INFORMIX-Universal Web Connect

Installation Guide for UNIX

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In This Introduction

This chapter introduces the *INFORMIX-Universal Web Connect Installation Guide for UNIX*. Read this chapter for an overview of the information provided in this manual and for an understanding of the conventions used throughout.

About This Manual

This manual describes how to install INFORMIX-Universal Web Connect. You should read this manual and the release notes before beginning the installation.

To use this manual, you should be familiar with your workstation's operating system. For information regarding your file system and windowing environment, see your operating system documentation.

This section discusses the organization of the manual, the intended audience, and the associated software products you must have to install and use Universal Web Connect.

Organization of This Manual

This manual contains the following sections:

- This introduction provides an overview of the manual, describes the documentation conventions used, and explains the generic style of this documentation.
- Chapter 1, "Preparing to Install," describes the contents of the Universal Web Connect application package and the tasks you must perform before you install Universal Web Connect.

- Chapter 2, "Installing INFORMIX-Universal Web Connect Products," describes the steps of the installation procedure.
- Chapter 3, "Configuring the Completed Installation," describes postinstallation configuration tasks.

Types of Users

This manual is written for database administrators or Web site administrators who will install Universal Web Connect.

Software Dependencies

To use Universal Web Connect with other Informix products, you must be using Informix Dynamic Server, Version 7.x, as your database server. You must be using INFORMIX-ESQL/C, Version 7.23, connectivity software on your UNIX system. Check your release notes for the database server, Web server, Web browser, and operating system versions that have been certified for this release.

See "Verifying Hardware and Software Requirements" on page 1-5 for additional requirements for the Universal Web Connect product components.

Documentation Conventions

This section describes the conventions that this manual uses. These conventions make it easier to gather information from this and other volumes in the documentation set.

The following conventions are covered:

- Typographical conventions
- Icon conventions

Typographical Conventions

This manual uses the following standard set of conventions to introduce new terms, illustrate screen displays, describe command syntax, and so forth.

Convention	Meaning
KEYWORD	All keywords appear in uppercase letters in a serif font.
italics	Within text, new terms and emphasized words appear in italics. Within syntax diagrams, values that you are to specify appear in italics.
boldface	Identifiers (names of classes, objects, constants, events, functions, program variables, forms, labels, and reports), environment variables, database names, filenames, table names, column names, icons, menu items, command names, and other similar terms appear in boldface.
`monospace`	Information that the product displays and information that you enter appear in a monospace typeface.
KEYSTROKE	Keys that you are to press appear in uppercase letters in a sans serif font.

Tip: *When you are instructed to "enter" characters or to "execute" a command, immediately press* RETURN *after the entry. When you are instructed to "type" the text or to "press" other keys, no* RETURN *is required.*

Icon Conventions

Comment icons identify warnings, important notes, or tips.

Icon	Description
	The *warning* icon identifies vital instructions, cautions, or critical information.
	The *important* icon identifies significant information about the feature or operation that is being described.
	The *tip* icon identifies additional details or shortcuts for the functionality that is being described.

This information is always displayed in italics.

Additional Documentation

The following manuals are included in the INFORMIX-Universal Web Connect documentation set:

- *INFORMIX-Universal Web Connect Installation Guide for UNIX*
- *INFORMIX-Universal Web Connect User's Guide*
- Release notes

The Universal Web Connect documentation set includes an on-line user's guide in HTML format. You can view the user's guide using any standard Web browser. After installation, the table of contents file is located in the **informix/uwc/iwcfhome.htm** file under your Web server document directory, or in the directory you choose during the installation process.

The release notes are in the **Unix/uwcread.txt** file on the CD-ROM. If you are installing from tape, you must first extract the **uwc.4.11.UC1.tar** tar file to view the release notes. See "Loading Informix Media" on page 2-3 for more information.

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Chapter

1

Preparing to Install

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In This Chapter

This chapter describes your installation options and lists the tasks you must complete before you install INFORMIX-Universal Web Connect.

Your Application Package

Your application package includes the Universal Web Connect product components delivered on a single CD-ROM or tape. Use Universal Web Connect to build and manage your Informix Web database applications.

Universal Web Connect consists of a Web component, installed on your Web server system, and a database component, installed on your database server system. The Web and database components can be installed either on the same UNIX system or on separate UNIX systems.

The following table describes the Web component elements.

