

Java Administration with SAP NetWeaver Administrator 7.1 (available with SAP NetWeaver Composition Environment 7.1)



Applies to:

Administration of SAP NetWeaver Composition Environment 7.1 systems including Enhancement Package 1 of SAP NetWeaver Composition Environment 7.1.

For more information, visit the [User Interface Technology homepage](#).

Summary

This article will deal with the new features that come with the SAP NetWeaver Administrator 7.1 as of Composition Environment 7.1 EhP 1. While some of the features are available in versions below EhP1 also, many administrators used to SAP NetWeaver Administrator of 7.0 systems will find the tool more user friendly and with better features and functionalities.

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Introduction

Most administrators of SAP landscapes are aware that administration of the Java part of an organization's SAP infrastructure is done using various tools such as Visual Administrator, SAP NetWeaver Administrator, Config Tool, SAP Management Console and Telnet. However, there are many new features that have come in these tools which come along with the SAP NetWeaver Composition Environment shipment (at the moment the latest software available is Enhancement Package 1, Support Package 1). However, in this article, I will focus on and highlight the main improvements in the SAP NetWeaver Administrator.

First a small digression toward a best practice in SAP landscape management. SAP recommends to do landscape-wide management (of ABAP and Java systems) from the Solution Manager work centers. This provides a centralized view of your entire SAP landscape including tasks to be done on various systems, alerts coming from different systems of the landscape, as well as solutions to those alerts proposed or recommended by SAP. The solutions typically are by using system specific tools; for example the alert showing high memory consumption in a system can be fixed by using the system specific tool SAP NetWeaver Administrator/Config Tool (if it is a Java system) or by using the transactions ST02 or ST04 (if it is an ABAP system).

Your CE system is part of the SAP landscape and (if configured correctly) reports alerts to the Solution Manager system via the CCMS infrastructure. Since the CE system is a Java system, the SAP NetWeaver Administrator is used a lot to solve the problems reported in the alerts. Let us now look at the cool new features in the NetWeaver Administrator tool in SAP NetWeaver Composition Environment 7.1 EhP1. I should also emphasize at this point that with CE 7.1, the Visual Administrator has been phased out and has been completely replaced by the SAP NetWeaver Administrator. I will cover the new features in the other tools for Java administration in another blog.

Improved Usability

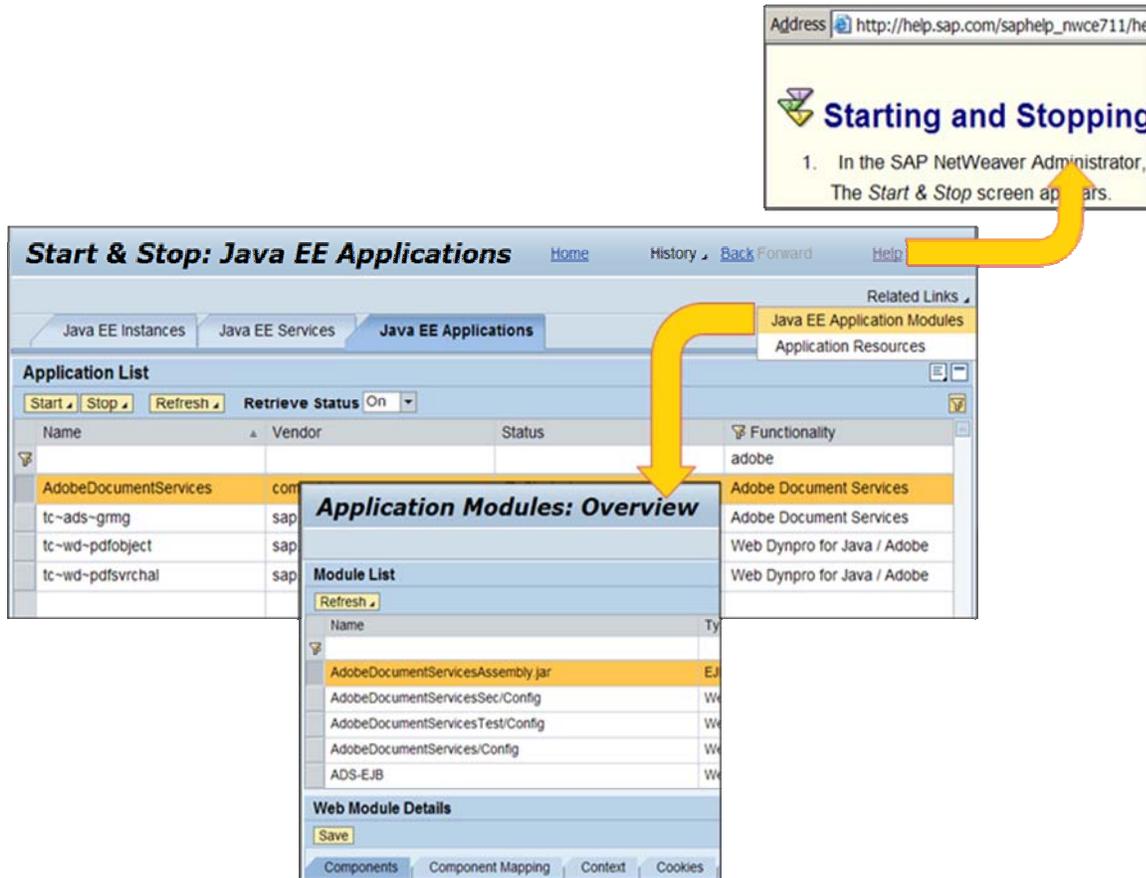
Let us begin with the usability aspects of the new SAP NetWeaver Administrator. Administrators used to working in the SAP NetWeaver 7.0 world would be used to maintaining various settings in the Visual Administrator. Since Visual Administrator (VA) is now phased out, all these settings must now be set in the NetWeaver Administrator (NWA). For this, the NWA offers a variety of tools (exposed as links) under various tabs like "Availability Management", "Operation Management", "Configuration Management", "Problem Management" and "SOA Management". However, an administrator cannot always remember which tool/link comes under which tab and sub-tab. For this, "search" functionality has been introduced where the administrator just needs to type in a keyword and get the tool that he/she is looking for. A tip for the administrator who is used to VA functionality is just to type in the name of the service/setting/parameter in VA as a keyword in the search field in order to get the corresponding tool in the NWA.



