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ACR/Instream

Installation Guide for Windows



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1700 District Ave Ste 300
Burlington MA 01803-5231
USA

www.precisely.com

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Introduction

This guide provides the instructions required for the installation of the ACR/Instream software on the Windows operating system.

Who Should Use this Guide?

This manual is for programmers who are responsible for the installation or upgrade of the ACR/Instream software. The instructions assume you've performed the application analysis steps described in the *ACR/Instream Implementation Guide*. Those steps provide the foundation for the software installation and controls design.

Other Sources of Information

The table below describes additional ACR/Instream documentation.

Consult this document	For this type of information
<i>ACR/Instream Implementation Guide</i>	How to implement ACR/Instream. This guide also includes specific steps for the analysis phase of the implementation.
<i>ACR/Instream Controls Design Guide</i>	Detailed information about designing and writing controls using ACR/Instream Editor.
<i>ACR/Instream Programmer's Guide</i>	Detailed information about methods to send messages to ACR/Instream, the data dictionary, integrity message layouts, tuning, and testing the ACR/Instream design. Administrative information about startup and shutdown, customizing, and recovery after abnormal termination.
<i>ACR/Instream Controls Design Tutorials for Windows</i>	Step-by-step instructions for creating and
<i>ACR/Instream Knowledge Base</i>	The Knowledge Base is a repository of all user information available for ACR/Instream..

ACR/Instream Knowledge Base

The ACR/Instream Knowledge Base is an HTML-based repository of all user information for ACR/Instream, plus samples and examples for downloading. The Knowledge Base launches in your default browser and provides standard browser-based searching capabilities so you can easily locate what you need.

The following describes some of the contents:

- All ACR/Instream manuals are available in PDF format. You can view these online or download to your PC and print.
- All ACR/Instream help files that are accessible from the user interfaces are also accessible as compiled help files that you can download. For example, the help file for the ACR/Instream Editor can be downloaded independently of the user interface.
- Specialized guides, such as the following:
 - *IIP Database Guide*
 - ACR/Instream Timer Utility User's Guide
 - ACR/Instream System Console XML Messages User's Guide
 - ACR/Instream Flat-File Reader User's Guide
- Implementation support provides instructions, samples, and other resources to assist you in implementing ACR/Instream.
- Jump start solutions include sample rules files that you can download to your PC and adapt for your application.
- FAQs about rules writing addresses common queries about using the ACR/Instream Editor to develop rules.
- FAQs about implementation addresses common queries about how to get ACR/Instream up and running.
- Sample message files can be downloaded and used immediately without coding.
- Troubleshooting helps solve common problems.

The Knowledge Base is available two ways. A CD-based version is shipped with the installation media. This CD launches the Knowledge Base as an HTML-based help system.

The Knowledge Base is also available on the Internet from the Infogix Product Support web page. Contact Product Support for information about obtaining access.

Overview

This chapter provides background information on installation options from which you can choose. If you have not already done so, please read the *ACR/Instream Implementation Guide*. In that guide, you'll find application analysis steps that provide the foundation for installation.

What You Should Know Before Starting

You should have the following information available from the application analysis.

- Which business objects and applications are you going to control?
- Where are you going to install the ACR/Instream domain?
- What middleware are you going to use to transport messages? This determines which communication modules you choose to unload from the installation tape.
- Where are your data capture points? This determines where you will perform installation procedures for remote platform support.

Detailed information about the application analysis is in the *ACR/Instream Implementation Guide*.

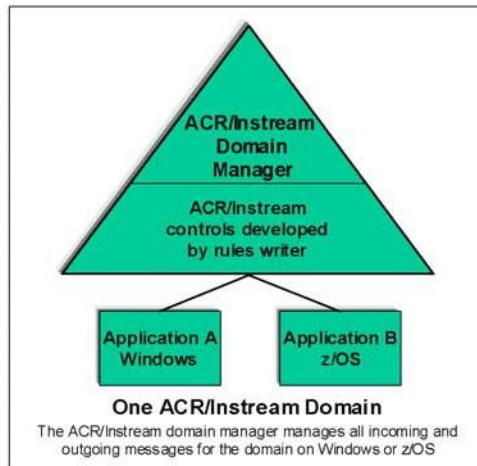
What is the ACR/Instream Domain?

The *ACR/Instream domain* refers collectively to ACR/Instream's internal servers, definition files, and the *ACR/Instream domain manager*.

2 ■ Overview

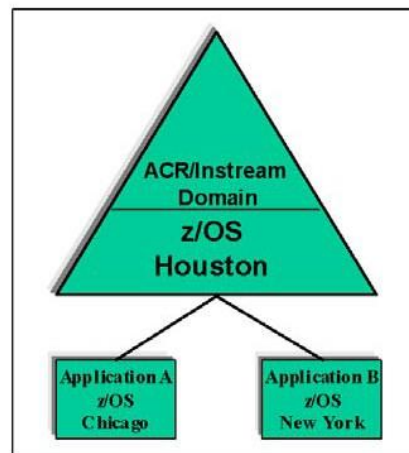
What is the ACR/Instream Domain?

The ACR/Instream domain manager manages all incoming and outgoing integrity messages for ACR/Instream servers. These messages come from your target application. The applications can be on any computer that can send messages using TCP/IP or middleware such as WebSphere MQ to the ACR/Instream domain manager.



The supported operating systems for the platforms are z/OS and Windows. The platform for the supported application can be different from the one on which ACR/Instream resides. For example, if your ACR/Instream domain is installed on z/OS, the supported applications can be on a different z/OS computer or on a Windows computer.

If your application is on a different platform from the ACR/Instream domain, you will need to install certain files or datasets and communication modules on that remote platform. In the graphic below, application A and application B are on different machines from the ACR/Instream domain:



Message Construction and Transport Choices

To implement ACR/Instream, you need to make two choices:

- How to acquire the data and format it into an integrity message (message construction)
- How to transport that message to the ACR/Instream domain

This section describes these choices so you can make the appropriate decisions while performing the installation instructions.

Constructing the Integrity Messages

There are two basic methods to acquire data and format integrity messages:

- Use the ACR/Instream application program interface (API) and communication exit, which work with code you add to your application. This method works with TCP/IP and WebSphere MQ.

An API is a software routine that calls services that transport data across a network. It constructs an integrity message from the data provided from the application, and sends the message to ACR/Instream. More information about this option is in “ACR/Instream API Options”.

- Use existing WebSphere MQ messages. If your site uses WebSphere MQ to transport messages that contain the data needed by ACR/Instream, you can use Infogix’s WebSphere MQ message relay module, called MQPROBE, and the communication exits to capture the data and format a message.

More information about this option is in “WebSphere MQ Message Relay Module and Communication Exits”.

Transporting the Messages

To transport messages between an application and the ACR/Instream domain, you have these options:

- Use a pretailored WebSphere MQ message relay module (named MQPROBE) and its associated communication exits.

If your choice for constructing messages (described in the previous section) is to use WebSphere MQ messages, then this transport method is the practical choice.

However, this choice also works with the ACR/Instream API for those sites that have WebSphere MQ in place but do not want to use existing messages.

- Use pretailored communications modules and communication exits for TCP/IP.
This method is the practical choice for sites that do not use WebSphere MQ.
- Use prototype modules and tailor them to your middleware.
This method is the choice for sites that intend to use the ACR/Instream API to create the messages, but do not intend to use TCP/IP or WebSphere MQ to transport the message.

The instructions in this manual assume you will use the pretailored modules. To tailor the prototype modules, please contact Infogix.

The modules that support transporting messages are required for both the ACR/Instream domain and for the supported application. For the supported application, follow the appropriate instructions in this manual entitled “Application API Support Installation.” Middleware types for all communication modules and the ACR/Instream domain must be the same. For example, if platform A uses WebSphere MQ, then platform B must also use WebSphere MQ.

ACR/Instream API Options

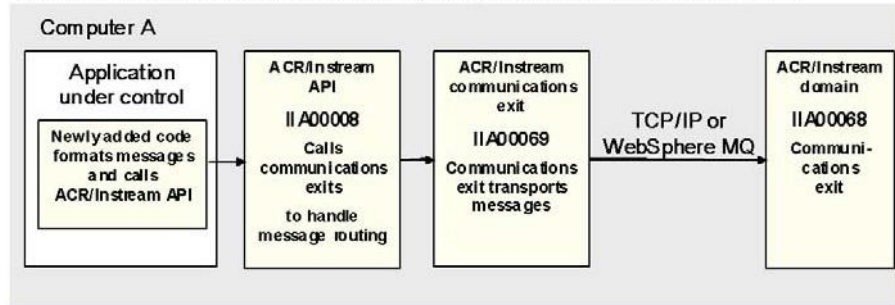
The ACR/Instream API (module IIA00008) takes the data from your application and calls the ACR/Instream communication exits to handle the message routing to the ACR/Instream domain. The options that use the API require the addition of code to your application. That code formats an integrity message and calls the ACR/Instream API (IIA00008). The ACR/Instream API then calls the communication exits to handle the message routing.

Two ACR/Instream API options are available, depending on your implementation, as described below.

ACR/Instream API Option 1: All Components on One Computer

The diagram below shows an ACR/Instream installation with all components on a single computer.

Option 1: ACR/Instream domain and target application on the same computer

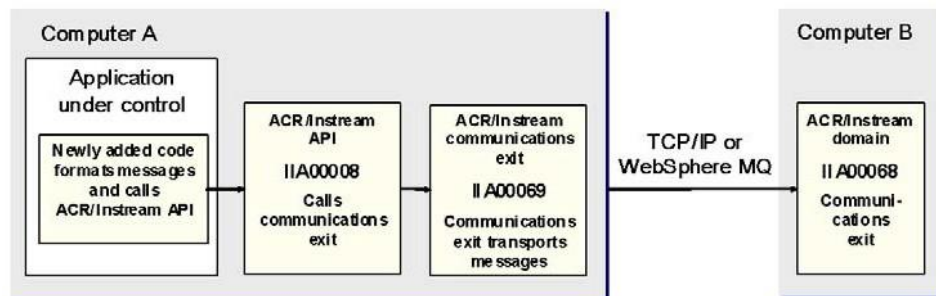


If your ACR/Instream implementation is contained on a single platform, all required modules are included in an ACR/Instream domain installation. After you complete the instructions in this manual, you will need to add code to your application to work with the API support files. Detailed information about adding the ACR/Instream API to your application is in the *ACR/Instream Programmer's Guide*.

