue that is a "child" of a related "parent", called a Master Issue. Multiple subtasks can be created to define different tasks to be completed for a larger Master Issue. The Master Issue cannot be closed until all Subtasks are completed.

### **System Administrator**

A built-in User Role in FootPrints. In addition to Agent user and Project Administrator privileges for all projects, the System Administrator has control over the whole FootPrints system, including administration of any project, adding new projects, and administering licenses.

### **Taking**

The option of allowing Agent users to assign themselves to a given Footprints Issue. This is a Role option set by the Project Administrator for a particular Role.

### **Team**

A organizational unit used to organize Agent users for assignment purposes, such as "Application Support", "Network Support", "Development", etc. Issues can be assigned to the whole team, or to individual users within the Team. This allows an Agent to assign an Issue to a group of people, such as a Development Team, without needing to know the individual person who will work on the Issue.

### **User ID**

The Footprints user name which, when entered with the proper password during login, permits access to the Footprints system.

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