Another cool feature in the NWA 7.11 is the concept of user profiles. In organizations having large SAP landscapes, it is not uncommon to have many administrators taking care of different tasks. Also there are times when developers need access to tools in the NWA for detailed debugging. So as to minimize the toolset for administrators so as to have only those links that they really use on a daily basis, the NWA 7.11

offers user profiles. Some of the user profiles are “Java Developer”, “SOA Technical Admin”, “Development Support” etc.

And how many times have you got frustrated with the absence of context sensitivity in the previous versions of NWA? Well, in the EhP1 of NWA 7.1 version, most of the links are context sensitive. For example, if the administrator is trying to find out an errant Java application and selects an application for start/stop, he will have related links pointing to the Application modules or application resources of the application that he has selected. Even better, when he clicks “Help”, he does not have to wade through the <http://help.sap.com>, instead he is taken directly to the section on “Starting and Stopping Java Applications” in <http://help.sap.com>.



Improved Logging

The NWA 7.11 gives a lot of importance to logging and many of the pain points in previous versions regarding logging have been addressed. The NWA log viewer is now cluster aware meaning that merging of all log files is done from the whole cluster into one view. It is now possible to draw a relationship between the log record and the actual component which has a problem. In addition to quicker filtering of logs, it is now also possible to configure the search/filtering criteria. For example, in the snapshot below, one can choose the filtering parameters to create a complex query and thereby return exactly (or a small subset) the error log record. The snapshot below shows a filter in which the administrator is looking for an “aliasing” error which happened in the last 24 hours (or after the 18th Jan 2009) and whose severity is greater than “error” and which belongs to the CSN component BC-JAS-WEB.

The screenshot shows the NWA Log Viewer interface with a filter configuration table:

Filter	Operator	Value
CSN Component	contains	BC-JAS-WEB
Date & Time	Equals	last 24 hours
Severity	is greater than	2009-01-18 17:01:06
Message	contains	alias
Severity	is greater than or equal to	error

Below the filter configuration, a list of log messages is displayed, showing error messages with the text "Cannot get aliases for [test.sap.com/nw~lm~itsam~ui~sample_app~wd] application, because this application is not deployed." The messages are filtered to show only those with a severity of "error" and containing the word "alias".

There also some pre-defined views that are available readily for the administrators.

The screenshot shows the "Log Viewer: Overview" section of the NWA interface. It displays a pre-defined view configuration for the "jva" component:

Filter	Operator	Value
CSN Component	contains	BC-JAS-WEB
Date & Time	Equals	last 24 hours
Severity	is greater than	2009-01-18 17:01:06
Message	contains	alias
Severity	is greater than or equal to	error

The interface also shows a navigation menu on the left with categories like General, Configuration Wizard, Development, HTTP, Logging, Security, Server, SOA Logs, Custom View, and Recently Used View. The "Server" category is expanded, showing sub-categories like Applications (Java), Bootstrap (Java), Database (Java), JVM, Security (Java), and User Interface (Java).

The error records themselves are vastly improved; it is now possible to expand an error entry and get a lot of information related to the error from it (as can be seen in the snapshot below).

