

Kofax ReadSoft Invoices

Oracle Installation Guide

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The KOFAX logo is displayed in a bold, blue, sans-serif font. The letters are thick and closely spaced, with a consistent weight throughout. The 'K' and 'F' are particularly prominent due to their size and the boldness of the font.

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Preface

This guide contains essential information and procedures that you need to successfully install ReadSoft Invoices.

This guide assumes that you have a thorough understanding of Windows standards, applications, and interfaces.

Related documentation

In addition to this guide, the ReadSoft Invoices documentation set includes the following items.

Systems Configuration Guide

The *Invoices System Configuration Guide* contains essential information about configuring ReadSoft Invoices. The guide also helps you plan the overall Invoices solution.

Chapter 1

Before installation

Assumed knowledge

This document assumes that you have knowledge of:

- Microsoft Windows administration.
- Database creation.
- Database maintenance.
- Database export.
- Database backup.
- Database objects used by Invoices
 - Table
 - Primary key
 - Index
 - Sequence
 - Package
 - Procedure
 - Function
 - Table space

Installation overview

The order for installing and configuring Oracle and Invoices:

1. Install Oracle.
2. Create the Oracle database.
3. Install Oracle Database Client.
4. Configure the Local Net Service Name.
5. Grant user privileges.
6. Create the Oracle database tables.
7. Install Invoices.

These steps are explained in the remaining sections of this guide.

Supported Oracle versions

Invoices 6.1.0 supports both *32* and *64-bit versions* of Oracle 11g, 12c, 18c, and 19c.

At the risk of stating the obvious, carefully ensure that your selected database is supported (by Oracle) for use on the operating system that you intend to install it on.

The Oracle Database Client must be installed on every computer running Invoices (see page [4](#)). Here, too, pay attention to the operating system. For example, when installing Oracle Database Client on one of the newer operating systems such as Microsoft Vista or Windows Server 2008, you need the 32-bit version of Oracle Database Client 11 (Invoices 6.0.x also supports the 64-bit versions of Oracle Database Client 11).

Chapter 2

Installing and Configuring Oracle

Upgrading from ReadSoft Invoices 5-4 to ReadSoft Invoices 6.1.x

You cannot use an existing Oracle database that was *originally created* in ReadSoft Invoices 5-4 or earlier (even if it was upgraded to 5-5). See the “Export Invoices data” section in the *ReadSoft Invoices 6.1.x Upgrade Guidelines* document for details.

Installing Oracle and creating the ReadSoft Invoices database

This section describes how to set up Oracle 11g, 12c, or 18c for use with ReadSoft Invoices. For full installation instructions for your new database, refer to Oracle’s *Oracle Database Installation Guide*.

Note that Oracle 18c can only be used with Kofax ReadSoft Invoices 6.1.0 or later.

Note: During installation, the names and dialogs used below, as well as the order in which they appear, may vary depending on your computer’s existing configuration.

1. Insert the Oracle CD or, if you have copied the installation files to your hard drive, double-click `setup.exe` to start the installation.
2. In the **Installation Method** dialog, select **Advanced Installation**. Click **Next**.
3. In the **Select Installation Type** dialog, select **Enterprise Edition**. Click **Next**.
4. In the **Specify Home Details** dialog, enter the name of the folder and path where you want to install Oracle. Click **Next**.
5. Review the **Product-Specific Requirements Checks** dialog. Click **Next** after confirming your computer meets the necessary system requirements.
6. In the **Select Configuration Option** dialog, select **Create a database**. Click **Next**.
7. In the **Select Database Configuration** dialog, select **General Purpose**. Click **Next**.
8. In the **Specify Database Configuration Options** dialog, you must specify:

Option	
Global Database Name	The full name for the Invoices database.
SID	The Invoices database system identifier.
Database Character Set	Use UTF-8 or Unicode for an Invoices 6.0 database.

9. Continue the installation, using the Oracle Universal Installer to guide you.

Creating the ReadSoft Invoices database on an existing Oracle installation

When you installed Oracle, you should have created a database to use with ReadSoft Invoices. See [“Installing Oracle and creating the Invoices database.”](#)

If you did not, create a database using the Database Configuration Assistant (Start menu > Oracle – [Oracle version] > Configuration and Migration Tools > Database Configuration Assistant). Configure the database according to your requirements. Below are important settings you must specify for Invoices in the Database Configuration Assistant.

