

# HP Asset Manager

Software version: 5.20

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## Asset Manager Web Implementation

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# Introduction

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## Overview of this guide

This guide brings together information specific to implementations of Asset Manager Web:

- Installation and upgrade
- Single Sign-On implementation
- Customization
- Configuration and constraints
- Differences between the Windows and Web clients
- Troubleshooting and hints

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## Who is this guide intended for?

This guide is intended for:

- Administrators and support staff responsible for implementing, customizing and troubleshooting Asset Manager Web
- End users who would like to understand the differences between the Windows and Web clients

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## Content of this guide

### **Chapter Installation and upgrade**

This chapter explains where to find information on how to install and upgrade Asset Manager Web.

### **Chapter Implementing Single Sign-On**

This chapter explains where to find information on how to implement Single Sign-On

### **Chapter Customizing Asset Manager Web**

This chapter explains where to find information on how to:

- Modify the Web client's default behavior
- Use business home pages
- Aggregate Asset Manager Web and SM; Web menus

### **Chapter Differences between the Windows client and the Web client**

This chapter lists the differences between the Windows client and the Web client.

### **Chapter Performance Hints and Problem Diagnosis**

This chapter explains how to improve performance of Asset Manager Web.

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# 1 Installation and upgrade

- ▶ Installation and upgrade of Asset Manager Web is fully described in the **Installation and upgrade** guide, chapter **Installing, configuring, removing and updating Asset Manager Web**.





## 2 Implementing Single Sign-On

User access to the Asset Manager database can be managed via different authentication systems.

Some of these systems enable Asset Manager Web to access the Asset Manager database using authentication information that they have already provided when accessing another system, and do not require users to re-authenticate.

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 **Note:**

**Single Sign-On (SSO) definition** A directory-based software solution that provides an organization's network users seamless access to all authorized resources after users have completed a single network authentication procedure.

A single password lets a user access all multi-platform applications and systems in the organization. Once the user has entered his or her password during initial authentication, the directory (for example, Active Directory under Windows) sends the password automatically to all other applications that require it without requesting the password information from the user again.

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 **Warning:**

To implement Single Sign-On, Asset Manager Web must be specially configured for use with Single Sign-On.

► Single Sign-On implementation is fully described in the **Administration** guide, chapter **Controlling access to the database**, section **Managing user authentication for the Asset Manager database**.



# 3 Customizing Asset Manager Web

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## Overview

▶ Web client customization is fully described in the **Tailoring** guide, part **Customizing Web clients**.

In this part of the **Tailoring** guide, you will learn how to:

- Modify the Web client's default behavior
  - Use business home pages
  - Aggregate Asset Manager Web and HP Service Manager Web menus
- ▶ Tasks you need to do once the database has been customized are described in the **Tailoring** guide, part **Customizing the database**, chapter **Development best practices**, section **Tag the Web services**.



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## 4 Differences between the Windows client and the Web client

A user can access the Asset Manager database in different ways:

- Via the Windows client
- Via the Web client

This chapter describes the main differences that exist between both clients.

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### Overview

For a standard user, working with Asset Manager consists mainly of managing information stored in the Asset Manager database.

In most cases, the database is stored on a server where it can be accessed by many users.

The Windows client and the Web client are components that allow users to access the Asset Manager database.

The main differences are presented in the following table. More details are given further in the guide.

	Windows client	Web client
<b>Supported platforms</b>	Windows.	Platforms listed in the Asset Manager Support Matrix.
<b>Installation</b>	The Windows client must be installed on the user's workstation.	Any Internet browser listed in the Asset Manager Support Matrix.

	Windows client	Web client
<b>Available functions</b>	All available functions	Some functions are not available. More functions will be added to the Web client in future versions.
<b>Interface</b>	Traditional interface.	Interface similar to common Web interfaces.

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## Minimum client installation and configuration

### Windows client

On each client station:

- 1 Install the Windows client.
- 2 Start the Windows client (**Start/ Programs/ HP/ Asset Manager 5.20 <language>/ Client** Windows menu).
- 3 Create the connection to the database (**File/ Manage connections** menu).

### Web client

On each client station:

- 1 Check that each station has one of the Internet browsers listed in the Asset Manager Support Matrix.
- 2 Create a shortcut or bookmark that points to the desired language version of Asset Manager Web Tier.

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## Connecting to the Asset Manager database

### Windows client

To connect to the Asset Manager database:

- 1 Start the Windows client (**Start/ Programs/ HP/ Asset Manager 5.20 <language>/ Client** Windows menu).

The **Connect to database** window is displayed.

- 2 Enter information provided by your company's Asset Manager administrator in the fields.

## Web client

To connect to the Asset Manager database:

- 1 Start one of the Internet browsers listed in the Asset Manager Support Matrix.
- 2 Connect to Asset Manager Web Tier via the URL provided by your company's Asset Manager administrator.

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## Differences between the clients

This section describes the differences between the Web client and the Windows client.

This list is subject to change in future versions of Asset Manager.

## Graphical interface


Desired action	Using the Windows client	Using the Web client
Select the display language for multilingual objects from the database and the interface (as opposed to database data). Examples: Menu entries, labels of fields and links, error messages	<ol style="list-style-type: none"><li>1 Add the parameters for the desired language in the Asset Manager database via Asset Manager Application Designer.</li><li>2 Install the Asset Manager client in the desired language.</li><li>3 Start the Windows client of the desired language.</li></ol>	<ol style="list-style-type: none"><li>1 Add the parameters for the desired language in the Asset Manager database via Asset Manager Application Designer.</li><li>2 Install the desired language version of Asset Manager Web Tier and Asset Manager Web Service.</li><li>3 Start a supported Internet browser.</li><li>4 Connect to the desired language version of the Asset Manager Web Tier application.</li></ol>


**Note:**  
You will need to install an Asset Manager Web Tier / Asset Manager Web Service combination in each of the desired languages.

Desired action	Using the Windows client	Using the Web client
Use shortcut menus	<p>When you right-click, a shortcut menu is displayed. Menu items on the shortcut menu depend on where the cursor is on the screen when you right-click.</p> <p>For example, in a list, a <b>Tree view</b> shortcut menu is available.</p>	<p>No shortcut menus are available.</p> <p>Some of them have been replaced by drop-down lists and/or contextual menus that contain actions, filters and statistics which are valid for a given table or list.</p>
Display several windows in the Asset Manager workspace.	You can display several windows in the Asset Manager workspace.	Only one window at a time of the Asset Manager workspace can be displayed in the Internet browser.
Define interface options	The <b>Edit/ Options</b> menu allows you to configure the behavior of the Windows client interface.	<p>You can modify some of the web client's display parameters.</p> <p>► <b>Tailoring</b> guide, section <b>Customizing Web clients</b>, chapter <b>Modifying the Web client's default behavior</b></p>
<p>Display a window</p> <p>For example: Display the list and/or details for locations</p>	<p>Windows are displayed via menu items:</p> <ul style="list-style-type: none"> <li>■ On the menu bar For example: <b>Portfolio/ Locations</b> menu</li> <li>■ On the toolbar. For example: The <b>Locations</b> icon</li> <li>■ <b>Functions</b> tab on the navigation bar For example: <b>Organization/ Locations</b></li> </ul>	<p>Windows are displayed by clicking the links on the navigation bar.</p> <p>For example: <b>Organization/ Locations</b></p>
<p>Use Internet browser buttons</p> <p>Example using Microsoft Internet Explorer. <b>Back</b> and <b>Forward</b> buttons</p>	Not available	<p>Imagine that you want to change the value of the <b>Field-LinkX</b> field or link.</p> <p>If you click one of the Internet Explorer browser buttons before clicking the <b>Save</b> button or before having selected another field or link, changes to <b>FieldLinkX</b> will not be saved when other changes are saved (using the <b>Save</b> button).</p>




