SAP Manufacturing Execution

How-To Guide



How to Set Up and Use the SAP ME HTML Viewer Feature

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Document History

Document Version	Description	Author
2.0	Initial version for ME 6.1	Chet Moutrie
2.1	Minor corrections (including icon to edit request parameters)	Chet Moutrie
3.0	Support for Dynamic content added for 15.1 backported to 15.03	Peggy Enriquez

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1 Introduction

1.1 Purpose

The SAP ME How-To-Guide for the HTML Viewer feature is intended to provide sufficient information to enable the feature to be easily configured and readily utilized to meet business needs, making use of available best practices.

1.2 Scope

This document covers all aspects of the HTML Viewer feature and how to set it up.

1.3 Glossary

ME	Manufacturing Execution – SAP manufacturing execution system for discrete manufacturing industries
MII	Manufacturing Integration and Intelligence – An SAP toolset local to the plant for integrating shop floor systems with SAP applications and for the development of custom reports using real-time data
Servlet	a Java programming language class used to extend the capabilities of servers that host applications access via a request-response programming model
UME	User Management Engine

2 Feature Overview

This overview provides a high level description of the SAP ME HTML Viewer feature. For more details, see HTML Viewer Functions below.

2.1 Description and Applicability

The HTML Viewer is an SAP ME POD plug-in that enables the viewing of an image, html page or dynamic HTML page generated by a servlet. The intended use is to provide visibility of MII reports and dashboards within the context of the ME POD.

While the primary goal for the viewer is the viewing of MII generated content, the technical implementation of the viewer enables it to view any content in a supported format that is made available by a servlet, any html page that uses only fully qualified links and SAP MII (now that MII and ME run on the same server).

One of the advantages of this feature is that the login information can be set up in the destination, so the user does not have to log in to the system providing the content.

The following table identifies when and how the HTML Viewer, and the creation of an SAP ME activity, can be used to meet specific viewing and interaction requirements.

Desired Capability	Setup	Method
1. Display static image with or without refresh (polling)	Use HTML Viewer Plug-in and MII servlet; configure Destination (authentication) and POD (layout and button) as desired	HTML Viewer
2. Display static HTML page	Use HTML Viewer Plug-in and configure Destination (authentication) and POD (layout and button) as desired or Create ME activity for external URL and configure POD to display activity in popup window upon button select	HTML Viewer Or ME Activity
3. Run interactive HTML page with no external links or only fully qualified links) and without having to log in	Use HTML Viewer Plug-in and configure Destination (authentication) and POD (layout and button) as desired	HTML Viewer
4. Run MII in ME POD panel w/o having to log in	Use HTML Viewer Plug-in with No Authentication and configure POD to display the plug-in in a popup window on button select or as default plug-in in a fixed panel	HTML Viewer
5. Run MII in ME POD popup window w/o having to log in to MII	Use HTML Viewer Plug-in with No Authentication and configure POD to display the plug-in in a popup window upon button select Or Create ME activity for external URL and configure POD to display activity in popup window upon button select	HTML Viewer Or ME Activity
6. Run interactive HTML page with no external links or only fully qualified links)	Use HTML Viewer Plug-in and configure Destination (authentication) and POD (layout and button) as desired or Create ME activity for external URL and configure POD to display activity in popup window upon button select	HTML Viewer Or ME Activity
7. Run MII Project or Report w/o having to log in to MII	Use HTML Viewer Plug-in and configure Destination (authentication) and POD (layout and button) as desired or Create ME activity for external URL and configure POD to display activity in popup window upon button select	HTML Viewer Or ME Activity
8. Run external web app in ME POD popup window	Create ME activity for external URL and configure POD to display activity in popup window upon button select	ME Activity Or HTML Viewer
9. Run external web app in ME POD in a panel		HTML Viewer

2.2 Business Purposes / Functions

The SAP ME HTML Viewer feature provides access to graphics images and html content generated by MII and made available through the use of a standard interface. It does this through integration with SAP NetWeaver in order to leverage the standard UME features and functions that the platform provides. Configuration of the viewer is performed in SAP Netweaver and in SAP ME. As indicated above, it can be used to view content made available by any servlet that is integrated with the NetWeaver UME, and any html page that uses only fully qualified links.