Element	Description
AppPage tags	A set of SGML-compliant tags for creating dynamic, intelligent Web applications without having to write external scripts in C or some other programming language. The HTML pages (known as *AppPages*) you create using these tags can extract from an Informix database not only text and numbers, but also multimedia content such as audio and video.
Universal Web Connect API	A C/C++ API that developers can use to extend the Web services of Universal Web Connect. A developer could, for example, use this API to develop e-commerce applications.
AppPage Builder	A sample Universal Web Connect application for creating and maintaining the AppPages that make up your Web applications. You can use it to create AppPages with any Web browser that supports forms and tables as defined in the HTML 3.0 specification. If you use a Web browser that supports client file upload, you can also use AppPage Builder to manage multimedia content in the Informix database.
Web drivers	A CGI or NSAPI middleware application to integrate your Web server and database. The Web driver automatically manages multiple client connections, preserves the application state between browser sessions, manages database connections, and provides security services for your applications. You can extend these middleware functions and services with the Universal Web Connect API.

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Element	Description
Universal Web Connect Administration Tool (UWCAT)	An HTML client application to manage Universal Web Connect. It allows you to stop and start Universal Web Connect; edit the configuration file; show information on sessions, application configuration, and shared memory; and view the log file with filtering criteria.
Product Documentation	In addition to this manual, the Universal Web Connect documentation set includes an on-line user's guide in HTML format.
Connectivity software	Connectivity software enables the Web component to communicate with the database component. On UNIX, INFORMIX-ESQL/C provides connectivity between the Web and database component.

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The following table describes the database component element.

Element	Description
AppPage Builder database schema	A set of batch, executable, and data files that create a schema in an Informix database so that you can use AppPage Builder with that database.

Decide where to install each component according to your needs and the capabilities of your systems. See the next section, "Verifying Hardware and Software Requirements," to determine the hardware and software requirements for the Web and database components.

Verifying Hardware and Software Requirements

Since each configuration places different loading requirements on the system or systems involved, before you begin the installation, decide whether to install the Web and database components on the same UNIX system or on separate UNIX systems.

Web Component

Hardware and software requirements for the Web component are:

- 24 MB of memory minimum; 32 MB or more recommended.
- A recommended virtual memory system setting of 80 to 96 MB.

Check the release notes for the certified operating system version.

Database Component

The hardware requirement for the database blobspace is 50 MB of hard disk space.

Check the release notes for the certified operating system version.

Preparing the Database Server and Log Files

The installation script creates the AppPage Builder schema for the database component on your database server.

You must already have an Informix database server installed and running as the **informix** user on the target system. The database server must be running to create the AppPage Builder data repository. Additionally, this database must have a blobspace in which large objects in the AppPage Builder data repository are stored.

Be sure the repository database has buffered logs enabled and, prior to installing Universal Web Connect, back up the logical-log files. If your log files do not have enough room to accommodate all of these transactions, parts of the installation script fail.

To check the status of the logical-log files on your database server, enter:

```
onstat -l
```

For more information on logical-log files, see the *Backup and Restore Guide for Informix Dynamic Server*.

If you are installing the Web component, the installation script verifies the database connection. If you want to test the database connection when you install the Web component, the database server must be running.

Preparing the Web Server

The installation script installs the appropriate middleware for your Web server.

If you are running the Netscape FastTrack or Enterprise Server, and you set the WEBSERVERDIR variable (described in the following section) to use that Web server, the installation script automatically configures the execution, or **ifmx-bin**, directory in the **obj.conf** file for the NSAPI and CGI Web drivers. The installation script also automatically configures the document directory for Universal Web Connect Administration Tool on-line help.

If you are using a Web server other than the Netscape FastTrack or Enterprise Server, you must manually configure a CGI directory for the CGI Web driver and a document directory for the Universal Web Connect Administration Tool on-line help. You can complete these tasks after installing Universal Web Connect. See "Configuring Your Web Server" on page 3-3 for more information.

Gathering the Necessary Installation Information

The installation script prompts you for the following settings, depending on which components you install.

Setting	Components	Description
INFORMIXDIR environment variable	Web, Database	Specifies the full pathname of the directory in which your Informix database software is installed.
INFORMIXSERVER environment variable	Web, Database	Specifies the name of the default database server.
Database	Web, Database	Specifies the name of the database in which the AppPage Builder data repository will be installed.
Database user	Web, Database	Specifies the name of the database user to connect to the AppPage Builder data repository.
Database user password	Web, Database	Specifies the password for the database user to connect to the AppPage Builder data repository.
Database blobspace	Database	Specifies the name of the database blobspace in which large objects in the AppPage Builder data repository will be stored.
WEBSERVERDIR environment variable	Web	Specifies the full pathname of the directory in which your Web server software is installed.
UWCAT user	Web	Specifies the name of the user of the Universal Web Connect Administration Tool.
UWCAT user password	Web	Specifies the password for the Universal Web Connect Administration Tool user.