Desired action	Using the Windows client	Using the Web client
List and detail of records: Available display types	The following display modes are available: <ul style="list-style-type: none"> <li>List only</li> <li>Detail only</li> <li>List and detail</li> </ul>	The following display modes are available: <ul style="list-style-type: none"> <li>List only</li> <li>Detail only</li> </ul>
List and detail of records: Going from one display mode to another	You have the following possibilities: <ul style="list-style-type: none"> <li><b>Window/ List only</b>, <b>Window/ Detail only</b> and <b>Window/ List and detail</b> menus</li> <li>Corresponding icons on the toolbar</li> <li><b>Detail</b> button</li> </ul>	<ul style="list-style-type: none"> <li>To go from list to detail: Click the link of the record to display in the list.</li> <li>To go from detail to list: Click the <b>Return to list</b> in the detail.</li> </ul>
Display new internal messages automatically	A dialog box is displayed when new messages are received and asks the user if he or she would like to read them: <ul style="list-style-type: none"> <li>When connecting to the database</li> <li>During the connection</li> </ul> Click <b>Yes</b> and a wizard will open to display the messages.	When connecting to the database, a link informs the user that he or she has new messages.  A wizard will open when the user clicks the link to read the messages.
Enable/ Disable modules	File <b>Activate modules</b>	Not available
Display icons and graphics associated with the records in list and detail screens.  Examples: Icon at the upper left of the records' detail, <b>General</b> tab for the floor plans.	Available	Not available
Display news marquee	<b>Window/ Display news marquee</b> menu	Not available
Use views	Views can be created, changed, deleted and displayed ( <b>Tools/ Views</b> menu)	Views cannot be created, changed, deleted or displayed You can create an equivalent <b>screen</b> instead.
Using screens	Screens can be created, modified and deleted using Asset Manager Application Designer. They are displayed in the navigation bar. <b>► Tailoring guide, chapter Customizing screens.</b>	Screens can be displayed in the navigation bar but cannot be created, modified or deleted. <b>► Tailoring guide, chapter Customizing screens.</b>


Desired action	Using the Windows client	Using the Web client
Activate accessibility options (for users with visual impairments)	Available	Use the accessibility options of your Internet browser
Create a favorite	<ol style="list-style-type: none"> <li>1 On the <b>Functions</b> tab of the navigation bar, select the link to add to your favorites.</li> <li>2 Right-click.</li> <li>3 Select <b>Add to favorites</b> from the shortcut menu that is displayed.</li> </ol>	<p>Using Microsoft Internet Explorer:</p> <ol style="list-style-type: none"> <li>1 Display the screen that you want to add to the browser's favorites.</li> <li>2 If this screen contains a list of records, define the display parameters for the list (tree or list view, column sorting, filter).</li> <li>3 Click the  icon at the upper right of the Web client's workspace.</li> </ol> <p>A link is created to the page and is added to Internet Explorer's favorites.</p> <p>The screen's display parameters are also maintained.</p>



Desired action	Using the Windows client	Using the Web client
Print the contents of the current window (list detail, wizard page, etc.)	Not available	Using Microsoft Internet Explorer: <ol style="list-style-type: none"> <li>1 Display the screen that you want to print.</li> <li>2 Click the  icon at the upper right of the Web client's workspace. A new Internet Explorer window is displayed.</li> <li>3 Print the window using Internet Explorer's print functions.</li> </ol>

## Record lists

Desired action	Using the Windows client	Using the Web client
Filter records in a list	<p>You can filter records in all lists.</p> <p>You have the following possibilities:</p> <ul style="list-style-type: none"> <li>■  icon at the bottom of the lists</li> <li>■ For main lists only: <b>&lt;Table name&gt;/ No filter, &lt;Table name&gt;/ Simple filter</b> and <b>&lt;Table name&gt;/ Query filter</b> menus</li> <li>■ For main lists only: <b>Filter on this field</b> and <b>Filter on this link</b> shortcut menus</li> <li>■ For main lists only: Filter saved in the views</li> </ul>	

Desired action	Using the Windows client	Using the Web client
		<p>You can filter records in main lists and tab lists.</p> <p>Filters can be selected from the <b>Filters...</b> drop-down list that is located above the lists.</p> <p>This drop-down list contains:</p> <ul style="list-style-type: none"> <li>■ A table index filter, if the index is not on the primary key and only if one of the fields or links is part of the screen. <p>If an administrator adds an index that follows these rules to a table using Asset Manager Application Designer, then this new index will appear in the list of filters.</p> </li> <li>■ A query filter whose context is the table for which the list displays the records. <p>If a user adds a query, it will appear in the list of filters.</p> </li> <li>■ A filter if pre-filtering was defined for the screen (<b>QBE Fields</b> of the screen's detail in Asset Manager Application Designer)</li> </ul> <p>Filters are also available by right-clicking in the list body to display the contextual menu.</p>


Desired action	Using the Windows client	Using the Web client
Sort the records on a given column	<p>Both the main lists and the secondary lists (lists under the tabs) can be sorted.</p> <p>To sort a list for a given column, click the column's name.</p> <p>The sort order changes each time you click:</p> <ol style="list-style-type: none"> <li>1 Not sorted</li> <li>2 Ascending</li> <li>3 Descending</li> <li>4 <b>Not sorted</b></li> <li>5 Ascending</li> <li>6 Descending</li> </ol>	<p>The main lists can be sorted but not the secondary lists (lists under the tabs).</p> <p>In order to sort a column, a field or link corresponding to the column must:</p> <ul style="list-style-type: none"> <li>■ Be part of the table to which the screen belongs.</li> <li>■ Be either the unique field or link of an index of the table to which the screen belongs.</li> </ul> <p>To sort a list for a given column, click the column's name.</p> <p>The sort order changes each time you click:</p> <ol style="list-style-type: none"> <li>1 Not sorted</li> <li>2 Ascending</li> <li>3 Descending</li> <li>4 Ascending</li> <li>5 Descending</li> </ol> <p>It is not possible to return to the <b>Not sorted</b> status in the Web client.</p>
Customize the number of records displayed in the lists and how they are displayed	<p>The number of records in the lists and how they are displayed is set in the <b>Edit/ Options/ Lists/ Main lists</b> or <b>Edit/ Options/ Lists/ Others lists</b>.</p>	<p>By default, lists display 20 records per page.</p> <p>To modify this number:</p> <ul style="list-style-type: none"> <li>▶ <b>Tailoring</b> guide, section <b>Customizing Web clients</b>, chapter <b>Modifying the Web client's default behavior</b>, section <b>Defining the number of lines to display in lists</b>.</li> </ul> <p>The options from the Windows client menus, <b>Edit/ Options/ Lists/ Main lists</b> or <b>Edit/ Options/ Lists/ Other lists</b>, are not implemented.</p>
Calculate the total number of records in a list	<p>Click the <b>x / ?</b> button at the lower right of the records lists (main and secondary lists) to calculate</p>	<p>Click the  icon at the upper or lower right of the records lists (main lists only)</p>

