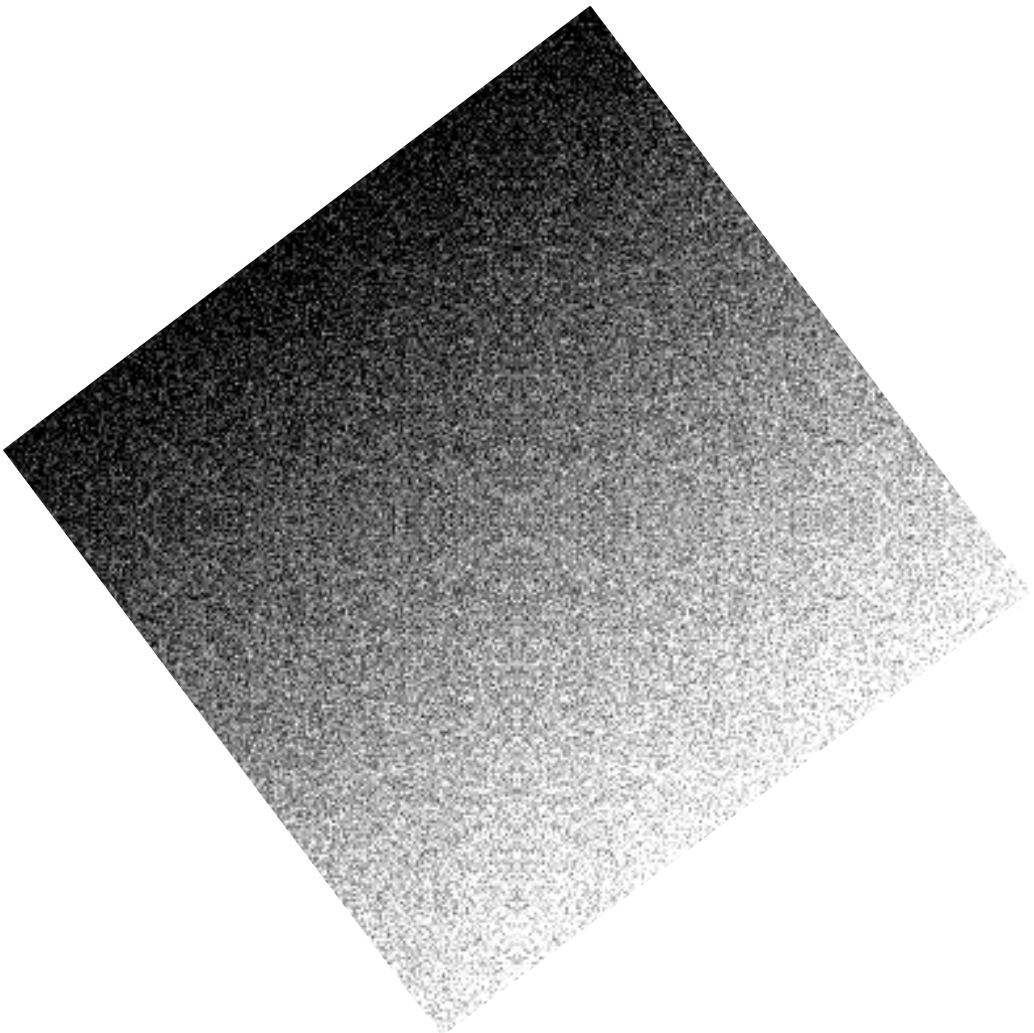
Intelligent Decision Server

IBM

Installing and Configuring IDS Open Clients

Version 1



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Note

Before using this information and the product it supports, be sure to read the general information under “Notices” on page vi.

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This edition applies to Version 1 of Intelligent Decision Server, 5639–IDS, and to any subsequent releases until otherwise indicated in new editions or technical newsletters. Make sure you are using the correct edition for the level of the product.

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About This Book

This book provides information about the hardware and software requirements, preparations, installation, administration, and use of the Intelligent Decision Server (IDS) Open Clients. The IDS Open Clients (Web, Lotus Notes, and ODBC) provide common interfaces for accessing the IBM Intelligent Decision Server.

Who Should Read This Book

This manual is intended primarily for system administrators and application developers responsible for creating applications and establishing connections to IDS through the Open Data Access Service (ODAS). The following minimum skill levels are assumed for IDS developers reading this book regardless of the open client being used.

Those performing IDS system administration are familiar with the installation and configuration of the following IDS features:

- Capsule Service
- Conversion Service
- Open Data Access Service

Those designing and preparing IDS capsule applications are familiar with IDS capsule application development and the use of capsule applications through ODAS.

See the installation appendix for the open client you are installing for more information about the skills required to use specific open clients. These appendices also contain information about the hardware and software requirements for each open client.

Prerequisite Reading

This manual was designed to be used in conjunction with the following publications:

Developing Applications with Open Data Access Service	(SC26-8888)
ODBC 2.0 Programmers Reference and SDK Guide	Microsoft Press ISBN 1-55615-658-8

We'd Like Your Comments

Your feedback is important to us in providing you with the most accurate and high-quality information. If you have any comments about this book or any other IDS documentation, please visit our Website at:

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Chapter 1. The IDS Open Client Concept

The IBM Intelligent Decision Server Open Clients for the Web, Lotus Notes, and Open DataBase Connectivity (ODBC) applications provide users with common and familiar applications that they can use to report requests to IDS or retrieve results of previously run reports. These reports requests are processed by IDS *capsule applications*, reusable processes that query and analyze data.

An IDS open client is a gateway between IDS and common end-user application. IDS open clients allow users to submit report request to IDS and receive the results back in common formats for use on the World Wide Web (the web), in Lotus Notes, or with ODBC compliant applications, such as Lotus Approach and Microsoft Excel. Many formats are supported for graphics, spreadsheets, and text files. In general, the results of any report request can be saved at the end-user workstation and used with many common applications for further analysis, manipulation, and presentation.

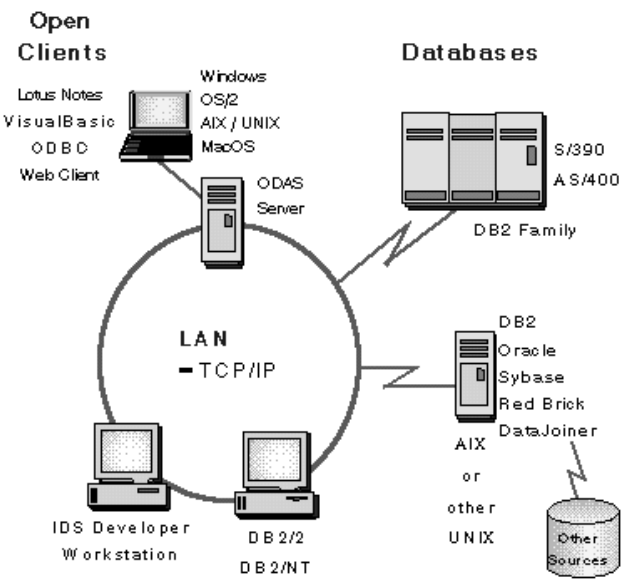

Figure 1. IDS open client environment

The IDS open clients connect to IDS through the IDS Open Data Access Service (ODAS) via common TCP/IP protocol, making them practical and easy to deploy. The IDS Web Open Client and the IDS Lotus Notes Open Client transmit user requests to run IDS capsule applications through standard web servers and Lotus Notes Servers respectively. These servers can be used to perform other critical functions in your organization, such as mail services, so the open clients simply add to their functionality. The IDS ODBC Open Client can connect directly to ODAS from ODBC enabled applications. Figure 1 shows how the IDS open clients might be used in a typical IDS system to access capsule applications and data on many different databases.

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As shown in Figure 1, IDS can be used to access many different types of DataBase Management Systems (DBMS). IDS can use the IBM DataJoiner product to access databases not directly supported. The IDS open clients bring this versatile functionality to common applications that user are already familiar with. This allows data to be manipulated and analyzed with tools right at the desktop.

To use each open client, you create IDS open client applications. These applications are a combination of the capabilities of the end-user application, such as a Lotus Notes form, application description data, such as a file that maps forms fields to variable, and a capsule application on IDS. Each open client uses application description data supplied by capsule designers as a means for cataloging capsule applications, required parameters, and results to be returned to the end-user. For the IDS Web Open Client, application description data is stored directly in the HTML (Hypertext Mark-Up Language) submitted by the end-user. Application description data for the IDS Lotus Notes Open Client is stored in a database on the IDS Lotus Notes Open Client system. The application description data for the IDS ODBC Open Client is stored with each ODBC enabled end-user application. You can create IDS Open Client applications that run capsules at the end-user's request or that simply get the results of previously run capsules.

As mentioned previously, all IDS Open Clients use the Open Data Access Service. ODAS, which is part of the IDS base installation, runs on a server and monitors the network for requests from ODAS clients to run reports, then transmits these requests to the IDS Capsule Service. The Capsule Service runs capsule applications against the data sources connected to IDS. ODAS waits for the results of these capsule applications, and returns the results to the appropriate open client.

You can also develop customized ODAS client applications directly from any language the supports calls to the C and Visual Basic Application Programming Interfaces supplied with IDS. For more information see *Developing Applications for Open Data Access Service*. Included with the IDS installation is a set of customized Visual Basic controls that you can also use when developing or modifying applications. For more information on these see *Custom Visual Basic Controls for Open Data Access Service*.

About the IDS Web Open Client

The IDS Web Open Client provides a gateway between the World Wide Web (WWW or Web) and the Intelligent Decision Server (IDS). Web browser users can submit customized report requests, through ODAS, to IDS for processing. Report requests are processed by the IDS Web Open Client, a Common Gateway Interface (CGI), residing on a web server and the sent to the ODAS. The report results are returned to the web browser as a HTML document containing text and graphics.

The process of running a report is accomplished by connecting to an IDS ODAS server and issuing a request to run a report using an HTML form. The capsule application description data, which specifies ODAS servers, desktops, capsule applications and parameters (@-variables), is specified in either this HTML form or in the Report Definition file, reports.dis, also residing on the web server. The information needed to run a particular report is passed by the IDS Web Open Client to the ODAS server.

Figure 2 on page 3 shows a typical IDS Web Open Client architecture.

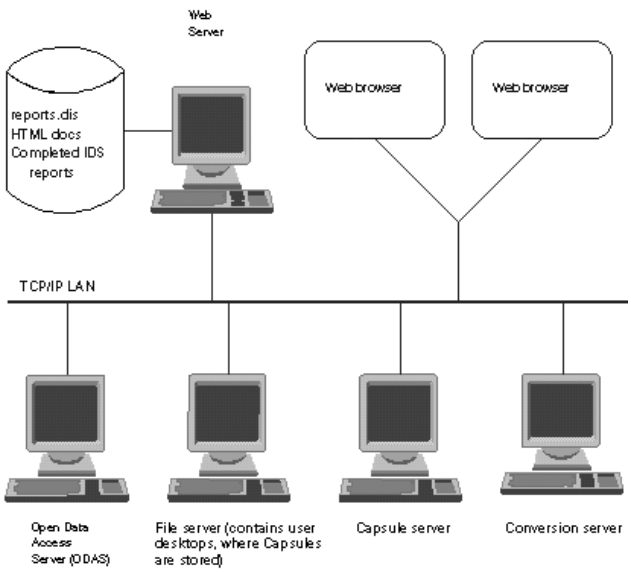

Figure 2. IDS Web client architecture

The IDS Web Open Client allows you to design IDS Web Open Client applications with different options to serve your customer's needs. For example, you can design an application that places the resulting file in a directory protected by user name and password requirements. You can also design an IDS Web Open Client application that runs reports in the background freeing the user to continue with other tasks.

Components

An IDS Web Open Client requires the following components in your IDS environment:

Web Server Separately installed system used to present HTML pages to web browsers and run the IDS Web Open Client software.

IDS Web Open Client Software supplied with IDS and used to interpret requests to run reports, submit these requests to ODAS, and present report results to the web browser.

Web Browser Separately installed end-user application used to submit report requests and retrieve report results.

Client Access Process

The flow of operations performed for most IDS Web Open Client applications will follow this general path:

1. A user runs a report request entering parameters into an HTML form document at the end-user web browser and submitting the form to a web server

2. IDS Web Open Client (CGI script) on the web server submits the parameters to the ODAS server.
3. ODAS submits the parameters to the Capsule Service.
4. The capsule application runs and the results are sent to the Conversion Service.
5. The Conversion Service converts results to a web compatible format and sends these to ODAS.
6. ODAS returns the results to the IDS Web Open Client.
7. The IDS Web Open Client passes the results to the web server
8. The web server presents the HTML, which can include text and graphics, to the web browser.

Supported Environments

The following environments are supported by the IDS Web Open Client:

Web browsers

- HTML 2.0 compliant.
- Any operating system.

Web Servers

- OS/2
- AIX
- Solaris
- SunOS

About the IDS Lotus Notes Open Client

The IDS Lotus Notes Open Client provides a gateway between Lotus Notes and the Intelligent Decision Server (IDS). Lotus Notes users can submit customized report requests, through ODAS, to IDS for processing. While the report request is processing, Lotus Notes users are free to use other features in Lotus Notes and other applications on the workstation. After the request are processed, via capsule application in IDS, the results are returned to the user through the Notes mail system in the form of a mail message.

Figure 3 on page 5 below shows a typical IDS Lotus Notes Open Client architecture.

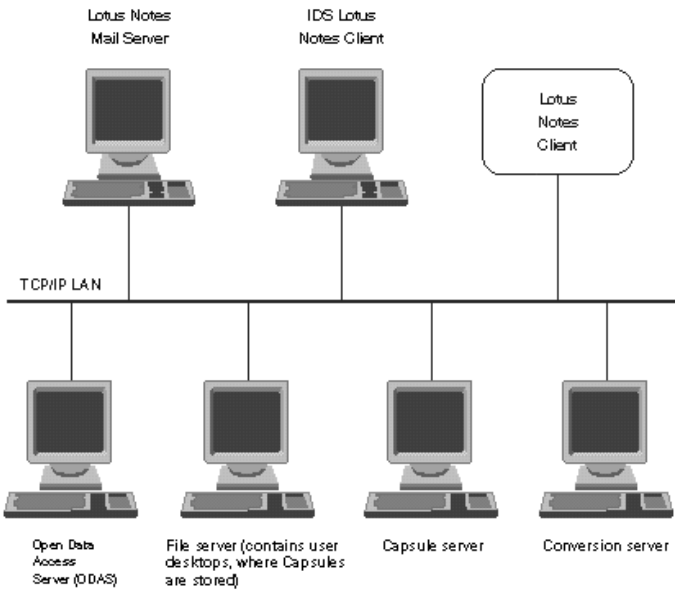

Figure 3. IDS Lotus Notes client environment

Application description data about how the capsule relates to a particular Notes form is stored in a local database on the IDS Lotus Notes Open Client. Using this information, the server accepts incoming requests and issues ODAS function calls, submitting parameters to the capsule applications.

Results can be either returned as attached files or imported directly into the body of the mail message to allow direct viewing without the need for any other programs. When attached, the files can be either opened in an associated application directly from the Lotus Notes interface or detached and then imported into other applications for further analysis and modification.

Components

The IDS Lotus Notes Open Client adds the following components to your IDS environment:

Lotus Notes Client Separately installed standard Lotus Notes client software. This software must be installed on the workstation running the IDS Lotus Notes Open Client and each end-user workstation. It allows access to the Lotus Notes Server.

IDS Lotus Notes Open Client Software supplied with IDS that maintains the IDS Lotus Notes application description data, monitors and translates requests to run reports, and returns results to users. This software contains an Administration application for configuring IDS Lotus Notes Open Client applications and an Operation application for monitoring activities and starting and stopping the client.

Lotus Notes Server Separately installed system and software for managing Lotus Notes database and mail services.

Client Access Process

The flow of operations performed for most IDS Lotus Notes Open Client applications will follow this general path:

1. A user runs a report request by entering parameters into a Lotus Notes form at the Lotus Notes end-user workstation and mailing the form via a Lotus Notes mail server.
2. The Lotus Notes Mail server mails the parameters to the IDS Lotus Notes Client.
3. The IDS Lotus Notes Open Client processes parameters and submits these to the ODAS server.
4. ODAS submits the parameters to the Capsule Service.
5. The capsule application runs and the results are sent to the Conversion Service.
6. The Conversion Service converts the results to a Lotus Notes compatible format and sends them to ODAS.
7. ODAS returns the results to the IDS Lotus Notes Open Client.
8. The IDS Lotus Notes Open Client converts the results to a mail message and mails the results to the Lotus Notes Mail Server.
9. The Lotus Notes Mail Server mails the results to the Lotus Notes end–user.