3 HTML Viewer Functions

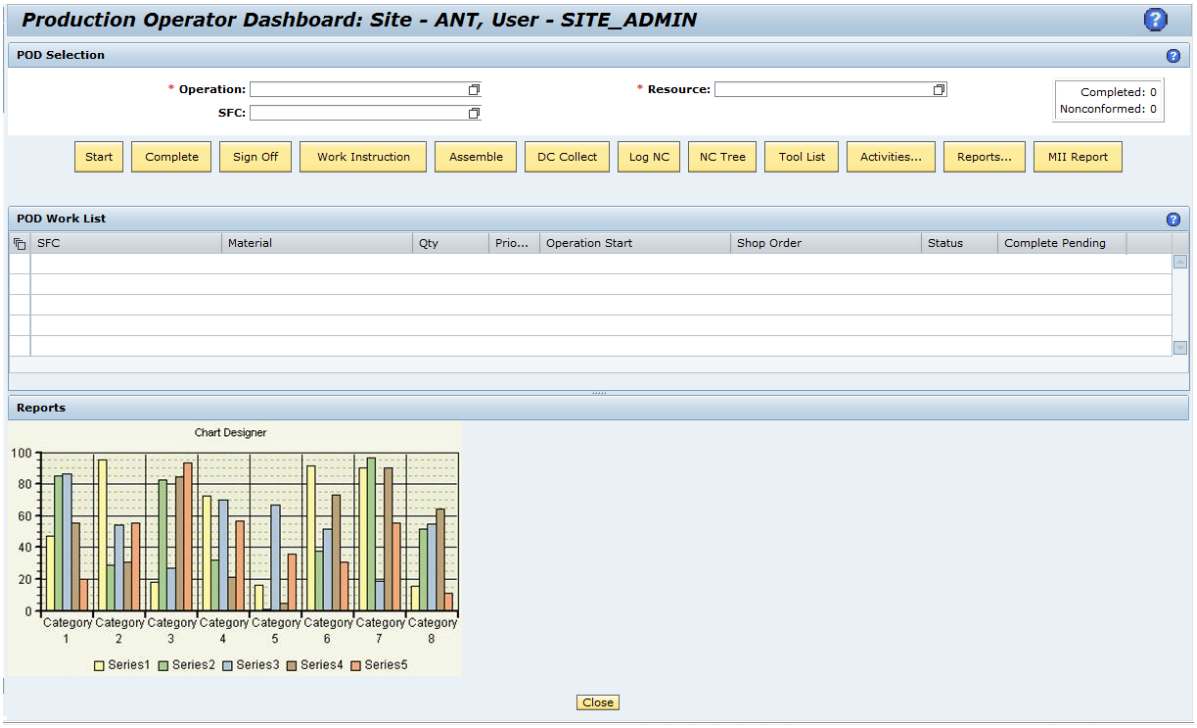
3.1 View MII Content

The HTML Viewer is a plug-in activity that should be configured on a primary button in a POD. The viewer is activated by selecting the button in the POD. It is not necessary to establish any specific conditions (i.e. make any other selections) prior to selecting the button for the viewer. Static and dynamic data, defined in an activity rule for the viewer activity, is passed to the Servlet. The Destination contains the URL and proper authentication required to make the connection.

The content from the Servlet is delivered as one of the following types:

- text/html
- image/gif
- image/png
- image/jpeg
- HTML page with Dynamic content

The content can be displayed in a pop-up window, or in a panel in the POD as shown in the following screenshot.



3.2 View / Edit Request Parameters

When an image is being viewed in the HTML Viewer, the user can click on the icon at the right end of the header for the plug-in to obtain a pop-up dialog containing a list of the SAP ME request parameters sent to the MII Servlet via the destination URL (see REQUEST_PARAMETERS in Activity Maintenance below).

The parameter values in the pop-up dialog can be edited by the user. This will cause the URL to be updated and the viewer contents to be updated based upon the new value(s) sent to the MII Servlet. If a Polling Period has been defined, the timer will be re-initialized and the contents will be refreshed at the next polling cycle. If a Polling Period has not been defined, an immediate refresh of the viewer contents will occur.

4 Integration

4.1 Netweaver Integration

The viewer obtains the content by making an http request to a Servlet using a URL defined as a Destination in Netweaver. This is done for security purposes, including the hiding of the authentication information.

4.2 MII Integration

The Netweaver Destination contains the URL and proper authentication required to make the connection to the servlet.

5 HTML Viewer Setup

5.1 External Configuration

5.1.1 Pre-requisites

If using an MII servlet, both MII and Netweaver must both be already installed.

5.1.2 Netweaver Setup

A Destination must be set up in Netweaver by someone with administrator privileges. The following attributes must be set up for the Destination:

- Destination Name - This value will be assigned to the optional activity rule, DESTINATION_NAME, in Activity Maintenance in SAP ME, so it must be defined in upper case characters.
- Destination Type - This must be set to HTTP
- URL - The URL for the Servlet, or other content provider, for example: http://server:50000/XMII/Runner?Transaction=project/folder1/folder2/transaction_name&OutputParameter=OutputString&Content-Type=image/png&Width=464&Height=260
  The URL for the MII Servlet specifies the content type and the width and height of the image to be displayed. The Transaction portion of the URL depends upon how you set up MII and the transaction in MII. Please refer to the MII Guides and Help for more information. For an HTML page, or an image, a simple URL can be used.
- Authentication - The type of authentication to be used, for example: Basic (User ID and Password)
- Authentication parameters - Depends upon authentication type selected. For example, for Basic authentication the following parameters are required:
  - User Name
  - Password

  Please refer to the NetWeaver Security Guide and Help for more information.

