

CA PPM v13.3  
CA PPM v14.1

Hierarchical Views r1  
Administration Guide

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# Version History

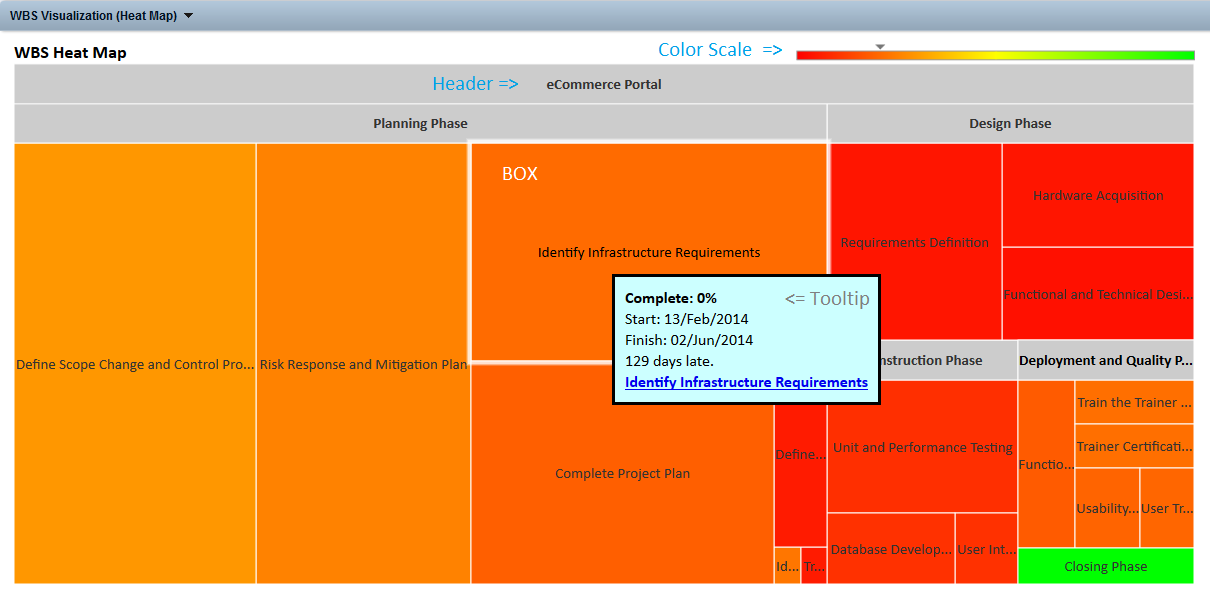
|  |  |  |  |
| --- | --- | --- | --- |
| Author | Date | Version | Comments |
| Alexandre Assis | 09/Jan/2015 | 1.0 | Initial Release |