Supported Environments

The following environments are supported by this product.

IDS Lotus Notes Open Client

- Windows 3.1** or later
- Win OS/2 under OS/2 Version 3 (Warp or Warp Connect)
- Windows 95** with Service Pack 1
- Windows NT** 3.5 or 4.0

Lotus Notes Server 3.3 and 4 releases on any platform

Lotus Notes Client 3.3 and 4 releases on any platform

About the IDS ODBC Open Client

The IDS Open Database Connectivity Client (ODBC Client) provides a gateway between ODBC applications and Intelligent Decision Server. Users of common ODBC applications can submit customized report requests, through ODAS, to IDS for processing. After these requests are processed, via capsule applications in IDS, the results are returned to the user's ODBC applications.

ODBC applications use drivers to access data sources. The IDS ODBC Open Client acts as a driver in your ODBC application and the Intelligent Decision Server is seen as

just another data source, like other common ODBC data sources. And like any ODBC data source, you can run queries against IDS, which in turn run capsule applications and return results.

For each report that you want to run from a Lotus Notes end-user workstation, you must create a capsule description table, a simple spreadsheet, containing information about the capsule applications the report runs, capsule parameters, result types, and number of columns returned to the report. This spreadsheet is used to map parameters in your report request to capsule applications. Information about the IDS desktop the spreadsheet resides on, the desktop password, the ODAS server used to access the desktop, and the containers used on the desktop are stored in the ODBC.INI file. Like other contents of the Figure 4 shows a typical IDS ODBC client architecture.

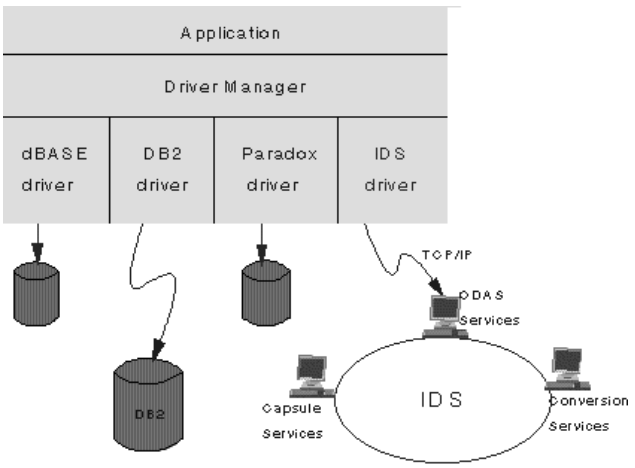

Figure 4. IDS ODBC client architecture

You can use three methods to run IDS capsule applications through an ODBC enabled application. One method is to use a Graphical User Interface (GUI) type application to select a table and then filter its rows and columns to run a specific query. Another is to issue SQL directly from within your ODBC application. This method allows users to easily specify the capsule parameters (@-variable) and control the results of the report request. Finally, you can develop customized applications using programming languages and the IDS ODBC API calls.

ODBC applications, whether GUI based or SQL entry based, require that you select a data source, select a table in that data source, select columns in the table and insert calculations to filter table rows. With the IDS ODBC Open Client, you use this process of selecting data sources, tables, columns, and rows as a means of selecting an IDS desktop, a capsule description table on that desktop, variables that you want to set in the capsule application, and the values that you want to variables to filter out. The IDS ODBC driver sends these selections to the ODAS server, ODAS passes the parameters to the IDS desktop, the capsule descriptor table is used interpret the parameters, and submit these to capsule services, where the results of the report are run or collected and returned to the open client.

The IDS ODBC Open Client has distinct advantages over the other IDS Open Clients. For example, the data returned in a report can be directly manipulated, graphed, and analyzed within the ODBC application receiving the results, without the need for an intermediate conversion step.

To implement an IDS ODBC Open Client, you must have a general understanding of the ODBC concept. The most important concept to keep in mind is that the Intelligent Decision Server must appear as a data source, like any other, to ODBC applications, and the IDS ODBC Driver ensures that IDS appears to be a data source throughout all interactions. As such, parameters must be submitted in the form of SQL either by direct entry or through an application interface.

Components

An IDS ODBC Open Client requires the following components in your IDS environment:

ODBC compliant application Separately installed software that uses the Open DataBase Connectivity standard to access many types of databases. This is the end-user software, such as Lotus Approach, used to submit report requests and perform end-user analysis.

ODBC Administrator Software supplied with the IDS ODBC Open Client used to catalogue data sources for ODBC applications.

ODBC Driver Manager Software that passes report request and report results to and from the end-user application and the appropriate ODBC driver.

IDS ODBC driver Software supplied with IDS used to interpret report requests from the ODBC application, submits these request to ODAS, and return results to the ODBC application.

Client Access Process

The flow of operations performed for most IDS ODBC Open Client applications will follow this general path:

1. A user runs a report request by selecting or entering query parameters in ODBC application GUI or by entering SQL in an ODBC application command window and submitting these parameters to the IDS ODBC Driver Manger.
2. The ODBC Driver Manager submits the parameters to the IDS ODBC Driver.
3. The ODBC Driver submits the capsule parameters to the ODAS server.
4. ODAS submits the parameters to the Capsule Service.
5. Capsule Service interprets the capsule parameters based on the capsule descriptor tables.
6. The capsule application runs and the results file is sent to the Conversion Service.
7. The Conversion Service converts the results to a ODBC compatible format, a spreadsheet or table, and sends them to ODAS.
8. ODAS returns the results in the form of a table to the IDS ODBC Driver.
9. The IDS ODBC Driver returns the results to the ODBC application.

Supported Environments

ODBC applications running in the following environments are supported by the IDS ODBC Open Client:

Windows 3.1** or later

Win OS/2 under OS/2 Version 3 (Warp or Warp Connect)

Windows 95** with Service Pack 1

Windows NT** 3.5 or 4.0

About the Sample Capsule Applications

When you install the Intelligent Decision Server the "guest" desktop is built to help you get started with IDS. The guest desktop is accessible from any IDS Desktop in your IDS LAN environment. Guest includes four containers for sample capsule applications and templates that you can use to begin building IDS Open Client applications. You can use guest as the starting point for building all your IDS Open Client applications, changing the user ID and password when appropriate.

The following list describes the components included on guest and their purpose.

Sample Applications Container for Coffee Demo and Banking Demo.

Open Client Results Container to store result objects sent back to the open clients.

ODBC Capsule Descriptions Container for the sample capsule description tables including a template for creating new tables.

Coffee Demo Container for Coffee Demo sample capsule object along with instructions for this sample demo. This sample shows a retail and distribution application of IDS.

Banking Demo Container for Banking sample capsule object along with installation instructions for the sample demo. This sample shows a financial application of IDS.

Insurance Demo Container for Insurance sample capsule object along with installation instructions for the sample demo. This sample shows an insurance application of IDS.

To use the samples you will need to recreate a DB2 database that IDS can access when running the sample capsule applications. For more information and instructions see the Database Installation Instructions in the Banking Demo folder and the Coffee Demo Folder, both contained in the Sample Applications file drawer on the guest desktop.

Because the IDS ODBC Open Client installation requires that certain folders on the IDS developers desktop exist prior to installing and configuring the IDS ODBC driver, the Coffee Demo sample is integrated into the IDS ODBC Open Client installation. Samples are not required to install the IDS Web Open Client or IDS Lotus Notes Open Clients

and are simply provided as examples. The Causals w/ Graph capsule application contained in the Coffee Demo sample is used when explaining how to use the open clients.

Figure 5 shows the content of the Causals w/ Graph IDS capsule application.

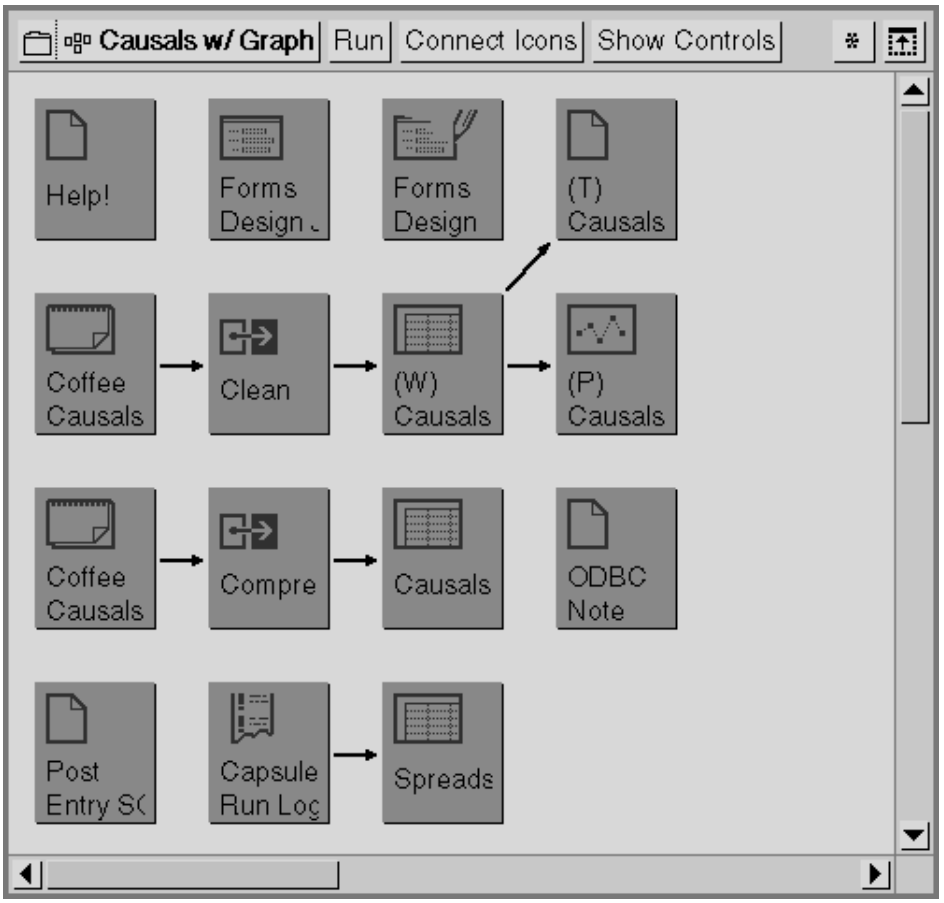

Figure 5. Causal w/ Graph sample IDS capsule application

To log onto the guest desktop :

1. On the OS/2 workstation, double-click the IDS Desktop icon. The IDS Desktop Logon window opens.
2. At the Please Enter your ID prompt type

   guest

   and press Enter.
3. At the password prompt type

   guest

   and press Enter.

Chapter 2. Configuring the IDS Web Open Client

Before using the procedures in this chapter, use must install the IDS Web Open Client software as described in Appendix A, “Installing the IDS Web Open Client” on page 48. After you install the open client, you can follow this general process to create IDS Web Open Client applications that enable end-users to run IDS reports.

Design and prepare capsule applications on the IDS desktop.

Review the server parameters for HTML forms.

Design and prepare HTML forms.

Review the report definition file parameters.

Customize the report definition file.

Run and test the IDS Web Open Client application from a Web browser.

Preparing capsule applications

Before you design and prepare HTML forms, set up the capsule application for your users. The extent of your capsule application is dependent upon your users' needs.

The capsule designer must place the capsule applications designed to work with the IDS Web Open Client in locations in which the fully qualified path is less than 80 characters long, including spacing.

When preparing the capsule application, adhere to the following guidelines:

Ensure that the Open Client Results container, or other container that you are using to receive the results, is empty before running the capsule application.

Record the names of your files and destination directory names so that you can enter these into the reports.dis and HTML files.

Test the capsule application on the IDS desktop.

The Coffee Demo sample capsule application is installed on the IDS guest desktop. You can use this preinstalled capsule application to get started with the IDS Web Open Client.

Server Parameters for HTML Files

This section provides guidance and a listing of valid parameters that can be used when designing HTML forms. Server parameters can be passed either from the HTML command line or from an HTML form.

The format from an HTML command line is:

hthtmlname=value/htreport=value/htfiletype=value/htdestfolder=value/htnowait=value/htvar_AA=value

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The following is an example of how the parameters are passed when invoked from the command line:

<Action="http://mywebserver/cgi-bin/disweb/hthtmlname=www1.htm/1
htreport=rpt1/htfiletype=GIF/htnowait=yes/htdestfolder=Reports+Folder/htvar_AA=1.24/
htvar_BB=Report+Result">

In the previous example, mywebserver is the host name or IP address of the server on which you installed the IDS Web Open Client. cgi-bin is the default name on the this web server, where the open client executable is installed. The balance of the parameters are explained in Table 1.

The executable file name is DISWEB.EXE on OS/2 web servers and disweb on UNIX Web servers. The plus sign (+) used in the above HTML example is required to indicate a space in a string. The pluses are replaced by spaces by the Web server.

The following example shows parameters that are passed from an HTML form using the POST method:

<FORM METHOD="POST" ACTION="http://krycek/cgi—bin/disweb/
htdebug=yes/htdocroot=html/hthtmlname=idsweb1.html">

Each parameter is paired with a keyword and its value in the HTML, and each pair is separated by a slash. Table 1 lists and describes the parameter keywords.

Parameters that can be set both in the HTML form and in the reports.dis files. The parameters set in the HTML file overwrite the setting in the reports.dis file.

Table 1 (Page 1 of 3). Keywords and parameter descriptions

Keyword	Meaning	Description
HTDEBUG	Debug statements. For example: HTDEBUG=yes	Enables and displays parameters and their values on the Web page and allows you to verify if the settings are correct. This parameter can be used as part of an HTML file only. When set, HTDEBUG must be the first parameter in the command line.
HTHTMLNAME	Name of the result HTML	This parameter is required. This parameter is necessary for building the HTML dynamically and being able to display the result of a capsule job. This is where HTML commands are appended. This parameter can be used as part of an HTML file only. The name of this parameter must match the name of the Report Result form.
HTREPORT	Result report name	This parameter is required. This is the name of the resulting report in the capsule icon on the IDS desktop. The IDS Web Open Client looks for this name in the capsule icon to display the results. This parameter must be specified as part of the HTML file and set from the command line only. This parameter must match a report definition tag in the reports.dis file. For example: [My Report Name]

Table 1 (Page 2 of 3). Keywords and parameter descriptions

Keyword	Meaning	Description
HTFILETYPE	Format of the result report. Maximum number of columns for a text file = 120.	This field is optional. This parameter can be specified to be TXT, HTML, BMP, GIF, WK1, or FLD. Note that in the capsule icon, a text file is converted to a TXT or an HTM file. The program will ignore any formatting tags in files with HTML formats. A bitmap (restricted to the WINBMP) file is converted to either a BMP or a GIF format, depending upon what the user specifies for the HTFILETYPE. A spreadsheet is converted to a WK1 file. Finally, if the report is a folder, the IDS Web Open Client will transfer all the files specified in reports.dis filed with a FILELIST tag to a destination directory (defined by REPORTDIR) with the same name as the directory on the IDS desktop, plus any defined extensions defined in reports.dis file. The default format is GIF. This parameter can be used as part of an HTML or set in the reports.dis file.
HTNOWAIT	No wait	This parameter is optional. This can be set to **Yes**. When HTNOWAIT is set to **Yes**, the capsule application is submitted and the user can continue with other tasks until the application completes the run. When HTNOWAIT is not set, the program will wait until the capsule application is finished and the results display. HTNOWAIT is useful for large capsule applications that might take a long time to complete. When you set HTNOWAIT, set the HTDESTFOLDER parameters also. This parameter can be used as part of an HTML or set in the reports.dis file.
HTGETRPTONLY	Run report only	This field is optional and can be set to **yes**. This is used to transfer the report back to the local machine without running a capsule application. Note that in this case, the report is from *\DESTFOLDER\capsule name\Report name* of the IDS desktop. When HTGETRPTONLY is set, you must set the HTDESTFOLDER parameter also. If HTNOWAIT and HTGETRPTONLY are both set, IDS Web Client will ignores htnowait and get the report directly. This parameter can be used as part of an HTML or set in the reports.dis file.
HTDESTFOLDER	IDS destination folder	This field is optional. When used, the folder specified is the destination, on the IDS desktop, of the capsule results. The folder is automatically created if one does not exist on the desktop. Note that each time you run the capsule application, the new capsule will overwrite the old one with the same name in the folder. This parameter can be used as part of an HTML or set in the reports.dis file.