5.2 Maintenance Activities

5.2.1 System Configuration

5.2.1.1 Activity Maintenance

5.2.1.1.1 Purpose / Effects

Activity Maintenance is used to set up the HTML Viewer activity in SAP ME. This activity will be assigned to a button in POD maintenance.

5.2.1.1.2 Settings / Example

On the Main tab in Activity Maintenance, add a new activity and set the following fields to the values indicated.

Activity The name of the activity for the HTML Viewer plug-in

Class/Program: reportsPlugin

Type: WPMF Plugin

Enter the following on the Rules tab:

DESTINATION_NAME The name of the destination defined in Netweaver

The Rules tab can also be used to set the following optional rules:

TITLE The title for the plugin. The default is REPORTS.title.TEXT.

REQUEST_PARAMETERS If used, the parameters will be added to the destination URL (e.g. PARAM1=VALUE1&PARAM2=VALUE2&PARAM3=VALUE3).

POLLING_PERIOD This rule should only be used for IMAGE and HTML RESPONSE_TYPE. The number of seconds between automatic requests to update the content in the HTML Viewer. If not defined, or if the value is less than or equal to zero, polling (refresh of the viewer contents) will not be performed.

RESPONSE_TYPE The type of content that will be provided by the servlet.
IMAGE (default) is used if the content will be a .png, .gif or .jpg image
HTML is used if the content will be an HTML page
DYNAMIC is used if the content will be an HTML dynamic page

POPUP_MODAL Defines if you want the Popup to be modal or modeless . Modeless popups are displayed in a new browser window whereas model popups are defined as a floating popup in the browser. Set to TRUE (Default) for modal and anything else will result in modeless popup
Note: when POPUP_MODAL=TRUE, the floating popup can only be equal to or smaller than the size of the POD

- POPUP_WIDTH – Integer width in pixels for the Popup.
- POPUP_HEIGHT – Integer height in pixels for the Popup.
- POPUP_POSITION – Defines where top / left corner of the popup window should be positioned. Example entering 10,50 will position the top-left corner 10 pixels from the top and 50 pixels from the left. This rule is only used for POPUP_MODAL=FALSE

5.2.1.2 POD Maintenance

5.2.1.2.1 Purpose / Effects

For the viewer, POD Maintenance is used to set up the primary POD button that will be used to invoke the viewer.

5.2.1.2.2 Settings / Example

After retrieving the POD that will be used, a new button should be added by selecting Insert New on the Buttons tab and entering data for the following fields:

- Button ID - A unique ID for the button
- Button Label - The text to be displayed on the button

Then select Insert New on the Button Details screen and select the activity defined for the HTML Viewer.

The activity defined for the HTML Viewer must also be assigned to a panel in the POD or to a popup window. This can be accomplished on the Layout tab.

Note: Only one HTML Viewer activity with the Class/Program=reportsPlugin may be assigned to a POD

5.2.1.3 User Group Maintenance

5.2.1.3.1 Purpose / Effects

For the viewer activity added in Activity Maintenance, all user groups who will use the viewer must be given permission to that activity.