ACR/Instream API Option 2: Components on Two Computers

The diagram below shows the ACR/Instream domain installed on a computer separate from the application that is the target of control:

Option 2: ACR/Instream domain and target application on separate computers



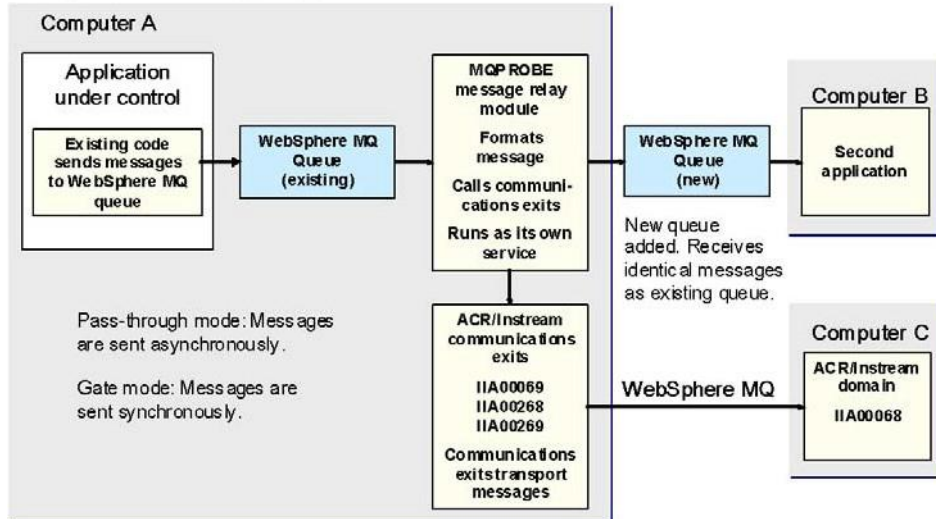
The above configuration requires the installation of application API support for each application that is located on a different computer. The location for the application API support in this case is Computer A because it is on a different computer from the ACR/Instream domain.

WebSphere MQ Message Relay Module and Communication Exits

If your application already uses WebSphere MQ middleware to transport messages, you can implement a WebSphere MQ message relay module (MQPROBE) and its associated communication exits to capture data, format a message, and transport it to the ACR/Instream domain. The ACR/Instream domain can be on the same or another computer.

This option does not require adding code to your application. It does require installing the message relay module and the addition of a new WebSphere MQ queue.

WebSphere MQ message relay module and ACR/Instream communications exits



More information about using the WebSphere MQ Message Relay Module is available through Customer Support.

Backup Domains and Load Balancing

ACR/Instream provides the ability to forward integrity messages from one domain to another. This feature assists those ACR/Instream sites that need to maintain a redundant or fail-over backup domain. This feature can also be used to forward integrity messages to another domain for additional processing, freeing up the primary domain for incoming integrity messages.

This feature is available only if you configure both the sending and the receiving domain for WebSphere MQ communications.

Full setup instructions are in “Multi-Domain Communications” on page 69.

Windows Rules Writing Tools

The rules writing tools are graphical user interfaces that are installed on Windows only. The Windows installation includes the following user interface components:

- ACR/Instream Editor for writing rules
- ACR/Instream Player for testing rules
- ACR/Instream Data Dictionary
- ACR/Instream DB Params Encryptor
- ACR/Instream Connection Editor for defining and selecting middleware connections
- ACR/Instream Timer Editor for creating timer sets
- ACR/Instream Calendar Maker
- ACR/Instream Configuration File Editor for customizing your implementation

You do not need the ACR/Instream domain on Windows to use the rules writing tools. Your Windows installation media includes the appropriate setup program for your site. For example, if you intend to use the ACR/Instream domain on Windows as well as the user interface, then your installation media will include both.

If your Windows installation includes only the user interfaces, you will need to transfer completed rules files to the platform on which you install the ACR/Instream domain.

Reinstallation Considerations

This section provides a list of the typical files that could be affected by reinstallation of ACR/Instream. This list does not apply to upgrading ACR/Instream from one release to another. Upgrade instructions are provided in the appropriate chapter in this guide.

Function Table Update File (funcupdt.iat on Windows and FUNCUPDT on z/OS)

If you customized the funcupdt.iat file, you must repeat the customizing after reinstalling ACR/Instream. After customizing the funcupdt.iat file, you must update the function table. See your *ACR/Instream Programmer's Guide*.

Report Header Files (rptmsgs.ieu on Windows and RPTMSGs on z/OS)

If you changed the headers on the ACR/Instream Integrity Check report or the Extraction Error report by modifying the report header files, you need to repeat the modification process. See your *ACR/Instream Programmer's Guide*.

Windows Installation with TCP/IP Communications

This chapter explains how to install the ACR/Instream domain on your Windows PC for the following options:

- Windows installation for the ACR/Instream domain and rules-writing tools
- Windows installation for rules-writing tools only
- TCP/IP communications for message transportation

Also included in this chapter is the following information:

- About the Windows installation CDs
- Starting and stopping the ACR/Instream domain
- Accessing the rules-writing tools

About the Windows Installation CDs

ACR/Instream is shipped on the following CDs:

- ACR/Instream Product
This disk contains the software. If you intend to test rules on your Windows PC or if you intend to use Windows as a production environment, you should use this disk. If you received this disk, use the instructions in “Windows Installation for the ACR/Instream Domain”.
- ACR/Instream Tools
This disk contains the graphical user interfaces (GUIs). These user interfaces can be used to create rules which can then be transferred to another computer for testing. If you received this disk, use the instructions in “Windows Installation for Rules-Writing Tools Only”.

3 ■ Windows Installation with TCP/IP Communications

System Requirements

System Requirements

The tables below describe the system requirements for a Windows installation for ACR/Instream by installation option. Newer versions may also be supported. Contact Infogix Customer Support.

The first table is for the ACR/Instream domain and rules-writing tools. The next table is for those sites installing application API support on a Windows PC.

System Requirements for the Domain and Rules Writing Tools

Requirement	ACR/Instream Domain and Tools	Tools Only
Hardware and operating system	IBM or compatible machine with Windows Server 2003 or later	IBM or compatible machine with Windows OS.

System Requirements for Application API Support

Requirement	Remote Platform Support Modules
Hardware and operating system	IBM or compatible machine with Windows Server 2003 or later
Network Communication	TCP/IP

Your Windows Installation Options

The Windows installation wizard offers you options. The table below provides some information about each option. You should know which options you want to select before starting the installation instructions.

Option	Description
ACR/Instream Tools	Select this option to install the graphical user interfaces that help the rules writer create and test rules: <ul style="list-style-type: none"> ■ ACR/Instream Editor ■ ACR/Instream Player ■ ACR/Instream Connection Editor ■ ACR/Instream Data Dictionary ■ ACR/Instream DB Params Encryptor ■ ACR/Instream Timer Utility ■ ACR/Instream Calendar Maker ■ ACR/Instream Configuration File Editor
ACR/Instream Local Domain	Select this option if you purchased a Windows 2003 Server license. This is the “rules engine” for ACR/Instream.
ACR/Instream Web Application and Interface	Select this option to unload the files that support the ACR/Instream web application and interface. This web server can be located on a different computer than the domain.
ACR/Instream Database Scripts	Select this option to unload the scripts to create the necessary tables and table spaces. If you select ACR/Instream Local Domain, you also need to select this option as the database must be on the same computer as the domain.

What You Need to Know Before Starting

This section lists the decisions you should make before installing the software. Instructions for your choices are included in the appropriate sections.

- What middleware do you intend to use? See “Message Construction and Transport Choices”
- Middleware-related instructions in “Task 3: Set Up TCP/IP for the Domain Communications”. These tasks must be performed by a middleware expert.

3 ■ Windows Installation with TCP/IP Communications

What You Need to Know Before Starting

- Database-related instructions in “Task 5: Application API Support Installation” must be performed by a DB2 database administrator.
- DB2 Enterprise Server Edition version 8.1 or later is required.
- The database must be located on the same platform as the ACR/Instream domain.
- Scripts are provided to create the table spaces and the tables.
- A user interface is provided to enable the encryption of database-related parameters in the underlying environment file. If you need this option, follow the instructions in “Password Protection for Rules Files”.

Creating and Maintaining Test and Production Environments

Your site may require two domains: one for testing and one for production. These are your options to maintain two environments:

- Install the ACR/Instream domains on separate servers. This requires separate control file licensing.
- Install the ACR/Instream domains on the same server and control the connection via client access. These domains can share the same control file license.
- Install the ACR/Instream domain on the same server and use local access. If this is a requirement, please contact Customer Support for assistance.
- The ACR/Instream interface can connect to only one ACR/Instream domain at a time. The web application installer will need to install two web applications to support both a test and a production environment.

Windows Installation for the ACR/Instream Domain

This section provides instructions for installing the ACR/Instream domain and the rules-writing tools on Windows.

Task 1: Install the Domain and Rules-Writing tools

Read “Your Windows Installation Options” before starting these instructions.

This task must be performed by the Windows Server Admin

1. Download the installer from the Support site and run the installer.
2. Follow the instructions on the screen to complete the setup. You will be prompted if a reboot is required.

For this task, select the following options:

- Local Domain
 - ACR/Instream Tools
 - Database Scripts
3. License your Micro Focus Application Server by following the instructions below.
 - a. Use Windows Explorer to display the contents of the appserv folder. The default location is the following:
`c:\Precisely\ACR Instream\appserv`
 - b. Double-click setup.exe to launch the Micro Focus Application Server for Net Express 4.0 Setup wizard.
 - c. Follow the instructions on the screen to complete the setup.

Notes: Infogix recommends accepting the default location for the licensing files. The licensing files cannot be in the same location as the ACR/Instream DLLs.

- d. Call Infogix Customer Support when you reach the License Registration dialog box.
A representative will give you a serial number and a license number to enter in the dialog box.
When you have entered the numbers, click OK.

