



Customizing the Pentaho BI Suite



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Customizing the Pentaho User Console

The Pentaho User Console is the standard Web interface for the Pentaho BI Server, and includes interactive elements of Pentaho Reporting and Analysis. The Pentaho Enterprise Console is the central framework through which your BI Server is configured and managed. You can customize the look and feel of the User Console by editing its configuration files manually, and both the User Console and Enterprise Console can be translated into other languages by replacing plain-text message bundles.

This document provides guidance and instructions for customizing the Pentaho User Console and Pentaho Enterprise Console; it is designed for Pentaho consultants, partners, and customers who have in-house localization resources or Web development skills.

Overview of Customizable Configuration Files



Note: Stop the Pentaho application server before editing anything inside of the Pentaho WAR file.

MantleSettings.properties

Location: /pentaho/server/biserver-ee/tomcat/webapps/pentaho/WEB-INF/lib/mantle-3.8.0-GA.jar

This file is stored in the above-listed JAR file in the Pentaho WAR. You must open the JAR with a ZIP archive utility, then navigate to the `/org/pentaho/mantle/server/` directory inside of it. No matter how you decide to extract and edit the file, it must be put back in the JAR when you are done. Pentaho recommends using **7-Zip** for this process because it can go into the JAR, launch your preferred editing program, then do an in-place update of the archive.

The `MantleSettings.properties` file contains settings for the menubar, main toolbar, and the logo panel. If you decide to turn off the menubar or toolbar, the logo panel will also be turned off because of UI constraints. Look for settings in the file such as `show-menu-bar=true`. To toggle the behavior, simply change the `true` to `false`.

MantleStyle.css

Location: /pentaho/server/biserver-ee/tomcat/webapps/pentaho/mantle/MantleStyle.css

This is a standard cascading style sheet file that controls the majority of style settings in the Pentaho User Console. You may also need to modify the `Widgets.css` file in the same directory.

Replacing Or Translating Message Bundles



Note: Stop the Pentaho application server before editing anything inside of the Pentaho WAR file.

You can internationalize the Pentaho User Console, Pentaho Analyzer, and Dashboard Designer by creating locale- and language-specific message bundles within the Pentaho Web application.

For brevity's sake, only the default Pentaho User Console files will be explained in detail. The file naming convention is identical among all message bundles in the Pentaho BI Suite. The following files are located in the `/mantle/messages/` directory:

- **mantleMessages.properties:** The default message bundle for the Pentaho User Console. In its initial condition, it is a copy of `mantleMessages_en.properties`. If you want to change the default language and dialect, copy your preferred message bundle file over this one.
- **mantleMessages_en.properties:** The English-language version of the standard message bundle. This is an identical copy of `mantleMessages.properties`.
- **mantleMessages_fr.properties:** The French-language version of the standard message bundle.
- **mantleMessages_de.properties:** The German-language version of the standard message bundle.
- **mantleMessages_supported_languages.properties:** Contains a list of localized message bundles and the native language names they correspond to; this relieves the BI Server of the burden of having to discover them on its own. A `supported_languages.properties` file should be created for every message bundle that you intend to localize.

Example of mantleMessages_supported_languages.properties

```
en=English
de=Deutsch
fr=Français
```

New files are created in the following format: **mantleMessages_xx_YY.properties** where **xx** represents a lowercase two-letter language code, and **YY** represents a two-letter locale code, where applicable. So, for instance, U.S. and British English could have two separate message bundles if you wanted to draw a distinction between the two dialects:

- mantleMessages_en_US.properties
- mantleMessages_en_GB.properties

The language and country codes must be in standard ISO format. You can look up both sets of codes on these pages:

- http://en.wikipedia.org/wiki/List_of_ISO_639-1_codes
- http://www.iso.org/iso/english_country_names_and_code_elements

You can edit the default message bundle directly if you need to make surgical changes to the content inside of it. If you plan to translate it into another language, it makes more sense to copy the file and change the name appropriately, then translate it line by line. Be sure to update supported_languages.properties with the new country and dialect code and the native language name that it corresponds to.



Note: All message bundles must be UTF-8 encoded.

Pentaho User Console Message Bundles

The message bundle locations for the Pentaho User Console and Dashboard Designer are:

- /pentaho.war/mantle/messages/ for the Pentaho User Console
- /pentaho/server/biserver-ee/pentaho-solutions/system/dashboards/resources/messages/ for Dashboard Designer
- /pentaho/server/biserver-ee/pentaho-solutions/system/dashboards/resources/gwt/messages/ also for Dashboard Designer

Pentaho Analyzer and JPivot require a special set of instructions for localizing their analysis schema message bundles. See [Localization/Internationalization of Analysis Schemas](#) on page 5 for more information.