Table 1 (Page 3 of 3). Keywords and parameter descriptions

Keyword	Meaning	Description
HTTEMPORARY	Temporary file flag	This field is optional and can be set to **Yes** to prevent network lock when two users run the same capsule application or two users ask for the same file simultaneously. The temporary file name is based on the destination file name and the remote host name. If no destination file name (REPORTFILE) is specified in report.dis, then the report name is used. The final temporary name will be a combination of TMP + filename + the remote host name. For example, a report whose destination name is Annual Report and remote host name is ids1.ibm.com, will be named as TMPAnnual Report ids1.ibm.com.ext, where the right file extension ext is appended by the IDS Web Open Client. This parameter can be used as part of an HTML or set in the report.dis file.
HTDESKTOP	Desktop name. Maximum length = 63 characters.	IDS desktop name. This parameter can be used as part of an HTML or set in the reports.dis file.
HTPASSWORD	Password name. Maximum length = 15 characters.	IDS desktop password. This parameter can be used as part of an HTML or set in the reports.dis file.
HTVAR_<variable>	@-variable values.	This field is optional. This is the capsule application variables that can be set to the value that passes the variable parameters. The keyword is always HTVAR_<value>, and the value is assigned to the variables that are specified from the command line or specified in the reports.dis file. Note that there are no spaces allowed in the command line. You can use + sign in place of space if necessary. The command line entry will override the value setting in the reports.dis file. For example: HTVAR_AA = AA_VALUE
HTVARTYPE_<variable>	@-variable type.	This field is optional. The @-variable can be set to either **TEXT, NUM, DATE,** or **NONE**. If you do not set the type, then the capsule code will determine the type and the tool will render the format of the specific type. For example, if you enter 3 .2 , the capsule code will determine that this entry is a number and the Plot tool will display this number as 300.20 according to your desktop format. If you want the number displayed exactly as you entered (as 0300.200), then set the variable as **TEXT**.
HTVARDESC_<variable>	@-variable description. Maximum number of characters = 49.	This field is optional. Allows you to set the description of any @-variable.
RPTRES	Image placement control. Used in HTML report result form only.	This field is optional. **RPTRES** is a keyword that you can place in the result HTML file to let the IDS Web Open Client know where the result image is placed. If you do not specify **RPTRES** in the HTML file, then the image will display at the end of the result HTML file.

Preparing HTML Files

Before preparing HTML files that run IDS capsule applications through your Web server, you must understand the relationship between HTML, the server parameters, and results that IDS returns. Using the guidelines that follow and the information in "Server Parameters for HTML Files" on page 11 you will create HTML files that pass the appropriate parameters to IDS and HTML files that function as templates for the results returned by IDS.

Preparing a Report Request Form

A report request form is an HTML document that resides on your web server. The form contains various parameters that IDS needs to run your capsule applications. This section provides instructions and examples, which are included in your installation, for creating a Report Request form called idsexamp.html and an Index page called idsindex.html. The Index page is used to catalogue the various Web Client applications that you might create. However, the index page is optional.

To create an Index page and a Report Request form:

1. Change directories to where your Web server document root is loaded. In this example

   cd f:\www\html

2. Copy and rename the Index page, idsindex.hmtl, and the Report Request form, idsexamp.html.
3. Edit the renamed Index page with a text editor. In this example, the Index page filename is idsindex.html and shown in Figure 6.

```
<body>
<hr>
<h1>IDS Web Open Client Demonstration</h1>
<p><img align=left src="ids6bit.gif">This demonstration uses the Coffee Demo
sample capsule application, on the IDS Guest desktop, to show you how IDS can
be used to track inventory and sales data.
When you run this demo, the IDS Web Open Client receives the parameters from
your HTML from and passes them to IDS.
The Coffee Demo capsule application queries data in a sample database.
The results of the Coffee Demo capsule application, Causals w/Graph, are
returned to your browser.
<P>
You can run the report to <a href=idsexamp.html>get the latest Coffee Demo report</a>
or to simply <a href=idstext.html>retrieve the results of the last run</a> of the
Coffee Demo.
<p>
</body>
```

Figure 6. The idsindex.html file

4. Create a link from the Index page to the Report Request form. In the example in Figure 6, the link is shown as <a href=idsexamp.html or idstext.html>IDS Explorer</a href>
5. Save and close the edited Index File page.

6. Edit the renamed Report Request form with a text editor.

   The idsexamp.html sample file shown in Figure 8 on page 17 and idstext.html file shown in Figure 7 represent the HTML pages for use with the Coffee Demo sample capsule application shown in Figure 5 on page 10. To begin using these files, you must change the placeholder mywebserver in the FORM line to the hostname where the IDS Web Open Client is installed.

```
<body>
<FORM METHOD="POST" ACTION="http://mywebserver/cgi-bin/disweb/htdebug=/htdocroot=html/
hthtmlname=ideweb1.html/htreport=(W)Causals/htfiletype=txt/htdestfolder=Open Client
Results/htnowait=yes/htgetrptonly=yes/httemporary=yes">
<h2>Get the Results of the Last Coffee Report</h2>
<p>
This form retrieves the results of a previously run (W) Causals report for the Coffee
Demo sample application and returns these to your browser in the form of an HTML file
called idsweb1.html. But remember, getting the last report results is sort of like
drinking cold coffee!
<sl>
<li>Desktop name:    Type: <code>guest</code>
<li><INPUT MAXLENGTH=8  NAME="htdesktop">
<lI>Desktop password:    Type: <code>guest</code>
<li><INPUT MAXLENGTH=16 TYPE="password" NAME="htpassword">
</sl>
<p>
<INPUT TYPE="submit" VALUE="Run Report">
</FORM>
</body>
```

Figure 7. The idstext.html file

```
<body>
<FORM METHOD="POST" ACTION="http://mywebserver/cgi-bin/disweb/htdebug=yes/htdocroot=html/hthtmlname=idsweb1.html">
<h2>Hey! Watch Out, I Got a Hot Cup of Coffee Here!</h2>
<p>
In this form you will enter parameters to control the execution of the capsule application.
You will enter information about the IDS desktop, capsule run options, and variable parameters.
This report runs the Causals w/ Graph capsule application in the Coffee Demo.
<br><p>
<b>Identify the IDS Desktop</b>
<sl>
<li>Desktop name: Type: <code>guest</code>
<li><INPUT MAXLENGTH=8  NAME="htdesktop">
<li>Desktop password: Type: <code>guest</code>
<li><INPUT MAXLENGTH=16 TYPE="password" NAME="htpassword">
</sl>
<br><p>
<b>Select the Report</b>
<sl>
<li>Report Name: Type: <code>Hot Coffee</code> or <code>Cold Coffee</code>
<li><INPUT MAXLENGTH=8  NAME="htreport">
<li>Report Object: Type <code>(W)Causals</code> or <code>(P)Causals</code>
<li><INPUT MAXLENGTH=8  NAME="reportfile">
<li>File Format: Type: <code>WK1</code> for (W)Causals
or <code>GIF</code> for (P)Causals
<li><INPUT MAXLENGTH=5 NAME="htfiletype"><P>
<lI>Destination Folder on IDS: Type: <code>Open Client Results</code>
<lI><INPUT MAXLENGTH=8  NAME="htdestfolder"><P>
</sl>
<br><p>
<b>Specify the Report Run Options</b>
<ul>
<li>If you do not select the wait option, you will have to submit this form later to get the results.
<p><INPUT TYPE="checkbox" NAME="HTNOWAIT" VALUE="yes">Wait for the capsule application to finish.
<li>Selecting this option assumes that you did not wait for the results during the last run and
you would now like them.
<p><INPUT TYPE="checkbox" NAME="HTGETRPTONLY" VALUE="yes">Get
the previously run capsule application results.
<li>Selecting this option prevents a sharing violation and
is completely optional for this demonstration.
<p><INPUT TYPE="checkbox" NAME="HTTEMPORARY" VALUE="yes">Create
temporary file name
</ul>
<br><p>
<b>Enter the Variables<b/>
<sl>
<li>Product Level: Type <code>UPC</code>
<li><INPUT MAXLENGTH=8  NAME="htvar_AA">
<li>Product(s): Type: <code>Monterey Spr Drd 8 oz</code>
<li><INPUT MAXLENGTH=8  NAME="htvar_AB">
<li>Beginning Period: Type: <code> 1-28-95</code>
<li><INPUT MAXLENGTH=8  NAME="htvar_AC">
<li>Ending Period: Type: <code> 6-17-95</code>
<li><INPUT MAXLENGTH=8  NAME="htvar_AD">
<li>Market: Type: <code>New York</code>
<li><INPUT MAXLENGTH=8  NAME="htvar_AE">
</sl>
<br><p>
<b>Run the Report</b>
<p>
<INPUT TYPE="submit" VALUE="Run Report"><P>
</FORM>
</body>
```

Figure 8. The idsexamp.html file

7. Record all keywords and values for use in creating a Report Definition file either by printing the file or by copying the information by hand.
8. Save and close the edited Report Request form.

Preparing a Report Results Form

A Report Results form is an HTML document that resides on your Web server. This form contains a template that accepts the results returned from the IDS capsule application and is dynamically changed and presented to the Web browser after the capsule application runs. This section provides instructions and examples, which are included in your installation, for creating a Report Results form called idsweb1.html.

To create a Report Results form:

1. Change directories to where your Web server document root is loaded. In this example

   cd f:\www\html

2. Copy and rename the Report Results form, idsweb1.hmtl.
3. Edit the renamed Report Results form with a text editor. In this example, the output html file name is idsweb1.html shown in Figure 9.

```
<body>
<h2>The Results of the Coffee Demo Causals Report</h2>
<p>Here are the results of the Causals report from the
Coffee Demo capsule application.  This report can contain
text, spreadsheet data, and graphics.
<br>
RPTRES
<p>
</body>
```

Figure 9. The idsweb1.html file

   Note that the position of the REPRES parameter within the HTML, as shown in Figure 9, controls the placement of the capsule results when displayed in the Web browser.

4. Save and close the edited Report Results form.

Parameters for the Report Definition File

The report definition file,reports.dis, is a data file in which you specify parameters associated with each report, as well as parameters associated with the ODAS server. You can have the comment line start with the pound sign (#) in the first column of the report. The maximum numbers of columns in reports.dis file cannot exceed 120. This report resides in the cgi-bin directory.

The format of the Report Definition file is similar to .ini files in Windows or OS/2 systems. At the beginning of the file, the parameters used by the server are set. Then the parameters for each report are set. All parameters used by the server begin with

the keyword **SET** and the syntax is <SET keyword=value>. Note that the keyword is on the first column of the line. The following keywords are used in the report definition file:

ODASNAME

Specifies the TCP/IP host name or IP address of the ODAS server. The name cannot be more than 39 characters long.

LOGDIR

Specifies the directory where the error log is placed. The full path can be anywhere in the system.

TMPDIR

Specifies the temporary directory for the results report. You must specify the full path name in either of two ways:

1. /DISDOC/ temp directory name
2. Full path name.

   If you enter the full path name, you must also establish an alias path on the Web server called tmp in the Web server configuration file, for example /www/httpd/conf/srm.conf, so that the Web Open Client can reference /tmp/ file name on the html file. Be aware that there is no checking between the TMPDIR that is set in the Web Open Client, and the tmp alias on the Web server.

If this is not set, then documentRoot \tmp is used. A temporary directory is used only when no HTDESTDIR is specified. Create the TMPDIR before running the IDS Web Open Client.

DISDOC

Specifies the directory under which all IDS Web Open Client HTML files be located. If DISDOC is not set, then the document root directory will be used. When you set DISDOC, all reports will be placed under documentRoot/DISDOC/REPORTDIR.

For example, a setting might look like this:

```
SET ODASNAME = sap13
SET LOGDIR_server host name = g:\www\html\logs (full path)
SET TMPDIR_server host name = g:\www\html\docs\tmp (full path)
SET DISDOC_server host name = (disF directory for dis reports under the
document root directory)
```

In the previous example, if the Web server document root is g:\www\docs, then DISDOC...directory will be g:\www\docs\dis.

If the server host name is gapc15.stl.ibm.com, then the SET statement will be:

```
SET DISDOC_gapc15.stl.ibm.com = dis
```

The parameters used by each report specified in the reports.dis file begin with the report name in square brackets, followed by all the settings for that report. Each setting

uses one line and has the <keyword = value> format.Table 2 on page 20 lists the associated report parameters and their descriptions.

All keywords are not case sensitive. However, the report name should be exactly the same as it appears on an IDS desktop.

Table 2 (Page 1 of 2). Reports.dis parameter and file keywords descriptions

Keyword	Meaning	Description
[*Report Name*]	Case sensitive report name.	This name is in square brackets. This is the key in the data file that provides the correct settings for a specified report. The report name must be the same name as the HTREPORT name passed on the command line and is case sensitive. This name also refers to the actual output file name in the capsule application.
CAPSULE	Case sensitive capsule application name	This field is required. This is the capsule icon in which a report is run on an IDS desktop. This parameter is set in the reports.dis file only. Place double quotes around a file name that has spaces.
REPORTDIR	Destination directory	This field is optional. This option allows you to specify a destination directory in which the result report is placed. This field is relative to the DISDOC. For example, REPORTDIR = MET sets the met directory under *DocumentRoot* directory. You should create the destination directory before running the IDS Web Open Client. This parameter can be set in the reports.dis file only. Name cannot be more than 255 characters. If the REPORTDIR (destination directory) is not set, result file is placed either in the TMP file under the *DocumentRoot* directory or the value of TMDIR, which is a full path. You must create the destination directory file before running the related report.
REPORTFILE	Destination file	This field is optional. This option allows you to specify a destination file name for the report object that you will send to the web browser. Note that the file name should not include an extension, which will be appended automatically based on the HTFILETYPE parameter. This parameter can be set in the reports.dis file only. Name cannot be more than 255 characters.
TEXTOUT	Make a link flag. For example: TEXTOUT = URL	This option only applies to TXT or HTML file types. Specifies that the IDS Web Open Client returns a URL specification that points to the report instead of the report output. Useful if the report output requests user ID and password before viewing. This parameter can be set in the reports.dis file only.

Table 2 (Page 2 of 2). Reports.dis parameter and file keywords descriptions

Keyword	Meaning	Description
FILELIST	Case sensitive file type	When the HTFILETYPE parameter is set to FLD in the command line, FILELIST need to be defined in the reports.dis file. For example: FILELIST = report1. WK1, report2. GIF, report3.HTM. This parameter can be set in the reports.dis file only. Place double quotes around a file name that has spaces. Files in the actual folder can be more than those specified in the FILELIST. The IDS Web Open Client will only bring back those specified in the reports.dis file.

Customizing the Report Definition File

The Report Definition file is a text document that resides on your Web server. This file contains information that the Web Client uses to interpret the HTML form, such as the name of the ODAS server where your capsule applications reside, desktop names and passwords, and instructions on where to place the results file. There can be only one Report Definition file on a Web server running the IDS Web Open Client. This section provides instructions and an example, which is included in your installation, for creating a Report Definition file called report.dis.

To complete this portion of the setup, you will need to have the information recorded in "Preparing a Report Request Form" on page 15 on hand.

To prepare the report definition file:

1. Change directories to ..\cgi-bin. The reports.dis file is installed as reports.txt file on OS/2 platforms and reports.dis.dist on UNIX platforms.
2. If you have a previous version of reports.dis in this directory and want to save it, rename this file or move it to another directory.
3. Rename the appropriate file for your platform to reports.dis.
4. Edit the reports.dis file and fill in the keywords you recorded earlier following the guidelines in "Parameters for the Report Definition File" on page 18.

   Figure 10 on page 22 shows an example of reports.dis file associated with the Coffee Demo sample capsule application shown in Figure 5 on page 10.
5. Save and close the edited reports.dis file.

```
SET ODASNAME=sap13
SET LOGDIR_gapc15.stl.ibm.com=g:\www\logs
SET TMPDIR_gapc15.stl.ibm.com=/DISDOC/tmp
#SET TMPDIR_obiwan.stl.ibm.com=/aegean/www/tmp
SET DISDOC_gapc15.stl.ibm.com=disdocs

[Hot Coffee]
capsule = Coffee Demo | Causals w/ Graph
htdestfolder =
filetype =
htnowait = no
htgetrptonly = no
httemporary =
htdesktop = guest
htpassword = guest
htvar_AA =
htvartype_aa = "TEXT"
htvar_AB =
htvartype_ab = "TEXT"
htvar_AC =
htvartype = "DATE"
htvar_AD =
htvartype = "DATE"
htvar_AE =
htvartype = "TEXT"
reportdir =
reportfile =

[Cold Coffee]
capsule = Coffee Demo | Causals w/ Graph
htdestfolder =
filetype =
htnowait = no
htgetrptonly = yes
httemporary =
htdesktop =
htpassword =
```

Figure 10. Example of the reports.dis file

Running an IDS Web Open Client Application

After you have prepared your capsule application and HTML files and configured the report definition file, you run and test the Web Client application. You can modify the capsule application, HTML files, and report definition file to achieve the desired results.

