Infor Enterprise Server

Technical Notes for Porting Set 8.7a.01

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About this Guide

This document provides technical notes about Infor Enterprise Server porting set 8.7a.01.

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Chapter 1
Introduction

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This chapter describes the operating system and database combinations supported to deploy the following:

- Infor ERP LN 6.1.
- Infor ERP Baan 5.2a.
- Infor ERP 5.0b and 5.0c.

The support described in this document is restricted by the support provided by the actual vendor.

Example: Infor will continue to provide support for IBM AIX 6.1 on this porting set if IBM continues standard support for AIX 6.1.

Note: Where path names are mentioned in this document, sometimes forward slashes (/) and back slashes (\) are used. You should use back slashes on Windows and forward slashes on UNIX and Linux.

End-of-service notifications

IBM Informix IDS

On September 30, 2010, IBM withdrew support for IDS 10. We recommend that customers upgrade to a later version.

Oracle 10.2

In July 2011, Oracle will withdraw support for version 10.2. Customers are advised to upgrade to a later version.

SQL Server 2005

In April 2011, Microsoft will withdraw support for SQL Server 2005. Customers are advised to upgrade to a later version.

Windows 2003

On July 13, 2010, Microsoft withdrew mainstream support for Windows 2003. We recommend that customers upgrade to a later version.

SLES 9

In August 2011, Novell will withdraw support for version SLES 9. We recommend that customers upgrade to a later version.

32-bit and 64-bit support

The porting set comes in two flavors: 32-bit and 64-bit.

Note that the 32-bit porting set requires the 32-bit clients of the selected database.

A 32-bit porting set can be upgraded to a 64-bit porting set. No additional actions are necessary. As a normal precaution, we recommend that you make a backup before you start the upgrade.

All binaries must be either 32-bit or 64-bit. Note that the diff binary is always a 32-bit binary, also for the 64-bit porting set.

Note that the 64-bit porting set works with 64-bit addresses and, therefore, uses more memory than the 32-bit porting set. For more information on sizing, contact your local account manager.

Platform support: x86 based

ERP LN solutions, such as Infor ERP 5.0c and Infor ERP LN 6.1, are supported on Intel and AMD-based x86, AMD64, and EM64T under the following conditions:

- The operating system must be an ERP LN-supported platform.
- The hardware must be supported by the operating system vendor.

  Note: Ensure that other required software, such as the RDBMS, is also supported on the platform of your choice.

  For 32-bit porting sets, the chosen hardware must minimally support the SSE2 instruction set, which is common for modern processors.

  For 64-bit porting sets, the OS must also be 64-bit.

Virtual Server support

VMware

The following statements apply to the Infor ERP LN 6.1 and ERP 5 Microsoft Windows x86 distribution and Linux x86 distribution:

With Enterprise Server 8.3 and later, it is supported to run ERP LN 6.1 on VMware for demo and test purposes. However, benchmarks show that ERP LN in OS environments directly on the hardware performs better than ERP LN in a VMware Server environment. Therefore, Infor will not handle performance support calls when ERP LN runs on a VMware Server environment.

The following virtual machines are supported with porting set 8.6a.02 and later:

- distributions on VMware ESX 3.5 and ESXi 3.5, and vSphere 4
- distributions on Windows Server 2008 (R2) Hyper-V, and Microsoft Hyper-V Server 2008 R2 (recommended)

When you size the system, take the overhead of the virtual machine into account. For sizing guidelines, contact your local account manager.

32-bit and 64-bit Windows and 32-bit and 64-bit Linux are both supported in combination with VMware.

Note: Since the Infor SLM Server (Solution License Manager) is not supported in a virtual server environment it must be setup on a separate non-virtual server. SLM Client is supported in a VMware environment.

VMWare Fault Tolerance is not supported.

Disclaimer: The previous support statement of VMware does not extend to any third-party product. For example, if the DBMS vendor does not support VMware, the porting set is still supported on VMware, but the DBMS is not. In this case, a solution is to run in 3-tier mode and configure the DBMS on another, non-virtual, system.

HP Integrity VM

With Enterprise Server 8.3 and porting set 8.3a.01 or later, it is supported to run ERP LN 6.1 with HP-UX on HP Integrity VM for demo and test purposes.

Infor Global Support will not handle performance related inquiries about running ERP LN with HP-UX in a HP Integrity VM environment; support is limited to test and demo environments.

HP Integrity Virtual Machines with the ERP LN 6.1 HP-UX IA64 distribution are supported.

Note that the Infor SLM Server (Solution License Manager) is not supported in a virtual server environment. SLM Client can run on a virtual server environment.

32-bit support matrix Infor ERP LN 6.1 and Infor ERP Baan 5.2a*

	Supported OS	Oracle	IBM Informix IDS	IBM DB2	SQL Server
		10.2, 11.1, 11.2	**11.1[i], 11.5**	**9.1, 9.5, 9.7**	**2005 SP1, SP2, SP3** **2008 SP1, SP2** **2008 R2**
HP PA_RISC HP-UX	11i v1, v2, v3	√ [u]	√ [m]		
HP IA64 HP-UX	11i v2, v3	√ [uo]	√ [m]		
Sun SPARC Solaris	10	√ [u]	√ [m]		
IBM Power AIX	5.3, 6.1, 7.1	√ [u]	√ [m]	√ [u m]	
Linux x86 Suse	SLES 9 SP3, SLES 10 SP1, SP2 & SP3, SLES 11 SP1	√ [u]	√ [m]	√ [u m]	
Linux x86 RedHat	ES/AS 5	√ [u]	√ [m]	√ [u m]	
Microsoft x86 Windows	2008 SP2 2008 R2	√ [u p]			√ [u]

Notes:

√ : Supported (only if supported by the actual vendor)

number: supported for the mentioned database version.

[i]: IDS 11.1 not supported for new installs of ERP, only for upgrades.

[m]: No multi-byte support.

[u] : Unicode support (Multi language support)
Not supported for Infor ERP Baan 5.2a

[0] : The 32-bit Oracle client libraries are not delivered with 11.1.0.6.

[*] : Infor ERP Baan 5.2a based on Infor Enterprise Server 8.

Databases are supported in 32-bit and 64-bit version unless noted otherwise:

[p] See chapter 3 about Oracle 32 bits support: Oracle 11.2 support on 32-bit porting set.

You can configure Oracle 11.2 in such a way that a 32-bit porting set connects to a 64-bit Oracle database, but we recommend that you connect to a 64-bit Oracle database from a 64-bit porting set.

