Informed Designer Plug-ins

This document contains detailed information that is specific to the Informed plug-ins included with Informed Designer. For general information about features that rely on Informed plug-ins, see the respective chapters of your *Informed Designer Design and Graphics* and *Forms Automation* manuals.

Informed Designer Plug-ins

Informed Designer allows you to link form templates to a variety of external services. These include services such as electronic mail systems for forms routing, databases for automated look-ups and form submission, and signing services for electronic approval of forms.

Most external services are accessed via Informed plug-ins. An Informed plug-in is a file that contains the code that interacts directly with the external service, acting much like an "extension" of the Informed Designer or Informed Filler application. By using plug-ins, Shana can easily support a new type of service by simply developing a new plug-in. Installation of a new plug-in enables Informed Designer and Informed Filler to access the new service.

Note In previous versions of Informed, Informed plug-ins were called Informed extensions.

Different types of Informed plug-ins provide access to different types of services. The table below lists the different types of Informed plug-ins and the purpose of each.

Plug-in Type	Uses
Template translation	Convert a form template to a different format.
Mail	Send form templates or completed forms using electronic mail.
Data access	Look up information from a database or data source. Submit completed forms to a database or data destination. Obtain unique form numbers from a database or data source. Track forms using a database or data source.
Signing	Authorize and verify form templates using Informed Designer. Sign and verify completed forms using Informed Filler.
Data translation	Import, export, or mail form data in a particular data format.
Distribution	Distribute form templates via a particular type of distribution center.
Spelling	Check the spelling of text on your template or the text entered on a completed form using an alternate spell checking system.

In order for Informed Designer or Informed Filler to utilize an Informed plug-in, the plug-in must be installed in your plug-ins folder. Your plug-ins folder is located inside your Informed folder. By default, your Informed folder is the folder that contains your Informed Designer folder (Windows) or application (Mac OS). This location can be viewed and changed using Informed Designer's Preferences command. For more information, see "Moving Folders" in Chapter 1, "Overview" of your *Informed Designer Design and Graphics* manual.

On Windows, the filename extension of a plug-in is one of “PLG,” “PLD,” or “PLF.” For some plug-ins, separate versions are necessary for use with Informed Designer and Informed Filler. Informed Designer plug-ins have the “PLD” extension whereas Informed Filler plug-ins have the “PLF” extensions. Plug-ins that work with both Informed Designer and Informed Filler have the “PLG” extension.

The remaining sections of this document provide information about the Informed plug-ins included with Informed Designer. Each section describes a particular type of Informed plug-in. Sections are included only for the types of plug-ins included with Informed Designer. Only features that are specific to each plug-in are described. For general information about a feature that relies on an Informed plug-in, see the respective chapters of your *Informed Designer Design and Graphics* and *Forms Automation* manuals.

Mail Plug-ins

Informed supports different e-mail systems on the Windows and Mac OS platforms. On Windows, a single mail plug-in may provide access to multiple different e-mail systems. The mail plug-ins included with Informed Designer are listed below.

Informed Mail Plug-ins for Windows

Mail System Supported	Plug-in Name	Mail System Type to Select
Microsoft Exchange	INFMAPI	Microsoft Exchange (MAPI)
Microsoft Mail	INFMAPI	Microsoft Mail (MAPI)
GroupWise	INFMAPI	GroupWise (MAPI)
Eudora Pro v2.2	INFMAPI	Eudora Pro (MAPI)
other MAPI compliant e-mail systems	INFMAPI	MAPI compliant
cc:Mail	MAIL	cc:Mail (VIM)
other VIM compliant e-mail systems	MAIL	VIM compliant
MHS compliant e-mail systems	MAIL	MHS Mail
message handling of Novell network	MAIL	MHS Local Mail

Informed Mail Plug-ins for Mac OS

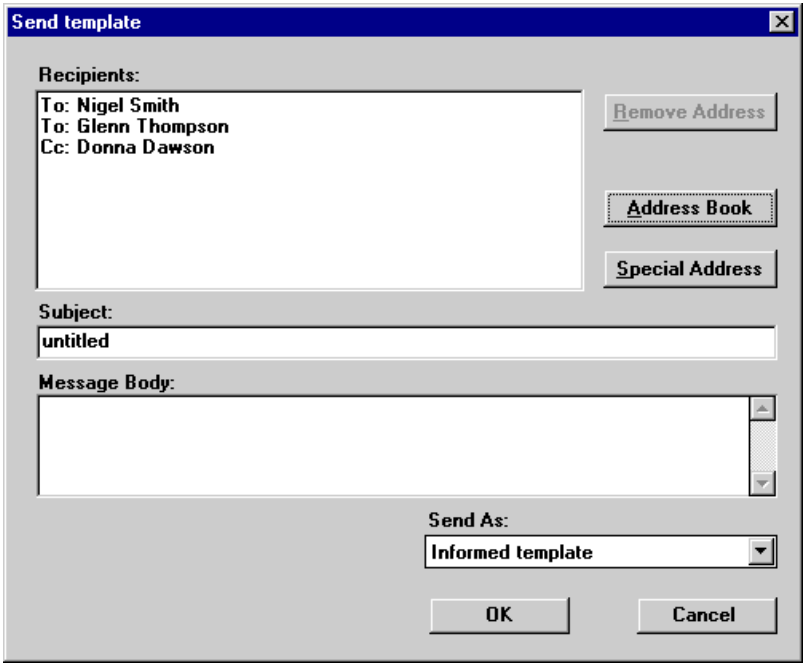
Mail System Supported	Plug-in Name	Mail System Type to Select
Microsoft Mail	MSMail	Microsoft Mail
ccMail	ccMail	cc:Mail
Eudora	Eudora	Eudora
QuickMail	QuickMail	QuickMail
GroupWise™	GroupWise	GroupWise
QuarterDeck Mail	QuarterDeck Mail	QuarterDeck Mail
PowerTalk™	PowerTalk	PowerTalk

In order for an Informed mail plug-in to function properly, you must have the corresponding e-mail client software installed on your computer. Each different e-mail system has different system requirements and installation procedures. Please consult the documentation that came with your e-mail system for this information.

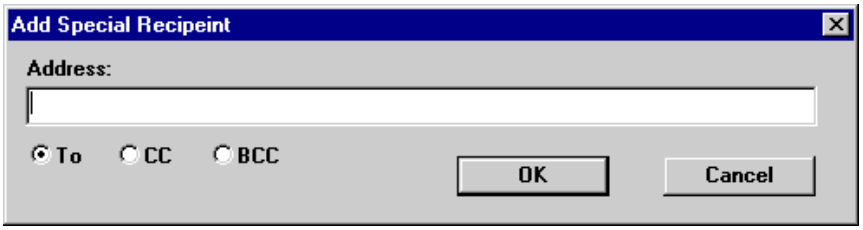
When addressing a form template or specifying the recipients for a suggested route, the dialog boxes that appear are specific to the type of e-mail system that you're using. They each provide a method for selecting recipients, specifying a subject, and choosing various send options.

Addressing on Windows

For Microsoft Exchange, Microsoft Mail, GroupWise, Eudora Pro, and other MAPI compliant e-mail systems on Windows, you'll see a dialog box similar to the one shown below.