Note: Dashboard Designer requires both sets of message bundles, and both are different, so you cannot simply copy one set of messages from one directory to the other.

Localization/Internationalization of Analysis Schemas

You can create internationalized message bundles for your analysis schemas and deploy them with the Pentaho Web application. This enables Pentaho Analyzer and JPivot to access localized schemas.

1. Edit your analysis schema and tokenize all values that you want to localize.

Typically you would create variables for all caption and description values.

```
<Schema measuresCaption="%{foodmart.measures.caption}">
  <Dimension name="Store" caption="%{foodmart.dimension.store.caption}"
  description="%{foodmart.dimension.store.description}">
    <Hierarchy hasAll="true" allMemberName="All Stores"
    allMemberCaption="%{foodmart.dimension.store.allmember.caption =All Stores}"
    primaryKey="store_id" caption="%{foodmart.hierarchy.store.country.caption}"
    description="%{foodmart.hierarchy.store.country.description}>
      <Table name="store"/>
      <Level name="Store Country" column="store_country"
      uniqueMembers="true" caption="%{foodmart.dimension.store.country.caption}"
      description="%{foodmart.dimension.store.country.description}"/>
```

2. Stop the BI Server.
3. Edit the **mondrian.properties** file in the /pentaho/server/biserver-ee/pentaho-solutions/system/mondrian/ directory and add this line (or modify it if it's already there):

```
mondrian.rolap.localePropFile=com.pentaho.messages.MondrianMessages
```

4. Save and close the file.

5. Edit your `/pentaho/server/biserver-ee/pentaho-solutions/system/olap/datasources.xml` file and modify the **Provider** line to declare the default locale, include the `i18n` dynamic schema processor (this enables message token replacement), and refresh the schema when Analyzer detects that the checksum is different than the cached version:

```
Provider=mondrian; Locale=en_US; DynamicSchemaProcessor=
mondrian.i18n.LocalizingDynamicSchemaProcessor; UseContentChecksum=true; Jdbc=
jdbc:odbc:MondrianFoodMart; Catalog= /WEB-INF/FoodMart.xml
```

6. Save and close the file.
7. Create localized **MondrianMessages.properties** files in the `/WEB-INF/classes/com/pentaho/messages/` directory inside of the Pentaho WAR, and define each token you used in the analysis schema.



Note: JBoss users will have to delete the unpacked Pentaho WAR directory if it exists, then unpack the `pentaho.war` file with an archive utility, create the message bundles in the proper location, then repack it into a WAR again.

If you need further assistance in creating localized message bundles, refer to [Replacing Or Translating Message Bundles](#).

```
foodmart.measures.caption=Measures
foodmart.dimension.store.country.caption=Store Country
foodmart.dimension.store.name.property_type.column=store_type
foodmart.dimension.store.country.member.caption=store_country
foodmart.dimension.store.name.property_type.caption=Store Type
foodmart.dimension.store.name.caption=Store Name
foodmart.dimension.store.state.caption=Store State
foodmart.dimension.store.name.property_manager.caption=Store Manager
foodmart.dimension.store.name.property_storesqft.caption=Store Sq. Ft.
foodmart.dimension.store.allmember.caption=All Stores
foodmart.dimension.store.caption=Store
foodmart.cube.sales.caption=Sales
foodmart.dimension.store.city.caption=Store City
foodmart.cube.sales.measure.unitsales=Unit Sales
```

8. Start the BI Server.

Your analysis schemas will now be localized to whatever language is currently selected in the Pentaho User Console, if a message bundle for that locale was copied to the proper directory as explained above.

Pentaho Enterprise Console Message Bundles

The Pentaho Enterprise Console message bundles are stored in the `/pentaho/server/enterprise-console/www/com.pentaho.pac.PentahoProAdminConsole/messages/` directory. There are two files that you must modify to localize the Enterprise Console:

- `messages.properties`
- `promessages.properties`



Note: The same language and locale two-letter naming conventions apply to `promessages.properties`.

Action Sequence Message Bundles

The message bundle for action sequence error messages is `/pentaho/WEB-INF/classes/org/pentaho/platform/engine/services/messages/messages.properties`.