▶	 error	2009-01-20	18:05:44:909	Cannot get aliases for [test.sap.com/nw~lm~itsam~ui~sample_app~wd] application, because this applic
▼	 error	2009-01-20	18:05:44:878	Cannot get aliases for [sap.com/tc~xi~itsam~co~ui~priority~wd] application, because this application is i

Log Record Details	
Message:	Cannot get aliases for [sap.com/tc~xi~itsam~co~ui~priority~wd] application, because this application is not deployed.
Date:	2009-01-20
Time:	18:05:44:878
Category:	com.sap.engine.services.servlets_jsp.Deploy
Location:	com.sap.engine.services.servlets_jsp.Deploy
Application:	sap.com/tc~lm~itsam~co~ui~nwa~localnavigation~wd
Thread:	Thread[HTTP Worker [@3492169],5,Dedicated_Application_Thread]
Data Source:	j2ee\cluster\server0\log\defaultTrace_00.trc
Arguments:	
DSR Transaction:	d55cb311e6ee11ddce2a0010c6abc750
Message Code:	com.sap.ASJ.web.000441
Session:	2
Transaction:	
User:	Administrator
TimeZone:	+0530
CSN Component:	BC-JAS-WEB
DC Component:	servlet_jsp
Correlation ID:	7414950000000004
DSR Root Context ID:	DA10C541E6EE11DD91920010C6ABC750
DSR Connection:	d55cb311e6ee11ddce2a0010c6abc750
DSR Counter:	0
Log ID:	0010C6ABC750003B0000001900000634
Host:	INLD50057935A
System:	CE1
Instance:	J00
Node:	server0

▶	 error	2009-01-20	18:05:44:878	Cannot get aliases for [sap.com/tc~xi~itsam~co~ui~engstats~wd] application, because this application i
▶	 error	2009-01-20	18:05:44:862	Cannot get aliases for [sap.com/tc~xi~itsam~co~ui~engstats~wd] application, because this application i

And what's also good news for administrators is that they can also play around with what fields they get to see to characterize a log record. This can be done by selecting "Customization" in the Log Viewer and then "Table". For example, in the screenshot below, we can see what all fields will be visible for an administrator when she wants to view the logs.

Log Viewer: Overview

Show View ▾ Customization ▾
Table

Last 24 Hours
Perspectives
Table

Set as Default View
Save view

Filter by Data Source

<Select Data Source>
Apply Data Sources

Filter by Content

✔ Date & Time
<Select Filter>
Apply Filters

Hide Advanced Filter
Download

Details	Severity	Date
		yyyy-mm-dd
▶	error	2009-01-20

Columns

Move Up
Move Down

- Date
- Time
- Message
- Category
- Location
- Application
- Thread
- Data Source
- Arguments
- DSR Transaction
- Message Code
- Session
- Transaction
- User
- TimeZone
- CSN Component
- DC Component
- Correlation ID
- DSR Root Context ID