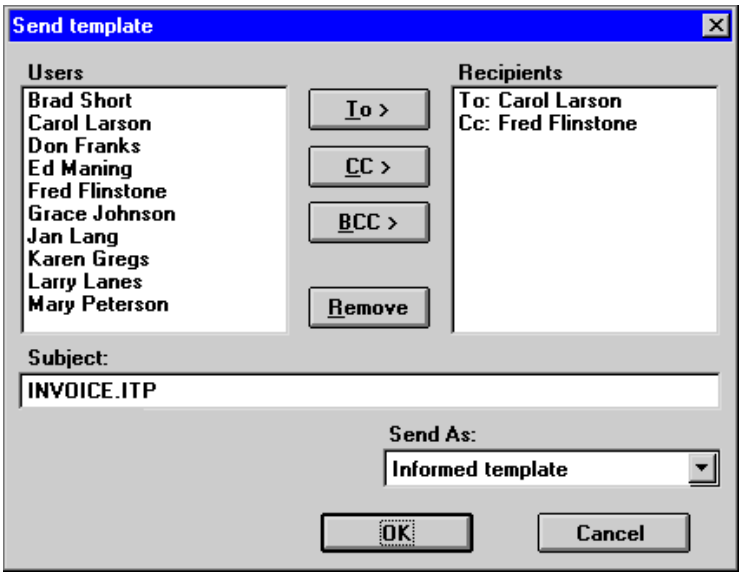


To select one or more recipients, click 'Address Book.' The dialog box you see is the same one you see whenever you address any message for your mail system. The addresses you select appear in the Recipients list on the Send dialog box. To enter an address that is not available on the addressing dialog box, click 'Special Address' and enter it by typing in the text box provided.



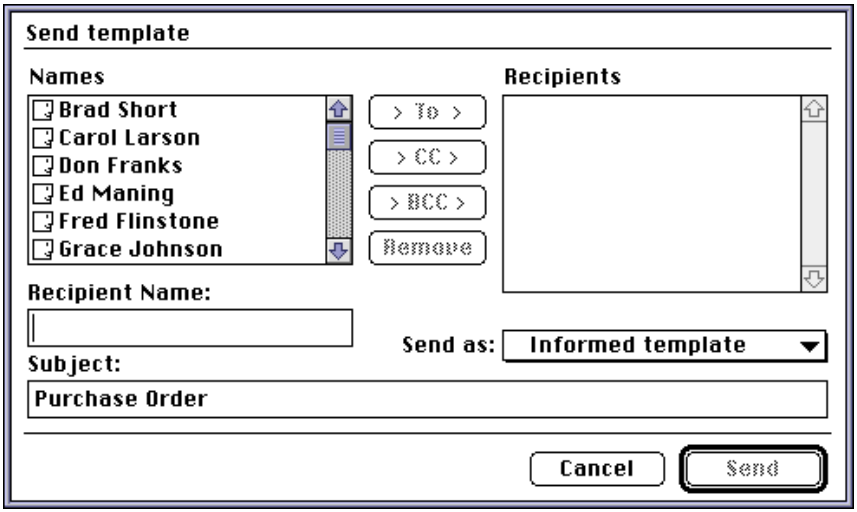
To remove a recipient, select the name in the Recipients list and click ‘Remove Address.’

For cc:Mail and other VIM or MHS compliant e-mail systems on Windows, you’ll see this dialog box:



You select a person from the Users list then click ‘To,’ ‘CC,’ or ‘BCC’ to add the person to the recipients list. To remove a recipient, select the name in the Recipients list and click ‘Remove.’

For cc:Mail, Eudora, and GroupWise on Mac OS, you’ll see the following dialog box:



You can select a recipient by clicking a name in the Names list, or by typing a name in the 'Recipient name' text box, then clicking 'To,' 'CC,' or 'BCC.' To remove a recipient, select the name in the Recipients list and click 'Remove.' For information about how Informed Designer obtains the list of names to display in the Names list, see the following sections.

The Send dialog boxes for mailing form templates with Microsoft Mail, QuarterDeck Mail, QuickMail, and PowerTalk are similar to the one used for cc:Mail, Eudora, and GroupWise. Any differences and features specific to the particular e-mail systems are described in later.

When you receive a form template via electronic mail, the document will be available as an attachment to the mail message (for most e-mail systems). Many e-mail systems allow you to open an attached document by double-clicking its icon in the mail message. This is a convenient feature that means you don't have to extract the attachment before opening it. The following e-mail systems support this feature: Microsoft Exchange, Microsoft Mail, GroupWise, and Eudora Pro on Windows, and Eudora and PowerTalk on Mac OS. For other e-mail systems, it is necessary that you first extract the attached template document before opening it with Informed Designer.

cc:Mail for Mac OS

Informed Designer interacts with cc:Mail using Apple events, the IAC (inter-applications communications) capabilities of the Mac OS (version 7.0 or later). The cc:Mail application must be running when you attempt to send a form template from within Informed Designer. Also, problems may occur if you attempt to mail a form template with the cc:Mail "Start New Message In" preference set to "Address Window." Do not use the "Address Window" setting when mailing a form template with Informed Designer.

Due to a limitation in the cc:Mail software (Mac OS version only), Informed Designer is unable to directly read the cc:Mail directory list. To work around this limitation, an ASCII text file named 'ccMail Directory,' containing a copy of the directory list, is created and placed in your Informed Preferences folder (located either in your Informed folder or at the place specified on the Folders panel of Informed Designer's Preferences dialog box).

The contents of the ASCII directory file are as follows: Each line in the file represents one address and should include the user's name, a tab character, the user's location (a one character code, capital L for local, small r for remote), and a carriage return. The file is limited to 32k of information, which is equivalent to approximately 2,000 names. This should be sufficient for most locations. If the 32k limit is exceeded, the names that exceed the limit will not be displayed in the Names list on Informed Designer's Send dialog box.

The cc:Mail client application is itself capable of generating the ASCII directory file using various commands. Follow the instructions listed below.

- Launch the cc:Mail client application and login. The cc:Mail main window appears displaying a list of items.
- Display the Directory window by double-clicking the Directory item.
- Choose **Customize List...** from the File menu. The Directory Layout dialog appears with options for columns 1 through 6. Next to Column # 1:, choose 'Name' from the drop-down list. Next to Column # 2:, choose 'Location.' The settings for columns 3 through 6 should be set to 'None.' Once you have customized the list, click 'OK.' The Directory Window appears displaying the customized list.
- Choose **Save List...** from the File menu. Name the file 'ccMail Directory' (note that there is no colon between cc and Mail). You can store this file anywhere you wish in preparation for distribution. However, when distributed to Informed Filler users, this file must be stored in the Informed Preferences folder (located either in the Informed folder or at the place specified on the Folders panel of Informed Filler's Preferences dialog box).

When addressing form templates, the Send dialog box will list all addresses found in the ccMail Directory file. You can specify a recipient by selecting one of these addresses, or by typing in the 'Recipient name' text box.

Note Informed Designer and Informed Filler cannot send forms to BBSs, mail folders, public or private mailing lists, or to fax recipients.