64-bit support matrix Infor ERP LN 6.1 and Infor ERP Baan 5.2a*

	Supported OS	Oracle	IBM Informix IDS	IBM DB2	SQL Server
		10.2, 11.1, 11.2	**11.5**	**9.1, 9.5, 9.7**	**2005 SP1, SP2, SP3** **2008 SP1, SP2** **2008 R2**
HP PA_RISC HP-UX	11i v1, v2, v3	√ u	√ m		
HP IA64 HP-UX	11i v2, v3	√ u	√ m		
Sun SPARC Solaris	10	√ u	√ m		
IBM Power AIX	5.3, 6.1, 7.1	√ u	√ m	√ u m	
Linux x86 Suse	SLES 11 SP1	√ u	√ m	√ u m	
Linux x86 RedHat	ES/AS 5	√ u	√ m	√ u m	
Microsoft x86 Windows	2008 SP2 2008 R2	√ u			√ u

Notes:

√ : supported (only if supported by the actual vendor)

number: supported for the mentioned database version

m: no multi-byte support

u : Unicode support (Multi language support)
Not supported for Infor ERP Baan 5.2a

* : Infor ERP Baan 5.2a based on Infor Enterprise Server 8

Databases are supported in 64-bit version only.

32-bit support matrix Infor ERP 5.0b and 5.0c

	Supported OS	Oracle	IBM Informix IDS	IBM DB2	SQL Server
		10.2, 11.1, 11.2	**11.1[i], 11.5**	**9.1, 9.5, 9.7**	**2005 SP1, SP2, SP3** **2008 SP1, SP2** **2008 R2**
HP PA_RISC HP-UX	11i v1,v2, v3	√	√ [m]	On request (5.0c only)	
HP IA64 HP-UX	11i v2, v3	√ [o]	√ [m]		
Sun SPARC Solaris	10	√	√ [m]	√ [m]	
IBM Power AIX	5.3, 6.1, 7.1	√	√ [m]	√ [m]	
Linux x86 Suse	SLES 9 SP3, SLES 10 SP1, SP2 & SP3, SLES 11 SP1	√	√ [m]		
Linux x86 RedHat	ES/AS 5	√	√ [m]		
Microsoft x86 Windows	2008 SP2 2008 R2	√ [p]	√ [32 m]	On request (5.0c only)	√

Notes:

√ : supported (only if supported by the actual vendor)

Number : supported for the specified database version

Level 1 database drivers are not supported with this porting set.

[i]: IDS 11.1 not supported for fresh installs, only for upgrades

[m]: no multibyte support

[o] : the 32-bit Oracle client libraries are not delivered with 11.1.0.6

[p] See chapter 3 about oracle 32 bits support: Oracle 11.2 support on 32-bit porting set.

Databases are supported in 32-bit and 64-bit version unless noted otherwise:

[32]: 32-bit database supported

64-bit support matrix Infor ERP 5.0b and 5.0c

	Supported OS	Oracle	IBM Informix IDS	IBM DB2	SQL Server
		10.2, 11.1, 11.2	**11.5**	**9.1, 9.5, 9.7**	**2005 SP1, SP2, SP3** **2008 SP1, SP2** **2008 R2**
HP PA_RISC HP-UX	11i v1,v2, v3	√	√ [m]		
HP IA64 HP-UX	11i v2, v3	√	√ [m]		
Sun SPARC Solaris	10	√	√ [m]	√ [m]	
IBM Power AIX	5.3, 6.1, 7.1	√	√ [m]	√ [m]	
Linux x86 Suse	SLES 11 SP1	√	√ [m]		
Linux x86 RedHat	ES/AS 5	√	√ [m]		
Microsoft x86 Windows	2008 SP2 2008 R2	√	√ [m]		√

Notes:

√ : supported (only if supported by the actual vendor)

Number : supported for the specified database version

Level 1 database drivers are not supported with this porting set.

[m]: no multibyte support

Databases are supported in 64-bit version only.

Chapter 2
Operating System Notes

2

Some porting sets require minimum runtime patches for the OS compiler. Solution 205538 provides basic information about your current runtime patch level.

You must install only the runtime patches for the compiler; the compiler itself is not needed.

HP PA-RISC HP-UX

Required OS patches

8.6a.03 is the first porting set build based on HP aC++ A03.85. Ensure you at least install the runtime patches for compiler version A03.85 for HP aC++.

On the right side of the www.hp.com/go/cpp Web page, select “Latest Version and patch information” from the menu. Download/install only the *runtime* patches for your operating system version/architecture. The runtime patches are usually marked in italics on this website. Please read the information on the mentioned webpage for details.

8.2b is the first porting set which requires HP-UX patch PHSS_33033 for HP-UX 11.11; ensure you have it installed.

It is also recommended that you install the core patches distributed on the extension software media.

If you use the Java interface, for example, if you use Infor Integration, check the following link for patches:

http://www.hp.com/products1/unix/java/patches/index.html

Java support: JVMI <will be deprecated in the future: see chapter 8>

From 8.2b onward, Infor recommends that you add the libjsig.sl to the LD_PRELOAD path.

To enable Java 1.5, complete the following steps to make sure the LD_PRELOAD is set:

1. In folder $BSE/bin, create a script, for example “bshell_j15”, with the following content:
   - #!/bin/ksh
   - export DS_AS=bshell_j15
   - export LD_PRELOAD=/opt/java1.5/jre/lib/PA_RISC2.0/hotspot/libjvm.sl:/opt/java1.5/jre/lib/PA_RISC2.0/hotspot/libjsig.sl
   - $BSE/bin/bshell6.2 “$@”
2. In the $BSE/lib/ipc_info, create a new bshell entry, such as bshell_j15 that points to the script. To do this, copy the bshell entry and change the entries; an example is as follows:
   ```
   bshell_j15    s  0   0  p  ${BSE}/bin/bshell_j15
   ```
3. Ensure the bshell name in the BW configuration is bshell_j15.
4. Ensure the file ${BSE}/java/jvm_options exists and contains -Xusealtsigs.
5. Ensure the SHLIB_PATH in ${BSE}/lib/bse_vars points to the Java 1.5 libraries:
   SHLIB_PATH=/opt/java1.5/jre/lib/PA_RISC2.0:/opt/java1.5/jre/lib/PA_RISC2.0/hotspot:/opt/java1.5/jre/lib/PA_RISC2.0/native_threads

   If you use a Java 1.5 version older than 1.5.0_07, you might need to run the following command once:

   ```
   chatr -B deferred -B nonfatal bshell6.2
   ```

   You must run this program as root, and when you do this, no bshells must be running.

HP IA64 (Itanium 2) HP-UX

Required OS patches

8.6a.03 is the first porting set build based on HP aC++A6.25. Ensure that you install the runtime patches for compiler version A6.25 for HP aC++.

