
THE ELECTRONIC STAFF RECORD PROJECT



NATIONAL HEALTH SERVICE

M-0250 JRE DEPLOYMENT GUIDE

Commercial in Confidence

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Creation Date: 25th March 2009
Last Updated: 20th July 2009
Document Ref: M-0250
Version: v 1.4

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1. Document Control

1.1. Change Record

Date	Author	Version	Change Reference
25 th March 2009	Christopher Price	0.1	Initial Draft Version
30 th March 2009	Christopher Price	0.2	Comments incorporated following initial review
1 st April 2009	Christopher Price	1.0	Formal release incorporating feedback received
15 th April 2009	Christopher Price	1.1	Formal release incorporating additional feedback received.
21 st April 2009	Christopher Price	1.2	Formal release incorporating additional feedback received.
27 th May 2009	Christopher Price	1.3	JRE checking tool added to document.
20 th July 2009	Christopher Price	1.4	Amendments to section 7.1.1.

1.2. Reviewers

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1.3. Distribution

Copy No.	Name	Location
1	Library Master	Project Library

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3. JRE Introduction

3.1. Introduction

The Electronic Staff Record (ESR) is based on the Oracle e-Business Suite platform, which employs web-enabled technology to deliver the application to the local trust client browser. The application presents two types of user interfaces, the Self-service that has a typical browser feel (i.e. HTML), and the Professional which is characterised by a forms interface which initially required a software component, called Oracle Jinitiator.

Following on from user notice UN837 issued on 5th November 2008 ESR will transition from using Jinitiator to Sun JRE (Java Runtime Environment) during 2009.

Any queries relating to the JRE deployment should be directed to the NHS Central Team via e-mail to esr.jredeployment@nhs.net

3.2. NHS CRS Smartcards

As part of an NHS initiative to improve information and access security, ESR will be moving to NHS Care Records Service (CRS) Smartcard access between May and August 2009. This will facilitate access to ESR without the need for manual username/password entry and ensure that ESR becomes e-GIF Level 3 compliant in line with NHS Connecting for Health guidelines. Upgrading to JRE version 1.6.0_06 is a pre-requisite to using NHS CRS Smartcards.

Please note that Jinitiator should not be removed from users desktops prior to the implementation of NHS CRS Smartcards as ESR will not utilize JRE until this time.

This document provides advice on the issues that may be encountered with the usage and deployment of JRE. Particular detail is given around the coexistence and interoperability of the ESR required version of JRE with other versions, and its predecessor Jinitiator, that may be installed at local trusts (e.g. for Oracle financials or for certain NHS Connecting for Health applications).

4. JRE Version

ESR is intended to run against JRE version 1.6.0_06.

At the time of writing there are no plans to move to a newer version of JRE for use with ESR (section 7.1.2 JRE Auto-Download recommends that the automated download of higher JRE versions is disabled). In the future it may be necessary to upgrade the version of JRE, any such changes will be communicated at the earliest opportunity via User Notice and the Interface Support Website (<http://interfaces.esrsupport.co.uk/>).

Oracle does not currently certify any of their e-Business suite products to run with Citrix although organisations have achieved successful ESR implementations using this configuration. As was previously the case with J-initiator, and is the case for JRE, support can only be provided where the fault can be reproduced outside the Citrix environment on a PC specification meeting the ESR requirements.

The content of this document and subsequent updates will be incorporated into the M-0100 Trust Site IT Printer and Network Infrastructure Readiness documentation.

5. Jinitiator/JRE Conflicts

It is possible that multiple versions of JRE and Jinitiator will need to reside on certain trust PCs where ESR users overlap with users of other applications requiring alternative versions of JRE/Jinitiator. In most situations this should not cause any problems, there are however certain situations where problems may occur. Further details are provided below.

5.1. Interoperability issues with applications requiring Jinitiator

If other (non ESR) applications are incompatible with JRE there may be a requirement for JRE and Jinitiator to coexist on certain desktops. In this scenario interoperability issues have been identified whereby ESR (JRE) and other non-JRE compatible applications (SBS is an example) could not initially be accessed simultaneously. Subsequent testing has proven that it is possible for both applications to be accessed simultaneously although the user would need to ensure that both applications are opened in separate browser sessions in order to initiate separate JRE and J-Initiator sessions. **This approach may require a change in the way users access applications as existing web portals and desktop shortcuts may not necessarily initiate separate browser sessions.** Please note, separate browser sessions can be initiated by selecting Internet Explorer from the Start menu for each of the required applications.

5.2. JRE Conflicts between applications

Generally speaking newer versions of JRE should be backwards compatible with applications requiring older JRE versions. However there may be certain applications where a specific JRE version is required to ensure correct operation. **IT Departments are encouraged to test Sun JRE version 1.6.0_06 against business critical applications in advance of the ESR implementation.**

Additional guidance regarding the installation of JRE, and the resolution of conflicts with Connecting for Health applications, can be found within NHS Connecting for Health documentation (Document reference: NPFIT-FTN-TO-TAR-0034.02 JVM Deployment Guidelines). The document is available on the NHS Connecting for Health website.