3 ■ Windows Installation with TCP/IP Communications

Windows Installation for the ACR/Instream Domain

4. Authorize your ACR/Instream license. You authorize your license through the Infogix control file. All Infogix software uses the same control file.
 - a. Access an MS-DOS command prompt window by clicking Start, pointing to Programs, and then clicking Command Prompt.
 - b. Navigate to your ACR/Instream domain folder, which is where the commands are located. The default location is the following:

```
c:\Precisely\ACR Instream\Domain
```
 - c. Enter the following command:

```
uni10pr
```

This will produce UNI10PR.RPT, a report listing the contents of the control file.
 - d. Print UNI10PR.RPT. The default location for this report is the following:

```
c:\Precisely\ACR Instream\Domain\Files
```
 - e. Request your control file update and password.
 - Call Customer Support to advise that you are updating the Control File according to your license agreement. Be ready to provide the reason for the update and the scheduled date.
 - Email or fax the reports generated in the previous step to Customer Support. Mention any special considerations. For example, inform Customer Support if you are upgrading to a new release or upgrading a CPU. You will receive an email or fax containing your control file update and password.
 - f. After Customer Support provides your passwords, enter them in a file, name it INFOGIXPW.RPT, and save it to the Domain folder. You can choose an alternative name, but you **MUST** save it in the Domain folder.
 - g. Enter the following command with the name of your password file from the previous step.

```
UNICF50 INFOGIXPW.RPT
```

This will update the control file and produce UNIFAX50.RPT, a report indicating the outcome of the update process. This report will be in the Files folder
 - h. Review UNIFAX50.RPT to determine if the control file was successfully updated.

Scroll through the report and look for any messages indicating the job failed. If you see the message UPDATE COMPLETE at the end of the report, continue with the next step.

If you see any errors, print and fax this report to Infogix Customer Support.

If there are no errors, you have successfully updated the control file and you can continue with the next step.

5. Edit the configuration parameters.

The ACR/Instream Configuration File Editor provides an easy method to edit the parameters that control ACR/Instream functioning and customization.

Note: The editing of configuration parameters is typically the responsibility of an ACR/Instream administrator as the parameters affect all users of ACR/Instream. If necessary, ask your ACR/Instream administrator to perform this step.

This step describes the parameters that you should set now. You or the administrator can return to the Configuration File Editor to update parameters at any time.

- a. Select Start > All Programs > Infogix > ACR/Instream > ACR Instream Configuration File Editor.
- b. Select your configuration file to edit in the dialog box that opens. The default name of the configuration file is the following:

```
iiacnfg.dat
```

The default location is the following:

```
c:\Precisely\ACR Instream\Domain\Files
```

- c. Edit the **ACR/Instream domain name**. This parameter will assist you in identifying a test domain or a production domain in the future. It also displays in the output interface.
- d. Change the value of the “Do you have an IIP database?” parameter to YES.
- e. Edit the **Action for an IIP database error**. This parameter will specify a shutdown of the ACR/Instream domain when a database error is encountered.

Specify SHUTDOWN or CONTINUE.

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Windows Installation for the ACR/Instream Domain

Note: The *Enable Export action to the IIP Database?* parameter resets to NO if you start the domain and the database is not available. Also, if the database becomes unavailable when an Export Domain Data action is executed, the parameter is reset to NO. This is to prevent repeatedly sending data to an unavailable database, which generates excessive error messages.

- f. Change any other parameters at this time. For example, you can specify currency symbols, date separators, and number punctuation.
- g. Save your changes.

Task 2: Create DB2 Database Tables and Table Spaces

These steps create DB2 tables and table spaces.

This task must be performed by a DB2 database admin

1. Create a new database named IIP or any other name for your site standards. The remaining documentation assumes the name IIP. If you choose a different name, substitute that name as necessary.
2. Establish three buffer pools of 32K each. These buffer pools support the Export Domain Data action, the interface, and a temporary table space.
3. Review the containers created by the installation and relocate if desired. The installation program created the containers necessary for the table spaces in the following location:

`c:\ACR_Instream\DB2\Containers`

You can choose to locate the containers in another folder. To do so, perform the following steps:

Notes: Perform these steps only if you choose not to use the default container location.

- a. Copy the container folder to the new location. This will quickly create the necessary folders.
- b. When you edit the script in the next step, edit the path location to reflect the new location.

4. Edit and execute the file CREATETS.BAT. This executable file creates the scripts that will create the necessary table spaces and tables. Instructions are in the file. CREATETS.BAT is located in the following folder:

```
c:\Precisely\ACR Instream\RDBMS\DB2\V8_1\
```

5. Execute the scripts:
 - a. Execute the script named BLDTSQL. The script is located in the following folder:

```
c:\Precisely\ACR Instream\RDBMS\DB2\V8_1\
```

Notes: Infogix recommends keeping all table spaces in one buffer pool.

- b. Edit and execute the script named BLDTBLS.sql to create the tables. Instructions for editing are in the comments. The script is located in the following folder:

```
c:\Precisely\ACR Instream\RDBMS\DB2\V8_1\
```

6. Edit the database-related parameters in the environment file. You can either edit the file directly or use the database parameter encryption user interface. The encryption is optional.

Option 1: Edit File Directly

Open the environment file named iiaenv.bat with any editor and edit these parameters:

The following is the default location for this file:

```
c:\Precisely\ACR Instream\Domain
```

Edit these parameters:

IIPDB: IIP or your selected database name

IIPPWD: Password for your new database

IIPUSR: Your schema name

Option 2: Encrypt parameters using user interface

Select **Start > Programs > Infogix > ACR Instream > ACR Instream DB Parms Encryptor** and follow the instructions in the dialog box that opens.

7. Assign the ODBC to the new database.
 - a. Select Start > Control panel > Administrative Tools > Data Sources (ODBC)
 - b. Click the User DSN tab.
 - c. Click Add to open the Create New Data Source dialog box.
 - d. Scroll down to the IBM DB2 ODBC DRIVER and click Finish. The ODBC IBM DB2 Driver - Add dialog box opens.

3 ■ Windows Installation with TCP/IP Communications

Windows Installation for the ACR/Instream Domain

- e. Enter a data source name of IIP, select IIP as the Database alias, and then click OK.
IIP is the alias assigned when the IIP database was created using the installation scripts.
8. Provide your TCP/IP expert with the database name, schema name, and password for use in “Task 3: Set Up TCP/IP for the Domain Communications”.

Task 3: Set Up TCP/IP for the Domain Communications

These steps enable the domain to receive messages and to communicate with the output interface.

This task must be performed by your TCP/IP expert

1. Locate the TCP/IP environment file and open it in a text editor, such as Notepad. The name and default location is the following:
`c:\Precisely\ACR Instream\Domain\iiaenv.bat`
2. Tailor the parameters to work with your middleware. Do not change the format of the file.

The following table describes each parameter in the file. For most parameters, the default will be sufficient until after your production testing. For initial setup, however, you must have the correct IIAPORT or IIAHOST and the correct IIAADDR

Environment File Parameters	Description
ACRIIA	Specifies the location of the ACR/Instream domain.
PATH	Specifies the location of the ACR/Instream bin folder.
IIAMAXW	Specifies the number of milliseconds to wait before timing out. 1000 = 1 second -1 (entered as 0000000j) means wait indefinitely.
IIASERV	Specifies the host port service name.
IIAPORT	Specifies the host port number.
IIAHOST	Specifies a host name.
IIAADDR	Specifies the TCP/IP address.
IIARETRY	Specifies the number of times ACR/Instream attempts to establish a connection.

Environment File Parameters	Description
IIMAXCN	Specifies the number of times that the IIMAXW parameter can be used before detecting an error. The combination of this parameter and the IIMAXW parameter can be tuned to balance performance against a reasonable amount of total wait time. 00000000 and 00000001 will both result in one IIMAXW interval.
NOANIM	Reserved for future use.
IIAJCL	Specifies a folder which contains a batch file or executable program as the target of the Launch Process action. This parameter can be edited by the rules writer if a Launch Process action is defined.
IIPDB	If you used the encryption facility described earlier, this value will already be updated. To use the encryption facility to edit this value, select Start > Programs > Infogix > ACR Instream > DB Parm's Encryptor. Enter IIP or the selected name of your database. This parameter is only needed for the Export Domain Data action.
IIPUSR	If you used the encryption facility described earlier, this value will already be updated. To use the encryption facility to edit this value, select Start > Programs > Infogix > ACR Instream > DB Parm's Encryptor. Enter the schema name for the database. This parameter is only needed for the Export Domain Data action. It is not necessary for the interface.
IIPPWD	If you used the encryption facility described earlier, this value will already be updated. To use the encryption facility to edit this value, select Start > Programs > Infogix > ACR Instream > DB Parm's Encryptor. Enter the password for the database. This parameter is only needed for the Export Domain Data action. It is not necessary for the interface.

3. Provide your ACR/Instream domain installer with the parameters for "Task 4: Set Up the Connection Editor (Optional)" on page 29.

Task 4: Set Up the Connection Editor (Optional)

The Connection Editor provides middleware-related environment parameters for the ACR/Instream Player. The ACR/Instream Player is a tool for testing rules and messages. It will accept a file of test messages and send them to an ACR/Instream domain. If your ACR/Instream domain is on z/OS, the Connection Editor provides the environment parameters that direct the messages to the appropriate platform.

3 ■ Windows Installation with TCP/IP Communications

Windows Installation for the ACR/Instream Domain

The middleware expert can provide the parameters to any user to complete this task

You can skip these instructions if you intend to use ACR/Instream solely on a single Windows computer.

1. Click Start, then select Programs > Infogix > ACR Instream > ACR Instream Connection Editor.
2. Select the Default TCP Connection and click Edit.
3. Complete the Connection Properties dialog box. Parameters are described below.

TCP/IP Parameter	Purpose
Connection Name	Change the name of the connection, if desired. This name appears as the connection selection name in the ACR/Instream Player.
Location of Communication Modules	Enter the location of the IIA00069 communication modules on the PC. The default location is the following: C:\Program Files\Infogix\ACR Instream\Mware\Tcp
Host IP Address or Name	Enter the host IP address or the name.
Host Port Number or Service Name	Enter the host port number or service name.
Maximum Wait Time	Enter the number of seconds to wait before timing out.
Number of Retries	Enter the number of attempts to establish a connection.

Task 5: Application API Support Installation

For each application that your domain will support, you must install the necessary APIs and communication modules.

Infogix provides the files and communications modules for various environments and in several languages.

These files, modules, and their instructions are obtainable by downloading from the ACR/Instream Knowledge Base. The Knowledge Base is on the Infogix Customer Support web site. Use the following instructions to locate what you need for your applications:

1. Enter www.infogix.com in your browser to display the Infogix home page.
2. Follow the instructions on the web site for obtaining a customer support login ID for ACR/Instream. Be sure to select ACR/Instream as a licensed product. When Customer Support provides you with your login ID and password, continue with the next step.

Notes: If you already have a Customer Support login ID, you will need to have ACR/Instream added as a licensed product before continuing. Email Customer Support at support@infogix.com with your request.