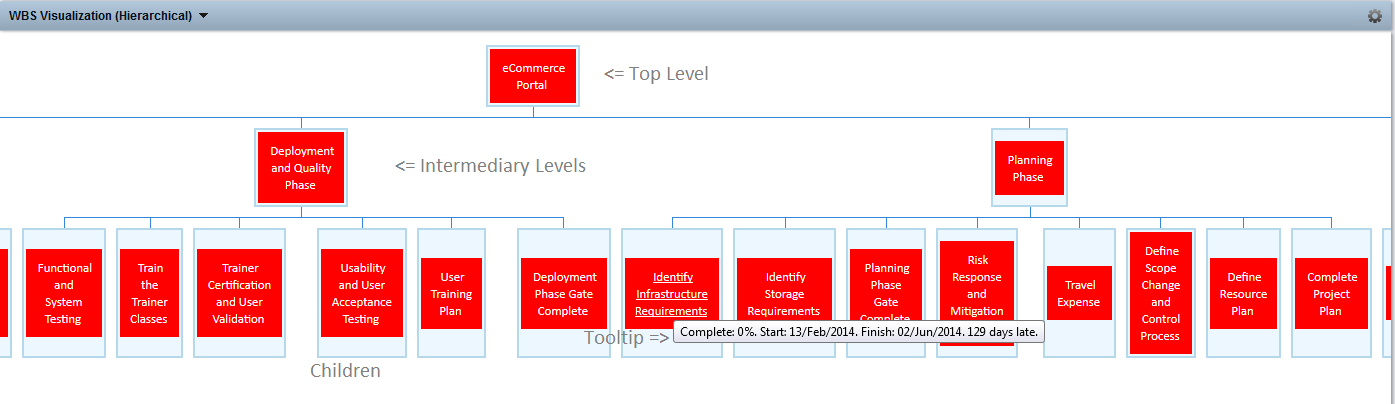
# Introduction

The Hierarchical Views package allows you to create custom hierarchical views and deploy them on Clarity Pages using HTML Portlets.

On this Version two types of Hierarchical Views are supported: the Tree Map (also known as Tree Heat Map) and the Organizational Chart.

See examples below.





# Deploying a new Hierarchical View

To create a new Hierarchical View, follow these steps.

## Create a new Hierarchical View Record

Login: Admin

Start in Home -> Custom Objects -> Hierarchical View List



|  |  |
| --- | --- |
|  | Click New Hierarchical View |
|  | Enter a new Name, a new ID and choose the Hierarchy Type.  Standard for the ID:  hiev\_<package>XXXXXX\_<type>  hiev: is the Hierarchical Views package identifier  package: is the code used to identify your custom package (i.e. strat for Strategic Planning)  XXXXXX: is the portlet identifier (i.e. what is thie view about)  type: hm for Heat Maps and org for Org Charts    Click SAVE |
|  | On the Properties Page, enter the appropriate parameters.  The **Required Information** section contains attributes that will jointly form an SQL text that will be used to bring data to your portlet.  You have up to 4 levels available, and you must follow the provided templates.  You need at least one of the SQL Parts filled.  More information on how to build your query will be available later on this topic.  Choose “Drill to New Page” to determine how hyperlinks will behave (if hyperlinks will open on the same page or on a different page). |
|  | The **Tree Heat Map Basic Formatting** section contains the most frequently changed properties to guide the behavior of a Tree Heat Map.  The **Tree Heat Map Advanced Formatting** section contains additional Formatting options.  To get more information on each option visit [Google Charts Tree Map](https://developers.google.com/chart/interactive/docs/gallery/treemap).    The most important:  Max Depth: maximum levels you want on the same view, without the need to drill down.  Min, Mid, Max Color: define the Color Scale. Min Color is the color assigned to the lowest values, Max Color is the color assigned to the highest values. Mid Color is the one in the middle. These three colors will result in a color scale.  For The Org Charts, the formatting options come from the Query itself.  All attributes have standard values that can later on be adjusted if required  Click SAVE AND RETURN |

### How to create your Query

The query is configured on the Hierarchical View record.

The final query will always have this format:

Select X.Name, X.ID, X.ParentName, X.ITEM\_LEVEL, X.BoxSize, X.BoxColor, X.LinkURL, X.AdditionalInfo

from (

… First Query …

Union

… Second Query …

Union

… Third Query …

Union

… Forth Query …

) X ORDER BY X.ITEM\_LEVEL

At least One query is required and you have a Maximum of Four queries. Typically you will use a query for each level.

Each one of your queries needs to have this format:

Select

TABLE.<NAME ATTRIBUTE> NAME,

TABLE.<INTERNAL ID ATTRIBUTE> ID,

TABLE.ATTRIBUTE PARENTNAME,

TABLE.ATTRIBUTE ITEM\_LEVEL,

TABLE.ATTRIBUTE BOXSIZE,

TABLE.ATTRIBUTE BOXCOLOR,

TABLE.ATTRIBUTE LINKURL,

TABLE.ATTRIBUTE ADDITIONAL\_INFO

From

TABLE

Where

TABLE.<INTERNAL ID ATTRIBUTE>= %internal\_id%

%internal\_id% will be replaced in Runtime with the InstanceID of the current page.

There are specific information for each Hierarchy Type.