Customizing the Quick Launch Page

When you log into the Pentaho User Console, you are presented with a Quick Launch page that enables you to execute common tasks immediately. By default there are three icons that lead to creating a new report, creating a new analysis view, and managing existing content. This page is written as a JSP, and can be customized or replaced. Specifically, the file is: `/pentaho/server/biserver-ee/tomcat/webapps/pentaho/mantle/launch/launch.jsp`, and the corresponding image files are in the **images** subdirectory.

The images and icons on the quick launch page are all part of the launch.jsp file. To remove the items, find the items within the table element that you want to remove and comment them. Below is an example that leaves only the Pentaho logo and the feather image behind it:

```
<table width="564" border="0" align="center" cellpadding="0"
  cellspacing="0" class="ql_container">
<tr>
  <td colspan="3" align="center"></td>
</tr>
<!-- tr>
  <td class="ql_icon_bar_left"></td>
  <td class="ql_icon_bar_middle">
    <table width="100%" border="0" cellspacing="0" cellpadding="0"
      height="100%">
      <tr>
        <td align="center" valign="top" onClick="window.parent.openWAQR()"></td>
        <td align="center" valign="top">&nbsp;</td>
        <td align="center" valign="top"
          onClick="window.parent.openAnalysis()"></td>
        <td align="center" valign="top">&nbsp;</td>
        <td align="center" valign="top"
          onClick="window.parent.openManage()"></td>
      </tr>
      <tr>
        <td id="launch_new_report" height="100%" --><!-- container for New Report Button -->
<!-- /td>
        <td></td>
        <td id="launch_new_analysis" --><!-- container for New Analysis Button -->
<!-- /td>
        <td></td>
        <td id="manage_content" --><!-- container for manage content Button -->
<!-- /td>
      </tr>
    </table>
  </td>
  <td class="ql_icon_bar_right"></td -->
</tr>
</table>
```

Replacing the Default Icon Set

The icons used throughout the Pentaho User Console are consolidated and stored in PNG files called **image bundles**. These files only encompass a single HTTP request from the client to the server for the entire set of images, thereby saving bandwidth and improving performance. The image bundles all have machine-generated filenames with PNG extensions, and are stored in the `/pentaho/server/biserver-ee/tomcat/webapps/pentaho/mantle` directory. An example of a likely image bundle name is: **EAC2E33CD4B780B5A88A44308412F1CB.cache.png**.

If you edit an image bundle, you must be sure to preserve its location and size. The Pentaho Web application uses CSS to chop the image bundle up during runtime, so you must respect the size, position, and location of what is currently there. Because of these constraints, Pentaho recommends that you do not alter the images themselves, but instead shift the color palette to fit your brand specifications. This can be done with most modern graphic design tools.

Changing the Default Logo

The Pentaho logo displayed in the top right corner of the Pentaho User Console may be replaced or disabled to suit your needs. To turn off the logo, refer to the **MantleSettings.properties** explanation above.

The logo is comprised of two PNG image files: `/pentaho/server/biserver-ee/tomcat/webapps/pentaho/mantle/logo.png` contains the Pentaho logo, which has a transparent background, so you will see through it to the background image, which is **logo_bg.png**. If you have a logo and can make the background transparent, you can easily reuse the default background image. If you want to modify or replace either of these files, you must accommodate for or at least be aware of this image layering. In addition, it is critical to maintain both the file names and the image sizes, which are **152x60** pixels.

Changing the logo link

When you click on the logo graphic, you are brought to `www.pentaho.com`. Unfortunately, there is no easy way to change this URL; it must be set in the Pentaho Hibernate database.

