

# **Entire Net-Work**

## **Installation**

Version 7.9.1

October 2021

This document applies to Entire Net-Work Version 7.9.1 and all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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## Preface

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This documentation explains how to install, license, and uninstall Entire Net-Work. Entire Net-Work is middleware that provides a common communication service for database applications, query tools, cooperative processing applications, application development tools, and other software.

The audience for this Entire Net-Work documentation includes users who want to install it.

This installation and licensing document for Entire Net-Work is organized as follows:

<i>Installing and Uninstalling Entire Net-Work Server, in the Entire Net-Work Server LUW Installation and Administration Guide</i>	Describes the steps necessary to install Entire Net-Work Server. For information about Entire Net-Work Server installation tasks, read <i>Entire Net-Work Server LUW Installation and Administration Guide</i> .
<i>Installing and Uninstalling Entire Net-Work Client, in the Entire Net-Work Client Installation and Administration Guide</i>	Describes the steps necessary to install Entire Net-Work Client. For information about Entire Net-Work Client installation tasks, read <i>Entire Net-Work Client Installation and Administration Guide</i> .
<a href="#"><i>SSL Random File Requirements on UNIX Systems</i></a>	Describes the random file required when setting up SSL on UNIX systems.
<a href="#"><i>Port Number Reference</i></a>	Provides a reference to default ports commonly used by Software AG management components and Entire Net-Work.

### Conventions

Notation *vrs* or *vr*: When used in this documentation, the notation *vrs* or *vr* stands for the relevant version, release, and system maintenance level numbers. For further information on product versions, see *version* in the *Glossary*.

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## Document Conventions

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Convention	Description
<b>Bold</b>	Identifies elements on a screen.
Monospace font	Identifies service names and locations in the format <i>folder.subfolder.service</i> , APIs, Java classes, methods, properties.
<i>Italic</i>	Identifies:  Variables for which you must supply values specific to your own situation or environment. New terms the first time they occur in the text. References to other documentation sources.
Monospace font	Identifies:  Text you must type in. Messages displayed by the system. Program code.
{ }	Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the { } symbols.
	Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the   symbol.
[ ]	Indicates one or more options. Type only the information inside the square brackets. Do not type the [ ] symbols.
...	Indicates that you can type multiple options of the same type. Type only the information. Do not type the ellipsis (...).

## Online Information and Support

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### Software AG Documentation Website

You can find documentation on the Software AG Documentation website at <https://documentation.softwareag.com>.

### Software AG Empower Product Support Website

If you do not yet have an account for Empower, send an email to [empower@softwareag.com](mailto:empower@softwareag.com) with your name, company, and company email address and request an account.

Once you have an account, you can open Support Incidents online via the eService section of Empower at <https://empower.softwareag.com/>.

You can find product information on the Software AG Empower Product Support website at <https://empower.softwareag.com>.

To submit feature/enhancement requests, get information about product availability, and download products, go to [Products](#).

To get information about fixes and to read early warnings, technical papers, and knowledge base articles, go to the [Knowledge Center](#).

If you have any questions, you can find a local or toll-free number for your country in our Global Support Contact Directory at [https://empower.softwareag.com/public\\_directory.aspx](https://empower.softwareag.com/public_directory.aspx) and give us a call.

### **Software AG Tech Community**

You can find documentation and other technical information on the Software AG Tech Community website at <https://techcommunity.softwareag.com>. You can:

- Access product documentation, if you have Tech Community credentials. If you do not, you will need to register and specify "Documentation" as an area of interest.
- Access articles, code samples, demos, and tutorials.
- Use the online discussion forums, moderated by Software AG professionals, to ask questions, discuss best practices, and learn how other customers are using Software AG technology.
- Link to external websites that discuss open standards and web technology.

## **Data Protection**

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Software AG products provide functionality with respect to processing of personal data according to the EU General Data Protection Regulation (GDPR). Where applicable, appropriate steps are documented in the respective administration documentation.

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## 2 SSL Random File Requirements on UNIX Systems

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If you will be using SSL on UNIX platforms, a random file is required. This file contains entropy data that is used for generating random numbers by the SSL symmetric key allocation routines. System random files can usually be found as *\*.rnd* files in the */dev/random* or */dev/urandom* directories. If these devices are not available on your system, contact your system administrator for assistance with installing them; some systems may require a patch.

In lieu of setting up a system random file, you can use a personal random file. For instructions on setting up a personal random file, refer to your system administrator.

Random files are identified to the system in one of the following ways:

- The \$RANDFILE environment variable can be set to the location of the random file.
- A random file (*\*.rnd*) can be stored in the current directory.
- A random file (*\*.rnd*) can be stored in the \$HOME directory.
- The RANDOM\_FILE URL parameter can be used to specify the location of the random file.



**Note:** Windows platforms have their own automated methods of establishing the random file; consequently the manual identification or setup of a random file is not necessary in Windows.

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# 3 Port Number Reference

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This chapter describes the ports that are needed by Adabas LUW and Entire Net-Work LUW products to perform its processing and how they can be assigned.

## Port Overview and General Assignments

The following table describes the ports that are needed by Entire Net-Work to perform its processing and any default ports assumed by Entire Net-Work. You should consider avoiding the use of these default port numbers for other applications.