Desired action	Using the Windows client	Using the Web client
Select all records in a list	All records in both the main lists and the secondary lists (lists under the tabs) can be selected. <b>Edit/ Select all</b> menu	All records in both the main lists and the secondary lists (lists under the tabs) can be selected. Check box to the left of the column names.  Only those records that are visible are selected.
Display a list in tree view	The list of records from a hierarchical table can be displayed in tree view ( <b>Window/ Tree view</b> menu)	The list of records from a hierarchical table can be displayed in tree view (  icon above the list)
Find a record in a list quickly	To find a record in a list quickly, sort the list on the desired column, then use the <b>Go to</b> shortcut menu.	The Go to command is not currently available for the Web client.
Export the contents of a list	<b>Utilities/ Export the list</b> shortcut menu item (main lists only).	Or use <b>Utilities/ Export Excel</b> available by right-clicking in the list body to display the contextual menu.  icon above the list (main lists, lists in tabs and lists in wizards)
Group records from a list	<b>Group by this field</b> shortcut menu	Not available
Select columns to display in a list	By default, the columns that are displayed in a list correspond to the fields and links that are defined for the screen via Asset Manager Application Designer ( <b>Columns in the list</b> field).  The <b>Utilities/ Configure list</b> shortcut menu is used to modify the default column selection.	The default columns that are displayed in a list correspond to the fields and links that are defined for the screen via Asset Manager Application Designer ( <b>Columns in the list</b> field).  Which columns display for the current list, and in which order, can be defined for the current user. See the <b>Tailoring</b> guide, section <b>Customizing Web clients</b> , chapter <b>Modifying the Web client's default behavior</b> , section <b>User defined customizations/ Configuring list columns</b> .



Desired action	Using the Windows client	Using the Web client
Display statistics for a list	<p>Main lists and tab lists only:</p> <ol style="list-style-type: none"> <li>1 Display the list.</li> <li>2 Sort on the column for which you want to display statistics.</li> <li>3 <b>Utilities/ Statistics on this column</b> shortcut menu.</li> </ol>	<p>Main lists, tab lists and wizard lists:</p> <p>To view statistics for a displayed list, either</p> <p>Select the statistic from the <b>Stat.</b> drop-down list. (Note that this will not be available if the <b>Display Statistics Combobox</b> option has been unchecked on the <b>Preferences</b> pane. For further details, see the <b>Tailoring</b> guide, section <b>Customizing Web clients</b>, chapter <b>Modifying the Web client's default behavior</b>, section <b>User defined customizations/ Preferences pane.</b>)</p> <p>Or,</p> <p>Right-click in the list body to display the contextual menu, and select <b>Statistics</b>, then a statistic from the choices offered.</p> <p>The list displays an entry by:</p> <ul style="list-style-type: none"> <li>■ Table index, except if the index is on the primary key</li> <li>■ Statistic whose context is on the table</li> </ul>
Add the numbers of a column in a list	Click the calculation icon at the lower left of the list	Not available
Delete records	Select the records and click the <b>Delete</b> button.	Select the records, then select <b>Delete</b> from the <b>Actions</b> drop-down list.
Display a record prefilter window	Available	Not available



Desired action	Using the Windows client	Using the Web client
Cut, copy or paste records from a detail list	Under some conditions, you can use the <b>Edit</b> menu or equivalent shortcuts	Not available

## Records detail

Desired action	Using the Windows client	Using the Web client
<p>Edit a record's detail</p> <p>Organization of fields and links within tabs, when these fields are part of the main table or when these links are type 1. For example: detail of a portfolio item, <b>Acquis.</b> tab.</p>	<p>1 Display the table containing the record to edit.</p> <p>2 Display the detail of the record to edit.</p> <p>3 Edit the record.</p> <p>These tabs contain sub-tabs. For example: The <b>Acquis.</b> tab of the detail of a portfolio item contains the sub-tabs <b>Price and conditions</b> and <b>Procurement</b>.</p>	<p>1 Display the table containing the record to edit.</p> <p>2 Display the detail of the record to edit.</p> <p>3 Click <b>Modify</b>.</p> <div style="border: 1px solid orange; padding: 5px; margin: 5px 0;"> <p> <b>Important:</b></p> <p>The <b>Modify</b> button of the Web client, which is used to switch to Edit mode, has a completely different function from the <b>Modify</b> button of the Windows client, which is used to save changes.</p> </div> <p>4 Edit the record.</p> <p>These tabs contain frames that correspond to sub-tabs of the Windows client. For example: The <b>Acquis.</b> tab of the detail of a portfolio item contains the frames <b>Price and conditions</b> and <b>Procurement</b>.</p>
<p>Create a record on the fly when editing a link in a record's detail</p>	<p>1 In the link edit zone, enter a value instead of selecting a record in the list.</p> <p>2 Place the cursor outside of the link edit zone.</p> <p>The Windows client allows you to create a record in the target table of the link.</p>	<p>Not available</p>



Desired action	Using the Windows client	Using the Web client
Organization of links within tabs, when these links are type n. For example: Detail of an asset or batch, <b>Portfolio</b> tab	Linked records can be displayed as lists or as a series of tabs	Linked records displayed as lists
Display monetary fields	Exchange values can be displayed for the reference currencies by clicking an icon to the right of the monetary field.	Exchange values for the reference currencies cannot be displayed.
Use customizable itemized lists	Fields populated via customizable itemized lists have an icon to their right. Click the icon to display the list of values. You can select a value from the list or enter a value that does not already exist. The value will be added if the itemized list is open (list of values can be modified by users).	Fields populated via customizable itemized lists do not have an icon to their right. Placing the cursor in the field edit zone displays the list of values. You can select a value from the list or enter a value that does not already exist. The value will be added if the itemized list is open (list of values can be modified by users).
Configure the list under the tabs to display in a detail screen	<b>Configure tabs</b> shortcut menu	Not available
Display planner viewer pages. For example: Detail of work orders, <b>Preview</b> tab.	Available	Not available
Display the <b>Tracking</b> tab for requests, orders, receipts and invoices	Available	Not available
Define an alarm for a <b>Date</b> type field	 icon to the right of the <b>Date</b> type field	 icon to the right of the <b>Date</b> type field
Use the Basic script editor	Click the icon to the right of the <b>Basic Script</b> type fields	Not available
Zoom in on the workflow diagram in the <b>Workflow</b> tab of the records detail.	Available	Not available
View activities to be carried out in a workflow scheme	The boxes representing these activities blink	The boxes representing these activities are colored <b>light</b> blue while other boxes are colored <b>dark</b> blue.