On the right side of the www.hp.com/go/cpp Web page, select “Latest Version and patch information” from the menu. Download/install only the *runtime* patches for your operating system version/architecture. The runtime patches are usually marked in italics on this Web site. Read the information on the Web page for details.

If you use the Java interface, for example, if you use Infor Integration, check the following link for patches:

http://www.hp.com/products1/unix/java/patches/index.html

Java support: JVMI <will be deprecated in the future: see chapter 8>

To enable Java 1.5, complete the following steps to make sure the LD_PRELOAD is set:

1. In folder $BSE/bin, create a script, for example “bshell_j15”, with the following content:
   - #!/bin/ksh
   - export DS_AS=bshell_j15
   - export LD_PRELOAD=/opt/java1.5/jre/lib/IA64N/hotspot/libjvm.so: /opt/java1.5/jre/lib/IA64N/hotspot/libjsig.so
   - $BSE/bin/bshell6.2 “$@”
2. In the $BSE/lib/ipc_info, create a new bshell entry, such as bshell_j15, that points to the script. To create this new bshell entry, copy the bshell entry and change the entries; an example is as follows:

   ```
   bshell_j15    s  0   0  p  ${BSE}/bin/bshell_j15
   ```

3. Ensure the bshell name in the BW configuration is bshell_j15.
4. Ensure the ${BSE}/java/jvm_options file exists and contains -Xusealtsigs.
5. Ensure the LD_LIBRARY_PATH in ${BSE}/lib/bse_vars points to the Java 1.5 libraries:

   LD_LIBRARY_PATH=/opt/java1.5/jre/lib/IA64N:/opt/java1.5/jre/lib/IA64N /hotspot:/opt/java1.5/jre/lib/IA64N/native_threads

Oracle

Oracle 11.1.0.6 is not supported by the 32-bit porting set because 32-bit libraries are not supported by Oracle on IA64. 32-bit libraries are required for the integration with the ERP 32-bit database driver.

IBM System i / System p AIX

Required OS patches

8.7a is the first porting set build based on XL C/C++ ED V10.1 with the October 2010 PTF applied. Therefore, you must install the *C++ Runtime Environment, October 2010 PTF* or later. IBM delivers only the V11.1 runtime; this runtime is the successor of the V10.1 runtime. The V10.1 C++ runtime environment is no longer delivered. To download this runtime, go to http://www-01.ibm.com/support/docview.wss?rs=2239&uid=swg21110831 and select the “C++ Runtime Environment” section in the table that is displayed.

Ensure that your AIX version is on a supported technology level:

http://www-933.ibm.com/eserver/support/fixes/fixcentral/pfixpacks/

With porting set 8.6a.02 or later, the minimum technology level for AIX 5.3 is 5300-09. For AIX 6.1 there are no special requirements for the technology level.

DB2

Ensure the shared library search path LIBPATH of the environment points to the DB2 libraries.

Java support: JVMI <will be deprecated in the future: see chapter 8>

To enable Java for use with Infor Integration, ensure you disable the JIT compiler:

$BSE/java/jvm_options:

-Djava.compiler=NONE

This issue is specific to AIX.

Linux x86

Required OS patches

The 32-bit porting set has been built with a C++ compiler. Ensure you install, as a minimum, the required RUNTIME for compiler version but not the compiler itself:

- gcc-3.3.3-43.24
- gcc-c++-3.3.3-43.24
- glibc-2.3.3-98.28
- libstdc++-3.3.3-43.24

The 64-bit porting set has been built with a C++ compiler. Ensure you install, as a minimum, the required RUNTIME for compiler version but not the compiler itself:

- gcc-4.1.0-28.4
- gcc-c++-4.1.0-28.4
- glibc-2.4-31.2
- libstdc++-4.1.0-28.4

Linux x86 Suse

The chosen hardware must minimally support the SSE2 instruction set, which is common for modern processors.

The supported OS version:

- Enterprise Edition

Linux x86 RedHat

The chosen hardware must minimally support the SSE2 instruction set, which is common for modern processors.

Microsoft x86 Windows

The supported OS version is as follows:

- Standard Edition
- Enterprise Edition
- Small Business Server

The chosen hardware must minimally support the SSE2 instruction set, which is common for modern processors.

Java support: JVMI <will be deprecated in the future: see chapter 8>

Take following steps to install the Sun JRE

1. Download the Sun JRE version at http://java.sun.com.
2. Ensure the System Environment PATH variable contains the following paths:
   - Required paths of the JRE, for example <*JRE install dir*>\bin.
   - Required path of the jvm.dll, for example <*JRE install dir*>\bin\client.
   - %BSE%\shlib
   - %BSE%\bin

Cluster support Windows

The cluster awareness of porting set 8.6a.01 and later is incompatible with previous porting set releases. If your porting set is an older version, run the following commands before the upgrade is started:

- bmscsset.exe remove <bsename>
- bmscsset.exe create <bsename>

The bmscsset.exe tool is typically located in %windir%\baan\bin, c:\Infor\ERPLN\commonx86\bin (32-bit), or c:\Infor\ERPLn\commonx64\bin. The directory being used depends on the porting set version. You must use 64-bit bmscsset.exe if the porting set version is 64-bit and 32-bit bmscsset.exe if the porting set is 32-bit.

Porting set 8.6a.01 and later require Installation Wizard 14.0.5.0 or later for cluster installations. Neither older porting sets can be installed on clusters with this or newer versions of the Installation Wizard, nor newer porting sets with older versions of the Installation Wizard.

Only one BSE can be installed on a cluster. You cannot have multiple BSEs enabled for clustering.

Sun SPARC Solaris

Required OS patches

8.6a is the first porting set build based on Sun Studio 12 Update 1. Ensure the required patches for your Solaris version are installed.

http://www.oracle.com/technetwork/server-storage/solarisstudio/downloads/ss12u1-patches-jsp-136935.html

Only the shared library patch for C++ is needed (patch 119963).

Java support: JVMI <will be deprecated in the future: see chapter 8>

Java 1.5 support:

Ensure that the file ${BSE}/java/jvm_options exists and contains -Xusealtsigs.

Ensure that the LD_LIBRARY_PATH in ${BSE}/lib/bse_vars points to the Java libraries.

Chapter 3
RDBMS Notes

3

IBM DB2

The following are supported: DB2

- Enterprise Server Edition
- Express Edition
- Workgroup Server Edition
- DB2 V9.1: validated fix packs: 3, 4, 5, 6, 7, 8, 9
- DB2 V9.5: validated fix packs: 1, 2, 3, 4, 5, 6
- DB2 V9.7: validated fix pack: 1, 2, 3

For Unicode the minimum database version is DB2 V9.5 FP2

IBM Informix

Enterprise Edition is supported.

