

Installing the Entire Screen Builder Server and the SDK on a PC

This chapter covers the following topics:

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 - Prerequisites for Reading the Online Documentation
 - License Files
 - Installation Dependencies
 - Installing/Updating Entire Screen Builder
 - Shortcuts in the Start Menu
 - Program Folders
 - Environment Variables
 - Registry
 - Using the Demo Application
 - Exporting Objects from Entire Connection to Entire Screen Builder
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Prerequisites for Windows

The following is required in order to install and run Entire Screen Builder on a PC:

Entire Screen Builder Server and SDK	<p>The Entire Screen Builder Server and the SDK can be installed on the following operating systems:</p> <ul style="list-style-type: none"> ● Microsoft Windows 2000 Professional, Server or Advanced Server (Windows Clustering and Windows 2000 Datacenter are not supported), or ● Microsoft Windows XP Professional (fast user switching is not supported), or ● Microsoft Windows Server 2003 Standard Edition or Enterprise Edition. <p>See also: <i>Installing the Entire Screen Builder Server in the UNIX Environment.</i></p>
System Management Hub	<p>Software AG's System Management Hub Version 3.3.1.2 or above. The System Management Hub is automatically installed when you install Entire Screen Builder on a PC. For supported browsers, see the System Management Hub documentation.</p>
Server for the XML Version	<ul style="list-style-type: none"> ● Microsoft Internet Information Server 5, and ● MSXML3 which is part of Microsoft Internet Explorer 6.0. <p>See <i>Configuring the XML Version</i> for further information.</p>
Presentation Clients	<p>Web Viewer and Terminal Viewer:</p> <ul style="list-style-type: none"> ● A Windows PC with an operating system supported by Microsoft, and with Microsoft Internet Explorer 5 or 6. ● Any HTTP server. An HTTP server is not required if you open the HTML page for a viewer from your local disk or LAN. <p>Windows Viewer:</p> <ul style="list-style-type: none"> ● A browser is not required. ● An HTTP server is not required. <p>XML Version:</p> <ul style="list-style-type: none"> ● Microsoft Internet Explorer 5 or 6. Other browsers with restrictions; for detailed information, see <i>Browser Restrictions</i> in the section <i>Configuring the XML Version</i>.

Tunneling	<p>For tunneling, you can use one of the following HTTP servers:</p> <ul style="list-style-type: none"> ● Microsoft Internet Information Server: <ul style="list-style-type: none"> ○ Version 5.0 for Windows 2000 ○ Version 5.1 for Windows XP Professional ● Apache Web Server: <ul style="list-style-type: none"> ○ Version 2.0 for Windows. <p>See <i>HTTP Tunneling</i> for further information.</p> <p>If tunneling is not used, you can use any HTTP server.</p> <p>Note: Tunneling prerequisites for Solaris are provided in the section <i>Installing the Entire Screen Builder Server in the UNIX Environment</i></p>
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Prerequisites for Reading the Online Documentation

HTML Browser	<p>For viewing the online documentation, a browser capable of supporting Java, JavaScript, and cascading style sheets is recommended. The documentation has been successfully tested with:</p> <ul style="list-style-type: none"> ● Microsoft Internet Explorer version 5.x or 6.x and the Microsoft Java Virtual Machine 5.0.0.3810. <p>If you are using an older version of the Microsoft JVM, we strongly recommend you to upgrade it in order to avoid problems (such as the full-text search hanging up). By upgrading you also benefit from Microsoft's latest security enhancements. If you want to upgrade your Microsoft Virtual Machine, please visit the Microsoft web site (http://www.microsoft.com/).</p> <p>The browser is freely available for download.</p>
PDF Reader	<p>For viewing and printing the PDF documentation, Adobe Reader is recommended.</p>

License Files

During installation, you have to specify the location of the file containing your Entire Screen Builder license key. You should have a license file that is provided by Software AG either on a storage medium such as a diskette in the Entire Screen Builder box or by E-mail. If you have received your license file by E-mail, save it to your local hard disk before starting the installation.

Note:

If you are installing Entire Screen Builder on a laptop and you have received your license file on a diskette, please note that some laptop configurations do not allow you access to the CD drive and the diskette drive simultaneously. In such cases, you must copy the license file to a location that is accessible while the CD drive is in use, such as your laptop's hard disk, before you start the installation.