Desired action	Using the Windows client	Using the Web client
Populate the fields that designate a table in the Asset Manager database. For example: In the detail of a calculated field, the <b>Table</b> (TableName) field.	Select the table from a list	You can only view the table's SQL name
Configure fields or links	<b>Configure object</b> shortcut menu	Not available
Save the information in the detail window as a new record and start creating a new record using the current information	 button	Not available
Delete a record	Not available when the list is not displayed	<b>Delete</b> button
Populate a link by selecting a record from a drop-down list	 button	Type the first letters in the link edit zone
Cut, copy, paste, delete text in the fields	Use the <b>Edit</b> menu or equivalent shortcuts	Use the commands of your OS or browser

Desired action	Using the Windows client	Using the Web client
Modify a document stored in the database	<ol style="list-style-type: none"> <li>1 Display the detail of the record to which the document is attached.</li> <li>2 Display the <b>Documents</b> tab.</li> <li>3 Display the detail of the document to modify.</li> <li>4 Click <b>Run</b>.</li> <li>5 When the <b>Would you like to integrate the changes that you are going to make to the document into the database?</b> message appears, click <b>Yes</b>.</li> <li>6 Modify the document.</li> <li>7 Save the changes made to the document.</li> <li>8 Close the document.</li> <li>9 Go back to the <b>Documents</b> tab of the record to which the document is attached.</li> <li>10 Click <b>Modify</b>.</li> </ol>	<ol style="list-style-type: none"> <li>1 Display the detail of the record to which the document is attached.</li> <li>2 Click <b>Modify</b> to edit the record.</li> <li>3 Display the <b>Documents</b> tab.</li> <li>4 Display the detail of the document to modify.</li> <li>5 Click <b>Export</b>.</li> <li>6 Save the document to your local disk (somewhere outside of the Asset Manager database).</li> <li>7 Edit and modify the document you just saved.</li> <li>8 Save your changes made to the document.</li> <li>9 Close the document.</li> <li>10 Go back to the <b>Documents</b> tab of the record to which the document is attached.</li> <li>11 Click <b>Detach</b>.</li> <li>12 Select the modified document (button to the right of the <b>Upload</b> field).</li> <li>13 Click <b>OK</b>.</li> </ol>

Desired action	Using the Windows client	Using the Web client
Enter a duration	<ul style="list-style-type: none"> <li>■ You may leave a space between the quantity and its unit.</li> <li>■ The following decimal separators are valid: <ul style="list-style-type: none"> <li>■ .</li> <li>■ ,</li> </ul> </li> <li>■ If you enter a value without a unit, Asset Manager applies the default unit of the field.</li> <li>■ When entering a value with no integer, you may enter: <ul style="list-style-type: none"> <li>■ 0,1</li> <li>■ 0.1</li> <li>■ ,1</li> <li>■ .1</li> </ul> </li> <li>■ Do not enter any separator between the figures (no periods, commas or spaces).</li> </ul>	<ul style="list-style-type: none"> <li>■ You must leave at least one space between the quantity and its unit.</li> <li>■ The decimal separator that is used is the one that is defined in the application server's regional settings.</li> <li>■ You cannot enter a number without a unit.</li> <li>■ You can enter units in any order.</li> </ul>

## Actions on records

Desired action	Using the Windows client	Using the Web client
<p>Create a record composed of another table's sub-records.</p> <p>For example:</p> <p>Create an order made up of order lines.</p>		

Desired action	Using the Windows client	Using the Web client
	<p>1 Display the list of orders (<b>Procurement/ Orders</b> link on the navigation bar).</p>	<p>1 Display the list of orders (<b>Procurement/ Orders</b> link on the navigation bar).</p>
	<p>2 Display the detail of a new order (<b>New</b> button). At this stage, the order is not created. You can cancel the order creation (<b>Cancel</b> button).</p>	<p>2 Display the detail of a new order (<b>New</b> button). At this stage, the order is not created. You can cancel the order creation (<b>Cancel</b> button).</p>
	<p>3 Populate all required fields and links.</p>	<p>3 Populate all required fields and links.</p>
	<p>4 Create the order (<b>Create</b> button). This is required if order lines are to be added. This creates the record. You cannot cancel the creation process. You can, however, delete the record (<b>Delete</b> button).</p>	<p>4 Create the order (<b>Save</b> button). This is required if order lines are to be added. This creates the record. You cannot cancel the creation process. You can, however, delete the record (<b>Delete</b> button).</p>
	<p>5 Display the <b>Composition</b> tab.</p>	<p>5 Display the <b>Composition</b> tab.</p>
	<p>6 Add an order line (<b>+</b> button). At this stage, the order line is not created. You can cancel the order creation (<b>Cancel</b> button).</p>	<p>6 Add an order line (<b>Add</b> button). At this stage, the order line is not yet created. You can cancel the order creation (<b>Cancel</b> button).</p>
	<p>7 Add an order line to the order (<b>Add</b> button). The order line is created and added to the order. You cannot cancel the creation process. You can, however, delete the record (<b>-</b> button).</p>	<p>7 Add an order line to the order (<b>OK</b> button). The order line is created and added to the order. You cannot cancel the order creation but you can delete the order and its order lines (<b>Delete</b> button).</p>

Desired action	Using the Windows client	Using the Web client
<p>Authorize extended deletions for records</p> <p>For example: When you delete a location, Asset Manager provides you with the following possibilities:</p> <ul style="list-style-type: none"> <li>■ Delete employees linked to the location</li> <li>■ Delete the link to the location</li> <li>■ Assign employees to another location</li> </ul>	<p>To configure this possibility:</p> <ol style="list-style-type: none"> <li>1 Select the <b>Edit/ Options</b> menu.</li> <li>2 Assign the value <b>Yes</b> to the <b>Authorize extended deletions</b> option.</li> </ol>	Not available
Modify a selection of records	It is possible to modify a value for a selection of several records simultaneously	Not available
Modify a record (multiple users working on the same record)	A warning message is displayed for the last user who clicks <b>Modify</b> . The user is prompted to either overwrite the other user's changes or cancel his or her own changes.	A warning message is displayed for the last user who clicks <b>Save</b> . The user cannot save his/her changes.
Duplicate a record n times	<b>Edit/ Duplicate</b> menu	Not available
Use the following controls:	Supported	Not supported (In some cases they may display a value in read-only mode but this value cannot be edited)
<ul style="list-style-type: none"> <li>■ ColorCombo</li> <li>■ DistantDet</li> <li>■ Edit</li> <li>■ MultilineLabel</li> <li>■ Notebook</li> <li>■ Picture</li> <li>■ QueryCalc</li> <li>■ ScrollablePicture</li> <li>■ TimerControl</li> </ul>		

## Help

Desired action	Using the Windows client	Using the Web client
Display context-sensitive help for fields or links	<b>Help/ Help on this field</b> menu	Not available
Display the online Help	<b>Help/ Index</b> menu	Not available
Display tips of the day	<b>Help/ Tip of the day</b> menu	Not available
Display the readme.txt file	<b>Help/ Read-me</b> menu	Not available

Desired action	Using the Windows client	Using the Web client
Display information about Asset Manager and its environment	<b>Help/ About Asset Manager</b> menu	Double-click the banner at the top of the workspace.  Only part of the information that is available in the Windows client is available.