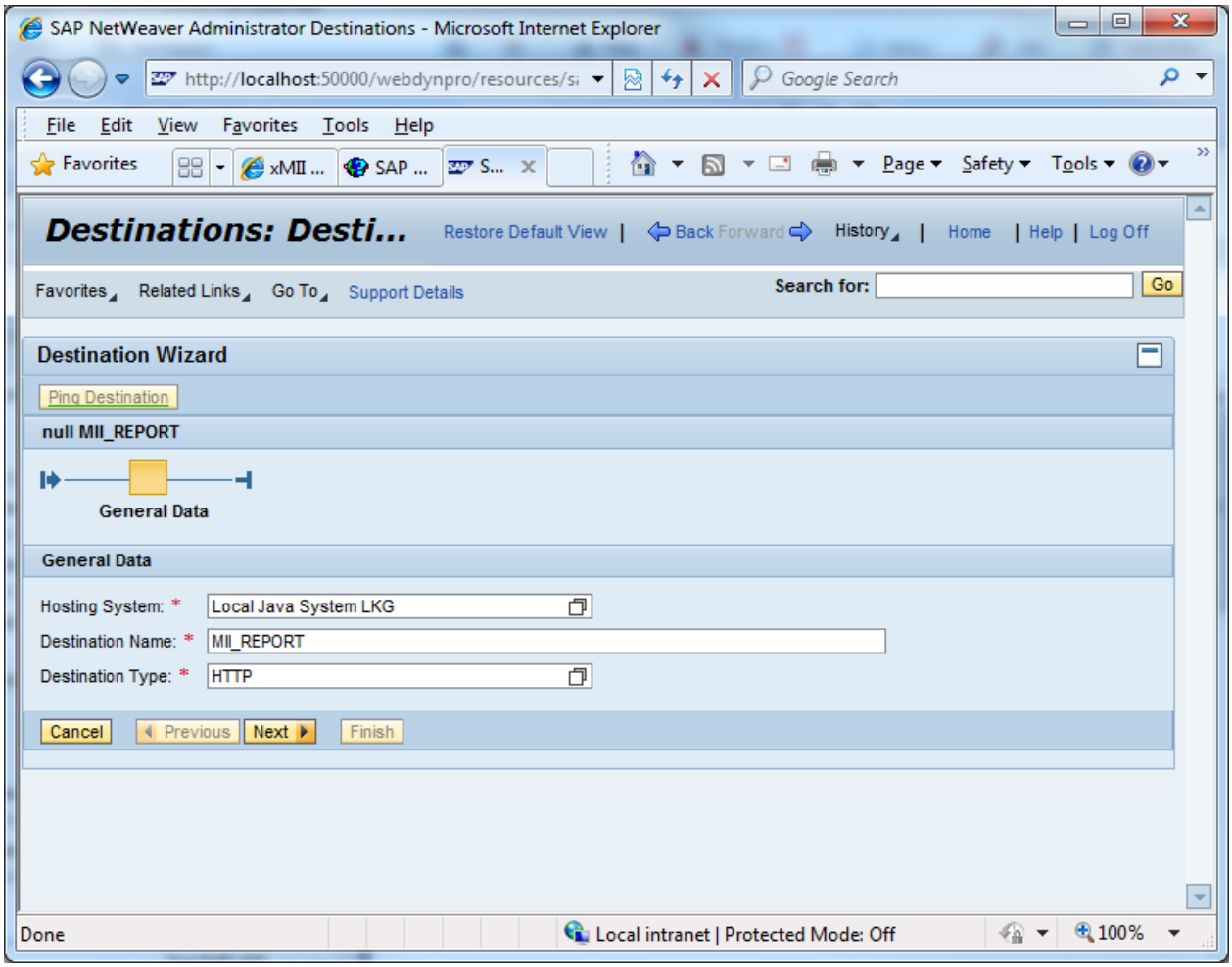
5.2.1.3.2 Settings / Example

For each user group who will use the viewer, retrieve the user group and enable permission (check the checkbox) for the viewer activity on the Permissions tab.

6 HTML Viewer Setup and Usage Scenario / Example

6.1 Set up for a Static HTML report

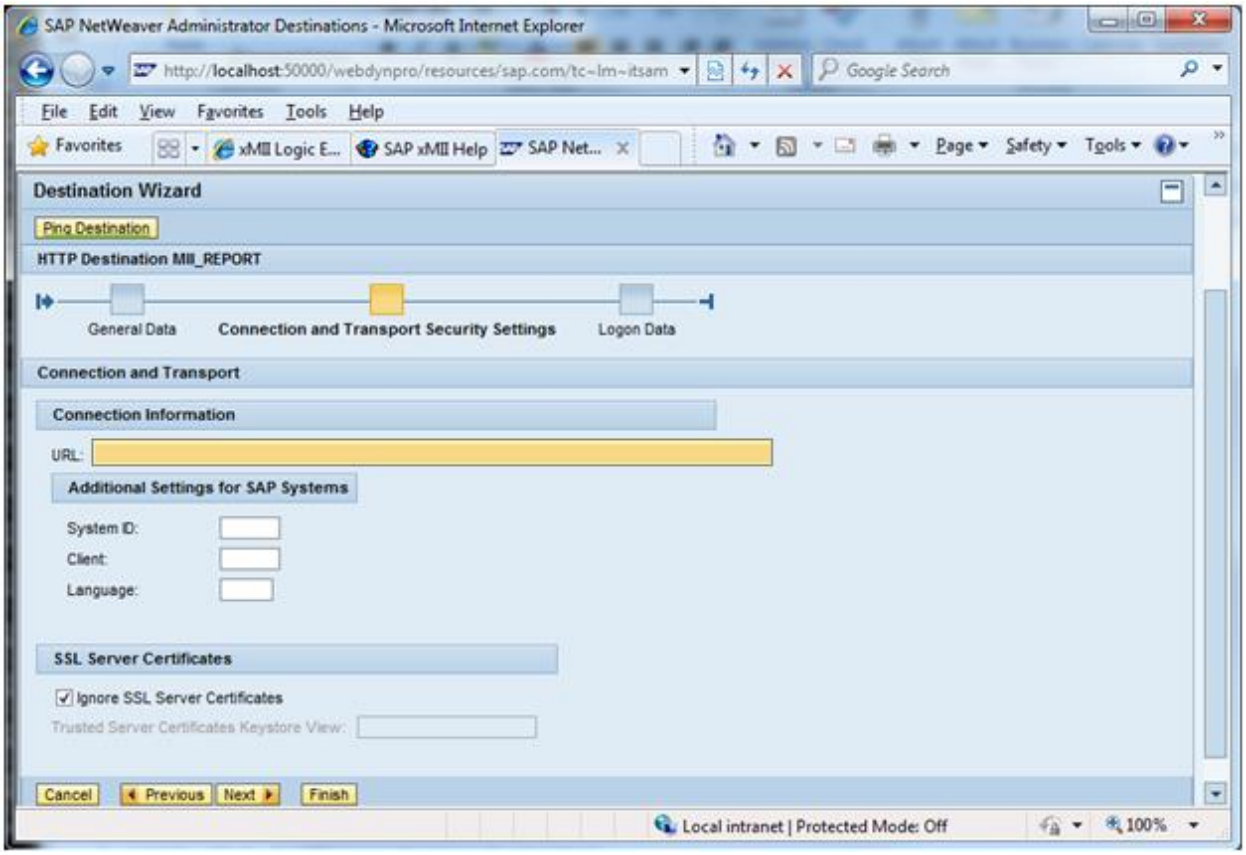
1. Logon to Netweaver Administrator (http:server:port/nwa).
2. Go to the Configuration -> Destinations view.
3. Select Create to add new Destination for MII Runner Servlet.
4. Enter a Destination Name in upper case characters (e.g. “MII_REPORT”).
5. Set the Destination Type as HTTP.