Eudora for Mac OS

Informed Designer also interacts with Eudora using Apple events. When you send a form using Eudora, Informed Designer will automatically run the Eudora application if it is not already running.

Note In order to send form templates successfully, you must have Eudora's 'Immediate Send' switch selected. You set this switch using Eudora's Switches command. For more information, please consult your Eudora User Manual.

The Names list on the Send dialog box displays the list of nicknames that you've defined. You can add and remove names from this list using the Eudora application.

When you send a form using Eudora, Informed Designer will make the Eudora application the active application temporarily. This occurs because Eudora will send the form template much faster if it is the active application.

GroupWise for Mac OS

Informed Designer also interacts with GroupWise using Apple events. The GroupWise application must be running when you attempt to send a form template with Informed Designer.

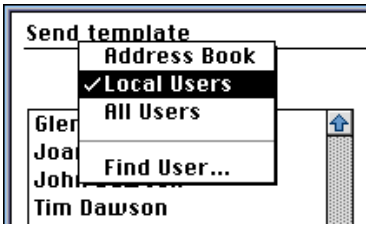
Due to a limitation in the GroupWise software (Mac OS version only), Informed Designer is unable to directly read the GroupWise directory and display its contents on the Send dialog box. To work around this limitation, an ASCII text file named 'GroupWise Directory,' containing a copy of the directory list, can be created and placed in your Informed Preferences folder (located either in your Informed folder or at the place specified on the Folders panel of Informed Designer's Preferences dialog box).

The contents of the ASCII directory file are as follows: Each line in the file represents one address and should include the user's name followed by a carriage return. The file is limited to 32k of information, which is equivalent to approximately 2,000 names. This should be sufficient for most locations. If the 32k limit is exceeded, the names that exceed the limit will not be displayed in the Names list on Informed Designer's Send dialog box.

When addressing form templates, the Send dialog box will list all addresses found in the ccMail Directory file. You can specify a recipient by selecting one of these addresses, or by typing in the 'Recipient name' text box.

Microsoft Mail/QuarterDeck Mail for AppleTalk Networks

When sending form templates using Microsoft Mail or QuarterDeck Mail, the Send dialog allows you to select recipients from your address book, from the list of local users, or from the list of all users. These options are available in the drop-down list above the scrolling list of names.



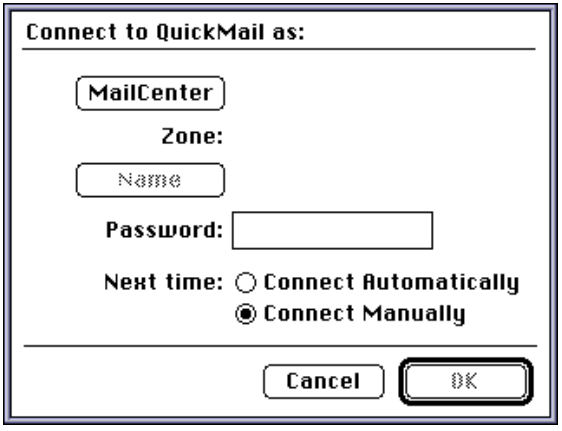
‘Address Book’ displays a personalized list of the user and group names you’ve added to the address book. ‘Local Users’ displays only the users on your mail server. ‘All Users’ displays all users on all the mail servers connected to your network.

You can also find a particular user by selecting the ‘Find User’ item from the same drop-down list and entering the name of interest.

QuickMail for Mac OS

Before you can send form templates using QuickMail, the QuickMessenger system extension must be installed and configured so that it connects to the proper name server. To configure QuickMessenger, open the Chooser by selecting **Chooser** from the Apple menu. Locate the QuickMessenger icon and click it. Next, select the zone where the name server resides. Finally, select the appropriate name server from the list titled “Select a NameServer,” then close the Chooser.

The first time you attempt to send a form using QuickMail, the QuickMail connection dialog appears.



To establish the connection, click the ‘MailCenter’ button. A dialog box appears displaying the various zones on your network. First select the zone where the QuickMail mail center resides. Next select the mail center and click ‘OK.’ Once you’ve selected the mail center, click the ‘Name’ button

to identify yourself. A list of names appears. Select your name from the list, then click ‘OK.’ Next, enter your password in the ‘Password’ text box.

You can also specify whether Informed Designer is to display the QuickMail connection dialog box each time you send a form template. The default setting, ‘Connect Manually,’ will display the connection dialog each time you send a template. To connect automatically without displaying the dialog box, click the ‘Connect Automatically’ option. Click ‘OK’ to dismiss the connection dialog box. The QuickMail connection information is stored in a file called QuickMail Preferences. This file is located in your Informed Preferences folder (located either in your Informed folder or at the place specified on the Folders panel of Informed Designer’s Preferences dialog box).

The Send dialog box contains a ‘Connect As...’ button. Clicking this button displays the QuickMail connection dialog box (described earlier). You use this dialog box to change your connection information. For example, if you wish to change your password, or if the location of the QuickMail mail center has changed, you can reestablish your connection by clicking the ‘Connect As...’ button and entering different information. Another user can also use this feature to log on to their QuickMail account before sending a template.

QuickMail allows you to create multiple address books in order to better organize large lists of users. On the Send dialog box, you select an address book by choosing its name in the ‘Address Book’ drop-down list. The users in that address book will appear in the Names scrolling list. This list cannot contain more than 255 entries. Consequently, certain names might not appear in the list if the directory you select contains more than 255 users.

The ‘Address Book’ drop-down list contains an item named ‘Find Other Names.’ You can find names that might not appear in the Names list by choosing this item and entering a first and/or last name into the dialog box that appears. When you click ‘OK,’ the ‘Names’ list will display all names that matched those that you entered. Individual names can then be selected and added to the list of recipients.

The ‘Priority’ drop-down list allows you to assign a priority level to mailed messages. When you send a message, the priority level is displayed in the recipient’s mailbox. When you assign a priority level, you are not affecting how quickly the template will be mailed. You are, however, indicating to the recipient the level of importance you place on the item.

PowerTalk for Mac OS

When sending form templates using PowerTalk, the ‘Send as’ drop-down list on the Send dialog contains the ‘Letter’ format in addition to the other standard formats. A letter document is a document that applications such as AppleMail can open. Informed Designer cannot open letter documents.

When you send a template as a letter, the actual content of the letter is an image of the template. Unlike templates sent as Informed templates, the recipient of a template sent as a letter cannot edit the template using Informed Designer. You should use the Letter format only if you’re sending the

template to a person who doesn't have Informed Designer, or if the template will be delivered via an imaging device such as a fax machine or printer.

The PowerTalk Send dialog box contains a 'Change Sender' button. This option allows you to send a form using your identity on another person's computer. When you click 'Change Sender,' a dialog box appears asking for your PowerShare account information. You use this dialog box to locate your PowerShare catalog and enter your name and password. Once you've entered your account information, you can mail your form to the recipient.

When you change the sender information, you are not interfering with the PowerShare account of the person whose computer you're using. Your sender identity is valid only for the specific form you send.