## Actions (including wizards)

Desired action	Using the Windows client	Using the Web client
Types of supported actions	All action types	Only <b>Script</b> and <b>Wizard</b> type actions
Trigger a non-contextual action	A non-contextual action can be triggered from: <ul style="list-style-type: none"> <li>■ The <b>Tools/ Actions</b> menu</li> <li>■ The <b>Functions</b> tab on the navigation bar, if the action is associated with a functional domain</li> </ul>	A non-contextual action can be triggered from the tree-structure of the navigation bar if the action is associated with a functional domain.
Trigger a contextual action	A contextual action can be triggered from: <ul style="list-style-type: none"> <li>■ The <b>Tools/ Actions</b> menu</li> <li>■ The shortcut menu associated with a table, <b>Actions</b> sub-menu</li> </ul>	Actions are triggered by selecting the action from the <b>Actions</b> list at the top of the list screens.  For example: In the orders list, receipt of an order is done by selecting the <b>Receive</b> action from the <b>Actions</b> list.  Contextual actions are also available from the contextual menu for the displayed list (right-click in the list body and select <b>Actions</b> )
Complete wizard using action buttons appropriate to context	Wizard displays action buttons appropriate to context	<b>Next, Finish, OK, and Cancel</b> buttons are displayed in a wizard regardless of whether mandatory criteria for field content are satisfied

Desired action	Using the Windows client	Using the Web client
Use the <b>IMode</b> parameter from the <b>AmMsgBox(strMessage As String, IMode As Long) As Long</b> API in a wizard	All the dialog box types displayed are supported: <ul style="list-style-type: none"> <li>■ <b>0</b> : Simple dialog box with an <b>OK</b> button.</li> <li>■ <b>1</b> : Dialog box with <b>OK</b> and <b>Cancel</b> buttons.</li> <li>■ <b>2</b> : Dialog box with a <b>Cancel</b> button.</li> </ul>	<b>OK</b> and <b>Cancel</b> buttons are not implemented
Use the <b>AmWizChain(strWizSqlName As String)</b> API in a wizard	All wizard types referenced by the <b>strWizSqlName</b> parameter are supported	Only wizards whose "Root" node has a <b>MODAL=FALSE</b> property are supported (wizard referenced by the <b>strWizSqlName</b> parameter). Wizards whose "Root" node has a <b>MODAL=TRUE</b> are considered as having a <b>MODAL=FALSE</b> property.
Refresh a wizard page whose content is dependent on the value of a field from the same page.	Refresh is automatic	Refresh is not automatic. You must display the wizard's previous or next page, and then return to the page that needs to be refreshed. This is not always possible. Specific example: The buttons cannot be activated via user activity (for example, when a user populates a required field). Also, most buttons are activated by default in the Web client. This makes them available for when they are needed. Consequently, if a user clicks on one of these buttons at an inappropriate time, an error message is displayed.
Use global variables in the wizards	Global variables can be defined for the following nodes: <ul style="list-style-type: none"> <li>■ Root</li> <li>■ Long</li> <li>■ String</li> <li>■ Double</li> <li>■ Date</li> </ul>	Global variables can be defined for the following nodes: <ul style="list-style-type: none"> <li>■ Long</li> <li>■ String</li> <li>■ Double</li> <li>■ Date</li> </ul>




Desired action	Using the Windows client	Using the Web client
Define the <b>TABLE=</b> and <b>FIELD=</b> properties of a <b>DBEDIT</b> control used by a wizard	You can use a script to define these properties	You cannot use a script to define these properties
Support of BASIC functions used to handle files	All functions are supported	Only the storage of a file in the Asset Manager database is supported
When a wizard is running, display a Asset Manager window that is unrelated to the wizard.	This is possible with some wizards.	This is not possible. If you try to do this, Asset Manager stops running the wizard and asks you for confirmation.
Use the <b>AmExecTransition()</b> API in a wizard	This API can be used	This API cannot be used
Use the <b>XOFFSET</b> and <b>YOFFSET</b> properties in a wizard	This property is taken into account	This property is not taken into account
Use the <b>SERIALIZE</b> property	This property is taken into account	This property is not taken into account locally. By extension, it is not usable.
Use the <b>EDITABLE</b> property of the <b>LISTBOX</b> control	This property can be used	This property cannot be used correctly
Use the <b>FILEEDIT</b> control	This control can be used	This control cannot be used. In the Web client, this control appears as an <b>EDIT</b> control in which no value can be entered. No icon can be used to start a file browser.
Use the <b>DBEDIT</b> control	This control can be used	This control can be used subject to the following restriction when the control is used on a field (there are no restrictions for links): The magnifier which is used to search for an existing value in the database is not available.
Use the <b>AmActionDde</b> function in a wizard script.	This function can be used	This function cannot be used
Use the <b>TickEdit</b> control	This control can be used	This control cannot be used
Use the <b>WizTickEdit</b> control	This control can be used	This control cannot be used
Use the <b>WizProgressBar</b> control	This control can be used	This control cannot be used

Desired action	Using the Windows client	Using the Web client
Use the <b>ProgressBar</b> control	This control can be used	This control cannot be used

## Reporting

Desired action	Using the Windows client	Using the Web client
Display reports that are automatically updated	<b>Tools/ Reporting/ Crystal Reports statistics</b> menu	Not available
Display the software dashboard	<b>Portfolio management/ IT/ Software Asset Management/ Software dashboard</b> navigation menu link. All components of the dashboard are shown.	<b>Portfolio management/ IT/ Software Asset Management/ Software dashboard</b> navigation menu link. Only one component of the dashboard is shown.

Desired action	Using the Windows client	Using the Web client
Display a detail report (a report that displays the detail information for one or more records selected in a list)	<ol style="list-style-type: none"> <li>1 Display the list containing the record that is the object of the report.</li> <li>2 Select the record that is the object of the report.</li> <li>3 Expand the navigation bar link corresponding to the report's functional domain.</li> <li>4 Click the report name in the navigation bar.</li> </ol>	Not available
	<ol style="list-style-type: none"> <li>1 Display the reports (<b>Administration/ Reporting/ Reports</b> link on the navigation bar).</li> <li>2 Display the report detail.</li> <li>3 Click <b>Preview</b>.</li> <li>4 Select the record that is the object of the report.</li> <li>5 Click <b>OK</b>.</li> </ol>	
	<ol style="list-style-type: none"> <li>1 Display the list of records that are the object of the report.</li> <li>2 Select the records that are the object of the report.</li> <li>3 Select the <b>File/ Print</b> menu item.</li> <li>4 Set the <b>Type</b> field to <b>Detail report (Crystal Reports)</b>.</li> <li>5 Select the report in the <b>Report</b> list.</li> <li>6 Click <b>Preview</b>.</li> </ol>	