Global Database Name	The full name for the Invoices database.
SID	The Invoices database system identifier.
Database Character Set	Use UTF-8 or Unicode for an ReadSoft Invoices 6.0.x database. Note: The National Character Set, Default Language and Default Date Format settings are not used by Invoices. You can specify your own values for them.

Installing Oracle Database Client

The Oracle Database Client must be installed on every computer running Invoices. It acts as the interface between Invoices and the Oracle database.

Refer to the Oracle documentation for installation instructions. You must select Administrator in the Select Installation Type screen, so that the Oracle Provider for OLE DB component (part of Oracle Windows Interface) is installed.

Due to connection issues, to be able to run Invoices PM Service with *Oracle 12c Release 2* and *Oracle 18c*, the TNS_ADMIN environment variable must be added to the system to indicate the location of *tnsnames.ora* (for example, TNS_ADMIN = C:\Ora_client_12cR2\product\12.2.0\client_1\network\admin).

Note Ensure your selected version of Oracle Database Client can run on the operating system that you have installed Invoices on.

Configuring the Local Net Service Name

The Local Net Service Name is used by Invoices to connect to the Oracle server. You must configure the Local Net Service Name on all clients in the network that need to be able to connect to the Invoices database.

Use Net Configuration Assistant (Start menu > Oracle – [Oracle version] > Configuration and Migration Tools > Net Configuration Assistant) to create a Local Net Service Name.

Be sure to test the Local Net Service Name to confirm the workstation can connect to the database.

Granting user privileges

In order to use Invoices with Oracle, you must ensure that each user has the proper privileges in the Oracle database. All privileges must be granted explicitly to the user and not inherited from a role, to allow proper execution of stored procedures.

Users that install or upgrade Invoices need to create database objects and must have these privileges:

- CREATE SESSION
- CREATE TABLE
- CREATE SEQUENCE
- CREATE PROCEDURE
- CREATE VIEW

To run Invoices, users must have object privileges on the Invoices database objects. They must also have these system privileges:

- QUERY REWRITE
- CREATE TABLE

Installing the database configuration tool

1. In the Kofax ReadSoft Invoices installation package, navigate to `Installation\database setup\Oracle` and double-click `INVOICES_ORACLE_DB_Config.msi`.
2. Click **Next** in the Welcome dialog that is displayed.
3. In the **Ready to Install** dialog, click **Install**.
4. Click **Finish** when the installation is complete. If you want to start the database configuration tool directly, ensure that **Launch Invoices Oracle Configuration Utility** remains selected in the dialog.

Creating the Oracle database tables

The database does not need to be created before Invoices 6.0 can be installed, but you do need to specify the same database name both when Invoices is installed and when the database is created.

1. If you did not select to start the database configuration directly from the previous section, you can access the tool from the Start menu. Click **Start > All programs > Kofax > Invoices Database Configuration > Oracle Configuration Utility**.
2. Click **Next** when the **Welcome** dialog is displayed. The **Database server** dialog is displayed. Enter the required information:
Net Service Name: The net service name required to connect to the Oracle.
User and Password: The user login and password needed to access the database server.

3. Click **Next** to proceed. Review the next dialog to make sure the database settings are correct. If you need to change a setting, you can click **Back** to return to the previous dialog.
Click **Create** to create the new Invoices database. You can view a log of the actions performed by the setup program in the **Create database** dialog. Review this log if the database creation fails. When the program creates the database successfully, the **Database setup complete** dialog is displayed.
4. Click **Finish** to complete the setup. The Invoices database is now ready for use.

Installing ReadSoft Invoices

Installing ReadSoft Invoices

When installing ReadSoft Invoices 6.1.x, simply follow the installation wizard instructions. Refer to the *ReadSoft Invoices Installation Guide* for more information.

Eiglobal.ini settings

For your reference, here is a comparison of settings as they appear in Eiglobal.ini, depending on which database is used.

