

INVOICES

Upgrade Guidelines

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Introduction

It is advised that customers not perform the upgrade to INVOICES 5-8 themselves, due to significant changes in the database and initialization files. We recommend that upgrades be performed by knowledgeable ReadSoft personnel or certified ReadSoft partners. This document is written for these staff performing upgrades.

Here you can find information to help you prepare and complete an upgrade to INVOICES 5-8. The key to a successful upgrade is planning. If you follow the recommendations below and allocate your time carefully, the upgrade should be smooth and problem-free.

Requirements

System requirements

Ensure that the customer's system meets the hardware and software requirements for INVOICES 5-8. These are listed in the *INVOICES System Configuration Guide*.

You can upgrade from INVOICES 5-4 or INVOICES 5-5 to INVOICES 5-6 or later. Exception: You cannot use an existing Oracle database that was *originally created* in INVOICES 5-4 or earlier (even if it was upgraded to 5-5). See "Export INVOICES data" on page 6 for details.

Note: If you have an Oracle database and you are upgrading from INVOICES 5-5 to INVOICES 5-6 or later, any master data (that is, supplier and buyer information in the `zrs_supplier` and `zrs_buyer` tables) must be removed before you start the upgrade, or you will not be able to upgrade the database in the process. Master data can then be reinstalled after the upgrade has been completed.

Upgrading to INVOICES 5-6 or later from INVOICES 5-3 or earlier is not supported.

Prerequisite knowledge

It is assumed that you have extensive knowledge of installing and configuring an INVOICES system. You should also have knowledge of:

- What's new in INVOICE 5-8.
- INI file settings (`Eilocal.ini`, `Eiglobal.ini` and all `Eiglobalextra.ini` files).
- FLEX/m configuration and troubleshooting.
- Advanced use of database administration.
- General troubleshooting.

Upgrade summary

The INVOICES upgrade procedure is divided into four parts. Each one has its own chapter in this guide:

- Administrative tasks
 - Pre-upgrade tasks
 - Upgrading INVOICES
 - Post-upgrade tasks
- Important:** All of the above tasks are necessary and form the entire upgrade procedure. Do not jump to *Upgrading INVOICES* without having first read and understood the instructions in the other parts.

Administrative tasks

Obtain installation CDs

Make sure you have installation CDs for both the new version and for the currently installed version, in case something goes wrong and you need to roll back the installation.

Ensure that in-house expertise is available

In-house expertise or assistance from the customer is often needed during the upgrade process, for example, to get administration rights on computers and other systems, to configure anti-virus software, to get physical access to server rooms, etc.

Discuss features, benefits, and risks with the customer

INVOICES 5-8 is a Unicode application. This means that you can use the same database to process multilingual documents (invoices in different languages), even if they use different code pages.

The main initialization files (INI files) that are installed with INVOICES 5-8 are in Unicode format instead of ANSI. Plug-ins used with INVOICES 5-8 must take this into account if they read those INI files. If INVOICES finds an INI file in ANSI format, it converts the INI file to Unicode.

Other changes:

- Both ABBYY FineReader and OmnipageINVOICES are included with INVOICES 5-8 with no additional licensing required.
- INVOICES 5-8 can run on Windows 7 Professional, Windows 8, Windows Server 2012, and other new operating systems.
- With respect to output data, an important change compared to previous versions was introduced in INVOICES 5-6: Inactive amount fields, which were previously transferred with the value 0.00, now contain a null value like other kinds of inactive fields, such as text fields. Field definitions and field profiles can be set to *Inactive* in numerous dialogs.
- The INVOICES installation program no longer includes scanner drivers or ASPI. Use the drivers supplied with your scanner, and obtain updates from the manufacturer's website.