Desired action	Using the Windows client	Using the Web client
Print a detail report	<ol style="list-style-type: none"> <li>1 Expand the navigation bar link corresponding to the report's functional domain (report detail, <b>Domain</b> (SQL name: Domain) field)).</li> <li>2 Click the <b>Print</b> icon.</li> </ol>	Not available
	<ol style="list-style-type: none"> <li>1 Display the report detail.</li> <li>2 Click <b>Preview</b>.</li> <li>3 Select the record that is the object of the report.</li> <li>4 Click <b>OK</b>.</li> <li>5 Click the  button.</li> </ol>	
	<ol style="list-style-type: none"> <li>1 Select the record that is the object of the report.</li> <li>2 Select the <b>File/ Print</b> menu item.</li> <li>3 <b>Type: Detail report (Crystal)</b>.</li> <li>4 <b>Report:</b> Select the report.</li> <li>5 Click the <b>Print</b> button.</li> </ol>	
Use new possibilities available in Crystal Reports version XI (for example: the possibility to select a record in a list generated when the request to display or print the report is sent)	<ul style="list-style-type: none"> <li>■ Not supported for reports stored in the Asset Manager database</li> <li>■ Supported for reports stored in the Crystal Reports Server database</li> </ul>	Supported
Import an .rpt file into the Asset Manager database	<ol style="list-style-type: none"> <li>1 Report detail.</li> <li>2 <b>Import</b> button.</li> </ol>	Not supported
Export an .rpt file from the Asset Manager database	<ol style="list-style-type: none"> <li>1 Report detail.</li> <li>2 <b>Export</b> button.</li> </ol>	Not supported

## Contracts

Desired action	Using the Windows client	Using the Web client
Manage application service contracts	<b>Contracts/ Application services</b> menu	Not available
Only display <b>Blanket purchase order</b> type contracts	<b>Contracts / Blanket purchase orders</b> menu	<b>Contracts/ Blanket PO type contracts</b> link on the navigation bar

Desired action	Using the Windows client	Using the Web client
Only display <b>Master lease</b> type contracts	<b>Contracts/ Master leases</b> menu	<b>Contracts/ Leasing/ Master leases</b> link on the navigation bar
Only display <b>Leasing</b> type contracts	<b>Contracts/ Lease schedules</b> menu	<b>Contracts/ Leasing/ Lease schedules</b> link on the navigation bar
Accept assets under lease schedule	Detail of contract, <b>Accept</b> button	Contract detail, select <b>Accept</b> from the <b>Actions</b> drop-down list
Renew assets under lease schedule	Detail of contract, <b>Renew</b> button	Contract detail, select <b>Renew</b> from the <b>Actions</b> drop-down list
Buy out assets under lease schedule	Detail of contract, <b>Buy out</b> button	Contract detail, select <b>Buy out</b> from the <b>Actions</b> drop-down list
Return assets under lease schedule	Detail of contract, <b>Return</b> button	Contract detail, select <b>Return</b> from the <b>Actions</b> drop-down list

Desired action	Using the Windows client	Using the Web client
Add assets to a lease schedule	Contract detail, <b>Assets (leased)</b> tab, adding a link	Contract detail, <b>Assets (leased)</b> tab, <b>Add</b> button

## Procurement

Desired action	Using the Windows client	Using the Web client
Display procurement tracking information	Request, estimate, PO, receiving slip or invoice detail, <b>Tracking</b> tab	Not available

## Bar code

Desired action	Using the Windows client	Using the Web client
Print a catalog	<b>Portfolio/ Bar-code inventory</b> menu	Not available

## Financials

Desired action	Using the Windows client	Using the Web client
Display preview of applicable taxes for a tax jurisdiction on a given date	<b>Finance/ Tax jurisdictions and rates</b> menu, <b>Preview</b> tab	Not available

## Cable and Circuit

Desired action	Using the Windows client	Using the Web client
Use the Cable and Circuit module	Available	Not available

## Advanced functions

Desired action	Using the Windows client	Using the Web client
Manage time zones		

Desired action	Using the Windows client	Using the Web client
	The Asset Manager database server and the Windows clients can be installed on computers with different time zones.	The Asset Manager database server, the Asset Manager Web Tier server and the Asset Manager Web Service server must be installed on computers using the same time zone. Different time zones can be used for client stations.
Connect to the database using Windows 2000, XP, or Server 2003 integrated security	Available	Not available
Edit queries	<b>Tools/ Queries</b> menu	Not available
Edit calendars	<b>Tools/ Calendars</b> menu	Not available
Edit news	<b>Tools/ News</b> menu	Not available
Display the list of database screens	<b>Administration/List of screens</b> menu	Not available
Select the <b>Preview</b> tab of the user profiles detail.	This tab displays the results of combining user rights with user profiles	Not available
Edit user rights	<b>Administration/ User rights</b> menu	Not available
Edit functional rights	<b>Administration/ Functional rights</b> menu	Not available
Edit database options	<b>Administration/ Database options</b> menu.	Not available
Edit workflow schemes	<b>Tools/ Workflow/ Workflow schemes...</b> menu	Not available
Edit connections	<b>File/ Manage connections</b> menu.	Not available
Import data	<b>File/ Import</b> menu	Not available
Modify a user's Asset Manager password	<b>Tools/ Change password</b> menu	Not available
Force password change for an Asset Manager user	<ol style="list-style-type: none"> <li>1 Display a user's detail (<b>Portfolio/ Departments and employees</b> menu).</li> <li>2 Changed the <b>Password</b> (LoginPassword) field.</li> <li>3 Check the <b>Force change</b> (bResetPwd) option.</li> </ol> <p>The next time the user connects to the database, a window will appear requesting that the user change the password.</p>	Not available





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# 5 Performance Hints and Problem Diagnosis

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## Introduction

The ability to optimize performance is key to a successful Asset Manager Web deployment. This process is complex because it involves all the elements of the architecture: database, web tiers, application...

The goal of this chapter is to focus on Asset Manager Web Tier including:

- Making sure Asset Manager Web Tier works correctly
- Identifying possible performance issues
- Optimizing the performance of the web client
- ▶ Please refer to the **Installation and upgrade** guide, chapter **Supported environments** for hardware recommendations.
- ▶ The **Tuning** guide provides hints on database and client optimization.

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## Installation of Asset Manager Web Tier and Performance Optimization

### Check first that Asset Manager Web Tier works correctly

Tag the Web services with Asset Manager Application Designer, this will create a static version of the Asset Manager Web Service stored in Asset Manager. The tag ensures the consistency of the Web services.

Note that you can check consistency of the Asset Manager Web Service, service by service, with the Asset Manager Windows client using the **Check definitions of the Web services...** (sysCoreWebServiceCheck) wizard. The logging will be slightly more precise than with Asset Manager Application Designer.

While following these steps, any error encountered **MUST** be immediately changed in the database structure (often screen and page definitions). Typical errors include:

- Buttons referring to missing actions
- Look up from exposed pages to screens belonging to non-exposed functional domains (seWebService = **none**, or seWebService = **From within parent domain** with parent not exposed)
- Fields referring to pages that no longer exist
- Two links to the same table in a screen with different filters (you must use the **APIName** property to distinguish the two uses of the link)
- A calculated field with the wrong format (AQL in text, will pass in the Windows client, but not in the web)

Without following the Web services consistency check and fixing the errors, Asset Manager Web will likely have errors, and will possibly not start correctly.

Once the Web services are successfully tagged, make sure you can connect to Asset Manager Web Service (typically:

<http://WebServiceServer:8080/AssetManagerWebService>), deploy a WSDL document and verify that it has valid contents (not empty).