<http://nww.connectingforhealth.nhs.uk/implementation/deployment/jvm-guidance>

6. Mechanisms to upgrade desktops

JRE can be distributed in many ways and this will vary greatly from trust to trust, details are given below as to suggested methods. This list is not exhaustive and local IT departments may choose to use the advice given here or to integrate with existing software deployment technologies or procedures. **Regardless of the chosen deployment method reference must be made to the essential installation considerations section within Appendix A.**

6.1. Distribution to Trusts

JRE will be offered for download from a central download location. IT departments will be able to download to their own site and then make arrangements to distribute locally.

<http://www.esrsupport.co.uk/rpp/jreinfo.html>

6.2. Local Trust distribution

JRE was always designed to be user installable and as such is a very straightforward installation that comes as a single packaged executable file that can be installed by clicking on the executable and selecting the installation directory (Appendix A contains details of a typical installation). This simplicity allows it to be easily integrated into other local trust based distribution methods examples of which are given below. Please note local admin rights will be required on desktops in order to install JRE.

6.2.1. Manual Installation

It is possible to visit each PC and manually install JRE by simply copying the file to the PC and following the suggested instructions as per appendix A. **Reference must also be made to the essential installation considerations within appendix A.**

6.2.2. Automated Distribution Tools

Many trusts will have existing desktop management and deployment tools and JRE lends itself well to inclusion in such methods. As described above JRE is a single file distribution with a single prompt to be answered, as such local scripting for any distribution methods should be relatively straight forward.

Please refer to essential installation considerations within Appendix A if JRE will be installed via this method.

6.2.3. Logon Scripts

It is possible that any trusts using windows logon scripts to include the download and installation of JRE (from a local server) into the logon script as a one time option.

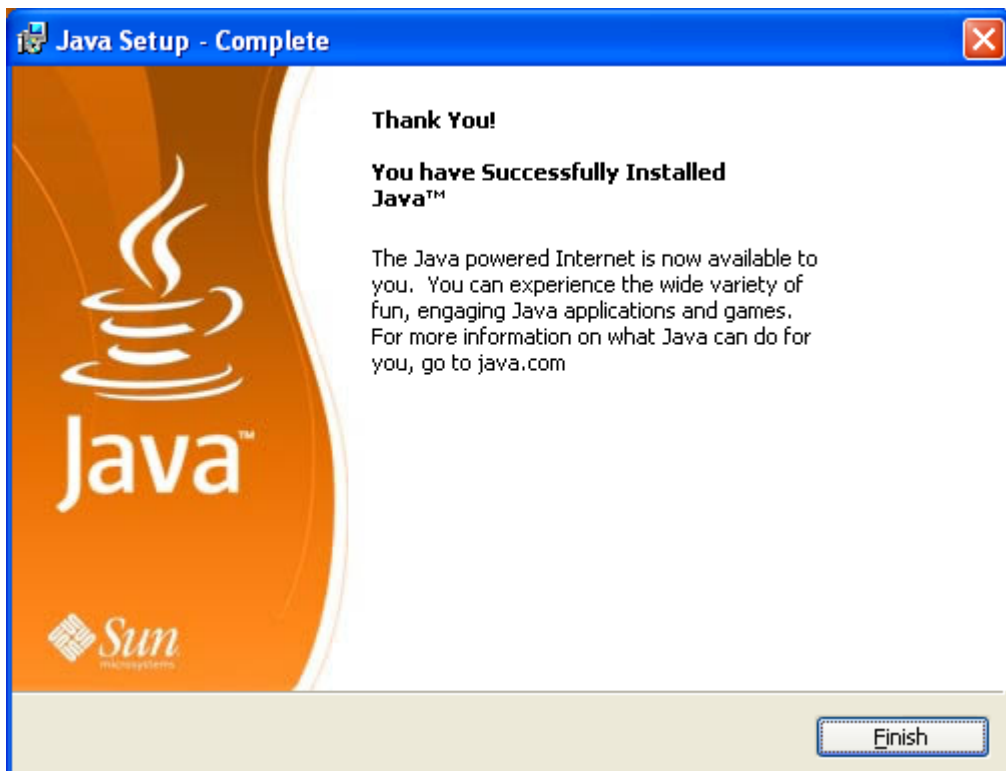
Please refer to essential installation considerations within Appendix A if JRE will be installed via this method.

7. Appendix A – Installing JRE

- 1) Copy the jre-6u6-windows-i586-p.exe file from the designated URL to a temporary directory on the PC.
- 2) Double Click on the newly copied file to execute it.
- 3) Click Accept on the following screen –



Click Finish on the following screen and the installation is complete –



7.1. Essential Installation Considerations

7.1.1. Identity Agent

Following the installation of JRE certain configuration steps may be required within the Identity Agent software in order for JRE to function with National Care Records Service applications. **These steps will be required where users are/or plan to log into ESR using an NHS Smartcard.**

If the desktop has Identity Agent 11.02.00a or above installed a configuration tool can be used to perform these configuration steps automatically (earlier versions will require the manual steps described below). The automatic configuration utility is located in:

C:\Program Files\NHS\Identity Agent 11.02.00a\Files\Misc\Configure Java.exe

This program should be run whenever a JRE version is either installed or upgraded after an Identity Agent installation has been run (**Local Admin Access is required to run this tool**).