Data Access Plug-ins

Data access plug-ins provide an important link between Informed Filler and a wide variety of databases or data services. A data service can range anywhere from a simple text file on a file server to a high end SQL data server. A data service need not be a database. For example, with Informed's HTTP data access plug-in, you can link form templates to a web server. The web server can, in turn, interact with other data services to perform requested tasks.

Data access plug-ins provide access to data services for different purposes. These purposes are listed below.

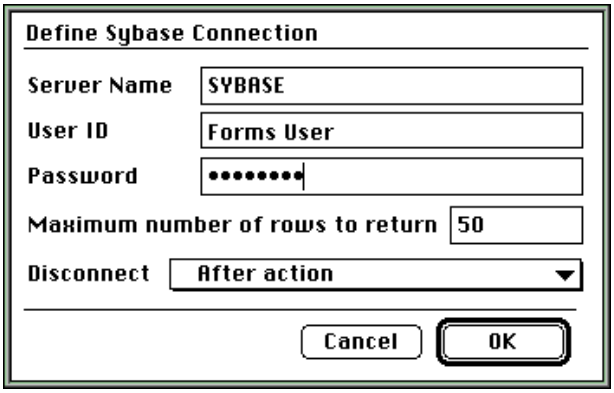
- Lookups to retrieve data from a data service while filling out a form
- Form submission to store the information on a completed form in a data service
- Auto-incrementing cells to obtain unique numbers from a data service
- Form tracking to track forms as they are routed using a particular data service

Not all data access plug-ins can be used for all of the above purposes. For example, although the Oracle data access plug-in supports lookups, form submission, auto-increment links, and form tracking, the HTTP plug-in can be used only for form submission. The table below shows the capabilities of each Informed data access plug-in.

Plug-in	Lookups	Form Submission	Auto-increments	Form Tracking
Oracle	yes	yes	yes	yes
Sybase	yes	yes	yes	yes
ODBC	yes	yes	yes	yes
HTTP	no	yes	no	no
DAL (Mac OS only)	yes	yes	yes	yes

Connections to Data Services

Before Informed Filler can access a data service, a connection to the service must be established. When configuring a link to a data service, you specify various connection parameters. The particular connection parameters vary depending on the type of data service that you're linking to. The example dialog box below shows the connection parameters necessary to connect to a Sybase database.



While using a form template, Informed Filler will connect to a data service only when necessary. For example, if a form template is configured to submit completed forms to a Sybase database, Informed Filler will connect to the database only if and when the user requests to submit a completed form. That way, if the user does not submit any forms, accessing the data service is avoided.

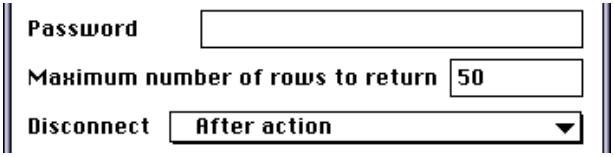
Each Define Connection dialog box contains a drop-down list titled 'Disconnect.' This setting determines when Informed Filler will disconnect from a data service after a connection has been established. The options include 'After action' and 'When template closed.' With the 'After action' setting, Informed Filler will disconnect immediately after the configured action has completed. For example, if a cell is configured to lookup information in a dBASE database, the database will be opened when the lookup is triggered, and closed immediately afterwards. With the 'When template closed' setting, Informed Filler disconnects when the form template is closed.

When a connection to a data service is requested, Informed Filler checks if a connection to the specified service has already been established (as a result of a previous action). If so, and if the connection parameters are the same, Informed Filler will access the data service using the existing connection. For example, suppose that a cell is configured to look up information in the same Oracle database to which form submission is configured. Suppose also that the lookup connection is configured to disconnect when the template is closed. When the user fills out the form, the lookup is triggered. This establishes a connection to the data service. The connection will remain active after the lookup has completed because the 'Disconnect' option is set to 'When template closed.' The user later chooses to submit the form. Since a connection to the requested data service is already established, the form is submitted via that connection.

Limiting Rows Returned

For some types of operations, the data service is expected to return information. When a lookup is performed, for example, the data service searches for the lookup value and, if found, returns associated information. If the data service finds multiple matches of the lookup value, a list is presented to the Informed Filler user requesting that a single match be selected. Each match is displayed as a row of information.

It is necessary to limit the number of rows that a data service can return. Otherwise, the data service could return more rows of information than Informed Filler is able to accept. The Define Connection dialog box for most types of data services includes a text box titled ‘Maximum number of rows to return.’



The default value for this attribute is ‘50.’ This is an appropriate value for most applications. The data service will never return more rows of information than the value you specify here.

Methods of Configuration

For many types of linking, there are two methods of configuration: “Easy” and “Custom.” The “Easy” method is intended to provide an easy-to-use method of configuration. Although less flexible, it usually requires very little knowledge of the data service. For example, no knowledge of the Sybase SQL language is necessary when configuring a Sybase lookup using the Easy configuration method. The “Custom” method provides much more flexibility, but often requires more knowledge of the data source. Configuring a custom Sybase lookup, for example, requires that you enter an actual Sybase SQL query.

The methods of configuration available depends on the type of link and the data access plug-in used. Both easy and custom methods are available for configuring lookups and form submission provided the data access plug-in also supports both methods. Linking auto-incrementing cells to a data service is done only using the custom configuration method. Form tracking supports only using the easy method. The following table lists each data access plug-in with an indication of which configuration methods are supported.

Plug-in	Lookups Easy/Custom	Form Submission Easy/Custom	Auto-increments Easy/Custom	Form Tracking Easy/Custom
Oracle	yes/yes	yes/yes	no/yes	yes/no
Sybase	yes/yes	yes/yes	no/yes	yes/no
ODBC	yes/yes	yes/yes	no/yes	yes/no
HTTP	no/no	no/yes	no/no	no/no
DAL (Mac OS only)	yes/yes	yes/yes	no/yes	yes/no

Configuring for Multiple Platforms

Many of the databases and data services that Informed can link with are accessible from both the Windows and Mac OS platforms. However, the details of accessing a database or data source from each of the platforms might be different. Furthermore, depending on the architecture of your networking environment, you may want to access the same data service from the two different platforms using two different access methods. For example, suppose that you're linking a lookup to an Oracle database. For Mac OS users, you might be accessing the Oracle database using the Mac OS Oracle client software (SQL*NET), whereas on Windows you might be using ODBC instead.

The configuration dialog boxes for lookups, form submission, auto-increments, and form tracking include a drop-down list with the items 'This platform' and 'All platforms.'

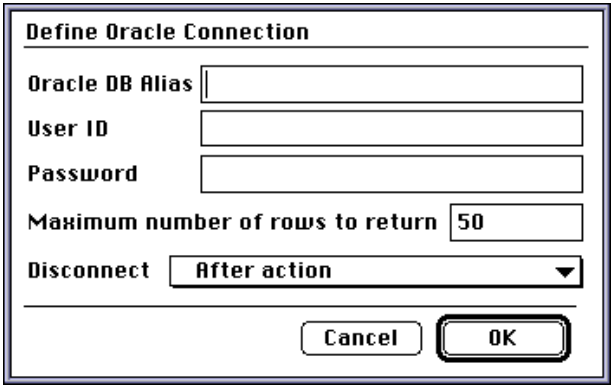
For each different connection type, Informed Designer knows if the configuration details can be the same for the two platforms. If the connection type is supported on both platforms and the configuration details are the same on both, the 'All platforms' option will be available. The lookup you configure on one platform will function on both.