To run your application

1. Start your browser.
2. At your home page, enter the name of the HTML file you want to view. In this example we are using the idsindex.html which links to idsexamp.html and idstext.html files to view the results of the capsule in Figure 5 on page 10.
3. Enter the appropriate parameter values and click on **Run Report**.
4. The result of your report will appear in the browser.

   In the idstext.html example, because htnowait was set to **yes**, the results will not appear on the Web page the first time you run the capsule application. It will only

submit the capsule application. You can see the results on the Web page when you change the htnowait to **no** and set the htgetreportonly to **yes**, reload the current document, and run the application again.

Interpreting Errors Messages

If you encounter an error when running a capsule application or while connecting to the ODAS server, the message will be recorded in the DISWEBERR.LOG file in the LOGDIR directory. The message file will be created when the first error occurs.

Appendix E, “IDS ODAS Error Code Summary” on page 66 contains a listing of ODAS errors that you might encounter during a session and provides explanation and solution for each error.

You can also find a lising of error codes on ODAS in the *System Administration Guide and Reference* and online in the ODAS Administration program group on Windows 3.1.

Chapter 3. Configuring the IDS Lotus Notes Open Client

Before using the procedures in this chapter, use must install the IDS Lotus Note Open Client software as described in Appendix B, “Installing the IDS Lotus Notes Open Client” on page 52. After you install the open client, you can follow this general process to create IDS Lotus Notes Open Client applications that enable end-users to run IDS reports.

Design and prepare capsule applications on the IDS desktop.

Prepare Lotus Notes forms to access the desired capsule application.

Configure the IDS Lotus Notes Client.

Start the IDS Lotus Notes Client.

Run and test your application.

Preparing Capsule Applications

Your IDS capsule designer can prepare applications required for you business needs. The designer type of output required by the Lotus Notes user.

The capsule designer must place the capsule applications designed to work with the IDS Lotus Notes Open Client in locations in which the fully qualified path is less than 80 characters long, including spacing. When designing capsule applications that return results back to the Lotus Notes user, also be aware that Lotus Notes cannot accept more than 64K of text within a single paragraph or field.

When preparing the capsule application, adhere to the following guidelines:

Ensure that the Open Client Results container, or other container that you are using to receive the results, is empty before running the capsule application.

Record the names of your files and destination directory names so that you can enter these into the appropriate fields in the IDS Lotus Note Open Client Administration tool.

Test the capsule application on the IDS desktop.

For more information on preparing capsule applications, consult the Capsule User's Guide supplied online with your IDS product.

The Coffee Demo sample capsule application is installed on the IDS guest desktop. You can use this preinstalled capsule application to get started with the IDS Lotus Notes Open Client.

Creating a Lotus Notes Form

To create Lotus Notes forms for use by the IDS Lotus Notes Client, certain fields must be included in each form. In addition, several optional fields provide some additional flexibility in using the IDS Lotus Notes Client. Table 3 on page 25 below lists each of

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the Fields specified in Notes for use by the IDS Lotus Notes Client along with the function that field provides. For more information on developing Lotus Notes forms, see the documentation provided with Lotus Notes.

Table 3 (Page 1 of 2). Reserve fields used by IDS in Lotus Notes forms

Field Name	Required	Values	Description
SendTo	Yes (by Notes)		This is a field used by Notes to route documents through the Mail. This field should be set to the address of the Mailbox specified for use by the IDS Lotus Notes Client
Status	Yes		This field is used to track the status of a request as it undergoes processing by the IDS Lotus Notes Client. In designing a Notes form this field should always be set to Pending.
Application	Yes		This field is used by the IDS Lotus Notes Client to look up information about how the form relates to an IDS capsule. This field must match one of the applications specified in the Application Definition Data or an error will result.
ReturnFormat	No	1 = Attach 0 = Import	This optional field determines whether objects retrieved from IDS will be imported into the Notes mail message or simply attached at the end. If this value is not specified, objects will be imported as files.
Server	No		Default information about the ODAS Server associated with a particular application is stored in the IDS Lotus Notes Client Application Definition Data. This field allows the user to override this default information on a request by request basis.
Desktop	No		Default information about the Desktop associated with a particular application is stored in the IDS Lotus Notes Client Application Definition Data. This field allows the user to override this default information on a request by request basis.

Table 3 (Page 2 of 2). Reserve fields used by IDS in Lotus Notes forms

Field Name	Required	Values	Description
Password	No		Default information about the Password associated with a particular application is stored in the IDS Lotus Notes Client Application Definition Data. This field allows the user to override this default information on a request by request basis.
Folder	No		Default information about the Work folder associated with a particular application is stored in the IDS Lotus Notes Client Application Definition Data. The field allows the user to override this default information on a request by request basis.
Capsule	No		Default information about the capsule associated with a particular application is stored in the IDS Lotus Notes Client Application Definition Data. The field allows the user to override this default information on a request by request basis.

To use the Coffee Demo sample capsule application, install the Lotus Notes COFFEE.NSF database as described in “Installing the IDS Lotus Notes Open Client Samples” on page 54. You must update the Lotus Notes form after this database is installed.

To update the form on the Lotus Notes end-user workstation:

1. In Lotus Notes, open the Coffee Applications Demo database.
2. Press Ctrl + W after you have read the database introduction.

   The database forms will appear.
3. Open the Causals w/Graph form.
4. Select **Forms** from the **Design** menu.
5. Select Causals w/Graph from the list box.
6. Click OK.
7. Double-click the **SendTo** field in the **Notes Required Fields**.
8. Click **Formula**.
9. Type "IDS-LotusNotes Client" including quotations in the **"Formula for 'SendTo"** field.
10. Click **OK**.
11. Click **OK**.

12. Press the ESC key.
13. Click **Yes** to save the form.

Configuring the IDS Lotus Notes Client

To use a Lotus Notes form to access IDS capsule objects, you must first configure the IDS Lotus Notes Client to recognize existing servers, desktops, and capsule objects in your IDS environment.

To start IDS Lotus Notes Client Administration, double-click the Administration icon on the Windows desktop. The IDS Lotus Notes Client Administration window opens.

To configure the environment, you must complete the following tasks:

"Selecting a Application Definition Data Database"

"Selecting a Lotus Notes Server and Mail database" on page 28

"Indentifying an IDS ODAS Server to the Client" on page 28

"Identifying an IDS desktop to the Client" on page 29

"Identifying an IDS Capsule Object to the Client" on page 30

"Configuring an IDS Lotus Notes Client Application" on page 33

You will perform tasks such as identifying an IDS capsule or configuring an IDS Lotus Notes Client application each time your development group creates a capsule object for use with Lotus Notes. You will perform other tasks such as identifying an IDS ODAS server or IDS desktop during initial configuration and when new servers or desktops are installed.

Additions, changes, and deletions that you make while configuring the IDS Lotus Notes Client are only reflected in the Application Definition Data. For example, deleting a capsule object in the IDS Lotus Notes Client deletes only the reference to the capsule in the Application Definition Data; the capsule is not deleted from the IDS desktop.

The Coffee Demo is preconfigured. You must select the COFFEE.MDB Application Definition Data database as described in "Selecting a Application Definition Data Database." No other configuration changes are required unless your IDS System Administrator made changes to the base configuration when IDS was installed. The default value for the ODAS server is ODAS1.

Selecting a Application Definition Data Database

You must the select a Application Definition Data database used to store your configuration settings. The selected database remains in use until you change it.

To select a Application Definition Data database:

1. Select **Configuration** from the **Definition Data** menu. The Application Definition Data Database window opens.

2. Select the down arrow on the **Drive** drop-down list to display all the drives on your system.
3. Select a drive from the **Drive** drop-down list.

   To the use the Coffee Demo, select the drive where you installed the IDS Lotus Notes Open Client.
4. Select a directory from the **Directory** list box.

   To use the Coffee Demo, change to the \samples directory.
5. Select a Application Definition Data database from the **Database** list box.

   To use the Coffee Demo, select \samples\coffee.mdb file.
6. Click **Save** to save your changes.
7. Click **Done** to close the window.

Selecting a Lotus Notes Server and Mail database

Use the Notes Configuration window to select the Lotus Notes server and mail database used in your network or to change the current selection.

To select a Lotus Notes server and mail database:

1. Select **Configuration** from the **Notes** menu. A window opens and prompts for a userid and password.
2. Type your password in the **Password** field. The Notes Configuration window opens.
3. Select the down arrow on the **Notes Server** drop-down list and select a server.
4. Select the down arrow on the **Mail Database** drop-down list and select a database.
5. To restore the currently saved selections, click **Reset** to discard your changes.
6. Click **Save** to save your changes.
7. Click **Done** to close the window.

Indentifying an IDS ODAS Server to the Client

An IDS Open Data Access Service (ODAS) server connects IDS to the Lotus Notes Client. You must identify the ODAS server name for the IDS Lotus Notes Client. An ODAS server need only be identified one time. ODAS server names are supplied by your IDS system administrators.

You can also use this procedure to rename or remove an identified server.

To identify or rename an ODAS server:

1. Select **ODAS Servers** from the **IDS** menu. The ODAS Servers window opens.
2. If you are identifying a new ODAS server, skip to step 3. If you are renaming a server, select the server in the **Current Servers** list box.

3. Type the new server name in the **Server's Hostname** list box. Maximum length is 30 characters.
4. If you are identifying a new server, click **Add**. If you are renaming a server, click **Update**.

   If you entered any information incorrectly, select the incorrect server in the **Current Servers** list box, click **Remove**, and repeat from step 2.
5. Click **Done** to save your changes and close the window.

To remove an IDS ODAS server:

1. Select **ODAS Servers** from the **IDS** menu. The ODAS Servers window opens.

   After you remove a server name, it cannot be restored.
2. Select the server to remove in the **Current Servers** list box.
3. Click **Remove**.
4. Click **Done** to save your changes and close the window.

Identifying an IDS desktop to the Client

Your network might have many IDS desktops where capsule objects reside. To use the capsule objects residing on a particular desktop, you must identify the desktop name to the IDS Lotus Notes Client. The desktop need only be identified one time. IDS desktop names, passwords, and work folder names are supplied by the capsule object developer or your IDS administrator.

You can also update an IDS desktop name, password, and work folder and to delete a desktop.

To identify or update an IDS desktop:

1. Select **Desktops** from the **IDS** menu. The IDS Desktops window opens.
2. If you are identifying a new IDS desktop, skip to step 3. If you are updating an IDS desktop, select the desktop by name in the **Current Desktops** list box.
3. Type the desktop name in the **IDS Desktop** field. Maximum length is 30 characters.
4. Type the desktop password in the **Password** field. Maximum length is 16 characters.
5. Type the work folder containing the capsule on the IDS desktop in the **Work Folder** field. Maximum length is 30 characters.
6. If you are identifying a new IDS desktop, click **Add**. If you are updating a desktop, click **Update**.

   If you enter information incorrectly, select the incorrect desktop by name in the **Current Desktops** list box, click **Remove**, and repeat from step 2 above.
7. Click **Done** to close the window.

To remove an IDS Desktop:

1. Select **Desktops** from the **IDS** menu. The IDS Desktops window opens.

   After you remove a desktop name, it cannot be restored.
2. Select the desktop to remove in the **Current Desktops** list box.
3. Click **Remove**.
4. Click **Done** to save your changes and close the window.

Identifying an IDS Capsule Object to the Client

Your IDS environment might contain many capsule objects. You must identify your IDS capsule objects to the IDS Lotus Notes Client. Before you can identify a capsule object you need the following information:

The name of the capsule object, its location, the desktop name it resides on, and the desktop password. These are supplied by the Capsule Designer.

The @-variable names used in the capsule object and their respective mappings to field names in the Lotus Notes form designed to run the capsule. These are supplied by the Capsule Designer in coordination with the Lotus Notes Forms Designer.

The name, type, and local file name of the results returned to the Lotus Notes user. The name is supplied by the Capsule Designer. The file type must be compatible with the object being returned. The local file name is the name of the file returned to the Lotus Notes user.

You can also update and remove capsule objects.

To identify or update an IDS capsule object:

1. Select **Capsules** from the **IDS** menu. The IDS Capsules window opens.
2. If you are identifying a new IDS capsule, skip to step 3. If you are updating an IDS capsule, select the capsule by name in the **Current Capsules** list box.
3. Type the location and name of the capsule in the **Capsule Name** field, preceded by a \. For example:

   \Sample Applications\Coffee Report

   This specifies the Coffee Report capsule in the Sample Applications container. Maximum length is 30 characters.
4. If you are identifying a new capsule, click **Add**. If you are renaming a capsule, click **Update**.

   If you enter information incorrectly, select the incorrect capsule by name in the **Current Capsules** list box, click **Remove**, and repeat from step 2.
5. Set the @-variables as described in “Mapping Form Fields to @-variables” on page 31.
6. Set the Results as described in “Selecting the Results Returned to the Lotus Notes User” on page 32

7. Click **Done** to save your changes and close the window.

To remove an IDS capsule object:

1. Select **Capsules** from the **IDS** menu. The IDS Capsules window opens.

   After you remove a capsule name, it cannot be restored.
2. Select the capsule to remove in the **Current Capsules** list box.
3. Click **Remove**.
4. Click **Done** to save your changes and close the window.

Mapping Form Fields to @-variables

Use the Capsule @-variables window to map field names in the Lotus Notes form to @-variable names in the capsule object. You can also use this procedure to rename and remove @-variables.

To map form fields to @-variables:

1. From the IDS Capsules window, click **@-variables**. The Capsule @-variables window opens.
2. If you are mapping new fields, skip to step 3. If you are renaming @-variables or fields, select the @-variable by name in the **Current @-variables** list box.
3. Type the name of the @-variable in the capsule object in the **@-variable** field.
4. Type the Lotus Notes form field name corresponding to the @-variable entered above in the **Notes Field Name** field. Maximum length is 34 characters.
5. Click **Add**.

   If you enter information incorrectly, select the incorrect At variable by name in the **Current @-variables** list box, click **Remove**, and repeat from step 2 above.
6. Repeat steps 2 and 3 until all @-variables are entered.
7. Click **Done** to save your changes and close the window.

If you are identifying or updating a capsule object, see “Selecting the Results Returned to the Lotus Notes User” on page 32. Otherwise, click **Done** to close the IDS Capsules window.

To remove an @-variable:

1. From the IDS Capsules window, click **@-variables**. The Capsule @-variables window opens.

   After you remove the capsule @-variable name, it cannot be restored.
2. In the **Current @-variables** list box, select the @-variable to be removed.
3. Click **Remove**.
4. Click **Done** to save your changes and close the window.

5. If you are identifying or updating a capsule object, see “Selecting the Results Returned to the Lotus Notes User” on page 32. If not, click **Done** to close the IDS Capsules window.

Selecting the Results Returned to the Lotus Notes User

Use the Capsule Results window to enter the name and type of result or results to the Lotus Notes user. You can also use this procedure to update and remove results.

To select or update the return results:

1. From the IDS Capsules window, click **Results**. The Capsule Results window opens.
2. If you are adding new results, skip to step 3. If you are updating a result name, result type, or local file name, select the result by name in the **Current Results** list box.
3. Type the name of the results object in the **Result Name** field. This is the name of the result object you want returned to the Lotus Notes user. Maximum length is 30 characters.
4. Select the down arrow on the **Results Type** drop-down list and select a result type. This type must be a compatible with result object returned to the Lotus Notes user. The TIFF graphics format is not supported.
5. Type the local filename in the **Local Filename** field. This is the arbitrary name of the file that you want returned to the Lotus Notes user.
6. Click **Add**.

   If you enter information incorrectly, select the incorrect result by name in the **Current Results** list box, click **Remove**, and repeat from step 2.
7. Repeat steps 2 through 4 until all the desired results are entered in the **Current Results** list box.
8. Click **Done** to save your changes and close the window.
9. Click **Done** to close the IDS Capsules window.