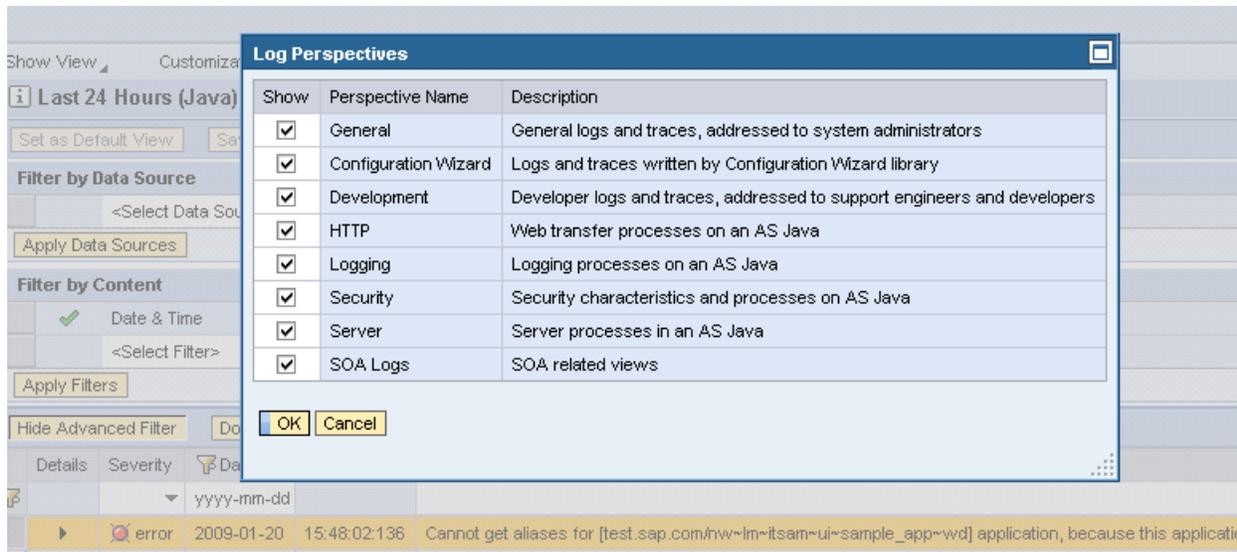
Records to Display

Current View
 All Views

OK Cancel

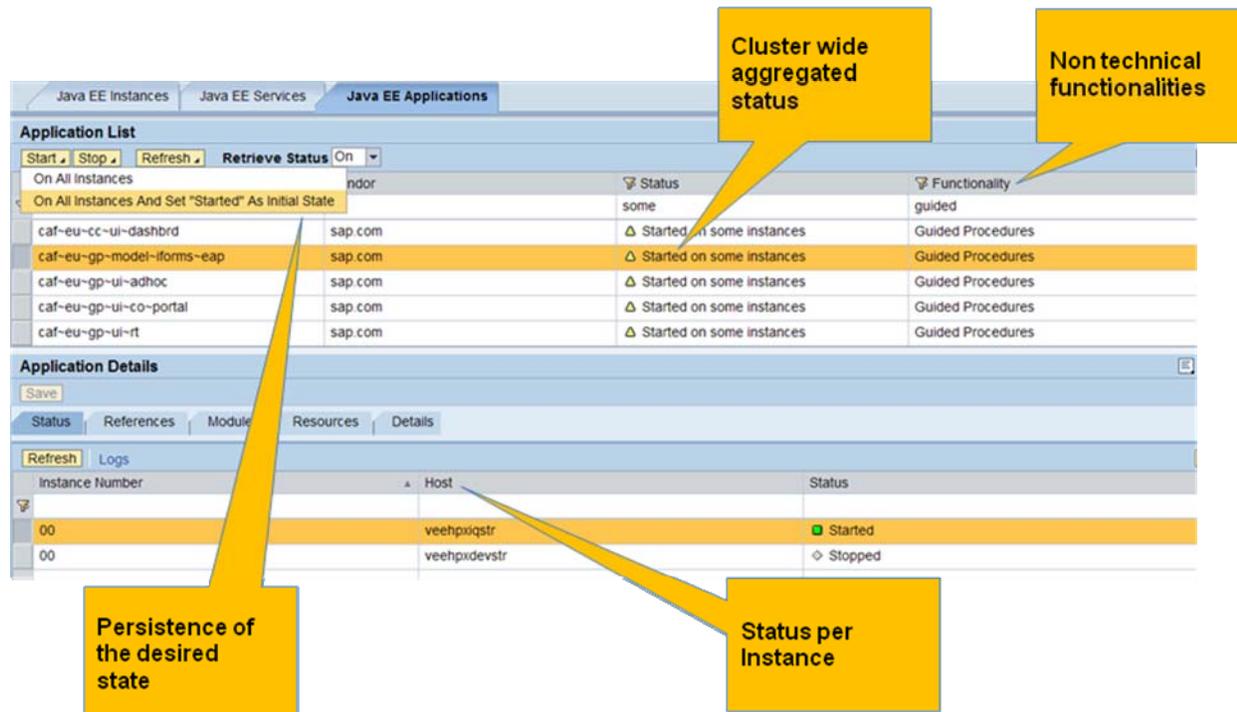
Refresh

And if you are still not excited, you can choose a “perspective” by clicking on “Customization” -> “Perspectives” to see all the views available to view the different kinds of logs.



Better Start/Stop Functionality

With 7.1 EhP1 flavor of the NWA, it is possible to start and stop J2EE applications on only some instances. The status for applications given is a cluster wide aggregated status. It is also possible to persist the desired state meaning that when an application starts, it starts only on those instances as set by the administrator. The snapshot below shows how the status of an application can be seen on the host and instance number.



Application Centric Administration

This is a concept that SAP is exploring more and more. The idea is that SAP views administrators as the bridge between the people who are concerned with business and the IT guys who implement the business scenarios. Administrators should not be wasting valuable time in debugging a technical problem reported by a business user. The NWA is being improved continuously by development in SAP to bridge this gap. The results are first visible in the NWA of Composition Environment Enhancement Package 1.

For example, in the previous snapshot, we can see a column called “Functionality”. Meaning that an administrator can know which functionality (and therefore which part of the business process) is affected if an application is started or stopped. Also, development at SAP is working so that this concept would be brought to the log viewer by which an administrator can know which functionality or business process element is affected by looking at an error log.

Conclusion

As you might have observed, SAP is putting in a lot of effort to making the life of administrators easier. What is hoped for is that administrators spend lesser time in keeping the technicals of the landscape up and running; instead they emerge as an important part of the business process – the people who map the business user needs to the underlying IT infrastructure and react quickly thereby reducing business downtime.

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