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Setting	Components	Description
Directory for the Netscape Web server configuration file	Web (Netscape server only)	Specifies the directory in which the Netscape Web server's **obj.conf** file resides.
Documentation directory	Web	Specifies the document directory for the Web server.
TCP/IP port	Web	Specifies the base port number to be used for applications (the MI_WEBTCPPORT parameter in the **wcconfig.std** file).

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Chapter

2

Installing INFORMIX-Universal Web Connect Products

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In This Chapter

This chapter describes how to install INFORMIX-Universal Web Connect.

You must run the installation script on each system on which one or more components of Universal Web Connect will run.

Install the components in the following order:

1. Database component
1. Web server component

Tip: *During installation, Universal Web Connect outputs status messages to* ***$INFORMIXDIR/apb/status.log*** *and errors to* ***$INFORMIXDIR/apb/err.log****. If you encounter any errors during installation, check these log files before attempting to reinstall.*

Loading Informix Media

You can install Universal Web Connect from:

- CD-ROM
- tape

Follow the instructions in either of the following sections, depending on your installation medium.

Installing from CD-ROM

The CD-ROM contains a **Unix** directory with the **uwc.4.11.UC1.tar** file and the **uwcread.txt** release notes file.

To extract Universal Web Connect files from CD-ROM

1. Change directory to a temporary directory.
1. Copy the **uwc.4.11.UC1.tar** file from the **Unix** directory on the CD-ROM to the temporary directory.
1. Extract the Universal Web Connect files by entering:

   ```
   tar -xvf uwc.4.11.UC1.tar
   ```

   The **uwc.4.11** directory is created.
1. Change directory to the **uwc.4.11** directory.
1. Run the installation script as described in "Installing Web and Database Components" on page 2-5.

Installing from Tape

The tape contains a single directory.

To extract the Universal Web Connect files from tape

1. Change directory to a temporary directory.
1. Extract the Universal Web Connect files by entering:

   ```
   tar -xvf devicename
   ```

   The **Unix** subdirectory is created. The **uwc.4.11** subdirectory is created under the **Unix** directory.
1. Change directory to the **uwc.4.11** directory.
1. Run the installation script as described in "Installing Web and Database Components" on page 2-5.

Installing Connectivity Software

If you are installing the Web component on a system with no Informix products on it, you must first install and configure INFORMIX-ESQL/C on your UNIX system.

Tip: *If you are unsure whether or not the connectivity software is working successfully, use the* ***$INFORMIXDIR/apb/bin/dbtest*** *program to test your database connection.*

You must install and configure INFORMIX-ESQL/C, Version 7.23, on any system on which you plan to install the Web component.

To install INFORMIX-ESQL/C on UNIX

1. Change directory to a temporary directory.
1. Copy the **esql.tar** file from the **esql7.23** directory to the temporary directory.
1. Extract the INFORMIX-ESQL/C files by entering:

```
tar -xvf esql.tar
```

1. Run the **installesql** script while logged on as the **root** superuser.

When you install INFORMIX-ESQL/C, you install

- the runtime libraries that enable the Web component to communicate with the database server.
- the development libraries to create Universal Web Connect API applications.

Installing Web and Database Components

On UNIX systems, you must install all Universal Web Connect products while logged on as the **root** superuser.

You must have gathered the information required by the installation script prior to installing the software. See "Gathering the Necessary Installation Information" on page 1-8 for more information.

To start the installation, enter:

```
./installuwc
```

The following output is displayed:

```
------------------------------------------------------------------------

        Welcome to the Informix Universal Web Connect Installation

                        Version: 4.11.UC1

                        Platform: Solaris 2.5.1

                Please choose from the following options:
```

```
                (1) Install Database components only

                (2) Install Web components only

                (3) Install both Web and Database components

                (h) Help

                (q) Quit

       Note: If you want to install the Web components and the Database
components separately, we strongly recommend you to install the Database
components first. See installation guide for detailed information

------------------------------------------------------------------------

type 1, 2, 3, h or q [3]:
```

Depending on which components you want to install, the installation script prompts you for the required information, such as INFORMIXDIR, INFORMIXSERVER, and WEBSERVERDIR. See "Gathering the Necessary Installation Information" on page 1-8 for more information on these settings. The installation script stores the values for these settings, if previously specified, in the **.uwc** file in the **uwc.4.11** directory so that you can use these default values if you upgrade or reinstall.

