

Replacing JInitiator with Sun JRE in 11i

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Abstract

Oracle has certified the use of Sun JRE 1.5 with EBS 11i. However, this is not as straightforward as it sounds if you still require the use of JInitiator (for example with Discoverer 4i). This presentation will review how to convert to use JRE in combination with JInitiator as well as impacts that using both Java environments can have on patching and cloning.

Introduction

Until recently, users of Oracle Forms had to use Oracle JInitiator as the Java run time engine because Oracle Forms required enhancements to the standard runtime. As of Java 1.5, those enhancements have been incorporated into Sun's standard release. Oracle has made the transition from JInitiator to JRE a fairly painless process until you find that you have a reason that you still need to be using JInitiator (such as the fact that you have never upgraded your Discoverer from 4i).

As of February 8, 2008, Oracle has upped the ante for people recent to switching from JInitiator with the announcement that support for JInitiator with 11i ends on July 31, 2009.

Why should you want to make the change now (or ever, as already pointed out, people are still using Discoverer 4i). Oracle JInitiator has known conflicts with Sun Java2 Standard Edition. If all you are using is the Sun JRE, this problem is eliminated. Managing multiple Java Virtual Machines (JVM) on a desktop can be complex and result in extra work for both the end users and the desktop support team. When you remove JInitiator in favor of the standard Sun JRE, you simplify the support issues. Another reason for setting up the EBS to use the Sun JRE (although one not certified by Oracle) is that you may be able to run the E-Business Suite directly from your server. This can be a huge advantage when you need to troubleshoot an issue.

Metalink Note 290807.1 is regularly updated. The prerequisites and procedures described for upgrading your EBS are consistent with the certifications as of February 28, 2008. Review the Metalink Note for changes before beginning work on your system.

Prerequisites

Depending on your client OS, there are different prerequisites for the EBS application tier.

Microsoft Windows XP SP2/Microsoft Windows 2000

- EBS 11.5.9 or later
- Oracle Developer 6i Patchset 18 (6.0.8.27.x) or later
- Autoconfig enabled

Microsoft Windows Vista

- EBS 11.5.9 CU 2 with ATG RUP 4 or EBS 11.5.10 CU2 with ATG RUP 4
- Oracle Developer 6i Patchset 18 (6.0.8.27.x) or later
- Autoconfig enabled

The matrix becomes even more complex when you are forced to look at the version of the browser and the OS.

Browser Version	Windows Vista	Windows XP SP2	Windows 2000
Internet Explorer 7	JRE 1.6.0_03 or later	JRE 1.6.0_03 or later	Not Certified
	JRE 1.5.0_12 or later	JRE 1.5.0_12 or later	
Internet Explorer 6	Not Certified	JRE 1.6.0_03 or later	JRE 1.6.0_03 or later
		JRE 1.5.0_12 or later	JRE 1.5.0_12 or later
Firefox 2.0.x	Not Certified	JRE 1.6.0_03 or later	Not Certified
		JRE 1.5.0_12 or later	
Firefox 1.5.x	Not Certified	JRE 1.5.0_12 or later	Not Certified

Since the majority of users are on 11.5.9 or higher and using XP, the only prerequisite we will review is the Developer 6i patch.

- Download Developer 6i Patch 18, 4948577, and the interoperability patch, 4888294
- Download the platform dependent patches. For Linux, they are 5713544, 4261542, 5216496, 5753922, 6195758, 5938515 plus two interoperability patches for Linux 3830807 and 4586086.
- Stop the applications tier processes, especially forms, reports, http and the concurrent managers
- Install the developer 6i patch (read the special instructions if your install was created with 11.5.5 or earlier)
- Install the additional patches in order being careful to follow the instructions contained in each patch.
- Relink f60webmx, ar60run, ar60runb and ar60rund using adadmin

- Apply the interoperability patch
- Verify the upgrade
 - Fndforms.jar and fndewt.jar should have been rebuilt
 - 'f60gen help=y ' should show a version of 6.0.8.27.x
- Restart the applications tier

Installation and Configuration

Assumption: You will be installing a version of JRE 6

Oracle has done us all a favor and developed a common interoperability patch for using the Sun JRE. So our first step will be to download patch 6137466. The next step will be to download the desired version of the Sun JRE from <http://java.sun.com>. For JRE 6, the full URL is <http://java.sun.com/javase/downloads/index.jsp>. Download the Windows Offline Installation version of Java Runtime Environment (JRE) 6 Update X (where X is the current version).