3. Navigate to the ACR/Instream support page.
4. Select Knowledge Base from the support page.
5. Navigate to the download center and select the API of your choice. Instructions are provided with the download.

Task 6: Install the ACR/Instream Web-Based Output Interface

This task must be performed by a web admin

To complete the installation of ACR/Instream, your web administrator must install the web application and interface. The web server can be on a different computer than the domain. Complete instructions are in Chapter 6, “Output Interface Installation.”

Provide your web administrator with the following information:

- Database name, login, and password
- Database IP address
- ACR/Instream domain IP or host name, and the port number

After the web application is installed, each user of the interface must perform a client installation on their PC. Client installation instructions are also in Chapter 6, “Output Interface Installation.”

About Database Support

The DB2 database support is for the Export Domain Data action and the ACR/Instream interface. The Export Domain Data action allows you to send the results of rules to a database. The ACR/Instream interface is a web-based application that permits you to monitor ACR/Instream processing in real-time.

Database Space Allocation

The recommended size of the initial database is 10 MB. Your actual requirements depend on your usage to support the Export Domain Data Action and the ACR/Instream interface.

Database Space Allocation for the Export Domain Data Action

The recommended size of the initial database is 5 MB. Your actual requirements depend on the following:

- Number of rules that use the Export Domain Data action that sends the data to the database.
- Quantity of data sent by each Export Domain Data action.
- Frequency of Export Domain Data action execution.
- Frequency with which you delete accumulated data.

Infogix recommends monitoring the database usage and increasing space as necessary or adjusting your maintenance policy. Infogix also recommends you establish a policy for data retention so users understand data is not available indefinitely.

Database Space Allocation for the ACR/Instream Web Application

The recommended size of the initial database is 5 MB. Your actual requirements depend on the following:

- Number of views that are created for all users
- Amount of data each view needs

Infogix recommends monitoring the usage and increasing space as necessary or adjusting your maintenance policy.

What You Need To Know About the Database

The following describes the information you should know about the database that supports ACR/Instream.

- DB2 Enterprise Server Edition version 8.1 or later is required.
- The database must be located on the same platform as the ACR/Instream domain.
- For the Export Domain Data action, certain ACR/Instream configuration parameters must be set to enable the writing to the database, as described in the installation instructions.
- For the Export Domain Data action, COMMITs are automatically sent to the database when ACR/Instream performs a syncpoint (a function related to recovery). The database administrator needs to work with the ACR/Instream administrator to determine the frequency and method of syncpoints. More information is in the *ACR/Instream Information Portal Database Guide*.
- When the rules writer creates the Export Domain Data action that sends the data to the database, the rules writer can also choose to set archive or delete flags in the database. You can use these flags to perform maintenance such as purging data no longer required. See the *ACR/Instream Information Portal Database Guide*.
- To enable the ACR/Instream Export Domain Data action to work with the optional database, see “Configuring the Rules to Work with the IIP Database”.
- Database-related parameters in the underlying environment file can be, if desired, encrypted. A user interface is provided. Instructions are in the appropriate installation step. To return to this user interface at any time, select **Start > Programs > Infogix > ACR Instream > ACR Instream DB2 Parmes Encryptor**.

Database Maintenance Requirements

To support your maintenance requirements, the rules writer can mark individual records, known as item IDs, as being available for archiving or deleting. This is performed with an option available for the Purge Item IDs action. Details are in the *ACR/Instream Programmer's Guide* along with complete descriptions of the columns and tables.

Configuring the Rules to Work with the IIP Database

For ACR/Instream rules to work with the IIP database, the rules writer must perform these tasks:

- Configure ACR/Instream rules to work with the database
- Add an Export Domain Data action to an appropriate comparison
- Add an appropriate Purge Item IDs action
- Configure the database-related parameters as described in installation instructions

To configure ACR/Instream to work with the database, the rules writer must first use the ACR/Instream Editor Customization Wizard.

The Wizard automatically launches the first time you access ACR/Instream after implementation. If you are deferring database implementation, you can cancel the Wizard and return to it later by selecting Options > Configuration.

Configuration is required to enable the database-related features such as the Export Domain Data action.

The Export Domain Data action and the Purge actions can be assigned in the same manner as any other action. See your ACR/Instream Editor online Help.

Starting and Stopping the ACR/Instream Domain

To start or stop the ACR/Instream domain, follow the appropriate procedure below:

Application folder—Click the ACR Instream folder on your desktop. Then double-click Start ACR Instream Domain or Stop ACR Instream Domain. If desired, click and drag the start and stop programs to your Windows desktop.

Start Menu—Click Start, then select Programs > Infogix > ACR Instream > Start the ACR Instream Domain or Stop the ACR Instream Domain.

Accessing the Rules-Writing Tools

To access any ACR/Instream Rules-Writing tool, follow the appropriate procedure below.

Start menu—Click Start, then select Programs > Infogix > ACR Instream > *name of tool*.

Application folder—Click the ACR Instream folder on your desktop. Then double click the name of the tool you want to access.

ACR/Instream Documentation Disk

ACR/Instream documentation is shipped on a separate disk. When you insert the CD, the HTML-based documentation will launch in the PC's default browser.

Password Protection for Rules Files

You can protect your rules from unauthorized modifications by selecting the rules encryption option and then assigning a password.

To invoke this option, perform the following steps:

1. Launch the ACR/Instream Editor by clicking the desktop icon or by selecting Start > Infogix > ACR/Instream > ACR/Instream Editor.
2. Select Options > Configure ACR/Instream Editor. This launches the ACR/Instream Customization Wizard.
3. Select Enable encryption of rules click Finish.
4. Save your rules file. You will be prompted to provide a password when you save the rules file and reopen it.

If you forget your password, call Infogix Customer Support for assistance.

Windows Installation for Rules-Writing Tools Only

These instructions are for installing the rules-writing tools only on a Windows XP PC.

1. Place the ACR/Instream tools installation CD into your CD drive. The installation program will automatically execute if your system is configured for automatic execution.

If it does not launch, click Run on the Start menu. Enter [drive:]\SetupInterface.exe in the dialog box where [drive] is the letter of your CD drive. The setup program will start.

2. Follow the instructions on the screen to complete the setup. You will be prompted if a reboot is required.

What's Next?

If this completes the software installation for your site, the next phase is design. See your *ACR/Instream Implementation Guide* for information about how the programmer participates in the design phase.

Windows Installation with WebSphere MQ Communications

This chapter explains how to install the ACR/Instream domain on your Windows PC for the following options:

- Windows installation for the ACR/Instream domain and rules-writing tools
- Windows installation for rules-writing tools only
- WebSphere MQ communications for message transportation

Also included in this chapter is the following information:

- About the Windows installation CDs
- Starting and stopping the ACR/Instream domain
- Accessing the rules-writing tools

If you have not already done so, please read “Message Construction and Transport Choices” on page 13 before continuing.

About the Windows Installation CDs

ACR/Instream is shipped on the following CDs:

- ACR/Instream Installers
This disk contains the software. If you intend to test rules on your Windows PC or if you intend to use Windows as a production environment, you should use this disk. If you received this disk, use the instructions in “Windows Installation for the ACR/Instream Domain”.
- ACR/Instream Tools
This disk contains the graphical user interfaces (GUIs). These user interfaces can be used to create rules which can then be transferred to another computer for testing. If you received this disk, use the instructions in “Windows Installation for Rules-Writing Tools Only”.

4 ■ Windows Installation with WebSphere MQ Communications

System Requirements

System Requirements

The tables below describe the system requirements for a Windows installation for ACR/Instream by installation option. Newer versions may also be supported. Contact Customer Support for additional information.

The first table is for the ACR/Instream domain and rules-writing tools. The next table is for those sites installing application API support on a Windows PC.

System Requirements for the Domain and Rules Writing Tools		
Requirement	ACR/Instream Domain and Tools	Tools Only
Hardware and operating system	IBM or compatible machine with Windows Server 2003	IBM or compatible machine with Windows XP Service Pack 2
Network Communication	WebSphere MQ	Not
Java	Java Runtime Environment (JRE) 1.8	

System Requirements for Application API Support	
Requirement	Remote Platform Support Modules
Network Communication	WebSphere MQ 6.0, MQ Client or MQ Server. Require Micro Focus runtime license on the machine on which they are installed. Infogix does not supply Micro Focus licenses for any machine other than the one on which ACR/Instream is installed.

Your Windows Installation Options

The Windows installation wizard offers you options. The table below provides some information about each option. You should know which options you want to select before starting the installation instructions.

Option	Description
ACR/Instream Tools	<p>Select this option to install the graphical user interfaces that help the rules writer create and test rules:</p> <ul style="list-style-type: none"> ■ ACR/Instream Editor ■ ACR/Instream Player ■ ACR/Instream Connection Editor ■ ACR/Instream Dictionary Maker ■ ACR/Instream Data Dictionary Editor ■ ACR/Instream Timer Utility ■ ACR/Instream DB Params Encryptor ■ ACR/Instream Calendar Maker ■ ACR/Instream Configuration File Editor <p>If you plan on creating and testing rules on Windows XP, you can use the instructions in “Windows Installation for Rules-Writing Tools Only”.</p>
ACR/Instream Local Domain	Select this option if you purchased a Windows 2003 Server license. This is the “rules engine” for ACR/Instream.
ACR/Instream Web Application and Interface	Select this option to unload the files that support the ACR/Instream web application and output interface. This web server can be located on a different computer than the domain.
ACR/Instream Database Scripts	Select this option to unload the scripts to create the necessary tables and table spaces. If you select ACR/Instream Local Domain, you also need to select this option as the database must be on the same computer as the domain.

What You Need to Know Before Starting

This section lists the decisions you should make before installing the software. Instructions for your choices are included in the appropriate sections.

- What middleware do you intend to use?
- Middleware-related instructions in “Task 3: Set Up WebSphere MQ for the Domain Communications” must be performed by a middleware expert.
- Database-related instructions in “Task 4: Application API Support Installation” must be performed by a DB2 database administrator.
- DB2 Enterprise Server Edition version 8.1 or higher is required.
- The database must be located on the same platform as the ACR/Instream domain.
- Scripts are provided to create the table spaces and the tables.
- Websphere MQ queues must be defined as shareable. Note that the default value for queues on z/OS is NOSHARE.