► To learn how to tag Web services, refer to the **Tailoring** guide, part **Customizing databases**, chapter **Customizing the database**, section **Development best practices/ Tag the Web services**.

## Optimize Asset Manager Web Tier Performance

Log on to a tagged version of the Web services

Having tagged a version of the Web services, change the settings in the AssetManager.xml file in the following line:

```
<Environment name="WebService.Version" value="<Tagged version>" type="java.lang.String" override="false"/>
```

Split Asset Manager Web Service and Asset Manager Web Tier

Have Asset Manager Web Service and Asset Manager Web Tier on two different Tomcat instances, or even better, on two different servers (for scalability).

## Decrease the size of the Asset Manager Web Service WSDL document

- In Asset Manager, Web services exposed reflect the way functional domains are set. Hierarchy of functional domains with **From within parent domain** setting in seWebService value will result in a large Web service (and a large WSDL document) with numerous sub sections in it. If children of the node functional domain are set as **stand-alone**, the Web services exposed will be independent... and the WSDL document much smaller.

This independent services structure must be preferred if functional domain contains numerous screens, actions, wizards and queries. Following this recommendation, performance for opening the parent node will be optimized the first time. A good example for splitting functional domains into independent services is the structure of the out-of-the-box **Portfolio** functional domain.

- Do not expose unnecessary data: for instance, if you have some very complex screens or wizards that will never be used from the Web client, it would be better to have them in a functional domain that has **none** as the seWebService value.

## Implement the Java Virtual Machine (JVM) tuning guidance Web service

### Web Service

The Web service calls Asset Manager's APIs through jni. It also has to be taken into account that the XMX memory allocated for Java will be solely used for Java, but the overall Java program memory (as seen by the OS) will indeed contain both:

- Java memory (with max specified by XMX)
- The extra memory necessary for the Asset Manager DLL, DBMS client layers, and so on.

Generally at least 200 Mb should be allocated for the Asset Manager DLL for a few simultaneous connections and about 600 Mb for 40 simultaneous active connections.

In the Asset Manager 5.02 Web Service server, the specified maximum memory for Java is around 1050 Mb for XMS and XMX with a few connections (200 Mb of memory kept for the Asset Manager APIs).

If the Java memory allocation is set to a higher value, an out-of-memory error to connect to Asset Manager can occur because Asset Manager APIs will require extra memory that cannot be allocated.

When more users connect to the system, consider setting XMX and XMS to a value close to 600 Mb to keep at least 650 Mb for the Asset Manager DLL and sub components (which would support approximately 55 active concurrent connections in that case).

## Asset Manager Web Tier

Asset Manager Web Tier 5.x is based on pure Java. XMX can be set to the largest value available for a Java application on the system, (1250 Mb on a sample benchmark Windows Server 2003 system).

### Do not restart Tomcat when it is not necessary

The result is that all profiles will have to be loaded again, and all pages will be compiled server side which will slow performance considerably until the profiles are again loaded.

### Run a script opening tree view nodes and main pages after a Tomcat restart

Tools like wget (<http://www.gnu.org/software/wget/>) can generate scripts that will open WSDL documents and "warm" Asset Manager Web Tier. Please download this free software from the official GNU Web site.

The AM Web client performance hints and problems diagnosis.zip file located in <Asset Manager installation folder>\doc\white\_papers\Architecture - Performances contains a sample .bat utility for opening Asset Manager WSDL documents. It can be customized to any implementation environment.

---

## Troubleshooting performance issues

### Checking performance with low (Tomcat, Windows & Unix)

Edit the log4j.properties file deployed with ACWebTier; and add Asset Manager performance tracing instructions:

```
## Appender for performances logger
log4j.appender.perflogfile=org.apache.log4j.RollingFileAppender
log4j.appender.perflogfile.File=c:/AssetManagerWeb_perf.log
log4j.appender.perflogfile.MaxFileSize=500KB
log4j.appender.perflogfile.MaxBackupIndex=5
log4j.appender.perflogfile.layout=org.apache.log4j.PatternLayout
log4j.appender.perflogfile.layout.ConversionPattern=%d{ABSOLUTE} %5p - %c
- %m%n
## uncomment to enable performance logging
## edit the log4j.appender.perflogfile.File property if needed
log4j.logger.PERF=DEBUG,perflogfile
```

In tomcat this log4j.properties file might be in the <tomcat>\webapps\AssetManager\WEBINF\classes folder.

You need to restart the ACWebTier; server after running this script to take changes into effect.

This will generate a file in the example given on  
c:\AssetManagerWeb\_perf.log with a listing like:

```
...
17:47:52,852 DEBUG - PERF - ws call
'{http://openview.hp.com/AssetManager/Custom/101/Currency/WsdL}retrieveAl
lCurrencyList' duration=297ms
17:47:53,227 DEBUG - PERF - ws call
'{http://openview.hp.com/AssetManager/Custom/101/Core/WsdL}retrieveFirstE
mplDeptListByUserLogin' duration=375ms
17:48:37,087 DEBUG - PERF - ws call
'{http://openview.hp.com/AssetManager/Custom/101/Core/WsdL}retrieveFirstE
mplDeptListByUserLogin' duration=406ms
17:48:38,181 DEBUG - PERF - ws call
'{http://openview.hp.com/AssetManager/Custom/101/Administration/WsdL}retr
ieveProfileBySQLName' duration=1094ms
...
```

## Checking performance for diagnosis with performance impact on the system (Tomcat, Windows & Unix)

Change the first line of the log4j.properties file deployed with ACWebTier::

```
log4j.rootLogger=ERROR, stdout
```

to

```
log4j.rootLogger=DEBUG, stdout
```

In Tomcat this file might be in the <Tomcat installation folder>\webapps\AssetManager\WEB-INF\classes folder.

You need to restart the ACWebTier; server afterwards to take changes into effect.

This will create a file - in the example given - in the <Tomcat installation folder>\logs\AssetManager.log file with information that might be used for support and pinpointing issues.

Out of this, if you see an error in index.jsf, you will need to check the validity of the AssetManager.xml and AssetManagerWebServices.xml files (in the <Tomcat installation folder>\conf\Catalina\localhost folder).

## Starting ADBLOGS in Asset Manager Web (Tomcat & Websphere, Windows)

The aamapi50.ini file in the %USERPROFILE% folder of the account that is starting the WebService is necessary.

In that file, the entries enabling the adblog and specification of the log file should be added.

An adbLog is a text log file that is used to capture the SQL data sent to the backend from the Asset Manager APIs. It stores a variety of results that can be analyzed by specialists if necessary.

A typical example is

```
[Option]
/AdbLog/AdbLogFileName=c:\temp\adbLog.log
/AdbLog/AdbLogFileSize=83886080
/AdbLog/LogViewer=uedit32
/AdbLog/LogApiCalls=1
#/AdbLog/AdbLogStartup=1
#/Advanced/LogAPICalls=Orcl
#/LDAP/LdapCertDir=c:\temp
#/LDAP/LdapCertFile=ldapcert.crtt
```

See other technical notes with explanations about what an adbLog is and how to set it up.

Then, to start the adbLog, use the following url (replace **localhost:8080** with the correct system and port that is used for Asset Manager Web Service).