SQL Server	Oracle
<pre>[Database] Type=SQL Server Server=ACMESERVER DatabaseName=INVOICES Version=2005 UserName=sa Password=00E000F500...</pre>	<pre>[Database] Type=Oracle Server=orcl DatabaseName= Version=11 Username=HABJ Password=change_on_install</pre>

Note: Oracle's Server setting is the Local Net Service Name, an alias or pointer to a set of files that contain the connect information that allows the Oracle client on the PC that runs Invoices to find the PC that is hosting the Oracle database server. See "[Configuring the Local Net Service Name.](#)"

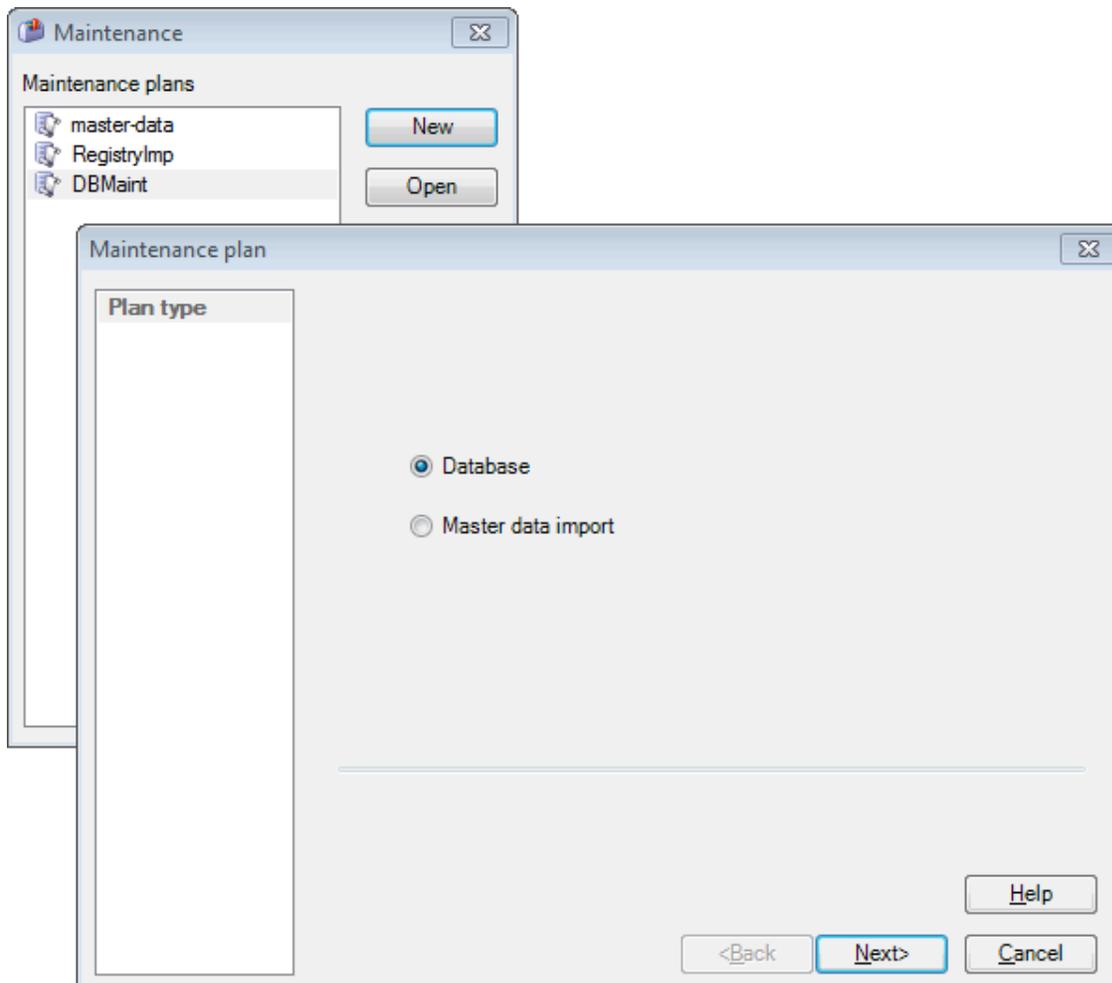
Maintaining your Oracle database

A routine maintenance plan for your Oracle database is highly recommended. It can prevent your database running into difficulties and save you time and money.