Creating and Maintaining Test and Production Environments

Your site may require two domains: one for testing and one for production. These are your options to maintain two environments:

- Install the ACR/Instream domains on separate servers. This requires separate control file licensing.
- Install the ACR/Instream domains on the same server and control the connection via client access. These domains can share the same control file license.
- Install the ACR/Instream domain on the same server and use local access. If this is a requirement, please contact Customer Support for assistance.
- The ACR/Instream interface can connect to only one ACR/Instream domain at a time. The web application installer will need to install two web applications to support both a test and a production environment.

Windows Installation for the ACR/Instream Domain

This section provides instructions for installing the ACR/Instream domain and the rules-writing tools on Windows.

Task 1: Install the Domain and Rules-Writing tools

You must have the installation CD to complete these tasks.

This task must be performed by the Windows Server Admin

1. Download the installer from Support site and run the installer.
2. Follow the instructions on the screen to complete the setup. You will be prompted if a reboot is required.

For this task, select the following options:

- Local Domain
 - ACR/Instream Tools
 - Database Scripts
3. License your Micro Focus Application Server by following the instructions below.
 - a. Follow the steps described in the article below to install Micro Focus License Manager to install the license provided by Infogix Support.
 - b. Click, or copy the following URL and paste it in a browser.
 - c. <https://www.microfocus.com/documentation/visual-cobol/VC40/DevHub/GUID-24E20084-06D2-4505-B10B-5C0877300A27.html>

4 ■ Windows Installation with WebSphere MQ Communications

Windows Installation for the ACR/Instream Domain

4. Authorize your ACR/Instream license. You authorize your license through the Infogix control file. All Infogix software uses the same control file.
 - a. Access an MS-DOS command prompt window by clicking Start, pointing to Programs, and then clicking Command Prompt.
 - b. Navigate to your ACR/Instream domain folder, which is where the commands are located. The default location is the following:

```
c:\Precisely\ACR Instream\Domain
```
 - c. Enter the following command:

```
uni10pr
```

This will produce UNI10PR.RPT, a report listing the contents of the control file.
 - d. Print UNI10PR.RPT. The default location for this report is the following:

```
c:\Precisely\ACR Instream\Domain\Files
```
 - e. Request your control file update and password.
 - Call Customer Support to advise that you are updating the Control File according to your license agreement. Be ready to provide the reason for the update and the scheduled date.
 - Email or fax the reports generated in the previous step to Customer Support. Mention any special considerations. For example, inform Customer Support if you are upgrading to a new release or upgrading a CPU. You will receive an email or fax containing your control file update and password.
 - f. After Customer Support provides your passwords, enter them in a file, name it INFOGIXPW.RPT, and save it to the Domain folder. You can choose an alternative name, but you **MUST** save it in the Domain folder.
 - g. Enter the following command with the name of your password file from the previous step.

```
UNICF50 INFOGIXPW.RPT
```

This will update the control file and produce UNIFAX50.RPT, a report indicating the outcome of the update process. This report will be in the Files folder
 - h. Review UNIFAX50.RPT to determine if the control file was successfully updated.

Scroll through the report and look for any messages indicating the job failed. If you see the message UPDATE COMPLETE at the end of the report, continue with the next step.

If you see any errors, print and fax this report to Infogix Customer Support.

If there are no errors, you have successfully updated the control file and you can continue with the next step.

5. Edit the configuration parameters.

The ACR/Instream Configuration File Editor provides an easy method to edit the parameters that control ACR/Instream functioning and customization

Note: The editing of configuration parameters is typically the responsibility of an ACR/Instream administrator as the parameters affect all users of ACR/Instream. If necessary, ask your ACR/Instream administrator to perform this step.

This step describes the parameters that you should set now. You or the administrator can return to the Configuration File Editor to update parameters at any time.

a. Select Start > All Programs > Infogix > ACR/Instream > ACR Instream Configuration File Editor.

b. Select your configuration file to edit. The default name is the following:

`iiacnfg.dat`

The default location is the following:

`c:\Precisely\ACR Instream\Domain\Files`

c. Edit the **ACR/Instream domain name**. This parameter will assist you in identifying a test domain or a production domain in the future. It also displays in the output interface.

d. Change the value of the “Do you have an IIP database?” parameter to Yes.

e. Edit the **Action for an IIP database error**. This parameter will specify a shutdown of the ACR/Instream domain when a database error is encountered.

Specify SHUTDOWN or CONTINUE.

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Windows Installation for the ACR/Instream Domain

Note: The *Enable Export action to the IIP Database?* parameter resets to NO if you start the domain and the database is not available. Also, if the database becomes unavailable when an Export Domain Data action is executed, the parameter is reset to NO. This is to prevent repeatedly sending data to an unavailable database, which generates excessive error messages.

- f. Change any other parameters at this time. For example, you can specify currency symbols, date separates, and number punctuation.
- g. Save your changes.

Task 2: Create DB2 Database Tables and Table Spaces

These steps create DB2 tables and table spaces.

This task must be performed by a DB2 database admin

1. Create a new database named IIP or any other name for your site standards. The remaining documentation assumes the name IIP. If you choose a different name, substitute that name as necessary.
2. Establish three buffer pools of 32K each. These buffer pools support the Export Domain Data action, the interface, and a temporary table space.
3. Review the containers created by the installation and relocate if desired. The installation program created the containers necessary for the table spaces in the following location:

`c:\ACR_Instream\DB2\Containers`

You can choose to locate the containers in another folder. To do so, perform the following steps:

Notes: Perform these steps only if you choose not to use the default container location.

- a. Copy the container folder to the new location. This will quickly create the necessary folders.
- b. When you edit the script in the next step, edit the path location to reflect the new location.

4. Edit and execute the file CREATETS.BAT. This executable file creates the scripts that will create the necessary table spaces and tables. Instructions are in the file. CREATETS.BAT is located in the following folder:

```
c:\Precisely\ACR Instream\RDBMS\DB2\V8_1\
```

5. Execute the scripts:
 - a. Execute the script named BLDTSQL. The script is located in the following folder:

```
c:\Precisely\ACR Instream\RDBMS\DB2\V8_1\
```

Notes: Infogix recommends keeping all table spaces in one buffer pool.

- b. Edit and execute the script named BLDTBLS.sql to create the tables. Instructions for editing are in the comments. The script is located in the following folder:

```
c:\Precisely\ACR Instream\RDBMS\DB2\V8_1\
```

6. Edit the database-related parameters in the environment file. You can either edit the file directly or use the database parameter encryption user interface. The encryption is optional.

Option 1: Edit File Directly

Open the environment file named iiaenv.bat with any editor and edit these parameters:

The following is the default location for this file:

```
c:\Precisely\ACR Instream\Domain
```

Edit these parameters:

IIPDB: IIP or your selected database name

IIPPWD: Password for your new database

IIPUSR: Your schema name

Option 2: Encrypt parameters using user interface

Select **Start > Programs > Infogix > ACR Instream > ACR Instream DB Parms Encryptor** and follow the instructions in the dialog box that opens.

7. Assign the ODBC to the new database.
 - a. Select Start > Control panel > Administrative Tools > Data Sources (ODBC)
 - b. Click the User DSN tab.
 - c. Click Add to open the Create New Data Source dialog box.
 - d. Scroll down to the IBM DB2 ODBC DRIVER and click Finish. The ODBC IBM DB2 Driver - Add dialog box opens.

4 ■ Windows Installation with WebSphere MQ Communications

Windows Installation for the ACR/Instream Domain

- e. Enter a data source name of IIP, select IIP as the Database alias, and then click OK.
IIP is the alias assigned when the IIP database was created using the installation scripts.
8. Provide your WebSphere MQ expert with the database name, schema name, and password for use in “Task 3: Set Up WebSphere MQ for the Domain Communications”.

Task 3: Set Up WebSphere MQ for the Domain Communications

These steps enable the domain to receive messages and to communicate with the output interface.

These steps must be performed by your WebSphere MQ expert

1. Copy all .dll (dynamic link library) communication files from the WebSphere MQ bin to the ACR/Instream bin.
The default location of the .dll files to copy is the following:
c:\Precisely\ACR Instream\mware\MQ\server\bin or
c:\Precisely\ACR Instream\mware\MQ\client\bin
All files in the above folder must be copied to the ACR/Instream bin folder to replace the existing .dlls.
The default location for the ACR/Instream bin is the following:
c:\Precisely\ACR Instream\bin
2. Create the following in WebSphere MQ Explorer for both the PC and the server:
Queue Manager
Queues (IAHOST and IACLIENT)
Channels (sender, receiver, and server connection)
3. Locate the WebSphere MQ environment file and open it in a text editor, such as Notepad. The name and default location is the following:
c:\Precisely\ACR Instream\Domain\Files\iiaenv.mqs

4. Tailor the parameters to work with your WebSphere MQ setup. Do not change the format of the file. The following table describes each parameter.

Environment File Parameters	Description
IIAMAXW	Specifies the maximum wait period, which is used to determine how long to wait for a reply on my reply queue. It is in thousandths of a second. So 1000 = 1 second. -1 (entered as 0000000j) means wait forever. Once the time is expired, you can decide what to do, including wait again based on the MAX WAIT PARM.
IIAMAXWCNT	Specifies the number of times that the IIAMAXW parameter can be used before detecting an error. The combination of this parameter and the IIAMAXW parameter can be tuned to balance performance against a reasonable amount of total wait time. 00000000 and 00000001 will both result in one IIAMAXW interval.
IIAHOST	Specifies the input queue for the ACR/Instream domain and the output queue for the application API. On the ACR/Instream domain side, this queue is local queue. On the application API side, this queue is remote queue, pointing to the IIAHOST on the domain computer.
IIAHOSTQMGRNAME	Change to the queue manager name of the machine where the
IIMSHOST	Reserved for future use.
IIACLIENT	Specifies the output queue for the domain and the input queue for the application API. On either the ACR/Instream domain side or
IIAHOSTNAME	Specifies the host to connect to.
IIAPORT	Specifies the port to connect to WebSphere MQ.
IIASVRCHL	Specifies the case-sensitive name of the server connection channel on the queue manager.
IIAUSERHOSTDEF	Specifies the queue name for the default user program. This is the target that will be used when specifying the option of “Non-ACR/ Instream External Target” for an Export Domain Data action.
IIAUSERQMGRDEF	Specifies the queue manager for IIAUSERHOSTDEF.
IIAEXTINSHOST1	Specifies the queue name for the target that will be used when specifying the option of “Another ACR/Instream Domain” for an Export Domain Data action.