No longer supported in INVOICES 5-8:

- ReadSoft EMAIL—use COLLECTOR, instead.
- Oracle 9i—if you use an Oracle database, use 32-bit versions of 10g, 11g, or 12c.
- Microsoft SQL Server 2000—if you use an SQL Server database, use version 2005 or later.
- XML Input, an INVOICES 5-5 feature that enables interpretation of XML invoices in various formats—that functionality has been replaced by new intelligent XML functionality in connection with COLLECTOR 6-4.

(Please see the *INVOICES 5-8 Readme* for a full list of changes and new features.)

Make sure the customer understands the benefits of these features and how it will change their current processes. Make sure the customer also understands the risks, and come up with a plan for dealing with these, if they occur.

Pre-upgrade tasks

Reduce the amount of data in the database

The upgrade can take a lot of time if the database is large. You can reduce the size of the database and therefore speed up the upgrade by running a maintenance plan to remove old and/or unused invoice definitions, suppliers, statistics, and temporary data. The maintenance plan can also be used to clean up and improve the integrity of the database.

Transfer all invoices out of the system

All invoices must be processed before upgrading to INVOICES 5-8. Invoice profiles cannot be upgraded if there are invoices in the system that are associated with them.

Export INVOICES data

This section applies only if you have an existing Oracle database that was originally created in INVOICES 5-4 or earlier. Read this section carefully in that case.

An existing Oracle database that was *originally created* in INVOICES 5-4 or earlier (even if it was upgraded to 5-5) will not work with INVOICES 5-6 or later, and you cannot upgrade it using the INVOICES 5-8 database upgrade program. Instead, you must:

1. Back up the database.
2. Run a rigorous maintenance plan that clears out as many invoice definitions as can reasonably be deleted. Get rid of the oldest definitions and those that have performance problems. Be sure that unused learning invoices are also deleted.
3. Export all data and objects from the database.
 - ⚠ **Warning:** Invoice profiles may need to be exported one at a time. Those with many invoice definitions (for example more than 1000) require extreme amounts of RAM memory during export and result in large files. An invoice profile that has 2000 invoice definitions can be about 1 GB in size.
4. After creating a new INVOICES 5-8 database, import that data (see “Create a new database and import data” on page 10).

If you do not know when the database was created

If you are unsure of which INVOICES version the existing database was originally created for, you can try using one of the scripts below to check. If you get a result row when executing the query, it means that the database was originally created in 5-4 or earlier, and you must create a new database for 5-8

For SQL

```
SELECT OBJECT_NAME(c.OBJECT_ID) TableName, c.name ColumnName
FROM sys.columns AS c
JOIN sys.types AS t ON c.user_type_id=t.user_type_id
WHERE t.name = 'varchar'
and OBJECT_NAME(c.OBJECT_ID) = 'jobdefinitions'
and c.name='name'
ORDER BY c.OBJECT_ID;
```

For Oracle

```
SELECT 1
FROM ALL_TAB_COLUMNS
WHERE TABLE_NAME='JOBDEFINITIONS'
and COLUMN_NAME='NAME'
and DATA_TYPE='VARCHAR';
```

Back up the system

Before you start to upgrade INVOICES, back up all necessary data such as the database, invoice images and INI files.

It is important that the old versions of `Eiglobal.ini` and `Eilocal.ini` are not used by INVOICES 5-6 or later. If they are, the new settings are not added and the software may not work correctly or may even crash.

Make sure you save all of the old INI files with new names. After INVOICES 5-8 is installed, you can copy any customized settings from your old INI files to the ones for 5-8. The same goes for all `Eiglobalextra.ini` files.

Upgrading INVOICES

Before installing INVOICES 5-8 and performing the actual upgrade, you *must* complete the *Pre-upgrade tasks* described in the previous chapter.

- Note:** You cannot run older versions in parallel with INVOICES 5-8 or later, and you cannot install INVOICES 5-8 or later “on top of” an older version.

Upgrade options

There are three ways to upgrade INVOICES. The first option is to simply upgrade the production system. The other options involve testing the upgrade first and simulating production to detect potential problems.