Microsoft SQL Server

The following are supported:

- Standard Edition
- Enterprise Edition
- Workgroup Edition

Starting with 8.6a.01, the SQL Server database driver of the porting set uses a different approach to create the first index (index1). The first index is now

created by primary key constraint for new tables, or after reorganizing the tables. At default, the index of the primary key is also created as clustered index, unless something else is specified in the msql storage param file. For more details, check the *Technical Reference Guide for SQL Server* (U8173).

As of porting set 8.7a, SQL Server Management Objects (SQL-SMO) is used to create and maintain the SQL Server database. The SQL-SMO package will be installed automatically by the Installation Wizard during the installation or update of the porting set. Microsoft's .NET must be installed. For Windows versions earlier than Windows 2008, .NET might not have been installed. In this case, installing SQL-SMO by means of the Installation Wizard will result in a message being displayed in the Windows event viewer. This message states which package must be installed first. Download this package from the Microsoft download site and, after you install it, retry the installation with the Installation Wizard.

SQL-SMO can also be installed manually. This package consists of two .msi files: SQLSysClrTypes.msi and SharedManagementObjects.msi. These files are in the top directory of the porting set Installable Unit.

As of porting set 8.7a, the SQL Server Native Client is used to access SQL Server instead of the Microsoft Data Access Components (MDAC). The SQL Server Native Client improves the performance and scaling. If the SQL Server database resides on a different system to which the porting set runs, the SQL Server Native Client must be installed on the same system as the porting set. If the SQL Server Native Client is not installed, the porting set will use MDAC/WDAC.

Oracle

The following are supported:

- Oracle Standard Edition
- Oracle Enterprise Edition
- Oracle Standard Edition One.

Oracle RAC support

Oracle RAC can be used for high-available systems or solutions where one system cannot handle the load. Customers who implement RAC are expected to solve their own configuration and performance issues concerning RAC, or have clear arrangement about this with a consulting organization. An RAC environment is more complex than a non-RAC environment. Measurements show that locking can take longer, and more total CPU power is required.

Oracle 11.2 support on 32-bit porting set

Starting with Oracle 11.2, the 64-bit Oracle software does no longer contain a 32-bit client interface.

Customers who cannot use a 64-bit ERP LN porting set, but keep on using a 32-bit porting set, must install a separate 32-bit Oracle client software. Refer to the Oracle installation guides for more details.

An Oracle Database Net service must be configured in such a way that the 32-bit Oracle client installation can access the Oracle database.

The setup of the ERP LN Oracle driver must be based on the resources ORACLE_HOME (of the 32-bit Oracle client installation) and ORACLE_SERVICE_NAME (the Oracle Database Net service name of the database).

A connection between a 32-bit porting set and an Oracle 11.2 database based on ORACLE_HOME and ORACLE_SID is not possible.

Chapter 4
Java Support

4

Java options

Raise the maximum heap size; set the following value in $BSE/java/jvm_options:

- -Xmx256m

Supported Java versions

For this porting set, version J2SE 1.5.x is recommended. Use the latest available minor version of a major release.

If the vendor no longer supports a specific J2SE version, support by Infor will also end.

Ensure you install the 32-bit version of the java runtime, in case you use the previous implementation of JVMI with the 32-bit porting set.

OS	Java 1.5.1	Java 1.6.0
HP PA-RISC HP-UX	Yes	Yes
HP IA64 HP-UX	Yes	Yes
IBM Power AIX	Yes	Yes
Microsoft x86 Windows	Sun JRE	Sun JRE
Linux x86 Suse/RedHat	Sun JRE	Sun JRE
Sun SPARC Solaris	Yes	Yes

The previous implementation of JVMI—see “Features” on page 8-3—is not supported for Java 1.6,

The previous implementation of JVMI is not supported by the 64-bit porting set.

JVMI-2 has been introduced in porting set 8.5a. See chapter 8.

In case you use the previous implementation of JVMI on HP PA_RISC HP-UX, ensure you install the aa versions of the Java libraries.

HP delivers Java for HP-UX on PA_RISC systems in two flavors: Java JRE (based on the classic C++ runtime) edition, and the JREaa (based on the standard C++ runtime) edition. The JREaa edition contains a few additional files, for example, libjvm_v2.sl. Both editions must be installed when you use the previous implementation of JVMI with porting set 8.6a or later. The LD_PRELOAD environment variable must point to the libjvm_v2.sl library instead of the libjvm.sl library. If LD_PRELOAD points to the incorrect library, the Java VM fails to start, and the bshell will report an error. In case that JVMI-2 is used, it is optional to install the JREaa edition. Installing the regular JRE edition is sufficient.

For more technical information about the differences between these two editions, check http://www.hp.com/go/cpp and search for "C++ runtime environments (-AA and -AP) on HP-UX". This page provides information about Java, too.

Java support JVMI-2 on UNIX and Linux

To enable Java for use with Infor Integration, ensure that the path is pointing to the correct JRE, for example, <*JRE install dir*>\bin.

Note for IBM System i /System p AIX: With JVMI it was required to have –Djava_compiler=NONE set. During testing of JVMI-2, this setting was no longer required. However, in case you experience problems, ensure that the ${BSE}/java/jvm_options file exists and contains –Djava_compiler=NONE.

Note for HP IA64 / HP PA_RISC HP-UX: With JVMI it was required to have –Xusealtsigs set. During testing of JVMI-2, this setting was no longer required. However, in case you experience problems, ensure that the ${BSE}/java/jvm_options file exists and contains -Xusealtsigs.

Java support: JVMI-2 on Windows

To enable Java for use with Infor Integration, complete these steps:

1. Download the Sun JRE versions at http://java.sun.com.
2. Ensure that the System Environment path is pointing to the correct JRE, for example, <*JRE install dir*>\bin.

Chapter 5
Installation Procedure for Infor ERP LN 6.1 and Infor ERP Baan 5.2a

5

Minimum SLM Client and Server 7.1

Porting set 8.4b and later requires, as a minimum, SLM 7.1 (License Manager).

Before you upgrade to the 32-bit porting set, you must install SLM 7.1.0.2 or later.

Before you upgrade to the 64-bit porting set, you must install SLM 7.1.0.4 or later.

The latest version of the SLM software can be retrieved via solution 209192 on www.infor365.com.

Be aware that the version of the SLM Server must always be equal or higher to the version of the SLM Clients.

Unicode on Oracle [upgrading from 8.2b or earlier]

This release note is only relevant for customers on Oracle using the Unicode mode, upgrading from a porting set 8.2b or earlier.