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Windows Installation for the ACR/Instream Domain

Environment File Parameters	Description
IJAEXTINSQMGR1	Specifies the queue manager of IJAEXTINSHOST1.
IIPASSTHRUHOST	For message forwarding only to support multi-domain communications. Specifies the queue name for the ACR/Instream host that will receive the messages which are sent if the forwarding feature is turned on. The message forwarding feature is controlled with the <i>Should this domain forward integrity check messages to another domain?</i> parameter. To use this feature, see Chapter 7, “Multi- Domain Communications.”
IIPASSTHRUQMGR	For message forwarding only. Specifies the queue manager of IIPASSTHRUHOST.

5. Save your changes.

Task 4: Application API Support Installation

For each application that your domain will support, you must install the necessary APIs and communication modules. See “Message Construction and Transport Choices” for more information.

Infogix provides the files and communications modules for various environments and in several languages.

These files, modules, and their instructions are obtainable by downloading from the ACR/Instream Knowledge Base. The Knowledge Base is on the Infogix Customer Support web site. Use the following instructions to locate what you need for your applications:

1. Enter www.infogix.com in your browser to display the Infogix home page.
2. Follow the instructions on the web site for obtaining a customer support login ID for ACR/Instream. Be sure to select ACR/Instream as a licensed product. When Customer Support provides you with your login ID and password, continue with the next step.

Notes: If you already have a Customer Support login ID, you will need to have ACR/Instream added as a licensed product before continuing. Email Customer Support at support@infogix.com with your request.

3. Navigate to the ACR/Instream support page.

4. Select Knowledge Base from the support page.
5. Navigate to the download center and select the API of your choice. Instructions are provided with the download.

Task 5: Install the ACR/Instream Web-Based Output Interface

This task must be performed by a web admin

To complete the installation of ACR/Instream, your web administrator must install the web application and interface. The web server can be on a different computer than the domain. Complete instructions are in [Chapter 6, “Output Interface Installation.”](#)

Provide your web administrator with the following information:

- Database name, login, and password
- Database IP address
- ACR/Instream domain IP or host name, and the port number

After the web application is installed, each user of the interface must perform a client installation on their PC. Client installation instructions are also in “Output Interface Installation.”

About Database Support

The DB2 database support is for the Export Domain Data action and the ACR/Instream interface. The Export Domain Data action allows you to send the results of rules to a database. The ACR/Instream interface is a web-based application that permits you to monitor ACR/Instream processing in real-time.

Database Space Allocation

The recommended size of the initial database is 10 MB. Your actual requirements depend on your usage to support the Export Domain Data Action and the ACR/Instream interface.

Database Space Allocation for the Export Domain Data Action

The recommended size of the initial database is 5 MB. Your actual requirements depend on the following:

- Number of rules that use the Export Domain Data action that sends the data to the database.
- Quantity of data sent by each Export Domain Data action.
- Frequency of Export Domain Data action execution.

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About Database Support

- Frequency with which you delete accumulated data.

Infogix recommends monitoring the database usage and increasing space as necessary or adjusting your maintenance policy. Infogix also recommends you establish a policy for data retention so users understand data is not available indefinitely.

Database Space Allocation for the ACR/Instream Web Application

The recommended size of the initial database is 5 MB. Your actual requirements depend on the following:

- Number of views that are created for all users
- Amount of data each view needs

Infogix recommends monitoring the usage and increasing space as necessary or adjusting your maintenance policy.

What You Need To Know About the Database

The following describes the information you should know about the database that supports ACR/Instream.

- DB2 Enterprise Server Edition version 8.1 or later is required.
- The database must be located on the same platform as the ACR/Instream domain.
- For the Export Domain Data action, certain ACR/Instream configuration parameters must be set to enable the writing to the database, as described in the installation instructions.
- For the Export Domain Data action, COMMITs are automatically sent to the database when ACR/Instream performs a syncpoint (a function related to recovery). The database administrator needs to work with the ACR/Instream administrator to determine the frequency and method of syncpoints. More information is in the *ACR/Instream Information Portal Database Guide*.
- When the rules writer creates the Export Domain Data action that sends the data to the database, the rules writer can also choose to set archive or delete flags in the database. You can use these flags to perform maintenance such as purging data no longer required. See the *ACR/Instream Information Portal Database Guide*.
- To enable the ACR/Instream Export Domain Data action to work with the optional database, see “Configuring the Rules to Work with the IIP Database”.

- Database-related parameters in the underlying environment file can be, if desired, encrypted. A user interface is provided. Instructions are in the appropriate installation step. To return to this user interface at any time, select **Start > Programs > Infogix > ACR Instream > ACR Instream DB2 Parms Encryptor**.

Database Maintenance Requirements

To support your maintenance requirements, the rules writer can mark individual records, known as item IDs, as being available for archiving or deleting. This is performed with an option available for the Purge Item IDs action. Details are in the *ACR/Instream Programmer's Guide* along with complete descriptions of the columns and tables.

Configuring the Rules to Work with the IIP Database

For ACR/Instream rules to work with the IIP database, the rules writer must perform these tasks:

- Configure ACR/Instream rules to work with the database
- Add an Export Domain Data action to an appropriate comparison
- Add an appropriate Purge Item IDs action
- Configure the database-related parameters as described in installation instructions

To configure ACR/Instream to work with the database, the rules writer must first use the ACR/Instream Editor Customization Wizard.

The Wizard automatically launches the first time you access ACR/Instream after implementation. If you are deferring database implementation, you can cancel the Wizard and return to it later by selecting Options > Configuration.

Configuration is required to enable the database-related features such as the Export Domain Data action.

The Export Domain Data action and the Purge actions can be assigned in the same manner as any other action. See your ACR/Instream Editor online Help.

Starting and Stopping the ACR/Instream Domain

To start or stop the ACR/Instream domain, follow the appropriate procedure below:

Application folder—Click the ACR Instream folder on your desktop. Then double-click Start ACR Instream Domain or Stop ACR Instream Domain. If desired, click and drag the start and stop programs to your Windows desktop.

Start Menu—Click Start, then select Programs > Infogix > ACR Instream > Start the ACR Instream Domain or Stop the ACR Instream Domain.

Accessing the Rules-Writing Tools

To access any ACR/Instream Rules-Writing tool, follow the appropriate procedure below.

Start menu—Click Start, then select Programs > Infogix > ACR Instream > *name of tool*.

Application folder—Click the ACR Instream folder on your desktop. Then double click the name of the tool you want to access.

ACR/Instream Documentation Disk

ACR/Instream documentation is shipped on a separate disk. When you insert the CD, the HTML-based documentation will launch in the PC's default browser.

Password Protection for Rules Files

You can protect your rules from unauthorized modifications by selecting the rules encryption option and then assigning a password.

To invoke this option, perform the following steps:

1. Launch the ACR/Instream Editor and select Options > Configure ACR/Instream Editor. This launches the ACR/Instream Editor Customization Wizard.
2. Select Enable encryption of rules click Finish.

3. Save your rules file. You will be prompted to provide a password when you save the rules file and reopen it.

If you forget your password, call Customer Support for assistance.

Windows Installation for Rules-Writing Tools Only

These instructions are for installing the rules-writing tools only on a Windows PC.

1. Place the ACR/Instream tools installation CD into your CD drive. The installation program will automatically execute if your system is configured for automatic execution.
If it does not launch, click Run on the Start menu. Enter [drive:]\SetupInterface.exe in the dialog box where [drive] is the letter of your CD drive. The setup program will start.
2. Follow the instructions on the screen to complete the setup. You will be prompted if a reboot is required.

What's Next?

If this completes the software installation for your site, the next phase is design. See your *ACR/Instream Implementation Guide* for information about how the programmer participates in the design phase.

4 ■ Windows Installation with WebSphere MQ Communications

What's Next?

Windows Upgrades

This chapter provides instructions for upgrading ACR/Instream to current release.

System Requirements

The table below describes the system requirements for a Windows upgrade for ACR/Instream. Newer versions may also be supported. Contact Customer Support for additional information.

System Requirements for the Domain and Rules-Writing Tools		
Requirement	ACR/Instream Domain and Tools	Tools only
Hardware and operating system	IBM or compatible machine with Windows Server 2003 or later.	IBM or compatible machine with Windows 10.
Network Communication	TCP/IP	TCP/IP

Upgrade to Release 5.5

This section provides instructions for upgrading ACR/Instream on a Windows system to Release 5.5.

Task 1: Upgrade the Output Interface

This task can be performed by a web admin Ask your web administrator to perform the instructions in “Upgrading the Output Interface” on page 67. The output interface server upgrade must be complete before you continue.

Task 2: Upgrade the Domain on Windows Server 2003

You must have the installation CD to complete this task.

This can be performed by the Windows Server admin

1. Place the ACR/Instream CD into your CD drive. The installation program will automatically execute if your system is configured for automatic execution.
If it does not launch, click Run on the Start menu. Enter *[drive]:\Setup.exe* in the dialog box where *[drive]* is the letter of your CD drive. The setup program will start.
2. Follow the instructions on the screen to complete the setup.

Task 3: Upgrade the Rules-Writing Tools

This task can be performed by the rules writer These instructions are for upgrading the rules-writing tools on a Windows XP PC.

1. Place the ACR/Instream CD into your CD drive. The installation program will automatically execute if your system is configured for automatic execution.
If it does not launch, click Run on the Start menu. Enter *[drive]:\Setup.exe* in the dialog box where *[drive]* is the letter of your CD drive. The setup program will start.
2. Follow the instructions on the screen to complete the setup.

Task 4: Setup Multi-Domain Communications (Optional)

ACR/Instream 5.4 supports multi-domain communications. To implement this, you must follow the setup requirements described in Chapter 7, “Multi-Domain Communications.”

Output Interface Installation

This chapter explains how to install the ACR/Instream web-based interface. This chapter includes the following information:

- Interface installation considerations
- System requirements
- What you need to know before starting
- Installing the ACR/Instream interface on the web server
- Installing the ACR/Instream interface on the client
- Upgrading for the output interface only

These instructions apply to sites using either TCP/IP or WebSphere MQ for communications. Follow the appropriate instructions.

System Requirements

The table below describes the system requirements for a Windows installation for the ACR/Instream interface. Newer versions may also be supported. Contact Customer Support for additional information.

System Requirements	
Server operating system	Windows Server 2003
Web server	Tomcat 5.5.9 Java Runtime Environment (JRE) 1.5 DB2 JDBC driver (supplied with web application)
Client hardware and operating system	IBM or compatible machine with Windows XP Service Pack 2 Memory: 128 MB of Random Access Memory (RAM) Browser: Internet Explorer 6.0 Java Runtime Environment (JRE) 1.5 (supplied with installation media)
Database	DB2 version 8.1 on Windows Server 2003 or z/OS. A database on z/OS requires DB2 Connect to be installed on the Windows Server where the web application is installed. It also requires a jar file supplied by DB2 Connect as described in step 9 on page 62.
Network Communications	TCP/IP or WebSphere MQ 6.0, either MQ Client or MQ Server.