To remove results:

1. From the IDS Capsules window, click **Results**. The Capsule Results window opens.

   After you remove the results name, it cannot be restored.
2. Select the result by name to be removed in the **Current Results** list box.
3. Click **Remove**.
4. Click **Done** to save your changes and close the window.
5. Click **Done** to close the IDS Capsules window

Configuring an IDS Lotus Notes Client Application

Use the Applications window to build a relationship between an ODAS server, IDS desktop, and IDS capsule, thus creating an IDS Lotus Notes Client application. The application name you specify is provided by the Lotus Notes Form Designer.

You can also use this procedure to update or remove an IDS Lotus Notes Client application.

To configure or update an application:

1. Select **Applications** from the IDS menu. The Applications window opens.
2. If you are creating a new IDS Lotus Notes Client application, skip to step 3. If you are updating an application, select the application from the Current Applications list box.
3. Type the name provided by the Lotus Notes Form Designer in the **Application Name** field. Maximum length is 30 characters.
4. Select the down arrow on the **ODAS Server** drop-down list and select a server.
5. Select the down arrow on the **IDS Desktop** drop-down list and select a desktop.
6. Select the down arrow on the **IDS Capsule** drop-down list and select a capsule.
7. Click **Add**.

   If you enter information incorrectly, select the incorrect application by name in the **Current Application** list box, click **Remove**, and repeat from step 2.

To remove an application:

1. From the Applications window, select the application by name to be removed in the **Current Applications** list box.

   After you remove an application name, it cannot be restored.
2. Click **Remove**.
3. Click **Done** to save your changes and close the window.

Starting and Monitoring the IDS Lotus Notes Client

The IDS Lotus Notes Client can run unattended after it is configured. The client monitors the Lotus Notes mail database for requests to run capsule applications from Lotus Notes users, submits through IDS ODAS these requests to IDS for processing, monitors the IDS ODAS server for results, and returns results to the Lotus Notes user.

Starting Operations

Use the Operation object to start the IDS Lotus Notes Client and monitor server activity.

To start the IDS Lotus Notes Client:

1. Double-Click the Operation object on the Windows desktop. The IDS Lotus Notes Operation widow opens and prompts for a password, if required.

2. If required, type your password in the **Password** field. The IDS Lotus Notes Client begins running and logging status in the Operation window.

Stopping Operations

Use the Operation object to stop the IDS Lotus Notes Client.

To stop the server from the Operation window:

1. If minimized, restore the Operation window.
2. Click the **Stop Server** button.
3. To restart the server, select **Start** from the **Server** menu.
4. Select the **Exit** menu to close the Operation widow.

Monitoring activity

While the IDS Lotus Notes Client is running, you can use the Operations window to monitor server activities for requests to run capsule objects, watch for errors, and troubleshoot problems.

You can send a copy of the log file to the IDS System Administrator's Lotus Notes mailbox. The IDS System Administrator can use this file to troubleshoot and correct problems.

In the event of an error, the ODAS server returns an error code in the form of:

```
MET  4: File not found.
```

See “Troubleshooting” on page 35 for more information on interpreting error codes.

To send the log file to the System Administrator:

1. In the Operations window, click on **Send Log File**. A status message will appear in the interface indicating that the log file is being sent.
2. Click **OK**. A message will appear indicating that the log file has been sent.

Running the IDS Lotus Notes Application

After you have prepared your capsule application and Lotus Notes forms and configured the IDS Lotus Notes Client, you run and test IDS Lotus Notes Client application. You can modify the Lotus Note form, capsule application, and IDS Lotus Notes Client configuration to achieve the desired results.

To run your application:

1. Start your application.
2. Open the database containing the forms you want to use.

   To use the Coffee Demo, open the Coffee Applications Demo database.
3. Select the form for the application you want to want to run from the database.

To use the Coffee Demo, select the Causals w/Graph form.

4. Click **Create Report**.
5. Enter the appropriate parameter values and submit the report.

   To use the Coffee Demo, enter the following parameters and then click **Submit Report** followed by **Send**.

   Product Level = UPC
   Product(s) = Monterey Spr Drd 8 oz
   Beginning Period = 1-28-95
   Ending Period = 6-17-95
   Market = New York

   For the beginning and ending periods, you can place the cursor in the field and press Enter to obtain a date selection list.
6. The result of the report will appear as a Lotus Notes mail message returned to your mail inbox.

Troubleshooting

After the IDS Lotus Notes Client has been installed and is up and running, there might still be occasions when a problem occurs in your environment. Since it connects to two different client-server programs, Lotus Notes and IBM IDS, the impact of problems with the IDS Lotus Notes Client are wide ranging. For example, if the IDS Lotus Notes Client fails, all Lotus Notes users connected to this client will be shut-out of IDS. On the other hand, if a capsule application in the IDS environment fails, only users with access to that capsule application will be impacted. Finally, a failure at the Lotus Notes client might only have a small impact affect on your overall operation.

Given the impacts described above, we recommend inspecting and evaluating problems in this order.

1. IDS Lotus Notes Client
2. Lotus Notes Server
3. IDS ODAS Service
4. IDS Capsule Service
5. IDS capsule application
6. Lotus Notes Client

Most problems will be reported first by the Lotus Notes user. When user submits a Lotus Notes form to request that an IDS application be run, improper results might be returned, the user night receive an error message back, or nothing might returned at all depending upon the degradation being experienced. Many users might be impacted or only a few. The following guidelines will help you determine where to begin looking when such problems occur. Note that user in this case implies user on a single Lotus Notes end-user.

If you are experiencing this Begin looking here.

Many users receive improper results from a particular capsule application, but other applications run correctly

Inspect the IDS Lotus Notes Application settings.

Inspect the IDS Capsule Service.

Inspect the IDS capsule application.

Users who submit Lotus Notes forms receive no response

Inspect the Lotus Notes Server

Inspect the IDS Lotus Notes Client

Inspect the IDS ODAS.

Users who submit Lotus Notes forms receive errors messages

Inspect the IDS Lotus Notes Client

Inspect the IDS Lotus Notes Application settings

Inspect IDS ODAS

Troubleshooting the IDS Lotus Notes Client.

Any problems with the IDS Lotus Notes Client will generally manifest themselves as a message from the server on start-up that because something is not configured correctly the server cannot start. The message should explain the problem, but if does not be sure to check your DSSERVER.INI file, and the IDS Lotus Notes Client Administration Tool to ensure that they have been configured in accordance with the instructions in this manual.

Troubleshooting IDS ODAS and the IDS Lotus Notes Capsule Application

Problems not related to the IDS Lotus Notes Client will be reported as messages in the Operations window of the IDS Lotus Notes Client. Problems which occur during the processing of a request will generate two Lotus Notes mail messages, one to the person who submitted the request and one to the Administrator. In addition, each error is logged to a file in the <Server Path> directory called DSSERVER.LOG and the Application Definition Data database. The error information recorded includes an explanation of the problem which occurred and the location in the code and any return codes associated with Notes or IDS function calls.

Many problems can be traced to incorrect information in the Application Definition Data. Therefore, the first step is to make sure that the ODAS Server, and Desktop Information for IDS is specified correctly, if other capsules use the same server and desktop, this probably is not a problem. The next step is to make sure that an application exists which matches the application field being sent from Notes. Finally, check to make sure that the capsule is correctly specified, that all of the @-variables and Notes fields match, and that correct return Results are selected.

Appendix E, “IDS ODAS Error Code Summary” on page 66 contains a listing of ODAS errors that you might encounter during a session and provides explanation and solution for each error.

You can also find a lising of error codes on ODAS in the *System Administration Guide and Reference* and online in the ODAS Administration program group on Windows 3.1.

Chapter 4. Configuring the IDS ODBC Open Client

Before using the procedures in this chapter, use must install the IDS ODBC Open Client software as described in Appendix C, “Installing the IDS ODBC Open Client” on page 55 on end-user workstations that you want to have access to IDS reports. After you install the open client on the end-user workstation, you can follow this general process to create IDS ODBC Open Client applications that enable end-users to run IDS reports.

Design and prepare capsule applications on the IDS Desktop.

Collect and map capsule description data.

Create or modify the capsule description tables.

Start the ODBC application.

Use either SQL or an application GUI to submit a request to run a report.

After you have completed the initial configuration, you might need to modify and add data sources as you configure additional applications. See “Adding or Modifying an IDS ODBC Data Source” on page 60 for more information.

You can also develop custom applications to run with the IDS ODBC driver. See “Developing Custom ODBC Applications” on page 44 for more information about the Application Programing Interfaces (APIs) supported by the IDS ODBC Driver.

Preparing Capsule Applications

Your IDS Capsule Designer can prepare applications required for your business needs. The designer should create applications that return Results files containing only tables and rows and columns for data as this is the only data format that can be handled by ODBC applications.

ODBC applications do not support columns of mixed data types. You must create capsule applications that create tables (IDS spreadsheets) containing homogeneous data types. For example, column one can contain only text and column 2 can contain only floats.

The capsule designer must place the capsule applications designed to work with the IDS ODBC Open Client in locations in which the fully qualified path is less than 80 characters long, including spacing.

When preparing the capsule application, adhere to the following guidelines:

Record the names of your files and destination directory names so that you can enter these into the appropriate fields in the ODBC Administration tool and the capsule description table.

Resulting spreadsheet objects of capsule applications must be contained in the capsule objects or in containers within the capsule object.

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Test the capsule application on the IDS desktop.

You should design capsule applications that perform the bulk of the processing in IDS, leaving minimal processing for the ODBC application on the end-user workstation. You can create capsule applications to run using national language and cultural preferences, control the order of the results set, and constrain column data.

For more information on preparing capsule applications, consult the Capsule User's Guide supplied online with your IDS product.

The Coffee Demo sample capsule application is installed on the IDS guest desktop. You can use this preinstalled capsule application to get started with the IDS ODBC Open Client.

Collecting and Mapping Application Description Data

You control the results of reports by submitting @-variables to capsule applications, allowing you to filter your data and find relationships. For an ODBC application to pass these @-variables to IDS, these @-variables and their values must be passed as parameters and values in the SQL statement entered directly by the end-user or created for the end-user by the application. For predefined reports, the @-variables and their values can be specified capsule description table. ODBC applications require that the column names for results be specified in the SQL at the time the report request is passed to the IDS ODBC driver.

The SQL statements that you create or use must adhere to the following syntax:

SELECT <*column_1, column_2, column_n* > FROM <*table name* > WHERE <*@-variable parameter list* >

where:

column_1...column_n	Name of output columns to be retuned in spreadsheet results
table name	Name of the capsule description table on the IDS desktop.
@-variable parameter list	@-variables and values to pass to the capsule application.

The following example shows an SQL statement (generated by Visualizer for Windows 3.1) for the Coffee Demo "Graph w/ Causals".

```
SELECT     T1.Units
           ,T1."Retail  Price"
           ,T1.Date
FROM         "(W) Causals" T1
WHERE    ( T1.IDSVARS = 'AB =  New York , BE =  October 7, 1995 ')
```

The table name is "(W) Causals" which corresponds to the name of the spreadsheet in the "ODBC Capsule Descriptions" folder. T1 is the alias given to this table. Some ODBC enabled applications don't accept table names containing spaces or parens.

We are selecting 3 columns (each specified with the table alias): Units, "Retail Price", and Date. If the column name has spaces in it, use double quotes to bracket the column name.

In the WHERE clause, the variable parameters are entered by setting a single quote delimited string to IDSVARS. In this example, AB & BE are variable parameter names. In IDS, the range of valid variable parameter names are: A-Z, AA-AZ, BA-BZ, CA-CZ, DA-DZ, EA-EZ, FA-FZ, GA-GZ. Note the grave accent ( ) delimiting the variable parameter values. This delimiter can be changed in the ODBC administrator when configuring the data source. It can be any value except :
A-Z, a-z, -9, ,(comma) .(period) "(double quote) ((left paren))(right paren) -(dash) =(equals)

The following example shows an SQL statement (generated by Visualizer for Windows 3.1) for the Coffee Demo "Graph w/ Causals".

```
SELECT     T1.Units
           ,T1."Retail  Price"
           ,T1.Date
FROM         "(W) Causals" T1
WHERE    ( T1.IDSVARS = 'AB =  New York , BE =  October 7, 1995 ')
```

The table name is "(W) Causals" which corresponds to the name of the spreadsheet in the "ODBC Capsule Descriptions" folder. T1 is the alias given to this table. Some ODBC enabled applications don't accept table names containing spaces or parenthesis.

We are selecting 3 columns (each specified with the table alias): Units, "Retail Price", and Date. If the column name has spaces in it, use double quotes to bracket the column name.

In the WHERE clause, the variable parameters are entered by setting a single quote delimited string to IDSVARS. In this example, AB and BE are variable parameter names. In IDS, the range of valid variable parameter names are: A-Z, AA-AZ, BA-BZ, CA-CZ, DA-DZ, EA-EZ, FA-FZ, GA-GZ. The accent ( ) delimits the variable parameter values. This delimiter can be changed in the ODBC administrator when configuring the data source. The following characters are *not* valid delimiters:

A-Z, a-z, 0-9

comma (,)

period (.)

double quotes (")

left and right parenthesis [(] [)]

dash (-)

equals (=)

You must know the following information about the capsule application to create the capsule description table:

The fully qualified name of the target capsule.

The (fully qualified) name of the spreadsheet result created by the capsule.

The number of result columns returned.

The number of variable parameters used to run the capsule application.

The output column names, types, and descriptions.

The variable letters, descriptions, and types.

The default values variables as applicable.

You must also decide whether the IDS ODBC Open Client application that you are creating will run a capsule application at the end-user's request or simply retrieve the results of a previously run capsule application. This decision will determine how you configure the capsule description table.

The Capsule Description Table

After the capsule applications are design, prepared, a tested at the IDS Capsule Designer desktop, you must create capsule description tables for each IDS capsule application you plan to use with IDS ODBC Open Client.

A sample capsule descriptor template is shown in Figure 11 on page 42. A capsule description table contains information such as the output column names and their data types and the variable letters and their descriptions. Capsule description tables reside on the IDS desktop specified by IDS ODBC data source, and shown in Figure 13 on page 58.

In the capsule descriptor template, Figure 11 on page 42, headings are shown in plain text, such as Fully Qualified Target Capsule. These headings must not be changed as they are used by Capsule Services to identify the location of values in the table. Values that you must enter are shown between <>, such as <variable 3 description>.

You can create a capsule description table for reports that will either run a capsule application at the end-user's request or simply retrieve the results of a previously run capsule application. If the report runs a capsule, the path to the result object is dynam-

ODBCMETADAT1			
Fully Qualified target capsule	(Fully qualified) spreadsheet result	number of result columns	number of Variable parameters
<data for above>	<data for above>	<data for above>	<data for above>
Output column name	Output column type	Output column description	
<column 1 name>	<column 1 type>	<column 1 description>	
<column 2 name>	<column 2 type>	<column 2 description>	
<column n name>	<column n type>	<column n description>	
Variable Letter	Variable Descriptions	Variable Type	Variable Value
<variable 1 letter>	<variable 1 description>	<variable 1 type>	<variable 1 value>
<variable 2 letter>	<variable 2 description>	<variable 2 type>	<variable 2 value>
<variable n letter>	<variable 3 description>	<variable n type>	<variable n value>

Figure 11. IDS capsule descriptor template

ically created. For capsule description tables that run capsule applications follow these guidelines when creating a capsule description table:

Spreadsheet result objects must be contained directly in the capsule object or in a sub-container in the capsule object.

Specify the fully qualified target capsule name under **Fully Qualified target capsule** field. Use the | symbol to delimit container names in fully qualified paths.

If the spreadsheet results object is contained directly in the capsule, specify its name under the **(Fully qualified) spreadsheet result** field. If the object is in a sub-container, specify the container and then the object name. This name is added to the capsule name to create a fully qualified path.

For capsule description tables that retrieve the results of previously run capsule applications follow these guidelines when creating a capsule description table:

Remove the text under **Fully Qualified target capsule** field, leaving the field completely blank (select the cell, select option, and select delete).

Specify the fully qualified spreadsheet result name under **(Fully Qualified) spreadsheet result** field.

Creating a Capsule Description Table

When you install the Intelligent Decision Server, a template called Capsule Descriptor Template is installed in the catalog container called ODBC Capsule Descriptions on the guest desktop.