Alternatively rather than using the above configuration utility, a number of files need to be copied to sub-directories of the JRE program files. The following table shows the files that need to be copied and both the default source and destination directories (amend as necessary depending on installation location) required. Please note older versions of the Gemalto software may be found within a Gemplus directory rather than the Gemalto folder specified below.

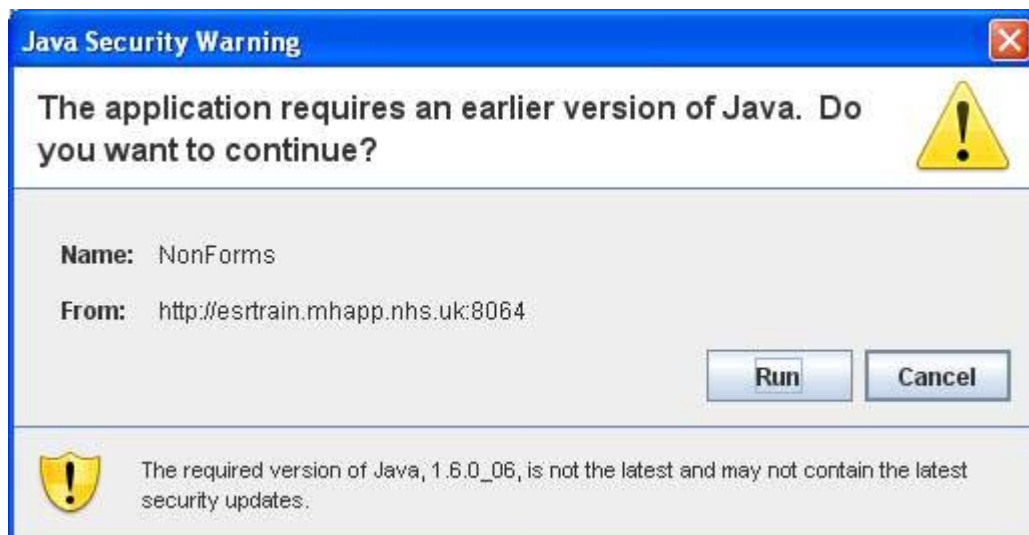
Filename	Source Directory	Destination Directory(s)
GATicket.jar	C:\Program Files\Gemalto\GAC	C:\Program Files\Java\jre1.6.0_06\lib\ext\ C:\Program Files\Java\jre1.6.0_06\lib\applet\
TicketApiDll.dll	C:\Program Files\Gemalto\GAC	C:\Program Files\Java\jre1.6.0_06\lib\ext\x86\ (x86 folder may have to be created)

If the Identity Agent Software is installed on the PC (this will be required as part of the Smartcard rollout implementation activities being undertaken by organisations) the configuration of JRE can be verified with the JRE configuration verification tool available via the following web page.

<http://www.esrsupport.co.uk/rpp/jreinfo.html>

To check the configuration of JRE click on the 'Check Java' button within the spreadsheet. Potential problems will be highlighted in red and successful configurations will be highlighted in green.

The JRE verification tool will check the configuration of JRE 1.6.0_06 only. If a higher version of JRE is installed on the PC **alongside** version 1.6.0_06 (this is only necessary where other applications on the PC require a version of JRE higher than 1.6.0_06) the files described above will also need to be copied to the latest version of JRE installed on the PC. ESR has been tested against JRE 1.6.0_06 and is therefore the version required on the desktops of ESR users. If a version of JRE above or equal to 1.6.0_10 is installed alongside JRE 1.6.0_06, ESR will initiate JRE 1.6.0_06 (provided the user clicks 'run' when prompted with the dialogue box below within ESR). If the user selects 'cancel' ESR will initiate the latest version of JRE on the PC rather than the recommended version (1.6.0_06). Higher versions may run without issues but the only recommended and supported version of JRE remains 1.6.0_06.



Further details regarding Identity Agent software can be found within the Connecting for Health documentation **NPFIT-TEC-DEP-0071.01 IA 11.02.00a Release Notes**. The latest version of the documentation can be obtained from the Connecting for Health web site;

<http://nww.connectingforhealth.nhs.uk/implementation/deployment/downloads>

7.1.2. JRE Auto-Download

ESR release 5.5.2 (and release 5.6 due 5th June 2009) has been tested to JRE version 1.6.0_06. It is therefore recommended that the automated download of higher JRE versions is disabled. This can be achieved by following the steps below.

- 1) Click Start => Control Panel and double click on the java control panel.
- 2) Within the advanced tab set the JRE Auto-Download option to Never Auto-Download.
- 3) Click OK to save the setting.