In porting set 8.3a, a change has been made in the default mapping of the DB.STRING data type to the Oracle data type. From porting set 8.3a onwards, it will be mapped to the Oracle NCHAR data type when the porting set runs in Unicode mode. For single and multi-byte mode the mapping remains unchanged.

Effect for existing users

This change has some effect for the existing sites running in Unicode mode with databases created with porting set 7.6b or 8.2a.

Because the database still contains the Oracle CHAR data type, and the porting set now uses the NCHAR data type for data binding, performance problems will occur after the porting set upgrade; this is because the database will no longer use some indexes because of the need of an internal Oracle conversion from CHAR to the NCHAR data type.

There are two solutions to prevent the performance problems caused by this type mismatch:

- Reorganize the whole ERP LN database (export/import on ERP LN level), so that all tables will be recreated with the new data type.
- In the $BSE/lib/defaults/db_resource file, set the **ora_use_nchar:0** resource. When this value is set, the driver falls back to the default behavior of the previous porting sets.

Security file installation [upgrading from 7.6b.01 or earlier]

This note is not applicable for Infor ERP LN 6.1 FP2 users.

If you use Infor Enterprise Server 8.2 (tt_7.6_a2, tools version that came with Infor ERP LN 6.1 FP2) and your application version is any of the following, you must have installed solution 206321. If you do not have this solution installed, you will encounter licensing problems with the application sessions:

- Infor ERP LN 6.1 SP0.
- Infor ERP LN 6.1 SP1.
- Infor ERP Baan 5.2a.

Other users

For users of versions prior to Infor Enterprise Server 8.2 (tt_7.6_a or tt_7.6_a1) and whose application version is any of the following, you must have installed solution 208211 and run the correction program mentioned *before* installing porting set 8.2. If you do not have this solution installed, you might not be able to access the environment anymore. Solution 208211 also describes a workaround for this situation.

- Infor ERP LN 6.1 SP0.
- Infor ERP LN 6.1 SP1.
- Infor ERP Baan 5.2a.

Infor Adapter for ERP

This note is only applicable for customers who use the Adapter for ERP.

Since porting set 8.2b, the Adapter for ERP LN is delivered as part of the ERP LN application itself; as part of the porting set and Tools.

Because of the new delivery, conflicts with existing installations, such as 2.6 and 2.7, can arise. The following sections describe the various scenarios users might encounter.

ERP LN without any Adapter

If you are not using Integration Adapters, you do not need to take action:

- Upgrading the porting set to 8.2b or later delivers the files ow.jar, ow3p.jar, and owconfig.properties.
- Installing the Infor Enterprise Server 8.3 AddOn delivers all the ERP LN sessions and API, such as tmboaserver, tmbdeserver, and so on.

ERP LN with Adapter for ERP LN 2.6 or 2.7

If you are using Adapter for ERP LN 2.6 or 2.7, note the following;

- Upgrading porting set to 8.2b or later delivers the files ow.jar, ow3p.jar, and owconfig.properties.

  This setup can conflict with the existing b3.jar and owxml.jar files; therefore, you must remove these files, after which, ERP LN will continue to work with 2.7 ERP LN code and Integration 6.x java code.
- Installing the Infor Enterprise Server 8.3 AddOn delivers all the ERP LN sessions and API, such as tmboaserver, tmbdeserver, and so on, based on Adapter for ERP version 6.x.

Installation procedure

In case of a porting set update, ensure all Infor ERP users have logged off.

Stop the Infor ERP environment, by using $BSE/etc/rc.stop on UNIX or the Infor Manager on Windows. All other binaries running against this environment must also be stopped, otherwise the Installation Wizard cannot replace them.

Note 1: For an update of the Windows porting set, the eventviewer must be closed.

Note 2: For an update on UNIX, you must also stop the baanlogin process.

Porting set installation

As a minimum, installation of this porting set requires Infor Installation Wizard 14.2.1.0

1. Download the Installation Wizard and the appropriate porting set installable unit. For convenience, store the Wizard and the installable unit in the same folder.

Note: You can download both installable units from http://www.infor365.com generic solution 148218.

2 Start the Staging Wizard for the environment you want to update.

Note: You can start the Staging Wizard from <*Staging Area*>\Start\StagingWizard.bat.

3 On the **Welcome** screen, click **Next**.

4 As the **Source** directory, select the name of the directory to which the installable units of the installation wizard and porting set are downloaded.

5 Click **Next**.

6 Select both installable units and click **Next**.

7 Select **Yes, Start the Infor Installation Wizard**, and click **Next**.

8 Verify the information. To make adjustments in this dialog, click **Back**. Otherwise, click **Next.**

9 A progress bar will display, and then the Installation Wizard **Welcome** screen will appear. Click **Next**.

10 Select the environment to update and click **Next**.

11 Select the installable unit of the porting set 8.x and click **Next**.

12 Select the porting set for the appropriate platform and click **Next**.

The remainder of the steps varies by platform and is rather basic. For information on these steps, refer to the installer Help or *Overall Installation Guide for ERP LN products – New installation* (U9498 US).

Chapter 6
Installation Procedure for Infor ERP Baan 5.0b/c

6

This porting set can only be used for ERP Baan 5.0b or 5.0c when the conditions for upgrading from the 7.1d porting set line are met. For more information, refer to *User's Guide to Upgrade to Porting Set 8.2b or Later* (U8985 US).

This document is available at solution 105618 at http://www.infor365.com.

Ensure you use Infor Installation Wizard 14.2.1.0 or later

Minimum SLM Client and Server 7.0

Porting set 8.4b and later requires, as a minimum, SLM 7.1 (License Manager). You are advised to install SLM 7.1.0.2 or later for 32-bit porting sets, and SLM 7.1.0.4 or later for 64-bit porting sets.

The latest version of the SLM software can be retrieved via solution 209192 on www.infor365.com.

Be aware that the version of the SLM Server must always be equal or higher to the version of the SLM Clients.

For customers still on a 7.1d.xx porting set, be sure to complete the procedure as described in *Upgrade to Porting Set 8.2b or Later* (U8985 US) before upgrading to an 8 porting set. This document is available through solution 105618 on www.infor365.com.

[UNIX/Linux] Shared memory allocation changed

With porting set 8.3a.01, the allocation of a shared memory segment is changed; the memory segments are allocated dynamically instead of based on the predefined addresses in $BSE/lib/shm_param with a default fixed size. When the ERP LN SHM size was larger than this size, some manual action has to be taken.

As of porting set 8.4a, it is only required that you define a memory segment that is large enough.

To check if you must make adjustments after the installation of the porting set, complete the following steps.