There are two methods for creating capsule description tables. You can copy the above template, rename it, and manually enter in the appropriate information. Or, you can use a semiautomatic process to collect the variable parameters. The semiautomatic method is preferred because it reduces the chance of error.

To manually create a capsule description table:

1. On the Guest desktop, double-click the **ODBC Capsule Descriptions** object.
2. Copy the Capsule Descriptor Template to a new object, naming it as appropriate for the capsule application.
3. Modify the table according to the guidelines in "The Capsule Description Table" on page 41.
4. Save the table in the ODBC Description Folder specified in the IDS ODBC Data Source.

The following instructions provide general guidance on creating a capsule description table from a capsule summary. For more information, see *Capsule User's Guide*.

To semiautomatically create a capsule description table:

1. Copy the Capsule @-variables Report object into the container of the capsule object that you are enabling the IDS ODBC Open Client to use.
2. In the report object select all non-empty variable parameters that the ODBC application is allowed to change.
3. Place the report in a Capsule window.
4. Copy a blank spreadsheet object to the same Capsule window.
5. Connect the variable report to the spreadsheet object.
6. Select the report and run it.

   The values returned to the spreadsheet object in Capsule @-variables report object can now be copied into the capsule description table.
7. In the ODBC Capsule Description container create a blank capsule description table by copying the Capsule Descriptor Template to a new object, naming it as appropriate for the capsule application.
8. Copy the values from the spreadsheet object to the appropriate sections of the blank capsule description table.
9. Modify the spreadsheet according to the guidelines in "The Capsule Description Table" on page 41.
10. Save the spreadsheet in the ODBC Description Folder specified in the IDS ODBC Data Source.

Running an ODBC Client Application

After you have prepared your capsule application and configured the capsule description table, you run and test IDS ODBC Open Client application. You can modify the capsule application and capsule description table to achieve the desired results.

To run your application using SQL:

1. In an SQL entry window, type an SQL statement in the following form.

   SELECT <*column_1, column_2, column_n* > FROM <*table name* > WHERE <*@-variable parameter list* >

   where:

column_1...column_n	Name of output columns to be retuned in spreadsheet results
table name	Name of the capsule description table on the IDS desktop.
@-variable parameter list	@-variables and values to pass to the capsule application.

   See “Collecting and Mapping Application Description Data” on page 39 for more information on the SQL statement.

2. Select **Run** or an equivalent function in the ODBC application to submit the report request. The application will pause until the results are returned.

To run your application from a GUI:

1. In the ODBC application table selection window, select the capsule descriptor table for the capsule application you want to run.
2. In the application column selection window, select the columns you want returned.
3. In the calculated column window, enter values for @-variable that you want to set.
4. Select **Run** or an equivalent function in the ODBC application to submit the report request. The application will pause until the results are returned.

Appendix E, “IDS ODAS Error Code Summary” on page 66 contains a listing of ODAS errors that you might encounter during a session and provides explanation and solution for each error.

You can also find a lising of error codes on ODAS in the *System Administration Guide and Reference* and online in the ODAS Administration program group on Windows 3.1.

Developing Custom ODBC Applications

Developers knowledgeable of the ODBC Application Programming Interface can develop custom applications use the standard ODBC API calls. The following sections list functions that you can and cannot use when developing these custom applications. The summary sections provide information about the basic function of the API. For

more specific information about how the call is supported for the Intelligent Decision Server see Appendix D, “IDS ODBC Function Reference” on page 62.

Whether you designing a custom application or using an off-the-shelf ODBC compliant application, be aware that certain functions are not supported or are supported with limitations. You should be reasonably knowledgeable of which calls are being used in a given application as to avoid using unsupported features and functions.

API Function Summary

Connecting to a Data Source

Function Name	*Purpose*
SQLAllocEnv	Obtains an environment handle. One environment handle is used for one or more connections.
SQLAllocConnect	Obtains connection handle.
SQLConnect	Connects to a specific driver by data source name, user ID, and password.
SQLDriverConnect	Connects to a specific driver by connection string or requests that the Driver Manager and driver display connection dialog boxes for the user.

Obtaining Information about a Driver and Data Source

Function Name	*Purpose*
SQLGetInfo	Returns information about a specific driver and data source.
SQLGetFunctions	Returns supported driver functions.
SQLGetTypeInfo	Returns information about supported data types.

Setting and Retrieving Driver Options

Function Name	*Purpose*
SQLSetConnectOption	Sets a connection option.
SQLGetConnectOption	Returns the value of a connection option.
SQLSetStmtOption	Sets a statement option.
SQLGetStmtOption	Returns the value of a statement option.

Preparing SQL Requests

Function Name	*Purpose*
SQLAllocStmt	Allocates a statement handle.
SQLPrepare	Prepares an SQL statement for later execution.
SQLBindParameter	Assigns storage for a parameter in an SQL statement.
SQLSetCursorName	Specifies a cursor name.

SQLGetCursorName	Returns the cursor name associated with a statement handle.

Submitting Requests

Function Name	*Purpose*
SQLExecute	Executes a prepared statement.
SQLExecDirect	Executes a statement.
SQLParamData	Used in conjunction with **SQLPutData** to supply parameter data at execution time.
SQLPutData	Send part or all of a data value for a parameter.

Retrieving Results and Information about Results

Function Name	*Purpose*
SQLRowCount	Returns the number of rows affected by an insert, update, or delete request.
SQLNumResultCols	Returns the number of columns in the result set.
SQLDescribeCols	Describes a columns in the result set.
SQLColAttributes	Describes attributes of a column in the result set, including the column label.
SQLBindCol	Assigns storage for a result column and specifies the data type.
SQLFetch	Returns a result row.
SQLGetData	Returns part or all of one column of one row of a result set.
SQLError	Returns additional error or status information.

Obtaining information about the data source's system tables

Function Name	*Purpose*
SQLColumns	Returns the list of column names in specified tables.
SQLSpecialColumns	Returns information about the optimal set of columns that uniquely identifies a row in a specified table, or the columns that are automatically updated when any value in the row is updated by a transaction.
SQLStatistics	Returns statistics about a single table and the list of indexes associated with the table.
SQLTables	Returns the list of table names stored in a specific data source.

Terminating a Statement

Function Name	*Purpose*
SQLFreeStmt	Ends statement processing and closes the associated cursor, discards pending results, and optionally, frees all resources associated with the statement handle.
SQLCancel	Cancels an SQL statement.
SQLTransact	Commits or rolls back a transaction.

Terminating a Connection

Function Name	*Purpose*
SQLDisconnect	Closes the connection.
SQLFreeConnect	Releases the connection handle.
SQLFreeEnv	Releases the environment handle.

Unsupported functions

When the functions in the following list are called by an application, whether that be a custom application that you produced or an off the shelf ODBC application, the Driver Manager will return SQL_ERROR where the SQL_STATE retrieved from calling **SQLError** is "IM001". This error means that driver does not support this function.

These functions are not applicable to IDS topology.

SQLBindParameter

SQLParamData

SQLPutData

SQLSpecialColumns

SQLStatistics

SQLTransact

Appendix A. Installing the IDS Web Open Client

The appendix describes how to install the Intelligent Decision Server Web Open Client. Prior to installing this open client, you must first verify that you have the required hardware and software installed for each of your workstations and Web servers.

In addition to the hardware and software requirements listed in the following sections, you will need to have IDS Open Data Access Service installed. See in *Installing IDS LAN Components* for more information.

Hardware Requirements

The hardware requirements for a Web Server running the IDS Web Open Client are listed below according to platform.

For OS/2:

On OS/2 Web servers, you must use the HPFS file system.

OS/2 compatible 386, 486, or Pentium-based workstation with 2 MB of free disk space. The host name cannot be more than 39 characters long.

OS/2 compatible Web server such as IBM Internet connection server.

CD-ROM drive.

For IBM AIX systems:

A Web server running on an RS6000 server with AIX V3.2.5 or higher, with 2 MB of free disk space available.

CD-ROM drive.

For SunOs:

Sun Microsystems SPARCstation (any model) with 2 MB of free disk space.

CD-ROM drive.

Software Requirements

The software requirements for a Web server running the IDS Web Open Client are listed below according to platform.

For OS/2:

OS/2 V3.0 including WIN-OS/2

TCP/IP for OS/2 network support.

OS/2 compatible Web server such as IBM Internet connection server.

ODAS Version 2.1 Windows Client (installed during installation process)

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For IBM AIX systems:

AIX compatible web server such as NCSA Httpd or CERN Httpd.

TCP/IP for AIX network support.

IBM ODAS Toolkit for AIX (installed with the client).

ODAS Version 2.1 UNIX Client (installed with the client)

For SunOs:

SunOs compatible Web server such as NCSA Httpd CERN Httpd.

SunOs V4.1.3 or Solaris V2.4

IBM ODAS Toolkit for SPARC SunOs (installed with the client)

ODAS UNIX Version 2.1 Client (installed with the client)

Skills Required

The skills required to use the IDS Web Open Client are listed below. These skills are separated by functional area and will be needed by one or more persons in your organization.

Web Server Administrators should be skilled in the installation, configuration, and use of one of the following web server products and platforms:

- IBM Internet Connection Server or equivalent web server product on OS/2.
- NCSA Httpd, CERN Httpd, or equivalent web server product on AIX V3.2.5 or higher.
- NCSA HTTPD, CERN Http, or equivalent web server on SUNOS V4.1.3 or Solaris V2.4.

IDS Web Application Designers should be skilled in:

- Presenting information in online formats.
- HTML coding including forms design.
- The use of the hardware and software, such as Web browsers and HTML editors, from which they will use the IDS Web Open Client.

Installing the IDS Web Open Client

This provides procedures to installing the IDS Web Open Client. When installing the IDS Web Client, ensure that you provide the correct pathname of your Web server. For example, if your server is located in f:\www, then specify this pathname during the installation process. The IDS Web Client will be copied to the cgi-bin sub-directory. Sample html files will be copied into the html sub-directory. The reports.dis file will also be copied to the cgi-bin directory with the name reports.txt on OS/2 and reports.dis.dist on UNIX.

This installation will install the IDS Web Open Client and its associated samples files on your web server. These samples can be used to access the IDS sample capsule applications.

On OS/2

This section describes how to install the IDS Web Open Client on the Web server. To load the IDS Web Open Client on the server:

1. Insert the IDS Installation CD—ROM into the CD-ROM drive.
2. In an OS/2 Command window, type:

   x :\webkit\os2\install.exe

   where:

   x is the letter of the CD-ROM drive.
3. Enter the directories names where you want to install the IDS Web Open Client and associated files. Figure 12 is an example

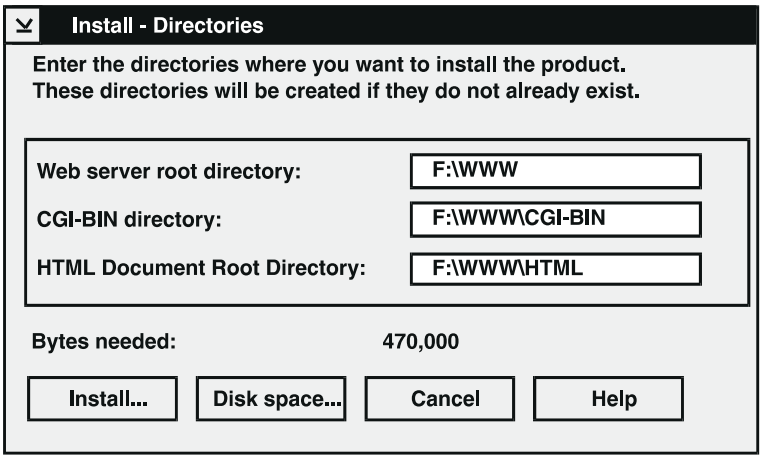

Figure 12. Install - Directories window

4. Click on **Disk space**. The Disk Space window opens.
5. Select a select a drive with the required amount of disk space.
6. Check the **Change drive letter** checkbox.
7. Click on **OK**.
8. Record the drive and directory information entered into the Install Directories window separately for reference when creating the HTML forms.
9. Click on **Install** to install the IDS Web Open Client. The Install - Progress window opens to show you the installation progress. You can stop the installation anytime during this process.

When the installation is completed, the Installation and Maintenance window with additional instructions opens.

10. Read the instruction and click **OK**. The Installation window opens.
11. In the Installation window, click **Exit**.

The installation is complete. See Chapter 2, “Configuring the IDS Web Open Client” on page 11 for configuration instructions. The IDS Web Open Client executable file is disweb.exe in the cgi-bin directory on OS/2 Web servers. Use this name in your HTML forms.

On AIX or SunOS

To install the IDS Web Open Client on a UNIX server:

1. Insert the IDS Installation CD-ROM in a workstation in your LAN.

   You might need to mount drives or use FTP to install this software on the appropriate server. Contact your System Administrator for more information.

   In this example, the /dev/rfd0a device name is used.
2. At the command line, change to the CD-ROM device.
3. From a shell tool, enter the following command:

   ```
   $
   tar xf /dev/rfd a
   ```
4. Press enter and change to the respective disweb-aix or disweb-sun directory.
5. Type the install command at the root shell prompt using this syntax:

   # ./ install*cgi-bin directory document root directory*

   For example:

   # ./install /httpd/cgi-bin /httpd/htdocs
6. Follow the instructions that appear on the screen.

When the installation is complete, see Chapter 2, “Configuring the IDS Web Open Client” on page 11 for configuration instructions.

The IDS Web Open Client executable is disweb in the cgi-bin directory on AIX and SunOS platforms. Use this name in your HTML forms.

Appendix B. Installing the IDS Lotus Notes Open Client

This appendix describes how to install the Intelligent Decision Server Lotus Notes Open Client. Prior to installing the open client, you must first verify that you have the required hardware and software installed for each of your workstations and servers.

In addition to the hardware and software requirements listed in the following sections, you will need to have IDS Open Data Access Service installed. See *Installing IDS LAN Components* for more information.

Hardware Requirements

The hardware requirements for a workstation running the IDS Lotus Notes Open Client are listed below.

Windows Compatible 486 or Pentium based server with at least eight (8) MB of memory. Depending on operating system and other installed software, more memory may be required.

CD-ROM Drive

You can make diskette images from the supplied CD-ROM to install the client on a workstation that does not have a CD-ROM drive.

5 MB hard disk space for the IDS Lotus Notes Open Client

5 MB hard disk space for the Dynamic Link Libraries (DLLs) within the Windows\System directory.

You will also need to have the necessary hardware to run a Lotus Notes Server environment. The Lotus Notes Mail Server must be installed on a separate workstation or server from the IDS Lotus Notes Open Client.

The hardware requirements for individual end-user workstations are as required by the particular version of Lotus Notes being used. Typically, an existing Lotus Notes system is utilized. The IDS Lotus Notes Open Client uses the standard Lotus Notes capabilities and requires no modification to the existing system. To use the IDS Lotus Notes Open Client samples, workstations must have a CD-ROM drive or you must create diskette images.

The server or workstation on which install the IDS Lotus Notes Open Client software cannot be used as a Lotus Notes end-user workstation. The IDS Lotus Notes Open Client is a client application to both Lotus Notes and IDS ODAS. The use of the standard Lotus Notes client on this server would cause errors.

Software Requirements

The software requirements for a server running the IDS Lotus Notes Open Client software are listed below.

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Windows or Windows for Workgroups version 3.1 or later

TCP/IP network support that is compliant with the Windows Sockets 1.1 specification

Lotus Notes Client for Windows Version 3.0 or 4

In addition to the Lotus Note Client, any additional network protocols required for communication with the Notes Server must be installed. For further information on installing the Lotus Notes Client, please refer to the documentation supplied with Lotus Notes.

It is also possible to Install the IDS Lotus Notes Open Client under the Win-OS/2 support in OS/2 version 3 (Warp). However, in doing so you must correctly setup the prerequisite software, including the Lotus Notes Client for Windows installed using the Win-OS/2 emulator.

The software requirements for Lotus Notes end-user workstations are as required by the version of Lotus Notes Client that you are using.

Skills Required

The skills required to use the IDS Lotus Notes Open Client are listed below. These skills are separated by functional area and will be needed by one or more persons in your organization.

Lotus Notes Administrators should be skilled in:

- Installation and configuration of the Lotus Notes Server.
- Installation on Lotus Notes databases.

Lotus Notes Forms Designers should be skilled in:

- Presenting information in online formats.
- Designing Lotus Notes forms.
- The use of the hardware and software, such as Lotus Notes and Lotus Notes forms design tool, from which they will use the IDS Lotus Notes Open Client.