Ensure that the file containing the license key is in a location that will be accessible during installation, such as on the file system or in a diskette drive. In general, Software AG recommends you to place the license file on the file system before starting the installation.

Depending on the license file you specify during installation, one of the following is installed (*nnn* in the license file name stands for the current version number):

License File	Description	Type of Environment
NSW <i>nnn</i> .xml	Entire Screen Builder SDK. Only available for Windows.	Development environment.
EWV <i>nnn</i> .xml	Entire Screen Builder GUI Version.	Production environment.
ETV <i>nnn</i> .xml	Entire Screen Builder Terminal Version.	Production environment.
EMV <i>nnn</i> .xml	Entire Screen Builder XML Version.	Production environment.

Note:

License files are not required for the standalone versions of the Terminal Viewer and Windows Viewer.

If you want to install all production environment versions, you have to install one version first and then load the license files for the subsequent versions using the System Management Hub. See *License Files* in Entire Screen Builder's *System Management Hub* documentation.

During runtime, the number of opened connections is compared with the number of users in the license file. The number of users must be equal to or greater than the number of opened connections on the target machine.

Installation Dependencies

A production environment version cannot coexist with a development environment version on the same PC (and vice versa). For example, if you want to install a production environment version on a PC on which a development environment version has already been installed, you have to uninstall the development environment version first.

The standalone version of the Windows Viewer can only be installed when an Entire Screen Builder Server has not been installed on the same machine. (Note that the Entire Screen Builder Server is always installed with a development environment version.)

When the standalone version of the Windows Viewer has already been installed, it is not possible to install a development environment version.

When the standalone version of the Windows Viewer has already been installed, it is not possible to install a production environment version including an Entire Screen Builder Server. A dialog box will appear during installation asking whether you want to continue. After that, the server installation will be disabled.

Installing/Updating Entire Screen Builder

In order to install Entire Screen Builder successfully, you must have administrator rights for your PC as the installation process requires access rights to system resources.

Important:

It is not necessary to install Entire Screen Builder as described below if you only want to install a production environment on a UNIX system.

The setup program checks for existing Entire Screen Builder Version 4.1.1, 4.2.1, 4.3.1 and 5.1.1 installations. If such an installation is detected, it is updated to the current version. In this case, the Entire Screen Builder Server is automatically stopped by the setup program. It is automatically restarted after a successful update. Before starting an update installation, it is therefore recommended that you inform all connected users (for example, with the Send Message function in the System Management Hub) and close all Entire Screen Builder viewers.

To install/update Entire Screen Builder

1. Close any active Windows applications.
2. Insert the Entire Screen Builder CD into your CD drive.

The setup program is automatically started and guides you through the installation.

If the automatic startup option is disabled on your system, execute *Setup.exe* which can be found in the root directory of the CD.

3. In the first installation dialog, choose **Install Products**.

A dialog appears in which you can choose one of the following options:

Option	Description
Production Version	Installs the production environment version which contains all modules for a multi-client production installation.
Development Version	Installs the development environment version which contains all modules for developing and testing the transformation rules for host screen GUIfication.
Terminal Viewer Standalone	Installs the standalone version of the Terminal Viewer.
Windows Viewer Standalone	Installs the standalone version of the Windows Viewer.

4. Choose the required option and follow the instructions in the resulting dialog box.

Notes:

1. With a custom installation, which is available for installing a production or development environment, all features can be installed separately.
 2. In a development environment, the SDK and the Entire Screen Builder Server are always installed. These features cannot be deselected in the dialog which appears for a custom installation.
 3. The feature "Entire Screen Builder Server" installs Software AG's System Management Hub which is used to administrate the Entire Screen Builder Server. See Entire Screen Builder's *System Management Hub* documentation for further information.
 4. The features "Extensions for the Internet Information Server for the XML Version" and "Extensions for the Internet Information Server for Tunneling" are only available when the Microsoft Internet Information Server (IIS) is installed. They are only available with a custom installation.
 5. When you install the extensions for the XML Version, a dialog appears asking whether you want to configure the ISAPI DLL. See *Configuring the ISAPI DLL* for further information.
 6. When you install the extensions for tunneling, a dialog box appears in which you have to enter parameters. This feature is only available for production environment versions. See *Microsoft Internet Information Server under Windows* in the section *HTTP Tunneling* for further information on this dialog box.
 7. When you install the standalone version of the Terminal Viewer, a dialog appears in which you have to specify the connection parameters for the machine on which the Entire Screen Builder Server is running. See *Defining the Entire Screen Builder Server* in the *Terminal Viewer* documentation.
5. After installation, you may have to reboot your computer. When this is required, the corresponding dialog box will appear asking whether you want to reboot now or later.