If the configuration details are different for each platform, or if the connection type is available only on the platform you're using, 'This platform' will be the only choice available in the drop-down list. For accessing these types of databases and data services, you have to configure the lookup on one platform, then move the form template to the other platform and repeat the configuration. Informed Designer stores the configuration for both platforms. Informed Filler uses the configuration that corresponds to the user's platform.

Although it may be necessary to configure a lookup twice, once on each platform, the resulting form template document is still a platform neutral document. That is, a single version of the template will work with Informed Filler on both platforms. Informed Filler automatically uses the configuration information that is appropriate for the user's platform.

The Oracle Plug-in

The Informed Oracle data access plug-in works both Oracle 6 and 7. The Oracle SQL*NET software is required. The Define Oracle Connection dialog box is shown below.



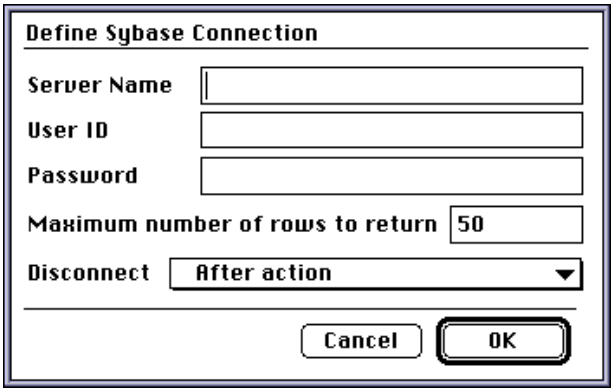
The ‘Oracle DB Alias’ identifies the Oracle database server. A server alias must be defined on the client for each database that Informed will access. The ‘User ID’ and ‘Password’ parameters are optional. If you do not specify these parameters when you define a connection, the Informed Filler user will be asked to enter them when a connection is invoked. An Oracle connection that you define using one platform will function on both (Windows and Mac OS), providing that both have SQL*NET installed and the same server alias defined.

The Sybase Plug-in

On Windows, Sybase support is available via one data access plug-in. This plug-in is built to work with version 10.0.2 of the Sybase client software DB Library. Compatibility with earlier versions is unknown.

On Mac OS, two plug-ins named “Sybase4” and “Sybase10” are provided. The Sybase10 plug-in is designed to work with version 10.0.3/P2 of the Sybase client software and, specifically, the 68K ASLM shared libraries (even on PowerPC Macintoshes). This version is not backward compatible with version 10.0.3 or earlier. The Sybase4 plug-in is designed to work with version 4 of the Sybase client software. This version is forward compatible with newer Sybase servers. However, if you are accessing a Microsoft SQL Server from Mac OS, you must use the Sybase10 plug-in.

The Define Sybase Connection dialog box is shown below.



'Server Name' identifies the Sybase server. It must be defined in your client Sybase configuration file. The 'User ID' and 'Password' parameters are optional. If you do not specify these parameters when you define a connection, the Informed Filler user will be asked to enter them when a connection is invoked. The Windows Sybase plug-in is compatible with the Mac OS Sybase10 plug-in. This means a connection that you define using either of these plug-ins on either platform will function on both platforms (Windows and Mac OS), providing that both have the DB Library software installed and the data server defined.

The ODBC Plug-in

ODBC (Open Database Connectivity) is an application program interface that enables applications to access multiple different database management systems using a single standard protocol or language. Utilizing Informed's ODBC data access plug-in, you can link form templates to many different types of database systems. Each type of database system is accessed via a particular ODBC database driver. The table below lists the database systems supported on each of the Windows and Mac OS platforms.

Database System	Win	Win 95	Win NT	Mac OS
ALLBASE/SQL	Yes	No	No	No
IMAGE/SQL	Yes	No	No	No
Btrieve 5 and 6.x	Yes	Yes	Yes	No
Clipper	Yes	Yes	Yes	Yes
DB2	Yes*	Yes**	Yes**	No
DB2 and InfoHub (MDI gateway)	Yes	No	No	No
dBASE III, IV, and V	Yes	Yes	Yes	Yes
Excel 2, 3, and 4	Yes	Yes	Yes	Yes

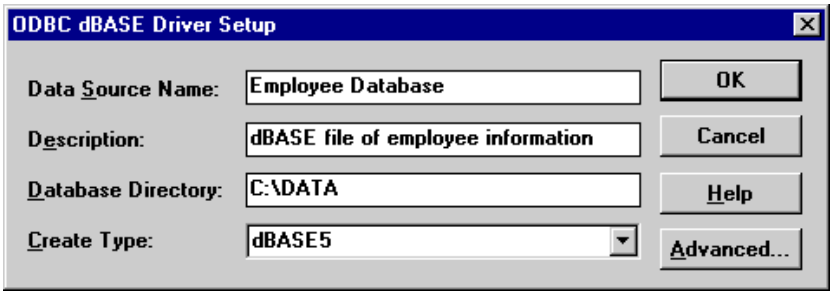
Database System (continued)	Win	Win 95	Win NT	Mac OS
Excel 5	Yes	Yes	Yes	Yes
FoxBASE	Yes	Yes	Yes	Yes
FoxPro 1, 2.5	Yes	Yes	Yes	Yes
FoxPro 3.0	No	Yes	Yes	No
INFORMIX via INFORMIX-Net 4.x	Yes	No	No	No
INFORMIX via INFORMIX-Net 5.x	Yes	No	Yes	Yes
INFORMIX via INFORMIX-Net 7.x	No	No	Yes	No
INGRES 6.4/04 or 6.4/05	Yes	No	Yes	No
InterBase	Yes	No	No	No
Oracle 6	Yes	No	No	Yes
Oracle 7	Yes	Yes	Yes	Yes
Paradox versions 3-4.5	Yes	No	No	No
Paradox 5	Yes	Yes	Yes	No
Paradox 7	No	Yes	Yes	No
Progress 6	Yes	No	No	No
Scalable SQL versions 3.x	Yes	No	No	No
Gupta SQLBase 5.2 and 6.0	Yes	Yes	Yes	No
SQL Server 4.x from Microsoft and Sybase	Yes	Yes	Yes	No
SQL Server 6.0 from Microsoft	Yes	Yes	Yes	No
Sybase System 10	Yes	Yes	Yes	Yes
Sybase System 11	No	Yes	Yes	No
ASCII text files	Yes	Yes	Yes	Yes
XDB versions 3, 4	Yes	No	No	No

* DB2/MVS, SQL/400, and SQL/DS (through the DDCS/2 OR DDCS/6000 gateway), DB2/2, DB2/6000 supporting the use of the Client Application Enabler (CAE) 1.2 interfaces.