Installing the IDS Lotus Notes Open Client

You can install the IDS Lotus Notes Open Client from the IDS Installation CD-ROM. You can also create diskette images from this CD-ROM for use on a workstation without a CD-ROM drive. Four blank diskettes are required. Perform the IDS Lotus Notes Open Client installation on a workstation designated as a server.

To create diskette images:

1. Insert the IDS Installation CD-ROM into a workstation CD-ROM drive.
2. Insert a formatted blank high-density diskette into the diskette drive.
3. At the command prompt type:

x:\NOTE\DISK*n a*:\ /V

where:

x is the letter of the CD-ROM drive.

n is the diskette number 1 through 4.

a is the letter of the diskette drive.

V specifies the verify option.

4. Follow the preceding instructions to install the IDS Lotus Notes Open Client.

To install the IDS Lotus Notes Open Client:

1. Insert the IDS Installation CD-ROM or diskette into the workstation drive.
2. In the Program Manager window, choose **Run** from the **File** menu.
3. In the **Command Line** field, type:

   x:\notes\disk1\setup.exe

   where:

   x is the letter of the CD-ROM or diskette drive.
4. Follow the installation instructions on the screen.

Installing the IDS Lotus Notes Open Client Samples

You can install the IDS Lotus Notes Open Client sample database containing information and forms for use with the sample applications on the IDS guest desktop. The database can be used on a single Lotus Notes end-user workstation or added to a public database server for access by all Lotus Notes end-users. The samples can be used on any workstation with Lotus Notes.

The Lotus Notes database COFFEE.NSF is installed in the samples directory on the server where you installed the IDS Lotus Notes Open Client. Copy this database to a diskette and install it on your Lotus Notes end-user workstation as described in the documentation provided with Lotus Notes.

Appendix C. Installing the IDS ODBC Open Client

This appendix describes how to install the IDS ODBC Open Client. The IDS ODBC Open Client requires a greater amount of configuration during installation than the other Open Clients supplied.

The ODBC Administration tool, shipped on the IDS Installation, allows users to manage the ODBCINST.INI and ODBC.INI files. You will use this tool to add or modify data sources after the initial installation of the IDS ODBC Open Client software.

In addition to the hardware and software requirements listed in the following sections, you will need to have IDS Open Data Access Service installed. See *Installing and IDS LAN Components* for more information.

Hardware and Software Requirements

The software and hardware requirements are the minimum required for use with your ODBC enabled application. For more information, consult the documentation supplied with the ODBC enabled application for which you are developing IDS applications.

Skills Required

This section will recommend the minimum skills needed to use the IDS ODBC Open Client Kit.

To use the IDS ODBC Client with common ODBC applications you must have a knowledge of use of SQL (Structured Query Language) in querying data sources.

To develop custom applications for the IDS ODBC Client you must have knowledge of programming techniques related to the standard ODBC API functions, in addition to a knowledge of SQL. See "Supported Functions" for a list of functions that you can use to develop API calls.

Preparing for Installation

Before you can install the IDS ODBC Client for the first time, you will need to know the following information:

The fully qualified path of the IDS desktop where the capsules description tables reside.

The desktop user ID.

The desktop password.

The domain name of the ODAS server.

The location of the IDS capsule descriptor tables.

The output container name for the target capsule.

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Whether to delete or retain the capsule application at the conclusion of the report run and how long the capsule will run.

This information will be entered into the ODBC.INI file during the installation process. As you add new desktops with IDS Capsule applications for use by the IDS ODBC Open Client, you can configure additional IDS ODBC data sources for these desktops, entering the needed application parameters using the GUI.

Each time you add an IDS ODBC Open Client data source, you will be required to enter values for the following parameters using the ODBC Administration tool at each workstation that you want to have access to the data source. See “Adding or Modifying an IDS ODBC Data Source” on page 60 for more information. These parameters and values will be added to the ODBC.INI file in the windows/system directory.

[data source] Data source name you want associated with a particular IDS desktop. This is the name that the ODBC application end-user will use to identify a given data source.

Driver Fully qualified name of the IDS ODBC Driver. This value is automatically determined when you select a data source in the Add Data Source window.

UID User ID for the desktop.

PWD Desktop password.

DBQ Domain name of the ODAS server.

ODBCDescriptionFolder Folder that contains the capsule description tables used by IDS ODBC Open Client applications. It can be such names at "ODBC Catalog|Finance", or "ODBC Capsule Descriptions". To use the sample capsules installed on the guest desktop enter "ODBC Capsule Descriptions".

OutputContainerName The fully qualified name of the container into which the target capsule is copied prior to execution. The name used for the sample capsule is "Open Client Results". The capsule is given a unique name in the container. After the results are returned to the ODBC driver, the capsule is either deleted or retained in this container based on the setting of the DeleteCapsule parameter. The delete capsule parameters should be selected for most data sources unless you are troubleshooting a problem.

Description Description of the data source.

DeleteCapsule For debug purposes only. Values are "0" and "1". When set to 1, the ODBC driver deletes the temporary and uniquely named capsule from the OutputContainerName specified container after the result set has been transferred back to the ODBC driver. When set to 0, the temporary results are retained until deleted. It is recommended that when not debugging capsule applica-

	tions, that you set this parameter to True. Otherwise, the container will eventually fill to capacity and cause errors.
ParamDelimiter	Character that you want use to separate variable parameters in SQL statements.
CapsuleTimeout	Period of time in seconds that the ODBC application will wait for the report results to be returned without reporting a timeout error.

The following characters are *not* valid delimiters:

A-Z, a-z, 0-9

comma (,)

period (.)

double quotes (")

left and right parenthesis [(] [)]

dash (-)

equals (=)

Installing the ODBC Open Client

To install the IBM IDS ODBC Driver, perform the following procedures:

1. Insert the IDS Installation CD–ROM or diskette, into the appropriate workstation drive.
2. If you are using a Windows based ODBC application, in the Program Manager window, choose **Run** from the **File** menu. If you are using an OS/2 based ODBC application, open a Win-OS/2 window, then choose **Run** from the **File** menu.
3. In the **Command Line** field or at the command prompt, type:

   x :\odbc\setup.exe

   where:

   x is the letter of the CD-ROM or diskette drive.

   The ODBC Setup Welcome window appears.
4. Click **Continue**. The Installed Drivers window opens.
5. From the **Available ODBC Drivers** list, select "IBM IDS ODBC Driver."
6. Click **OK**. The setup program copies files to the ..\windows and ..\windows\system directories. The Data Sources window opens.
7. Select IDSSample and click **Setup**.
8. The IBM IDS ODBC Data Source Setup window opens as shown in Figure 13 on page 58.

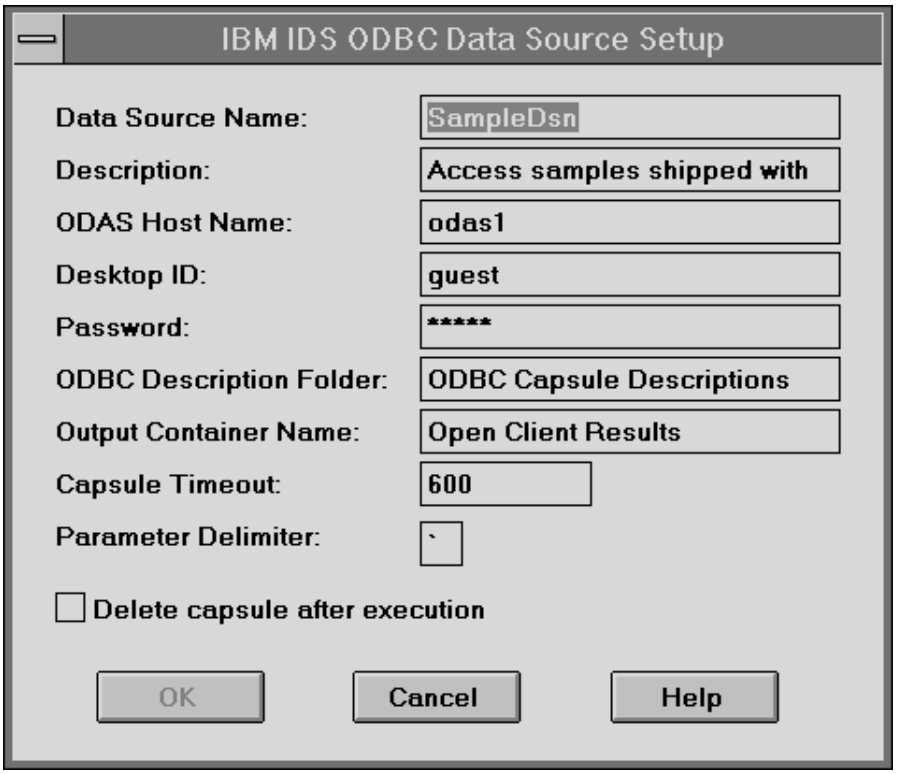

Figure 13. IBM IDS ODBC Data Source Setup window

Setting up an IDS ODBC data source.

9. In the **Data Source Name** field, type the name that you want associated with a particular desktop.

   To use the Coffee Demo, type IDSSample.

10. In the **Description** field, type a brief description of this data source.
11. In the **ODAS Host Name** field, type the name of the ODAS server used to access IDS. The system administrator can provide this information.

    To use the Coffee Demo, type odas1.

12. In the **Desktop ID** field, type the name of the desktop where the capsule description tables reside.

    To use the Coffee Demo, type guest.

13. In the **Password** field, type the desktop password.

    To use the Coffee Demo, type guest.

14. In the **ODBC Description Folder** field, type the fully qualified name of the container where the capsule description tables reside. To use the Coffee Demo, type ODBC Capsule Descriptions.

15. In the **Output Container Name** field, type the fully qualified name of the container want the capsule application to be copied to prior to execution.

    To use the Coffee Demo, type Open Client Results.

16. In the **Capsule Timeout** field, type the number of seconds that you want the ODBC application to wait for the results.

    To use the Coffee Demo, type 6 .

17. In the **Parameter Delimiter** field, type the character that you want to use to separate variable parameters in SQL statements.

    For the Coffee Demo, use the ' character.

18. Select the **Delete Capsule after execution** check box, unless you are trouble shooting this application.

    This setting can be changed after you are confident that the application works properly.

19. Click **Close**. The data sources window closes.

20. In Setup Succeeded window, click **OK**.

Verifying the IDS ODBC Open Client Installation

After you have installed the drivers, check to see that the following files are installed on your system. If these files are not present, attempt the installation or contact your IBM Technical Support representative.

In the WINDOWS sub-directory:

ODBCINST.INI

ODBC.INI

In the WINDOWS/SYSTEM sub-directory:

IDSODBC.DLL

ODBC.DLL

ODBCADM.EXE

ODBCINST.DLL

ODBCCURS.DLL

CTL3DV2.DLL

METRAPAW.DLL

METRAPIW.DLL

Adding or Modifying an IDS ODBC Data Source

You must add a new IDS ODBC data source if you:

Add a new IDS desktop with capsule applications

Add a new ODBC Description Folder to an existing IDS desktop

You can modify an existing IDS ODBC data source if you:

Change a desktop password

Install a new ODAS server to access existing IDS desktops

Change the Output Container Name existing capsule applications

Move an ODBC Description Folder on an IDS desktop

After you configure a driver to point to a specific desktop and ODBC Description Folder, no action is required if you add new capsule description tables to the ODBC Description Folders. ODBC application end-user can select the data source for a given desktop and folder and access the new capsule description tables immediately.

To add or modify a data source :

1. In the Windows 3.1 or WIN-OS/2 Control Panel, double-click the ODBC icon.
2. Click **Continue**. The Data Sources window opens.
3. To add a new data source, click **Add**. The Add Data Source window opens.

   or

   To modify an existing data source, select the data source from the **Data Source (Driver)** list and click **Setup**. The IBM IDS ODBC Data Sources Setup window opens.
4. If adding a new data source, select the "IBM IDS ODBC Driver" from the **Installed ODBC Drivers** list and click **OK**. The IBM IDS ODBC Data Sources Setup window opens.
5. In the **Data Source Name** field, type the name that you want associated with a particular desktop.
6. In the **Description** field, type a brief description of this data source.
7. In the **ODAS Host Name** field, type the name of the ODAS server used to access IDS. The system administrator can provide this information.
8. In the **Desktop ID** field, type the name of the desktop where the capsule description tables reside.
9. In the **Password** field, type the desktop password.
10. In the **ODBC Description Folder** field, type the fully qualified name of the container where the capsule description tables reside.
11. In the **Output Container Name** field, type the fully qualified name of the container want the capsule application to be copied to prior to execution.

12. In the **Capsule Timeout** field, type the number of seconds that you want the ODBC application to wait for the results.
13. In the **Parameter Delimiter** field, type the character that you want to use to separate variable parameters in SQL statements.
14. Select the **Delete Capsule after execution** check box, unless you are trouble shooting this application.

    This setting can be changed after you are confident that the application works properly.
15. Click **OK**. The data sources window closes.
16. In the Add Data Sources window, click **Close**, if this window is open.
17. Click **OK** to Setup Succeeded window.

Appendix D. IDS ODBC Function Reference

The following list shows those ODBC APIs supported by the IDS ODBC Client. The list indicates whether the API is supported exactly to specifications of the ODBC 2.0, level 1, standard and if there are any usage considerations that you should be aware of when developing applications with the IDS ODBC API. For more detail, refer to the ODBC API specification or publications such as *ODBC 2.0 Programmer's Reference and SDK Guide*. Consult the readme.txt file supplied with the IDS ODBC Client for the latest information on supported ODBC functions.

SQLAllocConnect
Supported to ODBC 2.0 specification.

SQLAllocEnv
Supported to ODBC 2.0 specification.

SQLAllocStmt
Supported to ODBC 2.0 specification.

SQLBindCol
Supported to ODBC 2.0 specification.

SQLBindParameter

The IDS ODBC driver does not support this function. IDS accepts only text variable parameter values. If you attempt to bind data types other than text into a prepared SQL statement, the ODBC Driver Manager will return SQL_ERROR where the SQL_STATE retrieved from calling **SQLError** is "IM001" indicating this function is not supported.

SQLCancel

After a reports request and its associated capsule parameters are submitted to IDS, the request is either put in the queue or immediately processed, depending on Capsule Service load. For those capsules in the queue, the SQLCancel will cancel the pending operation. After the capsule execution has started, this function will receive a successful return code; however, the processing at the server will continue. The results from the canceled run will be deleted by the process that initiated the cancel.

SQLColAttributes

Supported to ODBC 2.0 specification.

This function works by calling **SQLDescribeCol**, which describes the columns, and **SQLNumResultCols**, which returns the number of columns in the result set. Note that **SQLColumns** retrieves information about columns for a table or tables from the data source's catalog.

The column label information is retrieved from the specified table in the "ODBC Description Folder". Before using a capsule application with ODBC, capsule developers must create a capsule description table.

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SQLColumns

Supported to ODBC 2.0 specification.

This function is typically used before statement execution to retrieve information about columns for a table or tables from the capsule description table.

SQLConnect

Supported to ODBC 2.0 specification.

SQLDescribeCol

Supported to ODBC 2.0 specification.

As in **SQLColAttributes**, the column label information is retrieved from the capsule description table in the "ODBC Description Folder". Capsule designer must dynamically create description information for each capsule returning results.

SQLDisconnect

Supported to ODBC 2.0 specification.

SQLDriverConnect

Supported to ODBC 2.0 specification.

If the application user has not supplied all the information, the Driver Manager prompts the user to select from a list of data sources extracted from ODBC.INI. This is the most common method of connecting to a database.

SQLError

Supported to ODBC 2.0 specification.

SQLExecDirect

Supported to ODBC 2.0 specification.

SQLExecute

Supported to ODBC 2.0 specification.

SQLFetch

Supported to ODBC 2.0 specification.

SQLFreeConnect

Supported to ODBC 2.0 specification.

SQLFreeEnv

Supported to ODBC 2.0 specification.

SQLFreeStmt

Supported to ODBC 2.0 specification.

Also see **SQLCancel** for terminate processing implications.

SQLGetConnectOption

Supported to ODBC 2.0 specification.

SQLGetData

Supported to ODBC 2.0 specification.

SQLGetFunctions

Supported to ODBC 2.0 specification.

SQLGetInfo

Supported to ODBC 2.0 specification.

SQLGetStmtOption

Supported to ODBC 2.0 specification.

SQLGetTypeInfo

Supported to ODBC 2.0 specification.