### Tree Heat Maps

When you use Tree Maps, pay attention to the following when building your query:

**BOXSIZE** is a number that determines the relative size of the Box in the Tree Heat Map.

**BOXCOLOR** is a number that Tree Map will use to determine the color of the Box using the Color Scale.

**LINK\_URL** is a string with a CA PPM Link (starting in /niku/nu) that allows you to drill down to the corresponding Object Instance.

**ADDITIONAL\_INFO** is a String in HTML Format containing any additional information you may want to present as a “Tooltip”.

### Org Charts

When you use Org Charts, pay attention to the following when building your query:

**BOXSIZE** is ignored for Org Charts

**BOXCOLOR** is a string containing an HTML, HEX or RGB color for each box

**LINK\_URL** is a string with a CA PPM Link (starting in /niku/nu) that allows you to drill down to the corresponding Object Instance.

**ADDITIONAL\_INFO** is a String containing any additional information you may want to present as a “Tooltip”.

(Do not use HTML Formatting for Org Charts).

## Create a new HTML Portlet

Now, create a new HTML Portlet in CA PPM Studio.

To easily identify your Hierarchical View Portlets, consider using the following naming standard for the portlet ID:

<package>\_XXXXXX\_hiev\_<type>

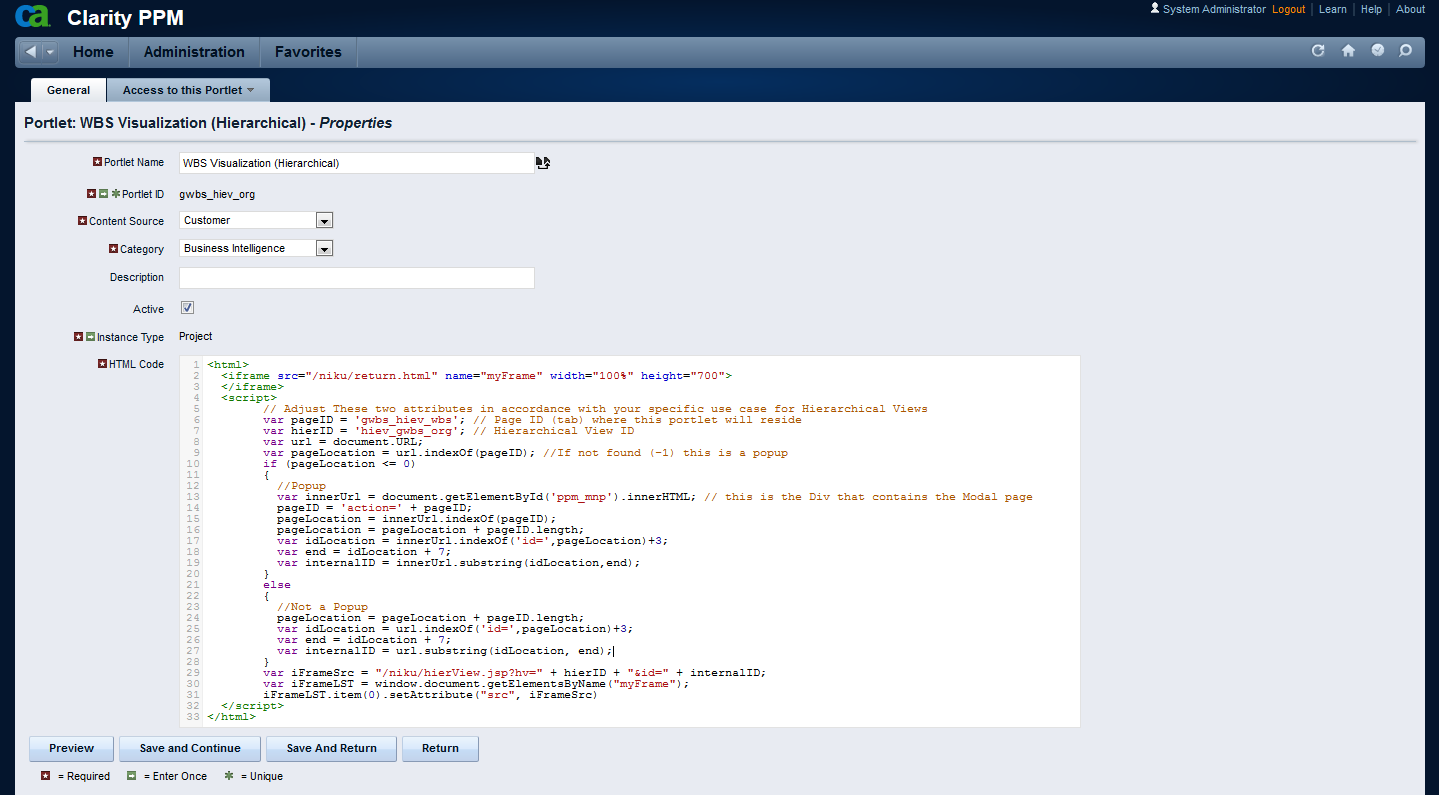
package: identifies your customization initials