6. Select Next.

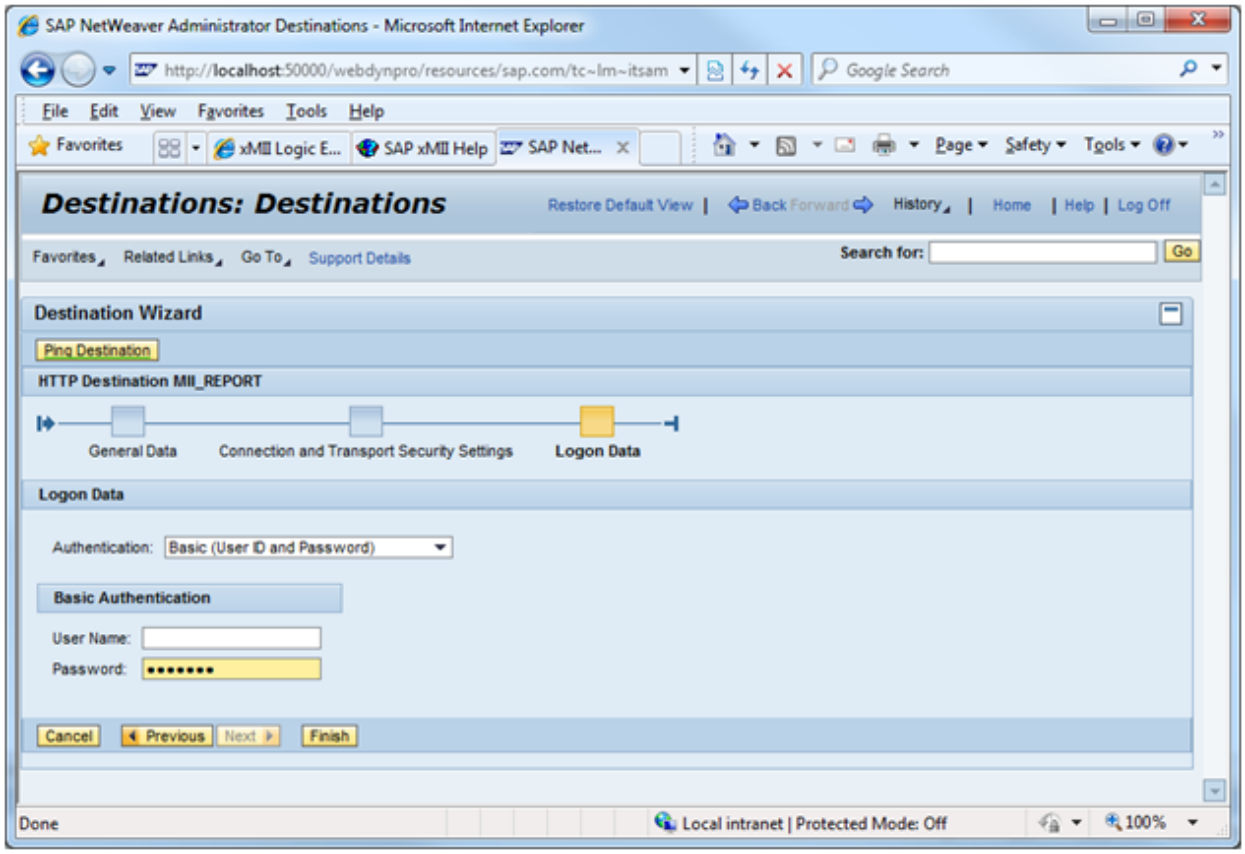
7. Add the URL for the MII Runner Servlet.