The file that you downloaded will be named something like jre-6_uX-windows-i586-p.exe, you will need to rename it to j2se160X.exe. Copy this file to \$COMMON_TOP/util/jinitiator on the applications tier.

There is a remaining bug in Developer 6i Patchset 18 that affects the forms focus, so at this point you should download and install patches, 6195758 and 5884875. This should be fixed in the upcoming Developer 6i Patchset 19.

You now can apply the JRE interoperability patch. After applying the patch driver, we will use the script txkSetPlugin.sh to tell the EBS which JRE to use by default.

To verify your upgrade, make sure that the java console is enabled on the PC you will use for initial testing. When you first launch a form, the java console should open and show you that the Java Plug-in version matches the default version you set on the server with txkSetPlugin.sh. Here is also where you will see why your desktop support team will not be happy with you at first, everyone will get a security warning the first time they open a form (make sure they know to check 'Always trust content from this publisher' or they may get the warning again).

But I still am using Discoverer 4i ...

In order to use Sun JRE, you must be running Discoverer 10g (9.0.4) or higher. Oracle has provided us with a workaround for this problem. We can add multiple versions of JRE and/or JInitiator to the instance. The downside of this is an increase in complexity when using Autoconfig and when cloning.

The first step is to revert your installation back to JInitiator since we can configure how forms are launched, but Discoverer 4i must use the default plug-in. You need to run

txkSetPlugin.sh again. Give the version of the JInitiator as the argument, e.g. for JInitiator 1.3.1.28, you would give the command txkSetPlugin.sh 13128.

You can now configure the additional JRE plug-in. You do this by editing the appsweb.cfg template located in \$FND_TOP/admin/template, so step 1 is backup the original file. At the bottom of the file, you will find [myExtensions], add the new plug-in here.

For example, for JRE 1.6.0_03 you would add:

```
[J16003]
connectMode=socket
serverPort=9001
sun_plugin_classid=clsid:CAFEEFAC-0016-0000-0003-ABCDEFEDCBA
sun_plugin_version=1.6.0_03
sun_plugin_url=http://host.domain.com:8001/OA_HTML/j2se16003.exe
sun_plugin_mimetype=application/x-java-applet:jpi-version=1.6.0_03
sun_plugin_legacy_lifecycle=false
plugin=jdk
;
```

In order to apply the change, you must run autoconfig.

To change the default behavior for forms, edit the site level profile ICX: Forms Launcher and add '?config=J16003' to the end of the URL, e.g.
<http://host.domain.com:8001/devcgi/f60cgi?config=J16003>

Note: every time you run autoconfig, this profile will revert back to the default. To switch it back from the forms (and still be using the Sun JRE), you may wish to also set the profile option at the USER level.

To be able to use Discoverer 4i and Forms simultaneously, you must be using IE as your browser.

And now you have introduced the next issue. You cannot launch forms from any account that you have set the ICX: Forms Launcher below the SITE level. Those profile options will not be updated during the configuration of the clone, so the URLs will still point at the source of the clone. Also, the template for appsweb.cfg has hard coded hostnames. The correct version of the template should be copied into place (or edited), prior to running adcfgclone.pl for the applications tier.

Conclusion

As you have seen, converting your EBS 11i install from JInitiator to Sun JRE is a relatively easy and painless process. However, additional steps may need to be added to your cloning process as a result of this upgrade.

References

Metalink Note 552692.1, *Oracle JInitiator 1.3 for E-Business Suite 11i – Forms Version 6.0.8.x*

Metalink Note 290807.1, *Upgrading Sun JRE (Native Plug-in) with Oracle E-Business Suite 11i for Windows Clients*

Metalink Note 125767.1, *Upgrading Developer 6i with Oracle Applications 11i*