Output Interface Installation Considerations

This section contains information to assist you in making decisions regarding installation locations and other requirements.

Database Requirements

The ACR/Instream output interface uses a database to store view definitions. For Release 5.4, DB2 is supported. The DB2 database must be located on the same platform as the ACR/Instream domain.

Web Server Requirements

The ACR/Instream output interface web application can be installed on any Windows Server 2003 where Tomcat is installed; it does not have to be on the same computer as where the ACR/Instream domain is installed.

Security for the Output Interface

Security is provided by your existing network infrastructure. Make sure the Tomcat server is accessible to all users of the output interface.

Communication Requirements

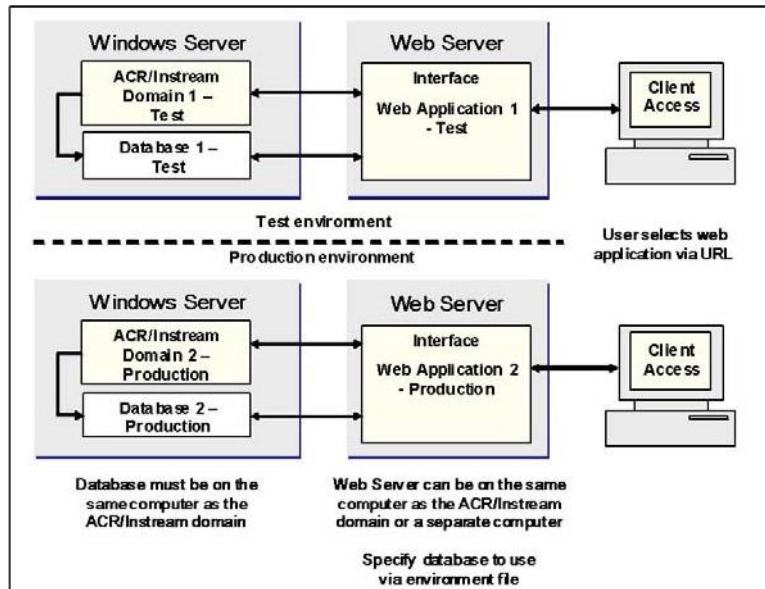
The ACR/Instream interface uses either TCP/IP or WebSphere MQ for communications. The ACR/Instream domain can use only TCP/IP or WebSphere MQ, not both.

If your domain uses TCP/IP for message transport, you must use TCP/IP for the output interface communications. If your domain uses WebSphere MQ for message transport, you must use WebSphere MQ for the output interface.

Test and Production Environments

To maintain separate environments for test and production, install two instances of the ACR/Instream interface on your web server.

To select a test or production environment, the user specifies the appropriate URL when accessing the ACR/Instream interface. When the views are tested and the user wishes to move the views into production, the DBA must use the database facilities to move the views from the test database to the production database.



Run-Time Performance Considerations

Once views are created, they can be run in real-time. Each graphical component is assigned a refresh rate. That is the rate at which the client software requests an update of current data from the domain.

For example, if a graphical component is created to monitor the number of transactions, the view refresh rate determines how often the domain is queried for the current count.

There is no limit on the number of views that can be created that can query the domain. The minimum refresh rate for each graphical component is one second.

Users should set the refresh rate at whatever is reasonable for the application. For example, if the data being queried changes every 120 seconds, the refresh rate can be set to 125 seconds. Setting the refresh rate lower would result in unnecessary queries. Potentially, if a significant number of views are running and querying the domain continuously, the domain would experience a lag time in responding to the view and in processing the data.

What You Need Before Starting

The point at which your implementation might experience a lag time in processing and responding to views depends on the following:

- The number of views running concurrently and the number of graphical components per view
- The density of information (such as the number of elements) built into each component of each view
- The refresh rate for all graphical components
- The design of the view components to either match an item ID or find all matching a “starts with” specification, similar to a wild card match. Searching all memory requires more processing.
- The number of transactions being processed by the domain
- The number of rules executed for each transaction

What You Need Before Starting

The following tasks must be completed before performing the installation on the web server.

- The DB2 tables for the output interface need to be created as described in the installation chapter.
- If your DB2 database is located on z/OS, you must have DB2 Connect installed on the Windows Server where you are installing the ACR/Instream web application. DB2 Connect will pass the data through to the database on z/OS.

You will need to create an alias using IBM’s DB2 Configuration Assistant as part of the instructions.

- You will need the following information about the database:
 - Database name. If your database is on z/OS, this will be the alias you create in DB2 Connect.
 - Database login and password. If your database is on z/OS, these will be the login and password on z/OS.
 - Database IP address. If your database is on z/OS, this will be the IP address of DB2 Connect.
- You will need ACR/Instream domain IP, host name, and port number to complete the web application installation:

- If you choose to use WebSphere MQ server for communications, you can use a local WebSphere MQ server or a remote server. Create or identify before installation:
 - Queue Manager
 - Server connection channel
 - Two queues for sending and receiving domain requests
 These queues must be defined as shareable. Note that the default value for queues on z/OS is NOSHARE.

Installing the ACR/Instream Interface on the Web Server

This section provides instructions for installing the ACR/Instream interface on a Windows Server. Installation uses a .war file to install on the web server.

These steps must be performed by a web admin

1. Obtain the following information to use in subsequent steps:
 - Database name, login, and password
 - Database IP address
 - ACR/Instream domain IP, host name, and port number.
2. For WebSphere MQ sites only: Identify the queue manager, server connection channel, and queues for sending and receiving.

These queues must be defined as shareable. Note that the default value for queues on z/OS is NOSHARE.
3. For databases on z/OS only: Create an alias for the database using IBM's DB2 Configuration Assistant.
4. Obtain the ACR/Instream installation CD from the Windows Server administrator.
5. Insert the ACR/Instream CD into your CD drive. The installation program will automatically execute if your system is configured for automatic execution.

If it does not launch, click Run on the Start menu. Enter [drive:]\Setup.exe in the dialog box where [drive] is the letter of your CD drive. The setup program will start.

6 ■ Output Interface Installation

Installing the ACR/Instream Interface on the Web Server

6. Follow the instructions on the screen to complete the setup. You will be prompted if a reboot is required.

Select only the ACR/Instream Web Application and Interface from the Installation Wizard.

For the web application, select No for desktop shortcuts.

7. WebSphere MQ sites only: Start the WebSphere MQ manager, channel, and listener, if they are not already started.
8. Stop the Web server.
9. DB2 on z/OS sites only: If your database is located on z/OS, copy the JDBC license jar file from the DB2 Connect installation folder to the Tomcat shared/lib folder.

The name of the license jar file is `db2jcc_license_cisuz.jar`. The usual location is the following:

```
C:\Program Files\IBM\SQLLIB\Java
```

No changes are necessary after you have completed the copy.

10. WebSphere MQ sites only: Copy all files from the MQ Client or Server `java\lib` folder into the Tomcat shared\lib folder. The usual location for the MQ lib folder is the following:

```
C:\Program Files\IBM\WebSphere MQ\Java\lib
```

11. Copy `acrinstream.war` from the ACR/Instream installation folder to the `tomcat/webapps` folder. The default installed location for this file is:

```
\Infogix\acr instream\acrinstream.war
```

This location is referred to as *webappslocation* in the remaining steps.

12. Start or restart the Web server.

The `.war` file will automatically uncompress, placing the components of ACR/Instream on the server machine.

13. Edit the `jdbc.properties` file. The default installed location for this file is:

```
\webappslocation\acrinstream\WEB-INF\jdbc.properties
```

- a. Substitute your database host name for `HOST` in the following parameter:

```
jdbc.url=jdbc:db2://HOST:50000/DATABASE
```

If your database is on z/OS, use the host name for DB2 Connect.

- b. Substitute your port number for `50000` if you are not using the default of `50000`. If your database is on z/OS, use the port for DB2 Connect.

- c. Substitute your database name for `DATABASE`.

If your database is on z/OS, use the alias you specified in DB2 Connect.

Installing the ACR/Instream Interface on the Web Server

- d. Substitute your database user name for USERNAME in the following parameter:

```
jdbc.username=USERNAME
```

If your database is on z/OS, use the user name for the z/OS database, not a local database.

- e. Substitute your database password for PASSWORD in the following parameter:

```
jdbc.password=PASSWORD
```

If your database is on z/OS, use the password for the z/OS database, not a local database.

The defaults are preconfigured for use with the ACR/Instream web application. Read the comments in the file for instructions.

14. Edit the instream.properties file. The default location for this file is the following:

```
\webappslocation\acrinstream\WEB-INF\instream.properties
```

The table below describes the parameters that require tailoring.

Parameter	Required?	Description
IIACOMMTYPE	Tailoring required for all sites	Specify WebSphere MQ or TCP.
IIAHOST	Tailoring required for TCP/IP sites	Enter your domain host name for HOST.
IIAPORT	Tailoring required for TCP/IP sites	Enter your domain port number for PORT.
IIAMAXW	Tailoring optional	Enter the number of seconds to wait for a domain response before timing out.
IIARETRY	Tailoring optional	Enter the number of times the application will retry on an attempted connection.
IIATRANSACTION	Tailoring optional	Specifies the maximum number of times to attempt to send and receive a message to/from the domain.
MQHOST	Tailoring required for WebSphere MQ sites	Specifies the name of the server hosting the WebSphere MQ server.
MQPORT	Tailoring required for WebSphere MQ sites	Specifies the WebSphere MQ port.
MQHOSTCHANNEL	Tailoring required for WebSphere MQ sites	Specifies the WebSphere MQ server channel to use when communicating with the WebSphere MQ server.