Please consult your Oracle documentation for information about backup routines and database maintenance.

Invoices Maintenance

To find and repair database problems, we highly recommend that you routinely use maintenance plans. See *Invoices Help* for more information about creating maintenance plans.



Troubleshooting

We recommend:

- Verifying that a single Oracle client version is installed on the computer. Multiple versions of SQL*Net cannot exist on the same client computer.
- That you have a local installation of the Oracle client instead of mapping a remote Oracle client on your computer.

If you are having trouble connecting Oracle to Invoices, make sure:

- You completed the Oracle client installation.

- You have the correct [Eiglobal.ini settings](#) (see page 8).
- The <Oracle Home>\Bin folder is in the system path.
- You have permission to read the <Oracle Home> folder.
- You have Oracle Provider for OLE DB installed (version 8.1.7 or higher).

The easiest way to check if the provider is installed is to run the Universal Installer and click the Installed Products button to see a list of the products installed in that Oracle Home.

Network connectivity problems are reported to Invoices users via error messages and log files with error code 108. An error can occur if a network connection is lost while Invoices is connected to the database, for example. Note that Invoices does not distinguish database access problems from user-privilege problems.

- To test the database access, try connecting to Oracle with SQL Plus using an Invoices user you created for the Oracle database.
- To test the user privileges, make sure you can insert, retrieve, update, and delete data in Invoices' database tables. Afterwards, be sure to remove any test data you created.

Chapter 3

Database objects

Upgrade information

Some changes have been made in the Oracle database in order to increase Invoices' performance. The following versions have the old database structure:

- ReadSoft Invoices 5-2 SP4
- ReadSoft Invoices 5-2 SP5
- ReadSoft Invoices 5-2 SP6
- ReadSoft Invoices 5-3 (no service pack)

These versions have the new database structure:

- ReadSoft Invoices 5-2 SP7
- ReadSoft Invoices 5-2 SP8
- ReadSoft Invoices 5-3 (all service packs)
- ReadSoft Invoices 5-4
- ReadSoft Invoices (all versions)
- ReadSoft Invoices 5.9 (all versions)
- ReadSoft Invoices 6.0.x

If you want to upgrade from a version with the old structure to a version with the new structure, you must do the following first:

1. Use SQL Plus to delete everything in the `learnusercontent` table.
2. Check `transdefinitions` and `profiletransconnection` to make sure the number of transaction descriptions match the number shown in Manager.
3. If necessary, upgrade the old installation of Invoices to the latest hotfix.
4. Run DBAdmin (Manager module).
5. Export all invoice profiles, invoice definitions, job descriptions, etc., using Manager.
6. Upgrade to the new Invoices version.
7. If necessary, install the latest hotfix for the new Invoices version.
8. Create a new Invoices user in the Oracle database. Then create the Invoices database objects using Oracle setup for Invoices in the Invoices installation package.
9. Import all the objects you exported in step 5.

10. Run the following SQL statements using SQL Plus:

```
UPDATE definitionssuppliername SET profilename = TRIM(BOTH ' ' from profilename);  
UPDATE learndocprofileconnection SET profilename = TRIM(BOTH ' ' from  
  profilename);  
COMMIT;
```

Note If you have an Oracle database and you are upgrading from ReadSoft Invoices 5-5 to ReadSoft 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 is completed.

ReadSoft Invoices 5-2 SP8

All of the database objects, except for primary keys, are listed below.