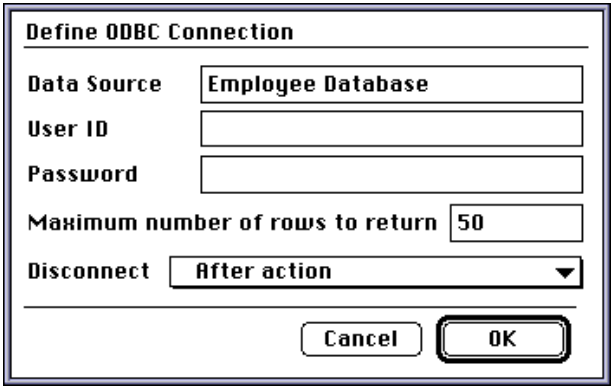
** DB2 for OS/2 (formerly called Database Manager for OS/2), DB2 for Windows NT, DB2/6000, SQL/400 through DDCS gateway, MVS DB2 through DDCS gateway, and SQL/DS through DDCS gateway.

Linking to ODBC data sources requires that you first install the Intersolv DataDirect ODBC drivers included with Informed Designer and Informed Filler. For installation instructions, please see your *Informed Designer Getting Started* manual. Some ODBC drivers also require underlying client software. For example, the Sybase System 10 driver requires that you also install the Open Client software.

Configuring links to ODBC data sources is similar to configuring using other Informed data access plug-ins. However, before you can configure a link, you must first define an ODBC data source. You do so using the ODBC Administrator application (Windows) or ODBC Setup control panel (Mac OS). Below is an example dialog box showing an ODBC data source defined for a dBASE file stored at 'C:\DATA.'



Once you've created the ODBC data source, you can then define a connection to that data source when configuring a lookup, form submission, auto-increment, or form tracking. When defining a connection you identify the data source by the name you enter when creating the data source ("Employee Database" in the above example).



Other connection parameters may be optional depending on the type of data source you're connecting to. If they are required and you do not specify them on the Define Connection dialog box, the Informed Filler user will be asked to enter them when a connection is invoked.

The details of defining ODBC data sources are not included here. Information specific to each ODBC database driver can be found either in on-line help documents in your plug-ins folder (Win-

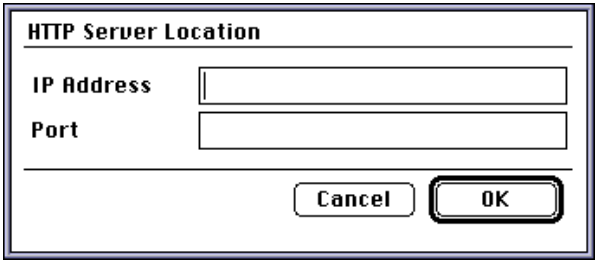
dows) or in the single help file “ODBC Help” in your Help folder (Mac OS). These documents are installed when you install the ODBC drivers. They are not accessible from the Help (Windows) or Guide (Mac OS) menus. You must open these files yourself.

The HTTP Plug-in

HTTP (Hyper Text Transfer Protocol) is the protocol used to communicate with world wide web servers. When you interact with a web server using your web browser, your browser and the server exchange information using HTTP. The Informed HTTP data access plug-in allows you to submit form data directly from Informed Filler to a web server just as though the form data were entered on an HTML form and submitted using your web browser. This brings the benefits of Informed electronic forms to well established standards such as HTTP and the ever expanding network of Internet and Intranet users.

The HTTP data access plug-in requires that you have TCP/IP networking available on your computer and access to either the Internet or an Intranet to which the web server you intend to access is connected. If your computer uses Windows, you’ll also need 16-bit WinSock 1.1 or later. Mac OS users require MacTCP or Open Transport.

When you define a connection via the HTTP plug-in, you’re asked to enter the IP address and port of the web server to connect to.



The HTTP plug-in supports form submission only and requires that you enter the HTTP Post request necessary to interact with the web server. An example HTTP request is shown below.

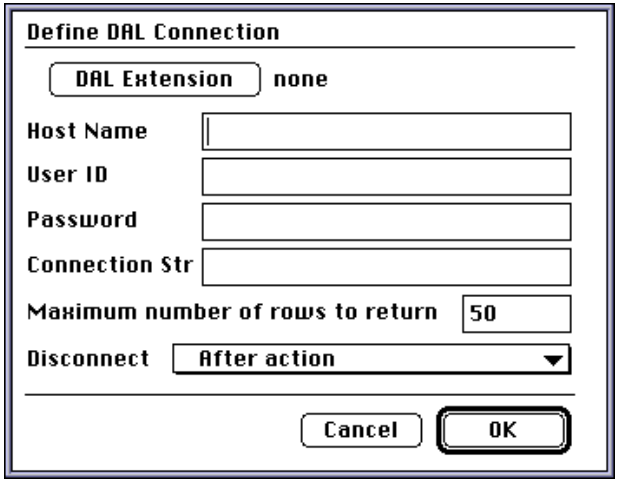
```
POST /cgi/RegFORM.cgi HTTP/1.0
Content-length: <<Length("Name=" & Name & "&Company=" & Company & "&Product=" &
Product & "&SerialNo=" & SerialNo)>>

Name=<<Name>>&Company=<<Company>>&Product=<<Product>>&SerialNo=<<SerialNo>>
```

This example specifies “RegFORM.cgi” as the CGI to accept the submitted data. Like any link configured using the custom configuration method, the information in cells on the form is included in the HTTP request by enclosing their names within double less-than (“<<”) and double greater-than (“>>”) characters. As in the above example, you can enclose any Informed formula within these characters. Here the length function is used to calculate the length of the submitted data.

The CGI that accepts submitted form data from Informed Filler is no different than one that accepts a submitted HTML form. However, additional interaction is possible by configuring the CGI to return a text result message. If the CGI returns a non-blank result, Informed Filler will assume the result to be text and display it in a message dialog box. This feature is useful if you want the CGI to notify the user of errors or simply indicate that the form was accepted successfully.

The DAL Plug-in

DAL is Apple Computer's Data Access Language. Much like ODBC, DAL defines a standard language or protocol with which applications can communicate with data services. Many different types of databases support communication via DAL. You can link form templates to these databases using Informed's DAL data access plug-in. This plug-in is available only on the Mac OS and requires that you have the DAL system extension installed on your computer (included with the Mac OS). The Define DAL Connection dialog box is shown below.



'Host Name' identifies the DAL host. Since multiple different DAL extensions can be installed on your computer, you must select which one to use when you define a connection. To do so, click the 'DAL Extension' button and select the desired extension from your Extensions folder (inside your System Folder). The 'User ID' and 'Password' parameters are optional. If you do not specify these parameters when you define a connection, the Informed Filler user will be asked to enter them when a connection is invoked.