- Upgrade the production system directly.

Uninstall the current production version of INVOICES and install INVOICES 5-8.

- Upgrade a copy of the database.

Create a copy of/export the production database, install INVOICES 5-8 on a test machine, and then upgrade the copied database. The upgraded database can then be used by INVOICES 5-8 installed on the production machine(s).

- Upgrade INVOICES on a test machine.

Generate a backup of the production system and mirror this installation in a local test environment. Install INVOICES 5-8 and upgrade the database. Either copy the test installation back to the production machine(s) or install INVOICES 5-8 on the production machine(s), having noted the results of the test upgrade.

To minimize interruptions and unexpected problems, you may want to perform a test upgrade. This is not necessary if the customer has good system backups in place and they are prepared to be out of production for a few days (in cases where problems do arise). Although upgrades do not normally take so long, if problems do occur, the installation may have to be rolled back to the previous version of INVOICES.

- 🚫 **Warning:** If any invoices remain in the production system during the upgrade, make sure the invoice images are accessible from the Manager module on the test system. If they are not, you *must* process the invoices out of the system before upgrading the test system.

The upgrade procedure

1. Back up the database.
2. Ensure that you have system administrator rights on the computer and database role membership “db_owner”.
3. Uninstall the current version of INVOICES. You cannot run older versions in parallel with INVOICES 5-8, and you cannot install INVOICES 5-8 “on top of” an older version.
4. Install INVOICES 5-8 on one workstation. Select **Custom** installation to specify a central location for items that are shared by all workstations.

- 🚫 **Important:** When upgrading from a version prior to INVOICES 5-6, note that the `Eiglobal.ini` file has a new location. It is now found in the `GlobalPath` subdirectory of the INVOICES folder.

5. Merge old and new versions of `Eiglobal.ini` and `Eilocal.ini`. In other words, copy the customized settings from the old versions of these two files to the new versions installed by INVOICES 5-8.

- 🚫 **Important:** When upgrading from a version prior to INVOICES 5-6, note the new location of `Eiglobal.ini` mentioned in the note in step 4. Note that a few of the `Classname` settings in `Eilocal.ini` have also been changed in INVOICES 5-6 and later. Be very careful when replacing settings in `Eilocal.ini`, so that you do not paste old versions of those settings into the new file.

6. Reuse the resulting INI files in subsequent installations.

7. Start the Manager module. The **Database upgrade** dialog is displayed.

 **Warning:** It is essential that you back up the database before upgrading.

 **Note:** If you have problems upgrading the database, it may be because the database user that INVOICES uses does not have sufficient privileges to drop the stored procedures. Ensure that you have database role membership “db_owner”.

8. Start the database upgrade process. (For more information, see the next section.)

9. Upgrade INVOICES on the rest of the computers, if any.

You can do this while waiting for the database to be upgraded. However, do not start any of the modules until the database upgrade is complete.

10. Test the system functionality and performance.

What happens when you upgrade the database

The time it takes to upgrade the database (see step 7 in the previous section) can vary greatly. It can take a few minutes, or even several hours, depending on the size of your database.

The size of the database and the number of objects being upgraded are key factors in determining how long it will take to upgrade the INVOICES database. Usually an upgrade consists of updating the database tables and database objects, such as invoice definitions. Each object’s integrity is analyzed and repaired, if necessary, during the upgrade process. Therefore, the more objects you have in your database, the longer the upgrade can take. As a general rule, invoice definitions are upgraded at a rate of 1,000 per hour.

Upgrading the database consists of these stages:

Updating database tables	Database tables are updated to increase performance. Which tables are updated varies depending on which version you are upgrading from.
Updating database objects	Database objects are updated. Which objects are updated varies depending on which version you are upgrading from.
Updating invoice definitions	Each invoice definition is updated. This may take some time if there are many invoice definitions.
Analyzing the database	The integrity of all objects in the database is checked. This includes any invoices, invoice definitions, invoice profiles, etc. If an object has an error that cannot be fixed, the object is automatically deleted from the database. Therefore, it is essential that you back up the database before upgrading.