   http://server:50000/XMII/Runner?Transaction=project1/examples/transaction/reportImage&OutputParameter=OutputString&Content-Type=image/png&Width=464&Height=260



8. Select Next.

9. Select Authentication information. In this example the MII server is using Basic authentication.

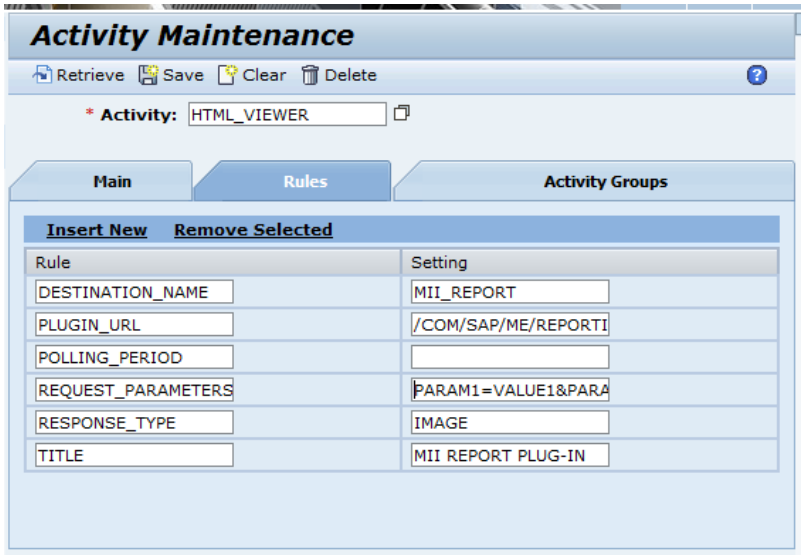


10. Enter user name and password.
11. Select Finish.
12. Select Ping Destination to verify it is set up correctly.
13. Login to SAP ME.
14. Enter the following on the Main tab in Activity Maintenance:

Activity:	MII_REPORT
Class/Program:	reportsPlugin
Type:	WPMF Plugin

15. Enter the following on the Rules tab:

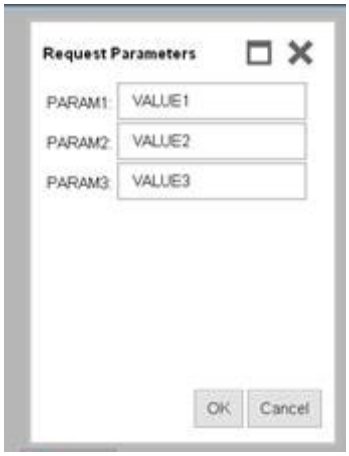
DESTINATION_NAME	MII_REPORT
POLLING_PERIOD	
REQUEST_PARAMETERS	PARAM1=VALUE1&PARAM2=VALUE2&PARAM3=VALUE3
RESPONSE_TYPE	IMAGE
TITLE	MII REPORT PLUG-IN



16. Open POD Maintenance and retrieve the POD to be modified.
17. Select the Buttons tab.
18. Select Insert New.
19. Enter data for the following fields as indicated:
    Button ID MII_REPORT
    Button Label MII Report
20. Select Insert New on the Button Details screen.
21. Browse for and select activity MII_REPORT.
22. Select the Apply button.
23. Select the Layout tab.
24. Select the Other Plug-Ins icon in the Popup row.
25. Select Insert New.
26. Browse for and select activity MII_REPORT.
27. Select the Apply button.
28. Select the Save icon.
29. Open the POD in another window.
30. Select the MII Report button.
31. A window titled REPORTS should open and display the content of an MII report.



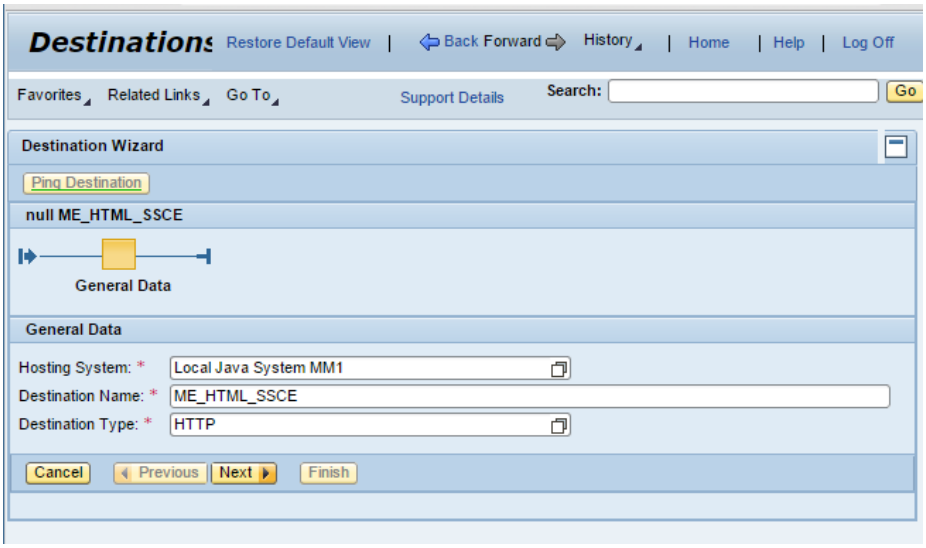
32. Right click in the Reports window to access the Request Parameters dialog.