#### To start the log

Use the URL

```
http://localhost:8080/AssetManagerWebService/adbLog?start=-1
```

The Asset Manager Web page will display **ACAPI Log started**.

#### To stop the log

Use the URL

```
http://localhost:8080/AssetManagerWebService/adbLog?stop
```

The Asset Manager Web page will display **ACAPI Log stopped**.

Note that if this setting is not working properly (especially when Tomcat/WebSphere is started as a service or when you don't have the license to use Asset Manager Web Service directly), the adbLog trace can be run from the beginning by removing the comment on line **/AdbLog/AdbLogStartup=1** in `aamapi50.ini`. Asset Manager Web Service then needs to be restarted to take this change into account.

## Storing the http requests sent (Tomcat, Windows and Unix)

Tomcat can be configured (refer to the Tomcat documentation to store in a file of all the http requests). Basically this can be set up enabling the AccessLogValve Tomcat valve. In <Tomcat installation folder>\conf\server.xml, set the line:

```
<Valve className="org.apache.catalina.valves.AccessLogValve"
folder="logs" prefix="localhost_access_log_ws."
suffix=".txt"
pattern="%h %l %u %t %r %s %b %D" resolveHosts="false"/>
```

Refer to Tomcat documentation for more information; no Tomcat support is given by HP on Asset Manager implementations. Further support is available through HP professional services or third parties companies.

## Diagnosing errors on the UserLogin and UPPEREmplDept\_UserLogin fields of amEmplDept (Oracle and DB2)

For convenience this paragraph is written with the Oracle SQLPLUS syntax; thus it can be applied almost the same way (but the trigger is different) for DB2. No check is necessary for MS SQL Server.

- Connect to the Asset Manager database through sqlplus.
- Make sure that all the User logins have their equivalent in uppercase

```
select count(1) from amemplDept where
(upper(UserLogin) <> UPPEREmplDept_UserLogin or UPPEREmplDept_UserLogin is
null) and UserLogin is not null;
```

If the result is something other than "0," it means the Asset Manager database has issues and requires modifications. **Please contact Customer Support to solve this issue.**

Support will guide you. You may refer to technical note TN91311811, **How to diagnose and repair login issues in Asset Manager** to understand the process and make modifications.

---

## Known issues

### Problem with customized functional domains

Out-of-the-box, some Web services are exposed from predefined functional domains like Currencies (WebService.Service.Currency), which are called at the login phase in Asset Manager Web.

Some Web services use predefined functional domains in Asset Manager.

Name	Web service	Functional domain SQL name
ItemizedList service provider	WebService.Service.ItemizedList	Administration
Functional domain service provider	WebService.Service.Functional-Domain	Administration

Name	Web service	Functional domain SQL name
Read mail wizard service provider	WebService.Service.ReadMailWizard	Core
Mail service provider	WebService.Service.Mail	Administration
Employee service provider	AssetManager.WS.EmplDeptService	Core
DateAlarm service provider	WebService.Service.DateAlarm	Administration
Functional Domain Homepage service provider	WebService.Service.FunctionalDomainHomePage	Core
Functional Domain Homepage name	WebService.Object.FunctionalDomainHomePage	FuncDomainHomePage
Download service provider	WebService.Service.DocBlob	Administration
Currencies service provider	WebService.Service.Currency	Currency

If you wish to change the functional domain of any of these Web services, you will need to apply a specific procedure for an xml file.

## Customizing a functional domain for Tomcat

Asset Manager Web uses the definition of the WSDL document described in the file `<Tomcat installation folder>\webapps\AssetManager\WEB-INF\web.xml`

In that file (that should be left unchanged), the Web Provider Service defaults to "Currency".

```

...
<env-entry>
<description>Currency service provider</description>
<env-entry-name>WebService.Service.Currency</env-entry-name>
<env-entry-type>java.lang.String</env-entry-type>
<env-entry-value>Currency</env-entry-value>
</env-entry>
...

```

For instance, if the implementer customized the Currencies to use the same Web service as the parent, (Financials for example), this setting must be replicated in a file to reflect the change.

This file is `AssetManager.xml` in the WebTier (`<Tomcat installation folder>\conf\Catalina\localhost`).

All predefined functional domains exposed as Web services that are customized in the Asset Manager database need to be added in the `AssetManager.xml` file.

For example, if a functional domain:

- Name: **Currencies**
- SQLName: **Currency**
- seWebService: **From within parent domain**



Which is a child of:

- Name: **Financials**
- SqlName: **Finance**
- seWebService: **stand-alone**

A change to this Web service from **Currency** (the sqlName in the out-of-the-box settings in demo database) to **Finance** (the sqlName) will result in an extra line update in the AssetManager.xml context section.

```
<Environment name="WebService.Service.Currency" value="Finance" type="java.lang.String" override="false">
```

As a result, AssetManager.xml will look like:

```
<?xml version="1.0" encoding="UTF-16"?>
<Context path="/AssetManager" docBase="C:\Program Files\HP\AssetManager
5.10
en\webclient\AssetManager.war">
<Parameter name="isIntegratedInCwc" value="true" override="false">
</Parameter>
<Environment name="WebService.EndPoint.SOAP"
value="http://localhost:8081/AssetManagerWebService/services/"
type="java.lang.String" override="false">
</Environment>
<Parameter name="useRefresh" value="true" override="false">
</Parameter>
<Environment name="Fields.All.Mandatory.Prompt.Aural" value="" type="java.
lang.String"
override="false">
</Environment>
<Environment name="Lists.Paging.Count.Maximum.Default" value="20"
type="java.lang.Integer" override="false">
</Environment>
<Environment name="WebService.Service.Currency" value="Finance"
type="java.lang.String" override="false">
</Environment>
</Context>
All other functional domains listed below for which the OOB Web Service
was modified will need to be modified too with the same technique.
<env-entry>
<description>ItemizedList service provider</description>
<env-entry-name>WebService.Service.ItemizedList</env-entry-name>
<env-entry-value>Administration</env-entry-value>
<env-entry-type>java.lang.String</env-entry-type>
</env-entry>
<env-entry>
<description>Functional domain service provider</description>
<env-entry-name>WebService.Service.FunctionalDomain</env-entry-name>
<env-entry-value>Administration</env-entry-value>
<env-entry-type>java.lang.String</env-entry-type>
</env-entry>
<env-entry>
<description>Read mail wizard service provider</description>
<env-entry-name>WebService.Service.ReadMailWizard</env-entryname>
<env-entry-value>Core</env-entry-value>
```

```
<env-entry-type>java.lang.String</env-entry-type>
</env-entry>
<env-entry>
<description>Mail service provider</description>
<env-entry-name>WebService.Service.Mail</env-entry-name>
<env-entry-value>Administration</env-entry-value>
<env-entry-type>java.lang.String</env-entry-type>
</env-entry>
...
```

## Customizing a functional domain for IBM Websphere

As opposed to Tomcat, in Websphere, the file `AssetManager.xml` does not exist.

The same procedure as Tomcat applies to the customization, except that the file `web.xml` should be modified directly in the WAR before deployment and the parameters changed accordingly, with respect to the out-of-box parameter structure definition.

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Windows client

- Differences with Web client (See Differences between the Web and Windows clients)