Signing Plug-ins

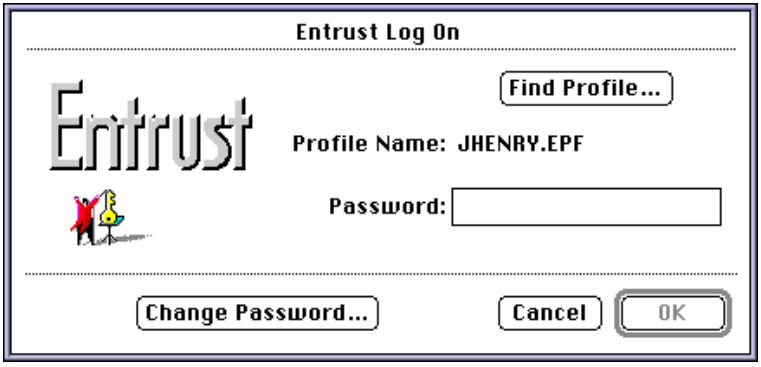
Chapter 2, “Using Digital Signatures,” of your *Informed Designer Forms Automation* manual explains how you can create and configure signature cells so that the Informed Filler user can sign forms electronically. Chapter 7, “Authorizing Form Templates,” covers how you can authorize form templates for use in your organization. Both of these features rely on signing services and Informed signing plug-ins. Signing services include products or technologies such as Entrust by Nortel or DigiSign by Apple Computer.

Most signing services, including Nortel’s Entrust, require installation and configuration. Most also require the administration of signing keys or profiles. Entrust, for example, requires that each user have a unique profile file that identifies the user for signing purposes. The management of keys is different depending on the particular signing service that you use, and is beyond the scope of this document. The administration of your signing service is often the responsibility of a security or network administrator.

Entrust by Nortel

Entrust by Nortel is a scalable security product that can offer different strengths of security and different infrastructures for key management. In order for the Informed Entrust signing plug-in to work, you must have a properly configured version of the Entrust client software installed on your computer. You must also have an Entrust profile, your unique personal identity for signing purposes.

When you authorize a template, you are asked to log on to Entrust by typing your Entrust password.



In addition to logging on to Entrust, the Log on dialog box also allows you to change your Entrust password and choose a different Entrust profile. To change your password, click the ‘Change Password...’ button. A dialog box appears requesting that you enter your old password and the new password. To choose a different Entrust profile, click the ‘Find Profile...’ button. The method of finding a different profile depends on the method of key management used in your organization. Please contact your security or network administrator for more information.

After you authorize a template for the first time, Informed Designer remains logged on to Entrust. That way, if you later choose to authorize a template again, Informed Designer can do so without

requesting that you log on again. You should be careful to never leave your computer unattended after you've authorized a template. Otherwise someone else might use your signing identity to authorize templates. You can explicitly log off from Entrust by choosing **Log Off Service** from the Authorization submenu under Informed Designer's Form menu.

DigiSign by Apple Computer

DigiSign comes with version 7.5 of the Mac OS. Also included is a demonstration signer file that you can use to try creating and verifying digital signatures. The steps you take to obtain your own personal signer file depend on how these files are administered in your organization.

When you sign a form or authorize a form template, a dialog box appears requesting that you enter your DigiSign identification code.

For the demonstration signer file included with DigiSign, the identification code is "password." To sign using a different signer file, click the 'Signer...' button and select a different file. After you've selected the correct signer file and entered your identification code, click 'OK.' To cancel the command, click 'Cancel' instead.

When you authorize a template for the first time, Informed Designer remembers the identification code that you enter. That way, if you later choose to authorize a template again, Informed Designer can do so without requesting you to enter your code again. You should be careful to never leave your computer unattended after you've authorized a template. Otherwise someone else might use your signing identity to authorize templates. You can explicitly log off from DigiSign by choosing **Log Off Service** from Informed Designer's Authorization submenu.

Verification of a template authorized using DigiSign does not require that you enter your DigiSign identification code.

Distribution Plug-ins

Chapter 8, "Form Template Distribution and Revision," of your *Informed Designer Forms Automation* manual describes Informed's built-in forms distribution and revision control features. Also

based on Informed plug-ins, these features allow you to create and maintain distribution centers for your form templates. Informed Filler users can access a distribution center to obtain new templates, and Informed Filler will automatically (or at the user's request) check for new revisions.

Access to a distribution center is accomplished through the use of Informed distribution service plug-ins. A distribution service plug-in enables distribution via a particular type of distribution service. Informed Designer includes distribution service plug-ins for distribution via file servers and FTP servers.

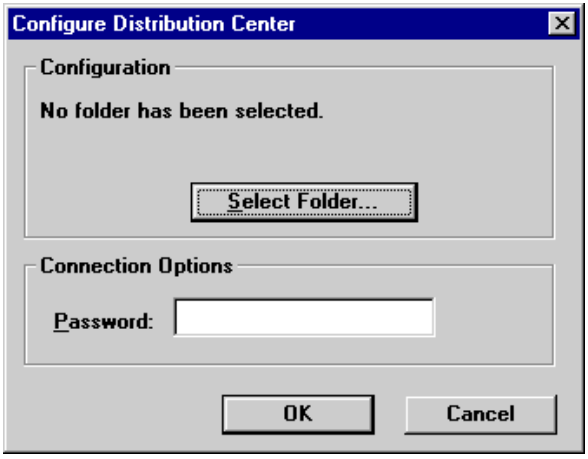
Access to a distribution center also requires a distribution center profile. A distribution center profile is a file containing the information that identifies the distribution center and specifies any parameters necessary to connect. These parameters vary for each different type of distribution center and are described in the following sections.

File Server Plug-in

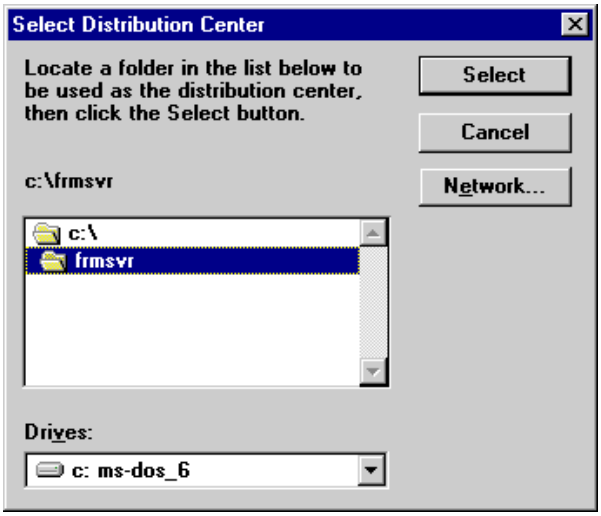
A file server allows multiple users to access and share the same files and information. With the Informed File Server distribution plug-in, you can make a file server the distribution point for your form templates. The Windows plug-in for file server distribution is named "FILSRVDS.PLD" (for Informed Designer) or "FILSRVDS.PLF" (for Informed Filler). The Mac OS plug-in is named "File Server DS."

Before you create a distribution center profile for a file server, you must first create the folder or directory on the file server that will contain the form templates for distribution purposes. Be sure that the file server and folder or directory are accessible to all Informed Filler users. Then using Informed Designer's Distribution Centers command, create a distribution center profile that identifies the shared directory.