1 Before upgrading to the new porting set, run the following:

```
shmmanager6.2 –s 2>&1 | grep USED
```

For example: USED BYTES 35857640 FREE BYTES 14474008 SHMID 3 NO ATTCH 90

If there are multiple lines, sum up the number of 'USED BYTES' and remember that quantity; at this moment, this is the used shared memory.

If the number is more than 50331648 (48 MB) you must adjust $BSE/lib/shm_config later. It is advised to run with a single shared memory segment.

2 Install the porting set.

3 Start the environment.
If the used shared memory is higher than 48 Mb, adjust $BSE/lib/shm_config. Uncomment and raise the value of shm_segment_size to at least the number noted in step 1.

4 Restart the environment.

Porting set installation procedure

This procedure describes how to install the porting set in an existing Infor ERP Baan 5.0b or 5.0c environment already upgraded to porting set 8.2b or later.

The installation will be performed using the Infor Installation Wizard, which runs on Windows. For ERP Baan running on Windows, the installation must be performed on that system; a local install. For UNIX, the installation is a remote installation performed from a Windows client.

Prerequisites

You need the following:

- The porting set Installable Unit for your platform.
- Infor Installation Wizard 14.2.1.0 or later.

Preparation

Inform the users the environment will go down, and do the following.

- Create a temporary directory, such as tempinstall.

- Unpack the Installation Wizard in a subfolder of the temp folder, such as tempinstall\IW.
- Unpack the porting set in the temp folder, such as tempinstall.
  The porting set itself will be unpacked as a subfolder.
- Ensure the file permissions in $BSE/etc are correct:
  User bsp needs read access to all files in the directory, and write access on the directory itself.
  With older environments, the $BSE/etc directory is often only accessible and readable for user root.

Installation

Note: logging information will be available in the folder “Logging Files”. This folder is available on the same level as the temporary created directory.

To install the porting set, complete the following steps:

1. Stop the environment by using the standard procedures.
2. Start the Installation Wizard by starting **setup.exe** in the IW folder.
   For example, tempinstall\IW\setup\setup.exe

   Note: Upon startup, the Installation Wizard will scan the parent folders for the availability of installable units. If these are not found, it will ask you where the installable unit can be found; here, you need to specify the folder where the file InstallableUnit.info is located. It is better to ensure the porting set installable unit is in the folder structure as described in ‘preparation’.
3. On the **Welcome** screen, click **Next**.
4. On the **Environment** screen, provide an ‘environment’ name, and then click **Next**.

   The given ‘environment name’ is only used in the context of this installation and can be found in the ‘logging files’ folder.
5. On the ‘**Select Installable Units’** screen, select the appropriate porting set and click **Next**.
6. On the “**Infor Environment Location**” screen, the choice will be ‘local’ for a Windows update and ‘remote’ for a UNIX/Linux update. Click **Next**.
7. On the ‘**Host name’** screen, do the following:
   Windows: check the Hostname and loginname and click **Next**.
   UNIX/Linux: provide the following information and click **Next**.
   - Hostname.
   - Loginname: commonly bsp.
   - Password (of login name).
   - Super User password (root password).
8. On the ‘**Destination directory’**, provide the installation directory of the ERP environment.
   The default destination directory “/Infor/ERPLN/bse” must be changed to the

correct destination directory by clicking “**Change**”.
Click **Next’**

9 Assuming you do not want to change the existing settings, on the ‘**Configuration Files’** screen, click **Next**

10 On the ‘**Ready to Install’** screen, check the settings and click **Install**.

If the installation fails, save the error-message and the ‘Installation Failed’ screen will appear. For information about where logging information can be found, click **Log info**.

11 On the ‘**Installation completed’** screen, click **Finish**.
The environment can be given to the users again.

Note: The installation wizard will try to start the environment after finishing the installation; however, it executes the $BSE/etc/rc.start script with the "NoPdaemon" option. So, in case you need the Printer Daemon running, you should manually start it using $BSE/etc/rc.start_pdaemon

Chapter 7
Known Issues/Points of Attention

7

Generic

BDBAPI: Cameo examples removed

The bdbapi interface, in which the client is available as a separate download, is not a strategic interface. Starting with 8.6a.03, the following files are no longer delivered as part of the porting set:

- The BDBAPI shared library/DLL interface (from $BSE/shlib)
- The bic_cstub binary (from $BSE/bin)
- The cameo and cint examples ($BSE/api/examples)
- Some accompanying libraries ($BSE/api/lib) and header files ($BSE/api/include)

The mentioned files are obsolete. The preferred way to integrate with ERP LN is to use ODBC/JDBC. Refer to *Installation Guide for ODBC and JDBC Connectors for ERP LN* (U9173 US).

Unicode and BusinessObjects

Customers using an ERP LN 6.1 Unicode deployment may encounter problems with their BusinessObjects integration. Please check solution 232380 for possible solutions.

Using multiple VM's on one VMware ESX Server

Infor benchmarks with multiple virtual machines on 1 ESX server showed a huge performance decrease when Hyperthreaded core sharing is set to any. Therefore, Infor recommends that you set HT core sharing to none.

Advanced Server Configuration for Hyperthreading

You can specify how the virtual CPUs of a virtual machine can share physical cores on a hyper-threaded system. Two virtual CPUs share a core if they are both running on logical CPUs of the core at the same time. You can set this for individual virtual machines, as follows:

- In the VI Client's inventory panel, right-click the virtual machine and choose Edit Settings.
- Click the Resources tab, and click Advanced CPU.
- Choose from the pull-down menu to specify hyperthreading for this virtual machine to '**none'**.

OS specific

Windows

*If a Logic service of version 8.7a or newer is installed **and** another BSE with a portingset version prior to 8.7a or 6.1c.15 is installed **and** OpenWorld is used for that BSE, then verifying user password will fail with the following error:*

```
session: "tmboaxmlhand ";object: "tmboaxmlhand "; function:
"is.userinfo.correct" verify.user.password; company number:
293

Call to BaanLogin failed: Could not setup socket connection
to port: 7150
```

To solve this add the next line:

```
BaanLogin   512/tcp                              #Workaround
for BaanLogin port finding issue since 8.7a portingset
```

To the file:

```
C:\WINDOWS\system32\drivers\etc\services
```

Windows Performance Counters not supported by 64-bit porting set

The Microsoft Windows Performance Counters are not supported by the 64-bit porting set.

The Microsoft Management snap-in for ERP LN 6.1 requires administrator rights

The Microsoft Management snap-in for ERP LN 6.1 requires administrator rights to be able to start/stop services.

A 32-bit snap-in is not shown by a 64-bit mmc.exe

A 32-bit snap-in is not shown by a 64-bit mmc.exe. Start the 32-bit variant of mmc by using mmc.exe /32, or start mmc.exe from %WindowsDir%\SysWOW64\mmc.exe.