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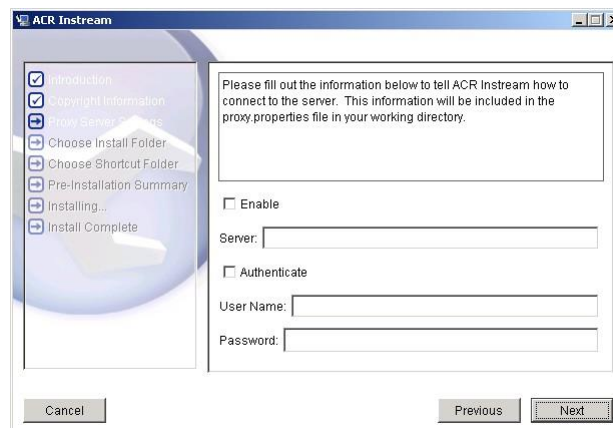
Installing the ACR/Instream Interface on the Web Server

Parameter	Required?	Description
MQHOSTQMGRNAME	Tailoring required for WebSphere MQ sites	Specifies the WebSphere MQ queue manager name.
MQHOSTQUEUE	Tailoring required for WebSphere MQ sites	Specifies the queue name used by the ARC/Instream domain for receiving requests.
MQCLIENTQUEUE	Tailoring required for WebSphere MQ sites	Specifies the queue name used to receive responses from the ACR/Instream domain.
MQMAXW	Tailoring optional for WebSphere MQ sites	Specifies the number of seconds to wait for an ACR/Instream domain response before timing out.
MQMAXWCNT	Tailoring optional for WebSphere MQ sites	Specifies the number of times to attempt a read from the response queue.
IIAMAXITEMIDLIST	Tailoring optional for WebSphere MQ sites	Specifies the maximum number of item IDs returned to users when a query is made of current item IDs in memory.
pool.maxConnect	Tailoring optional	Enter the maximum number of concurrent user sessions.
pool.maxWait	Tailoring optional	Enter the number of seconds to wait before the application will retry on an attempted connection.
pool.maxIdle	Tailoring optional	Specifies the number of domain connections to keep when the web application is idle.

15. Test your implementation by starting acrinstream in your Tomcat Manager. Then enter the address of the ACR/Instream web application in your browser. You should see a webpage with links to ACR/Instream.

This completes the installation of the ACR/ Instream web application. Each user, however, must complete the client installation on their PC using the information you provide in the next step.

16. Provide each ACR/Instream interface user with the URL of the web application and ask them to complete the instructions in “Installing the “Installing the Output Interface on the Client” . If you are using a proxy server, you will need to provide users with information about it. As part of the client installation, the following dialog box will be displayed:



You must tell your users which fields, if any, to complete. If you are not using a proxy server, the users can leave all fields blank and click Next.

Installing the Output Interface on the Client

This section provides instructions for installing the ACR/Instream interface on a client PC.

1. Obtain the ACR/Instream web application URL from the individual who installed the web application.
Your web administrator will tell you before you start if you are to complete the proxy server setup. If you must complete the proxy server setup, the web administrator must provide you with the necessary information to complete the installation.
2. Enter the ACR/Instream URL in your browser. You should see ACR/Instream screen.
3. Click ACR/Instream GUI Installer. This will launch the installation

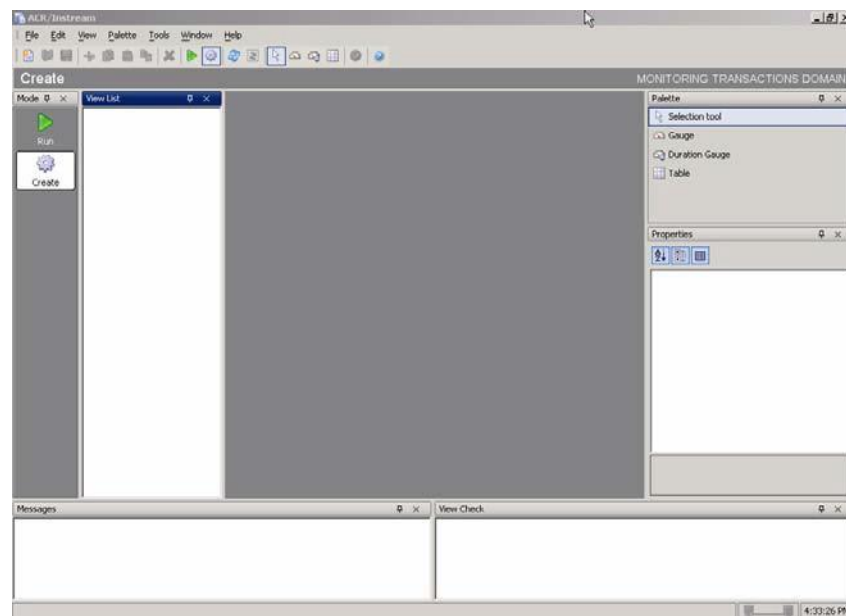
6 ■ Output Interface Installation

wizard. Follow the instructions to complete the setup. When the setup is complete, go on to the next step.

4. Launch the output interface by selecting Start, and then selecting ACR/Instream from the Programs menu. The full path is the following:

Start > Programs > Infogix > ACR Instream > ACR Instream

5. Click Connect in the window that opens. You will see the following screen:



This screen is where you both create and run views.

This completes the output interface installation. Instructions for creating views are in the online Help.

Upgrading the Output Interface

Use these instructions to upgrade to current Release.

1. Save the `jdbc.properties` file and `instream.properties` file to a temporary location.
2. Insert the ACR/Instream CD into your CD drive. The installation program will automatically execute if your system is configured for automatic execution.
If it does not launch, click Run on the Start menu. Enter `[drive:]\Setup.exe` in the dialog box where `[drive]` is the letter of your CD drive.
3. Follow the instructions on the screen to complete the setup. You will be prompted if a reboot is required.
Select only the ACR/Instream Web Application and Interface from the Installation Wizard. For the web application, select No for desktop

4. Stop the web server.
5. Delete the existing acrinstream.war file and acrinstream folder in the tomcat/webapps folder.
6. Copy the new war file from the ACR/Instream installation folder to the tomcat/webapps folder.
7. Restart the web server to uncompress the war file.
8. Stop the web server.
9. Copy the jdbc.properties file and instream.properties file from their temporary location back to the WEB-INF folder, which is located within the web service folder.
10. Restart the web server.
11. Ask your users to uninstall the output interface on their PCs and then reinstall using the instructions in “Installing the Output Interface on the Client”.

Disabling the Proxy Server Setup

If you installed the output interface on the client using the proxy server selections and subsequently choose not to use a proxy server, you must manually disable support for it. Edit the file proxy.properties in the following folder on the client:

```
c:\Precisely\ACR Instream
```

Change the following parameter from TRUE to FALSE:

```
proxy.enable=true
```


Multi-Domain Communications

This chapter provides setup instructions for multi-domain communications.

Multi-domain communications consists of the forwarding of integrity messages from one domain to another. Message forwarding can be used for the following:

- Providing a concurrently running domain as a backup system
- Providing load balancing between two domains for performance gains

What You Need To Know Before Starting

The list below describes those things you need to know before starting.

- Both the sending domain and the receiving domain, must be configured for WebSphere MQ middleware communications.
- Multi-domain communications can be implemented at any time. You can return to these instructions after fully implementing your primary domain with your customized rules.
- Message forwarding does not forward setup or configuration changes from one domain to another. If your secondary domain is a backup domain, you must manually update with all required rules, tables, timers, etc.
- Each domain uses its own file set, including its own configuration file and rules file.
- A backup domain should not also be used for load balancing.
- The sending domain, referred to as the primary domain, must be operated in remote mode. Using the ACR/Instream Player, for example, will not result in messages being forwarded to a secondary domain as it uses local mode exclusively.

Remote mode means commands are routed through middleware. More information about remote mode and local mode is in the *ACR/Instream Programmer's Guide*.

Concurrent Backup Domain

This section describes how to setup a backup domain to run concurrently with a production domain by enabling message forwarding.

After performing these procedures, you must load the same rules file used to load the primary domain. This loading of rules file must take place after all rules are written and tested. You can perform these setup procedures now, however, to prepare for the rules loading.

Procedures for a Concurrent Backup Domain

Follow these steps to implement message forwarding to maintain a concurrent backup domain.

1. Install both the primary (sending) and the secondary (receiving) domains. Follow the appropriate instructions in the *ACR/Instream Installation Guide for Windows* or the *ACR/Instream Installation Guide for z/OS*.
2. Locate your configuration file as described below for your operating system:
z/OS domains only: Copy your configuration file for the primary domain to the Windows XP PC where the ACR/Instream rules writing tools are installed. The DDNAME of the configuration file is IIACONFIG. The location of this file was defined in the IMFILES JCL that was submitted during installation.
Windows domains only: The file is named iiaconfig.dat. It is located in the following folder:
`c:\Precisely\ACR Instream\Domain\Files`
3. Choose Start > All Programs > Infogix > ACR Instream > ACR Instream Configuration File Editor.
4. Select the configuration file you located in step 2 in the dialog box that opens.
5. Locate the parameter for message forwarding. The identifier for this parameter is *Should this domain forward integrity check messages to another domain?*
6. Set this parameter to Yes and save the configuration file.
7. **z/OS domains only:** Copy your configuration file back to the original location on z/OS.

8. Define the appropriate environment file parameters for the primary domain so the messages can be sent to the secondary domain via WebSphere MQ.

These parameters are:

IIAPASSTHRUHOST—Specifies the queue name for the ACR/Instream host that will receive the messages.

IIAPASSTHRUQMGR—Specifies the queue manager of IIAPASSTHRUHOST.

See “Task 3: Set Up WebSphere MQ for the Domain Communications” on page 46 for information about locating the environment file and how to edit it.

When you start your primary domain in remote mode, all incoming integrity messages will be automatically forwarded to the secondary domain.

Load Balancing

This section describes how to set up a secondary domain to perform additional or off-line processing, thus increasing the volume capacity of the primary domain.

Procedures for a Load Balancing Domain

Follow these steps to implement multi-domain communications for maintaining a concurrent backup domain.

1. Install both the primary (sending) and the secondary (receiving) domains. Follow the appropriate instructions in the *ACR/Instream Installation Guide for Windows* or the *ACR/Instream Installation Guide for z/OS*.
2. Define the appropriate environment file parameters for the primary domain so the messages can be sent to the secondary domain via WebSphere MQ.
These parameters are:
IIAEXTINSHOST1—Specifies the queue name for the target that will be used when specifying the option of “Another ACR/Instream Domain” for an Export Domain Data action.
IIAEXTINSQMGR1—Specifies the queue manager of IIAEXTINSHOST1.

Load Balancing

See “Task 3: Set Up WebSphere MQ for the Domain Communications” below for information about locating the environment file and how to edit it.

- 3.** Write the rules that will export the integrity messages using the ACR/Instream Editor.

These rules must include an Export Domain Data action with a specified destination option of “Another ACR/Instream Domain.” See the ACR/Instream Editor online Help for instructions.