Additional maintenance operations not listed here may also be performed during the upgrade procedure.

When the database upgrade is complete, you can click **View log file** to view the results.

Post-upgrade tasks

Create a new database and import data

Refer to “Export INVOICES data” on page 6. If the previous database was a SQL Server database that was *originally created* in INVOICES 5-4 or earlier, you must now:

1. Create a new INVOICES 5-8 database:
 - a) Insert the INVOICES CD into your workstation’s CD-ROM drive. If the installation program does not start automatically, select **Start** menu > **Run** and specify `X:\Autorun.exe` (where *X* is the drive letter for the CD-ROM drive). Click **OK**.
 - b) When the installation menu is displayed, click **Install Software** and then click **SQL Server setup for INVOICES** or **Oracle setup for INVOICES**.
2. Import the data that you exported from the previous version of INVOICES. (Use **Administration > Import**. See *INVOICES Help* if you need further details.)
3. Import master data, if you use it. (Use a maintenance plan. See *INVOICES Help* if you need further details.)

Upgrade invoice profiles

When you upgrade to INVOICES 5-8, you get new and improved versions of the country profiles (stored in `Eiglobalextra.ini` files). Upgrading the existing invoice profiles to the latest version is therefore *highly recommended*. The reasons:

- Field types were changed in INVOICES 5-5. When you upgrade an invoice profile from INVOICES 5-4, its field profiles are updated to the new field types. This enables the latest business logic, making the system more efficient.
- You cannot edit field profiles that are based on old field types (from INVOICES 5-4). If you want to be able to edit these fields in INVOICES 5-8, you must upgrade the invoice profiles.
- ❗ **Important:** Upgrading your invoice profiles means new versions of `Eiglobalextra.ini` are used (one for each country profile that you are using). If you previously edited this file, you must manually copy your changes to the new version.

To upgrade an invoice profile

You must be using Manager, and the invoice profile must be *inactive*.

1. Right-click an open and inactive invoice profile and select **Upgrade**.
2. The **Upgrade invoice profile** dialog is displayed. Adjust the **Type** and **Description** (if necessary), and click **Upgrade**.

Upgrade invoice profile

Name: GBR-PO

Country: GBR

Type: PO standard

Description: This is a standard invoice profile for purchase order invoices.

Upgrade Cancel

3. If the current invoice profile contains fields that are either assigned to non-standard field types or are not assigned to any field type at all, the **Update field types** dialog is displayed.

Update field types

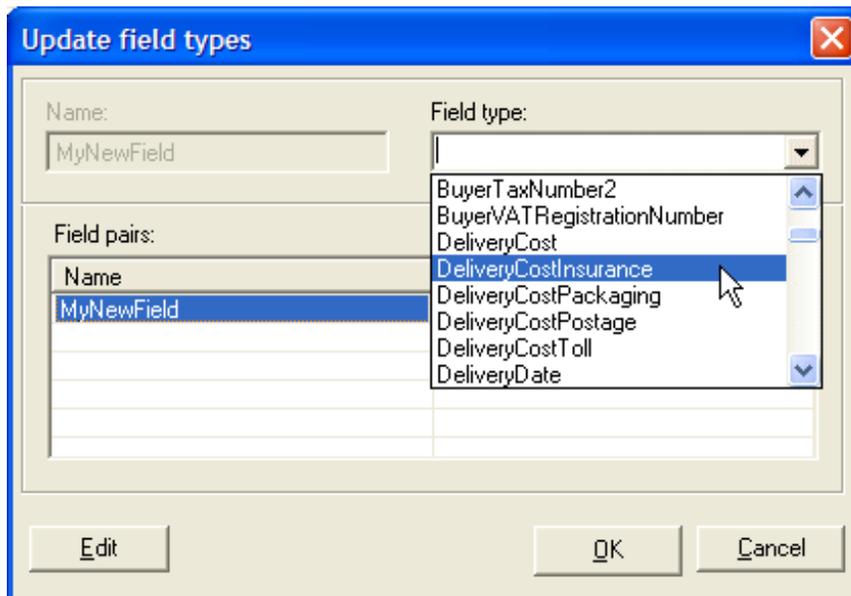
Name: Field type:

Field pairs:

Name	Field type
MyNewField	

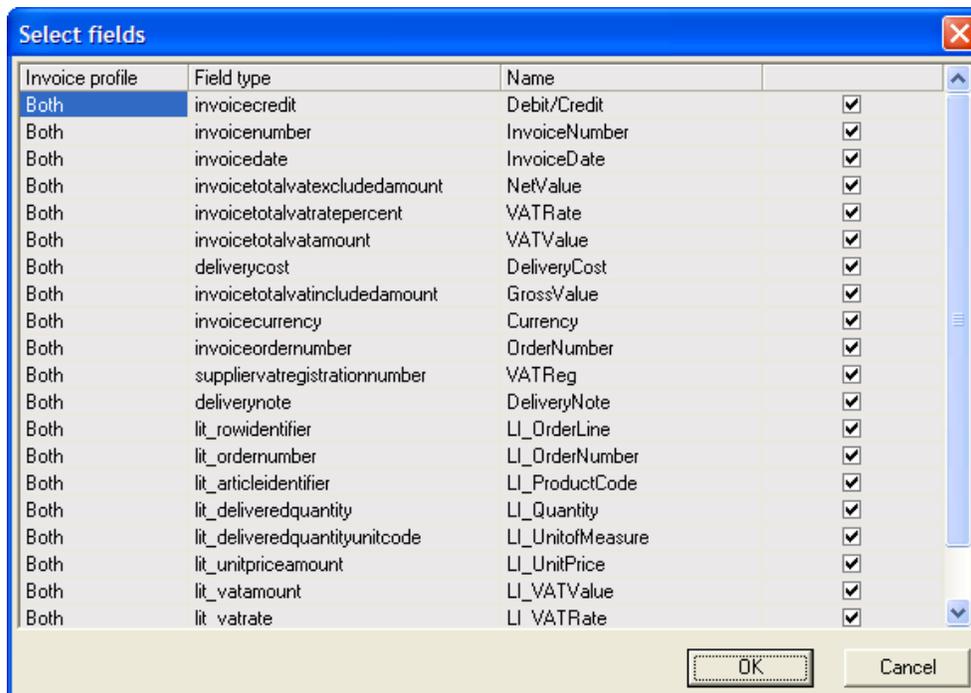
Edit OK Cancel

Use this dialog to match the old fields with the new field types. To do so, select a field in the **Field pairs** list and click **Edit**. Then select a corresponding field type from the **Field type** box.



Click **OK** when finished.

- When the **Select fields** dialog is displayed, use it to determine which field profiles you want to include in the upgrade:



- Click **OK** to complete the upgrade.

Upgrade job descriptions

If your previous INVOICES solution received data from Transfer in ANSI format, you must adjust the **Code page** setting in the Transfer job description in INVOICES 5-8.

1. Open the Transfer job description.
2. In the navigation pane, select **Transfer > Output format**.
3. Specify the code page that matches the invoice profile (the data to be transferred). For example, the 1252 (Latin I) code page includes English, French, German, and several other Western European language character sets.

Optimize the INVOICES system

After an INVOICES system is in use for a while, customers typically have lots of comments and suggestions on how to improve it. Many of these suggestions can be easily implemented by adjusting the configuration slightly. Therefore, many customers appreciate an offer of general system analysis to tune their system. Doing this at the same time as the upgrade may increase customer satisfaction with and approval of the new version, and it can compensate for any minor disturbances in production that may occur during the upgrade.