Notes for IIS 6.0 (Windows Server 2003):

The security settings for IIS 6.0 have been extended to allow the enabling or disabling of individual ISAPI extension DLLs. If you do not have the security options of IIS set to allow all ISAPI extensions, you must enable the Entire Screen Builder ISAPI DLLs that you need.

- **Tunneling**

Tunneling is provided by *EsbIsapi.dll* contained in the virtual folder *esbscripts*.

- **XML Version**

The XML Version requires the ISAPI extension DLL *nswxmlisapi.dll* contained in the virtual folder *esbscripts*.

Our installation process does not alter these settings to allow you to choose the method of security setting best suited to your individual requirements.

Production Environment on UNIX

If you want to install/update an Entire Screen Builder production environment on a UNIX system, proceed as described in the following section:

- *Installing the Entire Screen Builder Server in the UNIX Environment*

Natural UNIX and Natural OpenVMS

If your legacy applications run with Natural UNIX or Natural OpenVMS, proceed as described in the following sections:

- *Installing Natural for Entire Screen Builder on UNIX Hosts*
- *Installing Natural for Entire Screen Builder on OpenVMS Hosts*
- *Using the Viewers with Natural on UNIX and OpenVMS Hosts*

First-time Installation

After a first-time installation, it is recommended that the developer proceeds as follows:

1. Use the System Management Hub to define all host sessions. See *Host Sessions* in Entire Screen Builder's *System Management Hub* documentation.
2. Use the SDK to define all transformation rules. See the documentation *Defining the Rules Using the SDK*.
3. Invoke the Windows Viewer from the SDK to check whether the rules are applied as desired. See *Starting a Host Session* in the documentation *Defining the Rules Using the SDK*.

Make Viewers Available - Browser Versions

How to make the browser versions of the viewers available to all users in your environment is explained in the following sections:

- *Customizing the Web Viewer*
- *Customizing the Terminal Viewer*

Make Viewers Available - Standalone Versions

The standalone versions of the Windows Viewer and Terminal Viewer run as regular Windows applications on a client workstation. Therefore, they do not require a browser on the client workstation. To make these viewers available to all users in your environment install them using the setup program.

Update Installation

In the case of an update installation, proceed as described in the following section:

- *Updating Manually Deployed Files on the HTTP Server.*

Tunneling

How to use tunneling with the viewers, is explained in the following section:

- *HTTP Tunneling*

Make XML Version Available

How to make the XML Version available to all users in your environment is explained in the following section:

- *Configuring the XML Version*

Events

Entire Screen Builder events can be checked using the Windows Event Viewer.

Shortcuts in the Start Menu

The information in this section applies when you install a development environment version or a production environment version. It does not apply to the standalone versions of the Terminal Viewer and Windows Viewer. Shortcuts for the standalone versions are always available from the root of the Programs folder of the Windows Start menu

If you do not specify otherwise during installation, "Software AG Entire Screen Builder *n.n.n*" (where *n.n.n* is the version number) appears in the Programs folder of the Windows Start menu. This folder contains all shortcuts for invoking the Entire Screen Builder components.

The following table indicates the shortcuts that can be installed with a specific license:

Shortcut	Development Environment	Production Environment
Online Documentation	X	X
Readme	X	X
SDK	X	
Server Extensions		X
Server Management	X	X
System Management Hub	X	X
Windows Viewer	X	X

A shortcut for the Windows Viewer is always created. However, it is only functional in a production environment, if you have a license for the GUI Version.

Note:

Shortcuts for the Web Viewer, Terminal Viewer (browser version) and XML Version are not available since the HTML pages for these viewers have to be customized individually.

Program Folders

By default, Entire Screen Builder (development and production versions) is installed in the following folder:

Program Files\Software AG\Entire Screen Builder 5 - see the table below for further information.