A 32-bit snap-in does not show 64-bit BSEs. A 64-bit snap-in shows 32-bit and 64-bit BSEs.

Upgrade of Infor ERP LN 6.1 from Windows 2003 to Windows Server 2008 is not supported

Infor ERP LN 6.1 must be freshly installed on Windows Server 2008 because of major differences between Windows Server 2003 and Windows Server 2008.

IW 14.0.3.0 (or a later version) must be used for this installation.

Messaging from bshcmd to bshell

From porting set 8.5a.03 the messaging from bshcmd to bshell is changed. The resource “no_ipc_msg_window” became meaningless, and therefore is replaced by the new resource “no_ipc_messaging”. If “no_ipc_messaging” has a non-zero value then bshcmd cannot be used to send messages to the bshell (also on Windows Terminal Server). The default value of “no_ipc_messaging” is zero (messaging enabled).

BWPrint 64-bit cannot run in elevated mode on Windows Server 2008 64-bit

BWPrint 64-bit cannot run in elevated mode (as administrator) on Windows Server 2008 64-bit (the same is true for Windows Vista).

Upgrade of BW from Windows XP to Windows Vista is not supported

BW must be freshly installed on Windows Vista because of major differences between Windows XP and Windows Vista.

HP-UX

The 64-bit PAM library cannot be found on HP-UX 11.11 and 11.23

On HP-UX 11.11 up to 11.31, the 64-bit PAM library cannot be found by the porting set, because these are not installed by default on HP-UX. By default, the module is installed on HP-UX 11.31.

Ensure that the 64-bit PAM module has been installed if you use the 64-bit ERP LN applications. The procedure to do this can be found on the webpage below.

https://h20392.www2.hp.com/portal/swdepot/displayInstallInfo.do?productNumber=PAM64

Known issue

HP patch PHSS_33037 introduces a problem, resulting in a malfunctioning porting set. To correct the problem introduced with PHSS_33037, you must install HP patch PHSS_35379 or its successor.

Host name length limited to a maximum of 20 characters in length

HP-UX 11.23.05.05 and later support extended host name lengths. ERP LN 6.1 does not support host names greater than 20 characters in length.

Linux x86 Suse/RedHat

The 32-bit/64-bit PAM library cannot be found

On Linux x86 Suse/RedHat, the 32-bit/64-bit PAM library cannot be found by the porting set, because these are not installed by default on Linux.

Ensure that either the 32-bit PAM modules or the 64-bit PAM modules are installed when you use the 32-bit or 64-bit ERP LN application.

AIX

Java 1.4 / Adapter for ERP LN

Note: This issue was described in the technical notes of a previous porting set, but is resolved as of version 8.2b.; therefore, you are no longer required to set LDR_CNTRL=USERREGS.

In particular situations, the tmboaserver can crash with the following error:

```
JVMCI200 - ERROR: User register saving is not enabled,
Garbage Collection could be incorrect.

JVMCI200 - ERROR: because of this the JVM library is
explicitly aborting the process

JVMCI200 - ERROR: You must either rebuild the executable
using "-bM:UR"

JVMCI200 - ERROR: or run with "export LDR_CNTRL=USERREGS"
```

This appears to be an issue with the latest versions of IBM Java1.4: builds from January 2006 or later.

As a workaround, you can start the bshell with a script that contains the following:

```
LDR_CNTRL=USERREGS
```

Database specific

DB2

Possible deadlock

Symptoms:

If MultiConnect=3 mode (in db2cli.ini) was enabled for one single DB2 session, such as one bshell session, DB2 might run into a deadlock. This problem appears in DB2 versions currently supported (made on March 2008). To get a fix for the following listed APARs, contact your IBM support contact.

- V9.1 APAR IZ12147
- V9.5 APAR IZ12148

Bidirectional indexes

Starting with porting set 8.4a.02, as default the porting set will use bidirectional indexes for DB2.

Starting with 8.4b, this default will no longer be configurable.

Using bidirectional indexes in DB2 will result in a reduction of used space of about 50 percent in the index table space. The used amount of space in the data table space will not change.

Oracle

Multilanguage data support

When you use Multilanguage data support (MLE) with Oracle 10.2.0.1, you might encounter oracle crashes (ORA-07445). It is advised that you upgrade to Oracle 10.2.0.3.

Oracle 10.2

The first time you use Oracle 10.2, you can receive a message that the shared libraries are unavailable; If so, check the file permissions for group **Others** in the Oracle install directory settings, particularly the **lib** and **client** directories.

History

8.5a, 8.5a.01, 8.5a.02, 8.5a.03

Warning for Windows installs: For porting set 8.5a.03, a new vcredist_x86.exe has been distributed. Before you start the Installation Wizard, you should run this file to install the Visual Studio 2005 runtime files

(version 8.0.50727.4053). From Installation Wizard 14.0.8.0, the Installation Wizard runs the file. For more information, refer to the VCRedist.Readme file on the installation media. The file can be found in the root directory of the porting set Installable Unit.

Libidn missing on RedHat Linux

Porting sets 8.5a, 8.5a.01, and 8.5a.02 contain a dependency of the libidn system library (Internationalized Domain Name support). This library is not installed by default on RedHat Linux. As a consequence, the porting set binaries fail to start. This can be solved by installing the 32-bit version of the libidn module on RedHat Linux. The required version of this module is libidn-0.3.7-64.1 or newer.

Note that the libidn dependency is removed from porting set 8.5a.03.

8.4c

Dump form changed

Current version is 6.

The internal dump format that is generated by bdbpre, also called using session ‘create sequential dump of tables’, has been improved. Previous porting sets cannot read this new dump format.
Using the environment variable PREVERSION=3 or the resource preversion:3, you can enforce dumping in the old format.

Note: An ERP 5.0 environment with this porting set will continue to generate dumps that are based on the VERSION=3 format. Infor might adjust this in the future.

8.4b and later

“Maintenance of software product was not licensed”

If you get the error message ”Maintenance of software product was not licensed” together with “No license to run object xxx” you have no license for “Infor365 maintenance contract” or this license has expired. Check the SLM licensing for product-id 10365, registered as a concurrent user license. If needed, add the product-id and request a new license activation through Infor Validation.

This issue can occur when you use Enterprise Server 8.4.1 or later.

8.4a.02 and later

shmvalues6.2 removed

With 8.3a, shared memory allocation was changed. There was no longer a need for bin/shmvalues6.2 and lib/shm_param.

The delivery of shmvalues6.2 has been dropped with this release.

8.3a or later

Shared memory management

With porting set 8.3a, the memory segments used for shared memory are dynamically allocated during startup of the shared memory manager, instead of being based on the predefined segments defined in $BSE/lib/shm_param with the earlier porting sets.