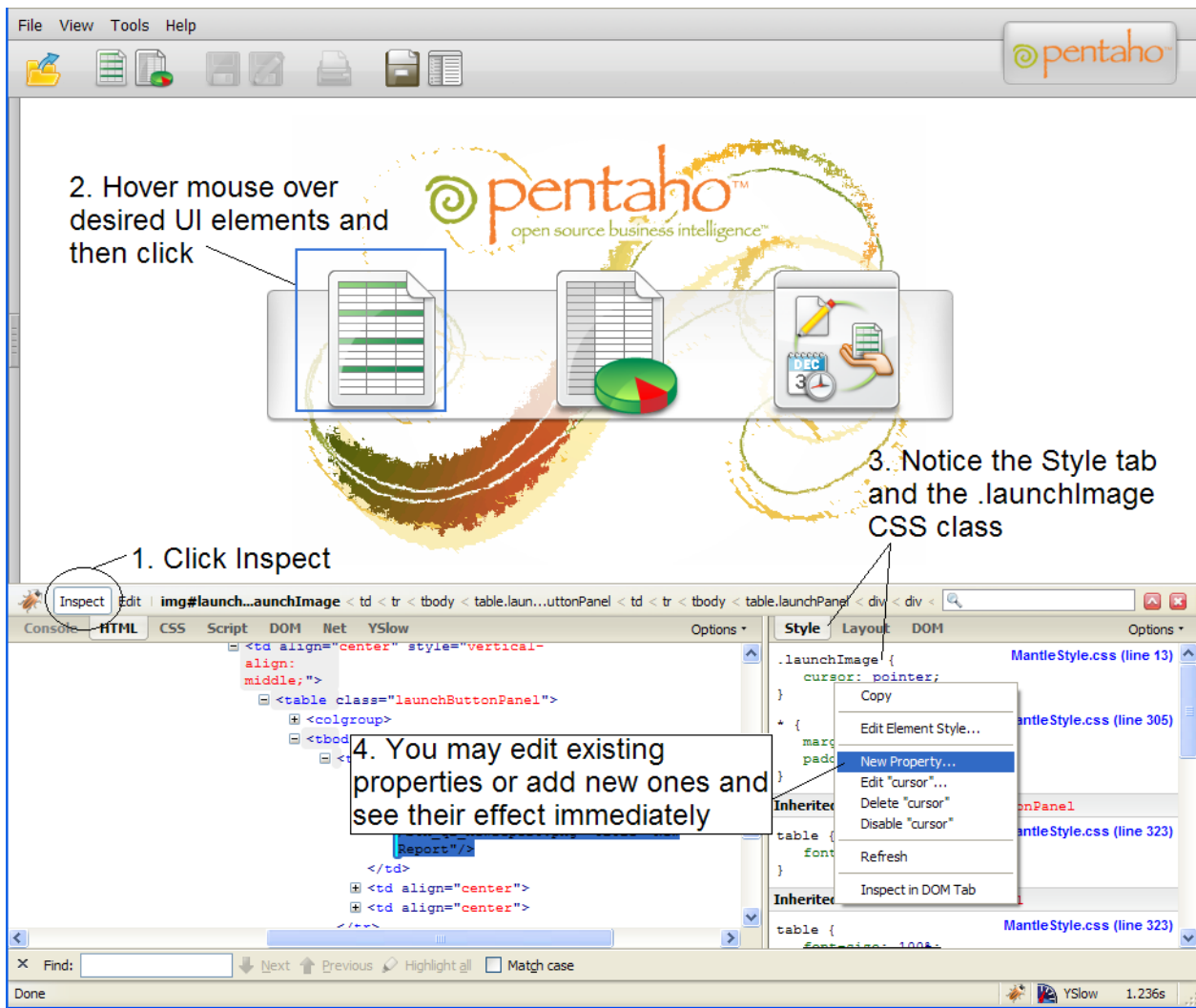
Using your preferred method of database editing, navigate to the **hibernate** database, then find the **user_settings** table, and insert a new row as such:

```
'_GLOBAL', 'MANTLE_LOGO_LAUNCH_URL', 'http://www.pentaho.com'
```

`_GLOBAL` indicates that this setting applies to all Pentaho User Console users. Theoretically you could make this specific to certain users or groups.

Using Firebug to Test CSS Changes

The **MantleStyle.css** and **Widgets.css** files contain many styles, which makes it difficult to map the CSS classes to what you see in the application at runtime. To make this task easier, Pentaho recommends that you use the Firebug extension for Firefox to inspect the UI elements you want to style. Once you've selected an element, you can view all of the CSS properties that apply to it, then change the CSS and watch your changes take immediate effect. This allows you to quickly and easily find the appropriate CSS to edit and gives you the ability to preview your changes in real time.



Changing the Default Character Set Encoding for the Pentaho Enterprise Console

You can use your own character set encoding by editing the **console.properties** file located under `... \enterprise-console \resource \config`. The property name is **content.charset** and it is currently set to **UTF-8**. If you have the platform set to any other character encoding, you must change this value for the Pentaho Enterprise Console to work correctly.

In addition to editing the `console.properties` file, you must pass a JVM parameter in the start script, (`start-pec.bat / .sh`), of the Pentaho Enterprise Console, (`-Dfile.encoding="UTF-8"`). This must match the platform's character encoding.