The following exceptions apply for the standalone versions:

- Only one folder is created for the standalone version of the Terminal Viewer:

Program Files\Software AG\Entire Screen Builder 5\Terminal Viewer Standalone

- Only one folder is created for the standalone version of the Windows Viewer:

Program Files\Software AG\Entire Screen Builder 5\Windows Viewer

The following folders are created for the development and production versions:

Program Folder	Contents
<i>..\Entire Screen Builder 5</i>	<i>Readme.txt</i>
<i>..\Entire Screen Builder 5\bin</i>	EXE and DLL files.
<i>..\Entire Screen Builder 5\data</i>	Configuration file <i>nswconfig.xml</i> with information on the defined host sessions (including key schemes and color schemes) and the <i>profiles</i> folder with information on the defined user and group profiles. All of this information is defined with the System Management Hub.
<i>..\Entire Screen Builder 5\doc</i>	Full documentation set in HTML format, including PDF. Can be accessed from the Windows Start menu.
<i>..\Entire Screen Builder 5\help</i>	Help file <i>nswnnnUS.chm</i> , where <i>nnn</i> is the version number. Can be accessed from Entire Screen Builder's Help menu.
<i>..\Entire Screen Builder 5\mmc</i>	Files for the Server Management snap-in.
<i>..\Entire Screen Builder 5\repository</i>	Local repository folders and files. Empty after installation.
<i>..\Entire Screen Builder 5\samples</i>	Several subfolders containing a demo application and samples for data transfer, script files and user exits.
<i>..\Entire Screen Builder 5\scripts</i>	Script files. The two subfolders for production and test purposes are empty after installation.

Program Folder	Contents
..\Entire Screen Builder 5\server extensions	<p>This folder is only created when the Microsoft Internet Information Server (IIS) is installed. It contains the following subfolders:</p> <ul style="list-style-type: none"> ● <i>esbscripts</i> with DLLS for XML and tunneling. ● <i>xml</i> where the subfolder <i>esb</i> contains <i>esblogon.htm</i> and directory images. The <i>xsl</i> subfolder contains further subfolders: <i>Netscape4</i>, <i>Netscape7</i> and <i>NoFrame</i>. ● <i>tunneling</i> with <i>Tunneling.reg</i>.
..\Entire Screen Builder 5\tables	Translation tables.
..\Entire Screen Builder 5\table_backup	In the case of an update installation, your old <i>tables</i> folder is copied to <i>table_backup</i> . If you still want to use your old customized tables, you have to copy them to the new <i>tables</i> folder.
..\Entire Screen Builder 5\temp	For internal use. Empty after installation.
..\Entire Screen Builder 5\terminal viewer	<i>ExampleAdministratorTerminalPage.htm</i> , <i>NSWTerminalViewer.cab</i> and <i>ExampleTerminalViewer.htm</i> .
..\Entire Screen Builder 5\traces	Traces. Empty after installation.
..\Entire Screen Builder 5\web viewer	<i>NWWClientFull.cab</i> , <i>ExampleAdministratorPage.htm</i> and <i>ExampleEndUserPage.htm</i> . <i>NWWClientFull-unsigned.cab</i> can be used if you want a signing different from VeriSign.
..\Entire Screen Builder 5\windows viewer	<i>EWVViewer.exe</i> and DLL files for the Windows Viewer.
..\Entire Screen Builder 5\xml	XML templates for the System Management Hub.
..\Entire Screen Builder 5\xmlrepository	Files for the XML Version. Empty after installation.

Environment Variables

Entire Screen Builder does not change any environment variables.

Registry

In the Windows registry, the Entire Screen Builder installation procedure sets up keys in:

- **HKEY_LOCAL_MACHINE/SOFTWARE/Software AG/Entire Screen Builder**
When you uninstall Entire Screen Builder, these keys are automatically removed.
- **HKEY_CURRENT_USER/Software/Software AG/Entire Screen Builder**
Entire Screen Builder uses these keys to store runtime information (e.g. last scope selected). You can delete these keys after uninstalling Entire Screen Builder.

For the Server Management tool, which is a Microsoft Management Console snap-in, several keys are added in other branches of the registry.

Using the Demo Application

The demo application can be invoked from the mainframe, UNIX and OpenVMS version of Natural. The following program folders of Entire Screen Builder pertain to the demo application:

Program Folder	Contents
..\Entire Screen Builder 5\samples\sampleconf	Rules folder for the demo application.
..\Entire Screen Builder 5\samples\sampleconf\natlib	Natural objects for the mainframe version of Natural, including the files <i>Natdemo.ncd</i> , <i>Employees.ncm</i> and <i>Vehicles.ncm</i> (see below).

The demo application is based on the Vehicles and Employees files. Therefore, the file IDs of these files must be known. To use the demo application, proceed as described below.