During the first start of shared memory, the shared memory manager will log in $BSE/lib/shm_config which size is default taken for the memory segment.

```
An example is as follows: # shm_segment_size:50331648
```

In this example, the segment is 48 Mb.

Default size too small

It is possible that the default is too small for your environment; if so, you will see the following message in the logfile $BSE/log/log.srdd_init6.2:

```
All memory blocks are used

shmmanager6.2 -s

USED BYTES 592044 FREE BYTES 16185172 SHMID 13 NO ATTCH 6
```

Maximum memory allocation allowed

For all UNIX/Linux systems:

The shared memory manager needs to be able (at default) to allocate 50331648 bytes of shared memory or any amount of bytes as specified in $BSE/lib/shm_config with the shm_segment_size:<size> resource. If the kernel or operating system does not allow allocating the requested amount of shared memory, the shared memory manager will fail to start. The shared memory manager will then return with an error, indicating that allocation of shared memory failed. The kernel settings, which dictate a minimum or maximum, are system specific.

For Linux systems, to run the shared memory manager, the value in /proc/sys/kernel/shmmax must have at least a value of 50331648.

For Solaris, update the shared memory maximum by changing the following line in the /etc/system file:
set shmsys:shminfo_shmmax=<value>, where the value should be at least 50331648.

For other UNIX systems, to adjust the required kernel setting, use the administrative tools for your OS.

Porting set 8.2b or later installed: No license to run object

After the installation of porting set 8.2b or later, under certain conditions it is not possible to run sessions of the ‘da’ package. Error messages in the logfile are as follows:

No license to run object 'd:\baan6\application\da3.3_b\odaxch\oxch0501' (productId 0). Cannot open Package Security File

For Infor ERP LN 6.1 FP2, install solution 212523.

For Infor ERP Baan 5.0, install solution 208194.

Java – Crashes JIT compiler

If the JIT compiler stops responding when you use the Java interface, disable the JIT compiler; to do this, in $BSE/java/jvm_options, set the following value:

- -Djava.compiler=NONE

7.6b

Range expression validation

The validation of domain range expressions is extended with additional logging.

Until now, the porting set tolerated particular domain range constructions, which were actually incorrect and could lead to undesired behavior.

The validation of domain ranges is now improved, so erroneous range definitions are reported.

Examples of range definitions that are reported include the following:

- **[c-a]**: This issue is reported as a problem because **A** comes before **C**. During runtime, only **c** is selected.

Using **[a-c],** the developer receives the range of A, B, and V.

The expression to specify A or C or hyphen: **[c\-a]** or **[-ac]**.

- **[_-.]**: Again, in the range dot comes before underscore. At runtime, only the underscore is selected.

Using **[.-_],** the developer selects the range of dot up to underscore.

Alternatively, the developer might have wanted to have the selection of dot, underscore, and dash; If so, the developer can use **[_.\-] [underscore dot backslash dash]**.

Because a dash is a special character in the range definition, a dash is preceded by a backslash to indicate that the character must be handled as a range character.

Erroneous range definitions are reported as a domain: range expression error 60.

Chapter 8
Features

8

8.7a Connection Pooling

With porting set 8.7a, the number of database connections per user, for SQL Server and Oracle databases, has been decreased to three.

8.7a Advanced Memory Tracing

With porting set 8.7a, you can capture detailed information about the in-memory data elements. If a memory-related incident occurs, Support might request this information in order to use it for further analysis by Infor.

8.6a Oracle: VARCHAR2/NVARCHAR2 support

With porting set 8.6a, you can use the Oracle data type VARCHAR2/NVARCHAR2 instead of the data type CHAR/NCHAR. Note that this is possible only for ERP LN and does not apply to B50c environments. Using the variable length strings saves approximately 30 percent of data in the database.

The Infor ERP LN Oracle driver relies on the ANSI-compliant string comparison semantics (blank padded semantics). Unlike other database vendors, Oracle has chosen to implicitly link the comparison behavior to the data type.

The Oracle CHAR/NCHAR data types comply with the ANSI-comparison semantics, while the Oracle VARCHAR2/NVARCHAR2 data types do not. The Oracle driver generates different queries to solve these semantic problems.

For correct query evaluation when using the VARCHAR2/NVARCHAR2 data type, some constraints on the data in the database must be met as well:

1. An empty string must be represented by a string of exactly 1 space
2. All other string data should never have trailing spaces.

It is important that all external integrations that change Infor ERP LN data, circumventing the Infor ERP LN Oracle driver, comply with these constraints. Otherwise, unexpected query results can occur. The migration from CHAR/NCHAR to VARCHAR2/NVARCHAR2 should alter the data according to these constraints.

For more information about this conversion to 'varchar' mode, refer to the *Oracle Driver Technical Reference Manual* (U7076H). This manual mentions that varchar columns get the prefix "t_" instead of "t$".
But it has been decided that "varchar" will use the "t$" prefix as well. So porting set 8.6a.01 and higher use "t$" as column prefix.

Customers who have switched to 'varchar' mode and use porting set 8.6a (or an earlier beta) must set the resource "ora_varchar_86a_column_naming:1" to continue working with the "t_" prefix.

To enable the 'varchar' mode, complete the following steps:

1. Make a complete database export using bdbpre.
2. Set the ora_use_varchar:1 resource.
3. Import the database using bdbpost.

This export/import is mandatory to comply with the data constraints as mentioned above.

Infor offers professional services to assist and accelerate this data migration to ensure minimal downtime

8.5a.02 BWPrint: 2D-barcode support

The BWPrint delivered with this porting set supports printing of 2D-barcodes.

All barcode types provided to the first parameter of the 4-argument variant of the Baan 3GL bc$() function in the range of 1000-2000 are considered to be 2D-barcodes. The other variants of bc$() do not support 2D-barcodes. The actual number of barcode types that can be displayed in BWPrint is limited by the 3rd party barcode dll's. For more information, refer to the Programmer's Guide (solution 210356).

In order to be able to use the 4-argument variant of the bc$() function, the porting set version must be 7.5a.01 or later.

The Online Help menu of BWPrint contains a 2D-barcode test.

8.5a JVMI-2: Alternative implementation for JVMI

JVMI is the interface for Enterprise Server to communicate with java. JVMI is mainly used by Infor Integration.

The previous implementation of JVMI required for several operating system platforms a cumbersome configuration and debugging. Therefore a more decoupled implementation is chosen: JVMI-2.

In case you would need to fallback to the previous implementation of JVMI, then the following resource should be set:
jvmi_arch:1

This fallback is supported only for 32-bit porting sets, and is not supported for Java 1.6 and later.