<p>Sequence</p> <p>administrationlocks_docid docdefinitions_docid documents_docid jobdefinitions_docid jobs_id learndocimages_docid learndocuments_docid scansettings_id servicejob_servicejobid tabinfo_rowid tabname_tabinfoid transdefinitions_docid userdefinitions_docid</p> <p>Index</p> <p>idx_ad_docpos idx_definitionsuppliername idx_docdefinitions idx_documentpos idx_learndocpos idx_logoidentifier idx_lower_defsupl idx_lower_docprofconn idx_setdefmembers idx_st_p_t_docs idx_valueidentifier</p> <p>Function</p> <p>Newinvoice</p>	<p>Table</p> <p>administrationlocks databaseversion definitionid definitionsuppliername docdefinitions docdefinitionslocks docdefinitionsposition docdefuserdefs docidentoverride docimages docprofileconnection docqueues docrefby documentposition documents documentslocks docuserdefs endorser interpretjobstatistics invoicedefinitionstatistics jobdefinitions jobdefinitionslocks jobdefinitionsposition jobdefinitionuserdefs jobs learndocimages learndocprofileconnection learndocqueues learndocrefby learndocumentposition</p>	<p>Tables (continued)</p> <p>learndocuments learndocumentslocks learndocuserdefs logoidentifier profiletransconnection queues scansettings servicejobs setdefmembers tabconnect tabinfo tabname transdefinitions transdefinitionslocks transdefinitionsposition transdefinitionuserdefs transferjobstatistics userdefinitions userdefinitionslocks userdefinitionsposition userdefinitionuserdefs valueidentifier verifyjobstatistics</p> <p>Package</p> <p>INVOICES_PROC</p> <p>Procedure</p> <p>insertdoclock updateinvoice</p>
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ReadSoft Invoices 5-3

There are no new database objects (tables, indexes, sequences, etc.) in Invoices 5-3.

ReadSoft Invoices 5-4

All of the new database objects, except for primary keys, are listed below:

<p>Tables</p> <p>zrs_buyer processlog processlog_invoicedata zrs_properties zrs_supplier zrs_supplierbank zrs_supplierbuyer</p>	<p>Procedures</p> <p>processloginsert processloglookup spdeletebatch spdeleteinvoice spdeleteinvoicedefinition spdelelearninvoice</p>	<p>Sequences</p> <p>zrs_buyer_buyerid zrs_properties_propertyid zrs_supplier_supplierid</p>
<p>Views</p> <p>zrsvi_buyer_v1 zrsvi_supplier_v1 zrsvi_supplierbank_v1 zrsvi_supplierbuyer_v1</p>		

ReadSoft Invoices 5-5

All of the new database objects, except for primary keys, are listed below:

Tables

fieldtype
 fieldtype_description
 fieldgroups
 fieldrules
 fieldgroups_buyers
 fieldgroups_fieldrules
 fieldgroups_corporategroups
 imagelock
 plugindata

Sequences

fieldrules_fieldrule_id

ReadSoft Invoices 5-6

The CorporateGroupID field was changed from Integer to Alphanumeric.

The maximum length of most master data fields has been extended. The new lengths are documented in *Invoices Help*.

ReadSoft Invoices 5-7

All of the new database objects, except for primary keys, are listed below:

Tables

definition_changelog

Sequences

definition_changelog_sq

Columns

In the processlog_invoicedata table:

definitionid

suppliername

ReadSoft Invoices 5-8

These are the new database objects, except for primary keys:

Columns

In the valueidentifier table:

- layoutidentifier

In the logidentifier table:

- layoutidentifier

ReadSoft Invoices 5.9

These are the new database objects, except for primary keys:

Tables

ActiveUsersInfo

SERVICELOG
SERVICEINSTANCES
SERVICEINSTANCES_PROCESSINFO
SERVICESTATUS
processlog_invoicedata
INSTANCESERVICEJOBS

Sequences

ACTIVEUSERSINFO_ID
SERVICEINSTANCES_INSTANCEID

Views

ZRSVI_ACTIVEUSERS_V2
ZRSVI_SERVICELOG_V2
zrsvi_pmservicelist

Columns

In the DocDefinitions table:

AutoApprove
InvoicesInRow

In the Documents table:

Complete
imagepath

In the ZRS_Supplier table

CustomSupplier

ReadSoft Invoices 6.0

These are the new database objects, except for primary keys:

Sequences

INSTANCESERVICEJOBS_ID

Columns

In the InvSel_Criteria table:

SourceList

In the InvSel_Nodes table:

UserReadOnly

In the InstanceServiceJobs table:
LastRunningStatus

ReadSoft Invoices 6.0.3

These are the new database objects, except for primary keys:

Columns

In the INSTANCESERVICEJOBS table:
lastrunningstatus