XXXXXX: Portlet Identifier that tells us what this is about

hiev: a fixed-string that identifies this as a hierarchical view

type: is the Hierarchy Type: **hm** (Heat Map) and **org** (Org Chart)

Example: we have created a new portlet to show a graphical view of a wbs using the org chart. The Portlet id is **gwbs\_hiev\_org**



The HTML Portlet will always have the same text, which is listed below.

The only changes you need to do to this text are the following parameters, displayed in red on the HTML text:

**hierID** refers to the Hierarchical View record you created before.

**pageID** refers to the Tab that you will create for deploying this portlet.

<html>

<iframe src="/niku/return.html" name="myFrame" width="100%" height="700">

</iframe>

<script>

/\* Adjust These two attributes in accordance with your specific use case for Hierarchical Views \*/

var pageID = '**gwbs\_hiev\_wbs**'; /\* Page ID (tab) where this portlet will reside \*/

var hierID = '**hiev\_gwbs\_org**'; /\* Hierarchical View ID \*/

var url = document.URL;

var pageLocation = url.indexOf(pageID); /\* If not found (-1) this is a popup \*/

if (pageLocation <= 0)

{

/\* Popup \*/

var innerUrl = document.getElementById('ppm\_mnp').innerHTML; /\* This is the Div that contains the Modal page \*/

pageID = 'action=' + pageID;

pageLocation = innerUrl.indexOf(pageID);

pageLocation = pageLocation + pageID.length;

var idLocation = innerUrl.indexOf('id=',pageLocation)+3;

var end = idLocation + 7;

var internalID = innerUrl.substring(idLocation,end);

}

else

{

/\* Not a Popup \*/

pageLocation = pageLocation + pageID.length;

var idLocation = url.indexOf('id=',pageLocation)+3;

var end = idLocation + 7;

var internalID = url.substring(idLocation, end);

}

var iFrameSrc = "/niku/hierView.jsp?hv=" + hierID + "&id=" + internalID;

var iFrameLST = window.document.getElementsByName("myFrame");

iFrameLST.item(0).setAttribute("src", iFrameSrc)

</script>

</html>

## Create a custom Tab on the Page Layout

Open your Object Page Layout and create a new Tab.

To easily identify your Hierarchical View Pages, consider using the following naming standard for the page ID:

<package>\_hiev\_XXXXXX

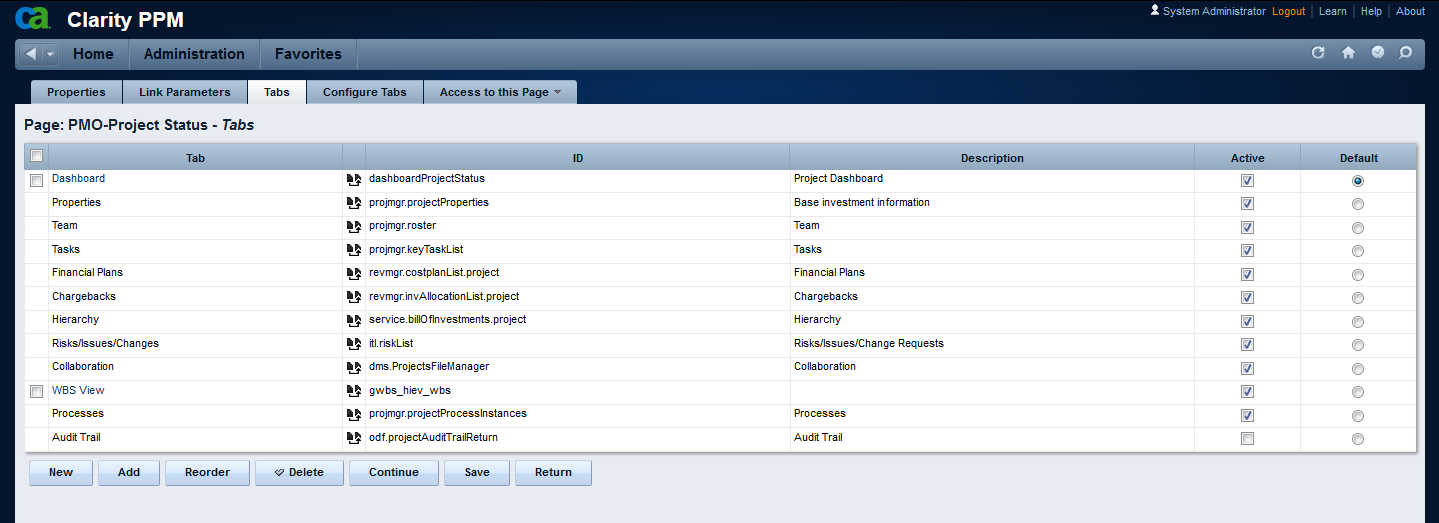
package: identifies your customization initials

hiev: a fixed-string that identifies this as a hierarchical view

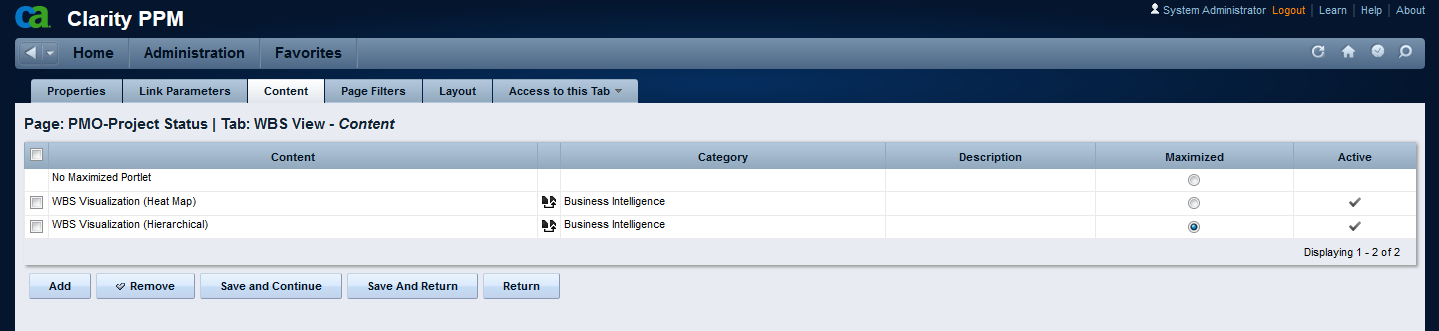
XXXXXX: Page Identifier that tells us what this is about

Example: On the **PMO-Project Status** we have created a new Tab called “**WBS View**” to deploy our new WBS Views, with the id

**gwbs\_hiev\_wbs**



Add your Hierarchical Views Portlets to this tab. Ideally, set one of the Portlets as Maximized.



# Known Issues and Limitations

1. You need access to the server to deploy this package as it requires a Custom JSP. On Demand customers may not get approval for this.
2. There is a maximum of four queries allowed for each Hierarchical View. That generally translates into four levels, but if you have a small enough query you could fit two levels in each, totaling eight levels. That would be the max.
3. Each HTML Portlet needs to identify the Page for which it was Built. That allows us to use CA PPM’s feature “Open as Popup”. Therefore, if a Portlet should be used in multiple pages you will need multiple portlets.
4. HTML Portlets are not Multi-Language. You need to hard-code one language in your query.