Installing the Web Component

When you install only the Web component, the following output is displayed:

```
Installing the WEB components only..

In order to install the Universal Web Connect Web components, you need
the following information:

    o INFORMIXDIR:        /work/ODS

    o WEBSERVERDIR:       /work3/nscp

    o INFORMIXSERVER:     ods_uwc

You also need to have the following:

    1 ESQL/C release 7.23 or above properly installed and configured

    2 sqlhosts file with access to the database(s) to be used with I-UWC

    3 Local or network access to an Informix server with the I-UWC
database components already installed (or to be installed later)
```

```
Should we continue? [y|n] [y]:
```

If you choose to continue, you are prompted for the required information, described in "Gathering the Necessary Installation Information" on page 1-8.

The installation script guides you through the rest of the installation process.

Installing the Database Component

When you install only the database component, the following output is displayed:

```
Installing the Database components only..
In order to install the Universal Web Connect Database components,
you need the following information:
    o INFORMIXDIR:        /work/ODS
    o INFORMIXSERVER:     ods_uwc
You also need to have the following:
    1 ESQL/C release 7.23 or above properly installed and configured
    2 sqlhosts file with access to the database(s) to be used with I-UWC
    3 An Informix Dynamic Server (7.X)
    4 A database to contain the AppPage repository
    5 A blobspace that can support at least 50 mb of storage for storing
blobs for the AppPage repository
Should we continue? [y|n] [y]:
```

If you choose to continue, you are prompted for the required information, described in "Gathering the Necessary Installation Information" on page 1-8.

The installation script guides you through the rest of the installation process.

Installing Both Web and Database Components

When you install the Web and database components, the following output is displayed:

```
Installing the Web and Database components..
```

```
In order to install the Universal Web Connect Web and Database compo-
nents, you need the following information:

    o INFORMIXDIR:        /work/ODS

    o WEBSERVERDIR:       /work/nscp

    o INFORMIXSERVER:     ods_uwc

You also need to have the following:

    1 ESQL/C release 7.23 or above properly installed and configured

    2 sqlhosts file with access to the database(s) to be used with I-UWC

    3 An Informix Dynamic Server (7.X)

    4 A database to contain the AppPage repository

    5 A blobspace that can support at least 50 mb of storage for storing
blobs for the AppPage repository

Should we continue? [y|n] [y]:
```

If you choose to continue, you are prompted for the required information, described in "Gathering the Necessary Installation Information" on page 1-8.

The installation script guides you through the rest of the installation process.

Upgrading Web and Database Components

The installation script detects previously installed Universal Web Connect components, if they exist. You must decide whether you want to install over the existing software, or upgrade the existing software. The Reinstall option removes all existing program and text files and data repositories. The Upgrade option replaces only the program and text files (including the **wcconfig.std** configuration file), while the data repositories remain intact.

Chapter

3

Configuring the Completed Installation

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In This Chapter

This chapter describes the tasks you must complete after installation to run INFORMIX-Universal Web Connect.

Configuring User Privileges

Before you run Universal Web Connect, be sure you have configured it and all related services to run as the **informix** user. This avoids any potential interprocess communication problems related to security and access rights. The related services that Universal Web Connect uses are:

- Informix Dynamic Server
- Netscape FastTrack or Enterprise Server, or any other Web server

Configuring Your Web Server

This section explains how to configure your Web server to work with Universal Web Connect. Which server you configure depends on which Web driver you use. If you use the NSAPI or CGI Web driver with the Netscape FastTrack or Enterprise Server, the installation script updates the **obj.conf** file, so you do not need to configure execution or document directories.

If you use a Web server other than Netscape FastTrack or Enterprise Server, you must manually configure a CGI execution directory for the Web driver and a document directory for the Universal Web Connect Administration Tool on-line help.

To configure the CGI prefix and directory for the Web driver

1. In your Web server manager's CGI screen, set the URL prefix to `/ifmx-bin`.
1. Set the CGI directory to the **ifmx-bin** subdirectory under the actual directory where Web server files are installed, for example:

```
/httpd-uwc/ifmx-bin
```

To configure the document prefix and directory for the Administration Tool on-line help

1. In your Web server manager's document screen, set the URL prefix to `/uwcat`.
1. Set the document directory to the **ifmx-bin/html** subdirectory under the actual directory where Web server files are installed, for example:

```
/httpd-uwc/ifmx-bin/html
```

Starting the Universal Web Connect Service

Start Universal Web Connect using either the Universal Web Connect Administration Tool or by entering the command:

```
wcinit -i
```

To verify your installation, connect to AppPage Builder by entering either the CGI Web driver URL:

```
http://myhost:myport/ifmx-bin/wcdrvr/wcdaemon
```

or the NSAPI Web driver URL:

```
http://myhost:myport/ifmx-bin/wcnsapi.so/wcdaemon.
```

See the "Getting Started" section of the *INFORMIX-Universal Web Connect User's Guide* for introductory information on using Universal Web Connect. See "Additional Documentation" on page 6 for the location of on-line documentation.