Software AG Product Component	Ports Needed	Default Port Number
Adabas Manager Communicator	One port is needed.	4980
Adabas Directory Server	One port is needed for Entire Net-Work requests to the Directory Server	4952 (IANA port)  <b>Note:</b> If older versions of Entire Net-Work (older than 7.3) are in use, this port number may need to be changed to 12731.
Adabas Manager	One port is needed for Adabas Manager administration tasks	dynamically assigned
Entire Net-Work Kernel	A port is needed for Kernel access by clients	dynamically assigned
	A port is needed for Kernel access via connections (Entire Net-Work 7 or later)	dynamically assigned
	A port is needed for Kernel access via RDA connections (Entire Net-Work 2)	7869
	A port is needed for Adabas Manager administration of Kernels	dynamically assigned

Software AG has registered port number 4952 with the Internet Assigned Numbers Authority (IANA) for use by the Adabas Directory Server. For more information about Directory Server port number specifications, read *The Directory Server Port Number* in the *Software AG Directory Server Installation and Administration Guide*. For information on changing the Directory Server port number for an Entire Net-Work installation, read [Changing the Adabas Directory Server Port Number](#).

In general, there are no default port numbers assigned to Entire Net-Work Kernels or clients. These are dynamically assigned by Entire Net-Work when the Kernel or client is started, unless you specify a specific port or range of ports to use when you define the Kernel or client. If you set the port number to "0", the Entire Net-Work will dynamically assign a port.

Port numbers are dynamically assigned by Entire Net-Work when the Kernel or client is started, as follows:

- Entire Net-Work searches for the first available port starting from port 49152 through 65535. (The starting search port number, 49152, is the IANA-recommended value from which to start.).
- Once an available port number is found, it is assigned to the Kernel or client in its Adabas Directory Server entry.

While defining Entire Net-Work Kernels, you can also select a specific port or specify a range or list of port numbers that Entire Net-Work should search during the process in which it dynamically assigns a port to the Kernel:

- To specify a specific port number, enter the number in the port number field when you define the Kernel.
- To specify a range of port numbers that Entire Net-Work should search to dynamically assign a port, list the starting and ending ports in the port number field when you define the Kernel, separated by a dash (-). For example, a specification of "9010-9019" would cause Entire Net-Work to search for the first available port between and including port numbers 9010 and 9019.
- To specify a list of port numbers that Entire Net-Work should search to dynamically assign a port, list the port numbers in the port number field when you define the Kernel, separated by commas (.). For example, a specification of "9010,9013,9015,9017,9019" would cause Entire Net-Work to search for the first available port from this list of ports, starting with port 9010 and working from left to right through the list.
- You can, of course, combine search ranges and lists in a port number field. For example, a specification of "9010-9019,10020,10050-10059" would cause Entire Net-Work to search for the first available port first in the 9010-9019 range (inclusive), then port 10020, and finally in the 10050-10059 range (inclusive). The first available port that Entire Net-Work encounters would be used for the Kernel.

If no available port is found in a specified range or list, an error occurs.

For more information about adding Kernels, read *Adding Kernel Configuration Definitions* in the *Entire Net-Work Server LUW Installation and Administration Guide*.

## Changing the Adabas Directory Server Port Number

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➤ **If you need to change the Directory Server port number for your installation, follow these steps:**

- 1 Within the settings for Entire Net-Work Client and any client configurations definitions, change all specifications for the Directory Server port number to the new port number you want to use. Directory Server port numbers can be changed for Entire Net-Work Client and the client configurations using the Adabas Manager by changing the SAGXTSDSPORT parameter. See the *Adabas Manager* documentation for details.
- 2 Within the settings for Entire Net-Work Server and any Kernels definitions, change all specifications for the Directory Server port number to the new port number you want to use.

These port numbers can be changed using the Adabas Manager by changing the SAGXTSDSPORT parameter. See the *Adabas Manager* documentation for details.

- 3 Shut down the Entire Net-Work Client service or daemon and the Entire Net-Work Server service or daemon, as appropriate. Be sure to shut down every Kernel associated with the server as well.

For information on shutting down the Entire Net-Work Client service or daemon, read *Stopping Entire Net-Work Client* in the *Entire Net-Work Client Installation and Administration Guide*. For information on shutting down the Entire Net-Work Server service or daemon, read *Stopping Entire Net-Work Server* in the *Entire Net-Work Server LUW Installation and Administration Guide*.

- 4 Shut down the Directory Server service or daemon.

For information on shutting down the Directory Server service or daemon, read *Starting and Stopping the Adabas Directory Server*, in the *Software AG Directory Server Installation and Administration Guide*.

- 5 Modify the Directory Server installation, as appropriate for the operating system. When prompted, change the Directory Server port number to the new port number you want to use.

- 6 Start up the Directory Server service or daemon, if it is not automatically started after its installation was modified.

For information on starting up the Directory Server service or daemon, read *Starting and Stopping the Adabas Directory Server*, in the *Software AG Directory Server Installation and Administration Guide*.

- 7 Start up the Entire Net-Work Client service or daemon and the Entire Net-Work Server service or daemon.

For information on starting up the Entire Net-Work Client service or daemon, read *Manually Starting Entire Net-Work Client* in the *Entire Net-Work Client Installation and Administration Guide*. For information on starting up the Entire Net-Work Server service or daemon, read *Manually Starting Entire Net-Work Server* in the *Entire Net-Work Server LUW Installation and Administration Guide*.

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