On Windows, the distribution center can be any folder within a shared folder. When configuring a file server distribution center profile from the Windows platform, you'll see this dialog box:

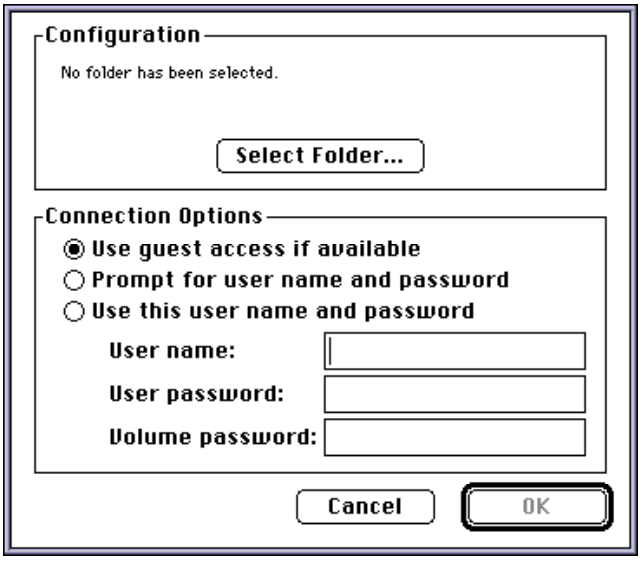


Click the ‘Select Folder...’ button and select the folder using the dialog box that appears.

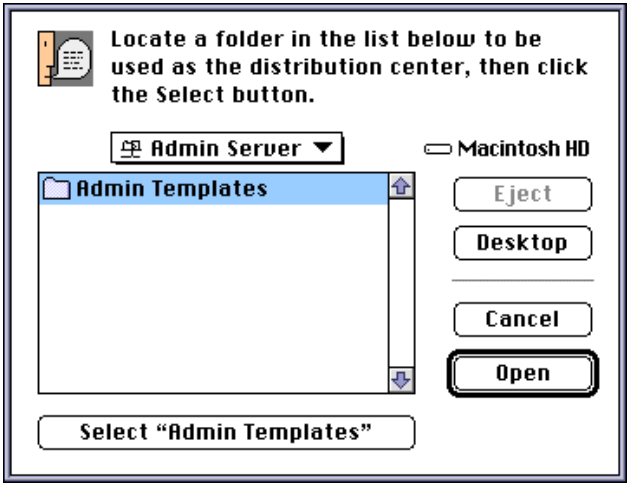


If a password is required to connect to the shared folder, you should enter it in the ‘Password’ text box. Informed Designer and Informed Filler will use this password to automatically connect to the shared folder when necessary. This password is not saved in the user’s password list. If a password is required and you do not enter it here, Informed Filler will attempt to obtain the password from the user’s password list. If this fails, the user will be prompted to enter the password.

On the Mac OS, the distribution center can be any folder on an AppleShare compatible file server. The configuration dialog box for configuring a file server distribution center from the Mac OS is shown below.



The shared volume must be on-line when you create the distribution center profile. Click ‘Select Folder...’ and select the folder by choosing it in the list and clicking the ‘Select’ button.



A Mac OS compatible computer can connect to a file server as a guest or using a particular user name and password. You can select one of three connect options. To connect as a guest, select the ‘Use guest access if available’ option. If you select the ‘Prompt for user name and password’ option, Informed Designer and Informed Filler will request that a user name and password be entered when a connection to the file server is needed. The third option, ‘Use this user name and password,’ allows you to specify a particular user name and password with which to connect to the

file server. If the volume containing the distribution center has a volume password, be sure to enter it in the 'Volume password' text box.

Configuring for Multiple Platforms

For file server distribution center profiles, the configuration details that you specify using one platform (Windows or Mac OS) cannot be used by Informed Designer or Informed Filler to connect to the file server from the other platform (Mac OS or Windows). This means that if access to the distribution center is needed from both platforms, you must configure the distribution center profile twice, once on each platform. To do so, create the distribution center profile one platform, then transfer the profile file to the other platform and repeat the configuration. Informed Designer stores the configuration information for both platforms in the single distribution center profile.

For more information, see "Distribution Center Profiles for Multiple Platforms" in Chapter 8 of your *Informed Designer Forms Automation* manual.

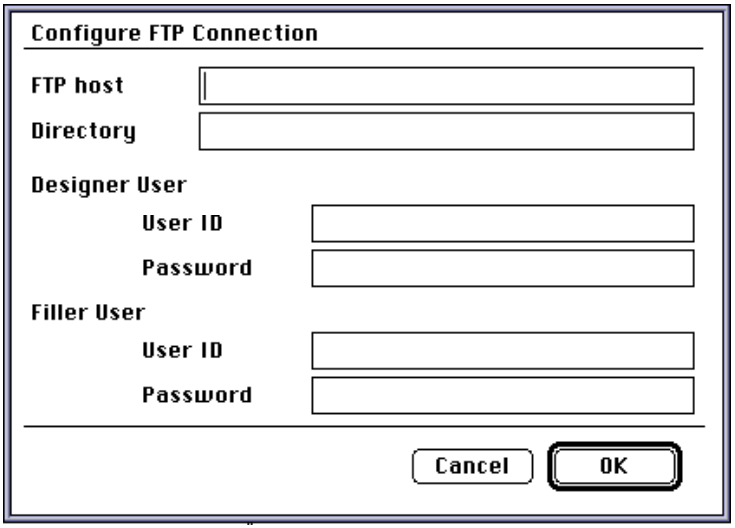
FTP Server Plug-in

The use of FTP servers for shared access to information is becoming more popular given the rapid growth of the Internet and private Intranet networks.The Informed FTP distribution plug-in allows you to distribute form templates via FTP servers. This method of distribution is particularly useful for distributing form templates to public Informed Filler users via FTP servers connected to the Internet.

The FTP distribution plug-in requires that you have TCP/IP networking available on your computer and access to either the Internet or the Intranet to which the FTP server is connected. If your computer uses Windows, you'll also need 16-bit Winsock 1.1 or later. Mac OS users require MacTCP or Open Transport.

FTP distribution centers are accessible from both Windows and the Mac OS. The Windows FTP distribution plug-in is named "FTPSRVDS.PLD" (for Informed Designer) or "FTPSRVDS.PLF" (for Informed Filler). On Mac OS the plug-in is named "FTP Server DS." The configuration details for an FTP distribution center profile are the same for both the Windows and Mac OS platforms. This means that an FTP distribution center profile that you create on one platform (Windows or Mac OS) will work, without modification, on the other platform (Mac OS or Windows).

Before you create a distribution center profile for an FTP server, you must first create a directory on the server that will contain the form templates for distribution purposes. Be sure that the FTP server and directory are accessible to all Informed Filler users. Then using Informed Designer's Distribution Centers command, create the distribution center profile. The dialog box for configuring an FTP distribution center is shown below.



'FTP Host' identifies the FTP server. You can enter an IP address or a host name. Enter the path to the distribution center directory in the 'Directory' text box.

Access to the FTP server is required by both Informed Designer and Informed Filler. Informed Designer accesses the server when you add, update, or delete a template. Informed Filler accesses the server when the user obtains a new template or when a revision check occurs. Informed Designer requires read and write access to the FTP server, whereas Informed Filler requires only read access. Enter the user ID and password that Informed Designer should use to connect to the server in the text boxes under 'Designer User.' Enter the user ID and password that Informed Filler should use in the text boxes under 'Filler User.'