The demo application requires that the Natural message line is located at the bottom of the screen. If it is located at another position, use the Natural command %MB before starting the demo application.

Note:

For UNIX and OpenVMS:

The demo application is installed during the installation of the UNIX and OpenVMS components. See the following sections for further information: *Installing Natural for Entire Screen Builder on UNIX Hosts* and *Installing Natural for Entire Screen Builder on OpenVMS Hosts*.

▶ **To upload the demo application (only required for the mainframe version of Natural)**

- Upload the file *Natdemo.ncd* using Natural's NATLOAD utility (see the Natural documentation for further information).

This transfers the demo application to the Natural library NSWDEMO.

▶ **To upload the data definition modules (only required for the mainframe version of Natural)**

1. In the Natural command line, enter "NTCPC".

This displays the main menu of the NTCPC utility.

2. In the Code field, enter "D" and press ENTER.

This displays the Data Definition Module screen.

3. In the Code field, enter "U".

4. In the DDM Name field, enter "employees".

5. Make sure that the field Accept existing DBID/FNR is set to "N".

6. Press ENTER.

An upload window appears.

7. Change to the folder *..\Entire Screen Builder 5\samples\sampleconf\natlib*.

8. Select the file *Employees.ncm*.

9. Choose the **Upload** button.

A Natural window is now shown, displaying default values for DBID and FNR.

10. Change the values for DBID and FNR according to your requirements and press ENTER.

11. Repeat the above steps to upload the file *Vehicles.ncm* (enter "vehicles" in the DDM Name field).

▶ **To define a session for host access**

1. Start the System Management Hub.
2. Define a session which allows you to invoke Natural.

See *Host Sessions* in Entire Screen Builder's *System Management Hub* documentation for further information.

▶ **To define the rules repository**

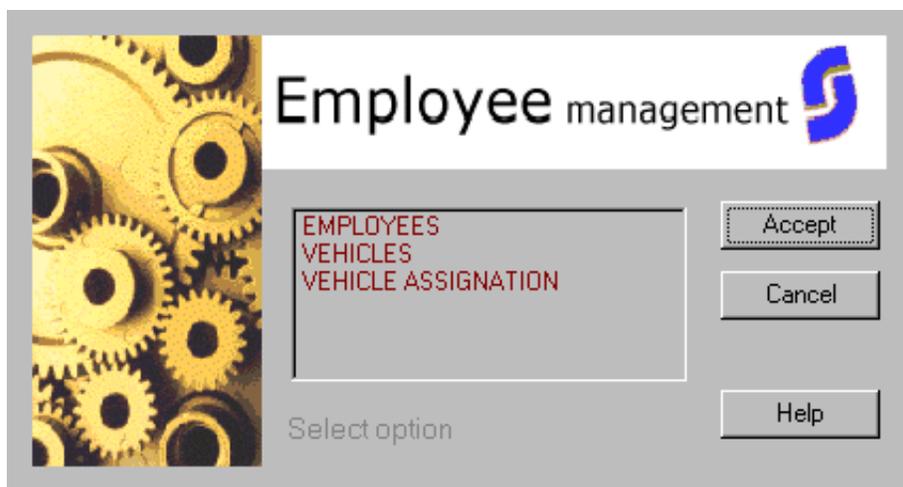
1. Start the Entire Screen Builder SDK.
2. From the **Options** menu, choose **Configuration**.
3. In the resulting Configuration dialog box, set the rules folder to `..\Entire Screen Builder 5\samples\sampleconf`.
4. Choose the **OK** button.
5. Quit the Entire Screen Builder SDK.
6. In the System Management Hub, stop and start the Entire Screen Builder Server. See *Starting and Stopping the Entire Screen Builder Server* in Entire Screen Builder's *System Management Hub* documentation.

▶ **To invoke the demo application**

1. Start the Entire Screen Builder SDK.
2. Connect to the session you have defined.

The session appears in the Windows Viewer.
3. Navigate to Natural.
4. Logon to the library NSWDEMO.
5. Start the demo application by entering "menu" on the NEXT prompt.

The main menu should now look as follows:



Exporting Objects from Entire Connection to Entire Screen Builder

Starting with Entire Connection Version 4.3.1, Entire Connection's Configuration Manager provides an **Export** command. Using this command, you can transfer session settings, color schemes and key schemes from your Entire Connection share file to Entire Screen Builder. See your Entire Connection documentation for detailed information.