33. Edit a parameter value and select OK
34. The contents of the Reports window will be immediately updated based upon the edited parameter value.

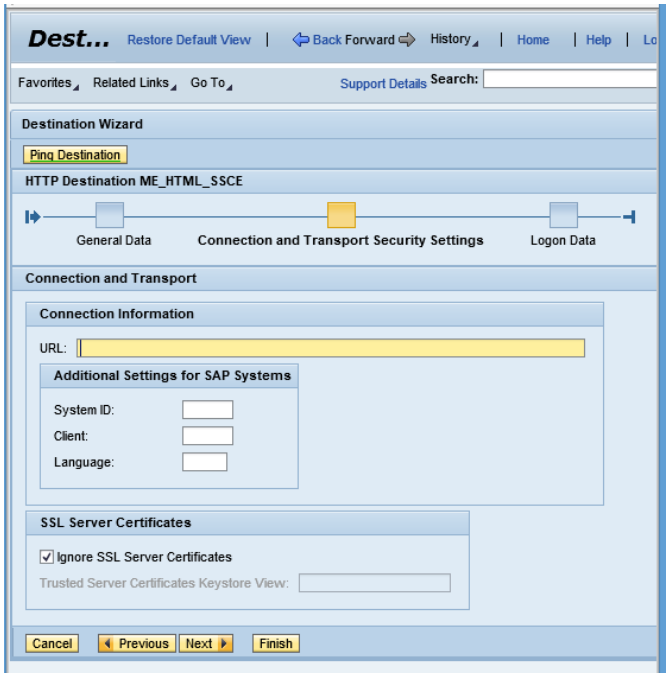
6.2 Set up for a Self Service Compostion Environment/Dynamic HTML report

1. Logon to Netweaver Administrator (http:server:port/nwa).
2. Go to the Configuration -> Destinations view.
3. Select Create to add new Destination for MII Runner Servlet.
4. Enter a Destination Name in upper case characters (e.g. “MII_REPORT”).
5. Set the Destination Type as HTTP.

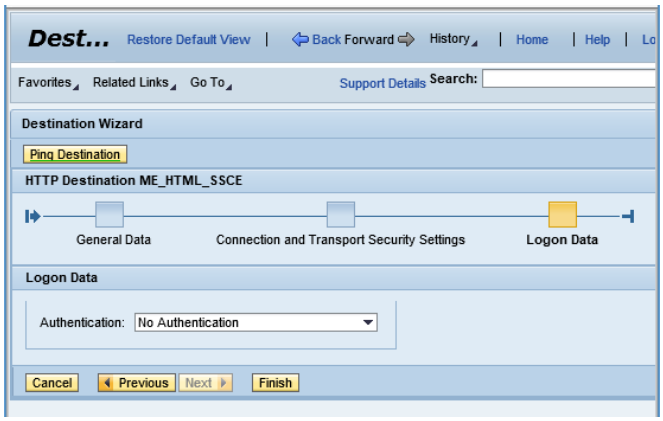


6. Select Next.
7. Add the MII SSCE URL

http://server:port/XMII/project1/Examples/SSCEreportImage.html



8. Select Next
9. Select Authentication information. In this example we select No Authentication since we are displaying an MII SSCE on a co-located server



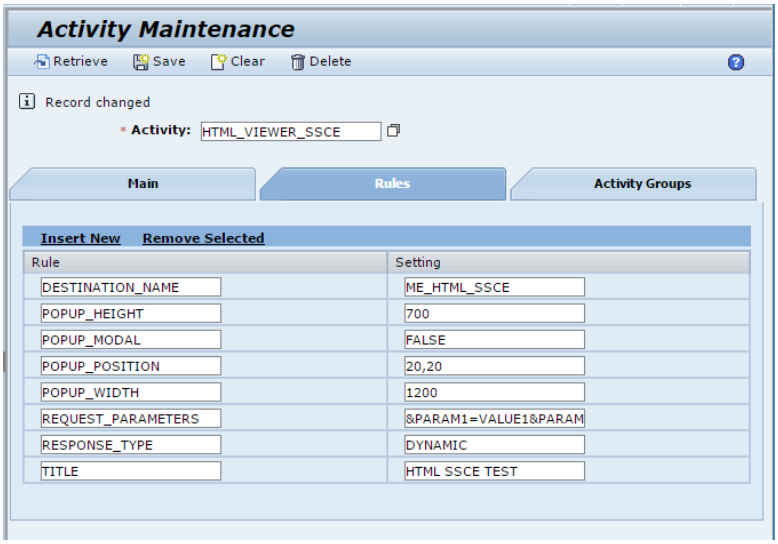
10. Select Finish.
11. Select Ping Destination to verify it is set up correctly.
12. Login to SAP ME.
13. Enter the following on the Main tab in Activity Maintenance:

Activity:	HTML_VIEWER_SSCE
Class/Program:	reportsPlugin
Type:	WPMF Plugin

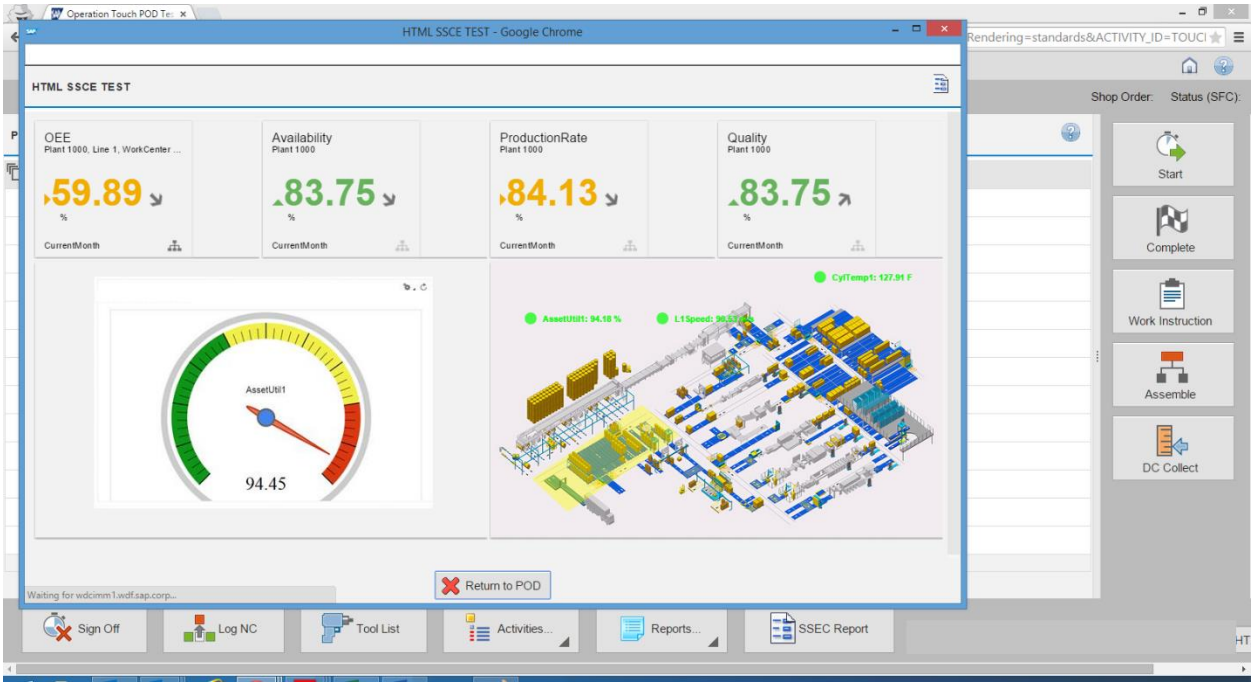
35. Enter the following on the Rules tab:

DESTINATION_NAME	ME_HTML_SSCE
POPUP_HEIGHT	700

POPUP_MODAL	FALSE
POPUP_POSITION	20,20
POPUP_WIDTH	1200
REQUEST_PARAMETERS	PARAM1=VALUE1&PARAM2=VALUE2&PARAM3=VALUE3
RESPONSE_TYPE	DYNAMIC
TITLE	MII SSCE TEST



36. Open POD Maintenance and retrieve the POD to be modified.
37. Select the Buttons tab.
38. Select Insert New.
39. Enter data for the following fields as indicated:
    Button ID SSCE_REPORT
    Button Label SSCE Report
40. Select Insert New on the Button Details screen.
41. Browse for and select activity HTML_VIEWER_SSCE.
42. Select the Apply button.
43. Select the Layout tab.
44. Select the Other Plug-Ins icon in the Popup row.
45. Select Insert New.
46. Browse for and select activity HTML_VIEWER_SSCE.
47. Select the Apply button.
48. Select the Save icon.
49. Open the POD in another window.
50. Select the SSCE Report button.
51. A window titled SSCE REPORTS should open and display the content of an MII SSCE report.



7 Links to Additional Information

SAP ME Guides and Help

SAP MII Guides and Help

8 Other Reference Material

None provided.

9 Overview of Changes

In 15.1, the HTML Viewer can now display dynamic HTML content. Activity rules were added to be able to set the position, length and width of a pop up launch from a POD.