SQLNumResultCols

Supported to ODBC 2.0 specification.

SQLParamData

This function is typically called when the **SQLExecute** function determines that there are "data-at-execution" parameters previously set by **SQLBindParameter**.

Since **SQLBindParameter** is not supported, the Driver Manager will return SQL_ERROR where the SQL_STATE retrieved from calling **SQLError** is "IM001" indicating the function is not supported.

SQLPrepare

Supported to ODBC 2.0 specification.

The IDS ODBC driver will not send an escape clause to the data source for preparation. Typically, an ODBC driver modifies an escape clause used to define ODBC-specific SQL. Since the supported SQL makes no provision for escape clauses, the IDS ODBC driver expects no escape clauses to come from the application. If this function receives an escape clause, it will return SQL_ERROR where the SQL_STATE retrieved from calling **SQLError** is "37000" indicating a Syntax error or access violation.

SQLPutData

Since this driver has read only database access, this function will return SQL_ERROR where the SQL_STATE retrieved from calling **SQLError** is "IM001" indicating the function is not supported.

SQLRowCount

Since this driver does not have the ability to modify the contents of an attached database, it will always return zero for the number of affected rows.

SQLSetConnectOption

Supported to ODBC 2.0 specification.

SQLSetCursorName

Supported to ODBC 2.0 specification.

SQLSetStmtOption

Supported to ODBC 2.0 specification.

SQLSpecialColumns

Since this function presumes static data upon which SQL can operate, the Driver Manager will return SQL_ERROR where the SQL_STATE retrieved from calling **SQLError** is "IM001" indicating this function is not supported.

This functions returns the column or columns that uniquely identify each row in the table. The returned column or columns then can be used in the select-list or WHERE clause in a subsequent SELECT statement.

SQLStatistics

This function retrieves a list of statistics about a single table and the indexes associated with the table. An IDS capsule can run against one or more databases that could yield different size table information based on the run-time variable parameter constraints. The ODBC Driver Manager will return SQL_ERROR where the SQL_STATE retrieved from calling **SQLError** is "IM001" indicating the function is not supported.

SQLTables

For the IDS ODBC driver, table name is the name of the spreadsheet object in "ODBC Capsule Descriptions" folder. The following example specifies the table named *With Causals*,

```
SELECT T1.Units, T1."Coupon Ads", T1.Price FROM "With Causals" T1
```

For a capsule named *forecast* in the container *3 year*, the SQL statement will follow this example, ignoring the WHERE clause constraints:

```
SELECT   FROM '3 year\forecast' WHERE state in ('WA', 'OR')
```

SQLTransact

Because the database access supported by this driver is read only, the Driver Manager will return SQL_ERROR where the SQL_STATE retrieved from calling **SQLError** is "IM001" indicating the function is not supported.

Appendix E. IDS ODAS Error Code Summary

This appendix provides the Intelligent Decision Server Web Client product's error messages. Table 4 in this chapter consists of:

error messages

descriptions

actions

The Error Message column contains the actual error message (in numerical order) for each possible problem within the product. The Description column contains detailed descriptions of each error message. The Action column contains the action that should be taken for each problem.

Table 4 (Page 1 of 23). Intelligent Decision Server ODAS Error Messages

Error Message	Description	Remedy
MET0001: Memory allocation error (storage exhausted or corrupt)	The Open Data Access software is unable to allocate required storage because there is not enough free storage remaining or the storage pool has become corrupted.	Reduce other memory demands on the system by closing other programs and/or increase the system disk space available for swapping.
MET0002: Unknown service problem	An unexpected problem has occurred in the Open Data Access Service.	Repeat the operation, and if the error recurs, contact IBM for further assistance.
MET0003: Unable to expand the filespec	Open Data Access is unable to construct a fully-qualified file name from the name specified.	Verify that the specified file or path exists.
MET0004: File not found	The specified file or desktop object does not exist.	Verify that the specified file or object exists and retry the request, if desired.
MET0005: No more files	There are no more files matching the specified name pattern.	Discontinue querying objects as there are no more to be returned.
MET0006: File transfer error (I/O operation failed)	Open Data Access is unable to transfer a required file to or from the service due to an error in input/output.	Verify that sufficient free disk space is available on the client and server.
MET0007: Invalid mode specified	The value specified for the function mode is incorrect.	Verify that the value specified on the function call is one of those listed as valid for the function.
MET0008: DIS infrastructure has not been initialized	The operation cannot be completed because the required initialization has not been completed.	This is an internal service problem. Contact IBM for assistance.
MET0009: Script key not found	The key specified on the script call cannot be found in the script file.	This is an internal service problem. Contact IBM for assistance.
MET0010: String too long	The length of the parameter string exceeds the maximum allowed.	Shorten the string to within the documented limits.

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Error Message	Description	Remedy
MET0011: Invalid path specified	The file or desktop path specified is incorrect. You have attempted to reference the parent of the desktop, specified an object identifier that does not exist in the container, or attempted to use a non-container object as a container.	Correct the problem, and retry the request.
MET0012: Path not found	The path specified does not exist.	Verify that the files or objects specified in the path exist.
MET0013: The buffer supplied is too small	More information is available than could be returned in the supplied buffer.	Increase the size of the buffer, and retry the request. For requests that can be completed sequentially, process the current information and then call the function again to obtain the next buffer of information.
MET0014: Invalid command specified	The current script command is invalid.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0015: Invalid command switch specified	The switches specified on the current script command are invalid.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0016: Invalid command arguments specified	The arguments specified on the current script command are invalid.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0017: Variable not found	The substitution variable could not be replaced because the variable has no value in the current service environment.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0018: A script is not being processed	The script . command has been specified outside an active script.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0019: The source and destination object types do not match	One object is a directory; the other is not.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0020: Environment is too large	The service is unable to execute the program because the program environment has grown too large.	Reduce the size of the program environment by eliminating or shortening variables.
MET0021: The program arguments are too large	The service is unable to execute the program because the program arguments are too large.	Verify that the service installation instructions were followed closely. Contact IBM for assistance, if needed.

Table 4 (Page 3 of 23). Intelligent Decision Server ODAS Error Messages

Error Message	Description	Remedy
MET0022: Invalid substitution variable format	The command string has an unmatched variable substitution character (%').	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0023: The program ended abnormally	The program did not exit normally because a fatal exception occurred, the program was terminated by an external signal, or a hard error was aborted.	The service should restart automatically. If possible, note any error messages that were displayed and report the problem to IBM.
MET0024: The program ended with a non-zero return code	The program exit code was non-zero.	The service should restart automatically. If possible, note any error messages that were displayed and report the problem to IBM.
MET0025: Command string is too long	The service cannot process the command because it was long.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0026: I/O error on request file	An input/output error occurred reading or writing the client request file. The disk drive may be full.	Verify that sufficient free disk space is available on the disk drive containing the \NODESYS directory. Also verify that there is not a file in the \NODESYS directory corresponding to the client's node name (there should be a directory of that name).
MET0027: I/O error on result file	An input/output error occurred reading the server response file. A communications error may have corrupted the file, or the disk drive may be full.	Verify that sufficient free disk space is available on the disk drive containing the \NODESYS directory, then retry the request.
MET0028: Unable to read client communications profile	The client communications profile (\NODESYS\NODEINIT.DAT) cannot be read. The file is missing or the current (default) drive is not the same as the one containing the \NODESYS directory.	Verify that the profile exists and that the current (default) drive is set to that containing the \NODESYS directory. If necessary, reinstall the client software.
MET0029: Server connection was interrupted	The communications connection to the server was interrupted. The server may have disconnected the session because of a service problem or administrator action, the modems may have been unable to continue communications, or the session may have exceeded its maximum connection or idle time.	Call DisDisconnect to free the system resources allocated by the client before attempting a new connection to the server.
MET0030: Server connection timed out	No service response was received in the required time period. The service may be having a problem or may be shut down.	Attempt a new connection. If the same error occurs, contact the system administrator for assistance.

Table 4 (Page 4 of 23). Intelligent Decision Server ODAS Error Messages

Error Message	Description	Remedy
MET0031: Server connection was dropped	The communications connection to the server was interrupted. This indicates a possible service problem.	Attempt a new connection. If unable to complete a connection, contact the system administrator for assistance.
MET0032: Server rejected the connection due to security violation	The client password or security key is invalid. The client password must match the password specified in the node's profile on the Open Data Access server. A single node configuration cannot be used on more than one workstation.	Contact the system administrator and verify that the client password is correct. Also verify that no one is attempting to use the same node configuration on another workstation. The system administrator should reset the security for the node using the Node Profile panel.
MET0033: Connection attempt was cancelled	The connection attempt was cancelled as requested by the user.	Attempt a new connection after resolving the reason for cancelling the previous connection attempt.
MET0034: Connection failed because no modem carrier was detected	The modem did not detect a modem carrier from the server modem. The server may not have answered, or the modem that answered may not be compatible with the modem being used by the client.	Verify that the correct server phone number is being used and that the modem is compatible with the server modem answering that phone line. Retry the connection or contact the system administrator if assistance is needed.
MET0035: An error occurred configuring the modem	The client communications manager was unable to configure the modem before initiating a phone call to the server. The client may be configured with the incorrect modem type, the modem configuration may be incorrect, or the modem may be stuck in an unresponsive state.	Attempt to reset the modem by placing it in voice mode or turning it off and then back on. Also verify that the system administrator has configured the correct modem type.
MET0036: The modem detected no dial tone	The modem cannot detect a dial tone. The modem is not connected properly to the phone line or there is a problem with the phone line.	Verify that the phone line is connected properly to the modem.
MET0037: The server phone line is busy	The modem detected a busy signal. This may indicate that the server phone line is being used. It may also indicate a problem dialing or other telephone network problem.	Verify that the correct dial string is being used (including any local or long-distance dialing access codes), and attempt a new connection.
MET0038: The server did not answer	The server did not answer the phone call. The server may not be accepting calls, may be shut down, or may be experiencing a problem.	Verify that the correct dial string is being used (including any local or long-distance dialing access codes), and attempt a new connection.
MET0039: An unknown communications problem occurred	The communications connection failed, but the client communications manager does not indicate the cause of the failure.	Attempt a new connection using a slower baud rate.

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Error Message	Description	Remedy
MET0040: The specified alias name is invalid	The specified alias name is not available in the Capsule Service.	Verify that the alias name corresponds to an alias that has been created by the system administrator.
MET0041: The specified job priority is invalid	The priority does not fall within the valid range.	Specify an allowable value for job priority.
MET0042: Invalid parameter	A function call or command string parameter is incorrect.	Verify that the parameter formats and values are correct for the function.
MET0043: Invalid structure size	The size specified in the structure is incorrect.	Verify that size field of the structure is being set correctly.
MET0044: Invalid communications type	The specified type of communications is invalid or unsupported in the current environment.	Verify that the communications type specified is valid for the current client environment.
MET0045: Invalid communications speed (baud rate)	The specified communications speed is not supported.	Verify that the correct value is being supplied.
MET0046: Invalid communications dial string	The specified dial string is too long.	Modify the dial string so that it does not exceed 49 characters.
MET0047: The client communications manager is not loaded	The client communications manager has not been loaded or has been loaded incorrectly.	Verify that the communications manager has been loaded as described in the Open Data Access installation documentation.
MET0048: The specified date/time value is invalid	The specified date/time value does not fall within the valid range of values.	Specify a different date/time value that falls within the valid range.
MET0049: The connection was not completed in the allotted time	The connection to the server was not established in the required time. This may indicate a problem with the client such as an incorrect modem configuration. It may also indicate that the server is not accepting connections or is shut down, or that the server is having a problem.	Attempt a new connection to the server. Contact the system administrator if further assistance is required.
MET0050: The network support cannot be properly initialized	The network communications protocols are not running properly. This may indicate a configuration problem, a hardware problem with the network or network adapter, or a file server problem.	Verify that the network is operating properly and that the network protocol support has been installed and configured correctly.
MET0051: The object cannot be renamed	File drawer, printer, mail, and Capsule Service icons cannot be renamed.	Do not attempt to rename one of these object types.
MET0052: The request has not been completed	The client request has not been processed by the server because a preceding batch request encountered an error.	Correct the problem that caused the original error, or specify the DIS_IGNORE_ERROR flag on the failing request or DisSubmitBatch call.

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Error Message	Description	Remedy
MET0053: A request is being processed	The request has not completed processing. The server may not have completed its processing, or the results of the request may be in transit from the server to the client.	Delay for a time and then call DisQueryResult again. DIS_WAIT may be specified to cause DisQueryResult to wait until the request completes.
MET0054: No requests are queued for batch processing	DisSubmitBatch has been called, but no function calls have been made since DisInitBatch was called.	Make at least one Dis function call between calls to DisInitBatch and DisSubmitBatch.
MET0055: Invalid index specified	The requested information cannot be returned because the specified index does not exist or is not supported.	Verify that the index supplied is a supported value or that the request it references exists.
MET0056: The requested service was not found	The connection could not be completed because the specified service name does not exist.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0057: Invalid address	The specified address does not have the correct format.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0058: The message destination does not exist	The received message specifies a nonexistent connection id.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0059: The message is invalid	The received message has invalid delivery options or message code.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0060: The message is incomplete	The received message has been truncated during transmission.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0061: The call was interrupted	The call was interrupted by another task before it completed.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0062: The connection has been closed	The connection has been closed, probably due to server or client termination.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0063: An expected network response was not received	The response to a file server request was not received in the allotted time. This probably indicates a network or file server problem.	Contact the system administrator for assistance.

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Error Message	Description	Remedy
MET0064: The connection has been dropped	The connection could not be maintained due to a network communications error. There may be a problem with the network or with one of the required services or service components.	Contact the system administrator for assistance.
MET0065: The connection has timed out	A local communications connection has been dropped because one end is not responding to messages. This probably indicates a problem with one of the service components.	The service should automatically correct the problem. If the service does not appear to be operating properly, shut down and restart the service.
MET0066: The server disconnected this client	The connection was terminated because the server end was closed, probably due to a pending service shutdown.	If this error occurs when the service is not being shut down, it may indicate a service problem.
MET0067: The target client is not found	The received message was addressed to a nonexistent client. This error may appear if the service subtask has been deleted by another task.	If the error persists or the service appears to be operating improperly, contact IBM for assistance.
MET0068: Unknown configuration parameter	The service configuration file contains an unrecognized configuration parameter.	This probably indicates an internal service error. Contact IBM for assistance in verifying that the format and contents of the service configuration file are correct.
MET0069: Invalid configuration value	The specified value for the configuration parameter is incorrect.	Verify that the format and value are correct.
MET0070: Invalid format for configuration value	The specified value for the configuration parameter is incorrect.	Verify that format is valid for the configuration parameter value.
MET0071: The configuration values do not match	The values for the configuration parameter do not match.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0072: Capsule Service is not available	There is no Capsule Service available to process the request. A Capsule Service has not been configured or the service is off line or having trouble.	Contact the system administrator for assistance.
MET0073: The service is unable to contact the Capsule Service	A network communications error prevents contact with the Capsule Service.	Contact the system administrator for assistance.
MET0074: System logon is disabled	The service is configured to disallow logons to the system desktop.	The system administrator can configure the service to allow system logons.

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Error Message	Description	Remedy
MET0075: The desktop password expires soon	The logon has completed successfully, but the desktop password will expire soon. The age of the password has almost exceeded the network maximum.	Change the desktop password before it expires. After the password has expired, the system administrator will have to set a new password for the desktop before it can be used.
MET0076: The desktop password has expired	The age of the desktop password has exceeded the network maximum.	Contact the system administrator to have a new password set for the desktop.
MET0077: Desktop options are missing	There is a problem with the options for the desktop.	Contact the system administrator to have the desktop options corrected.
MET0078: The password length is invalid	The specified password exceeds the maximum 16-character limit or does not meet the required minimum password length for the network.	Specify a new password that falls within the allowable limits.
MET0079: The new password is the same as the old password	The new password must be different from the current password.	Specify a new password.
MET0080: The file server volume is off line.	Access to a required file server volume is not available because the volume has been placed off line by the system administrator.	Contact the system administrator for assistance.
MET0081: The conversion did not complete	The conversion was discontinued before all the data was processed. This may be due to a format error in the data or may be due to a system error in the service.	If the data is being transferred from the client file system, verify that the correct source data format is being specified. Verify that the format of the source data is correct. If the problem persists, contact the system administrator for assistance.
MET0082: The specified name is invalid	An invalid name was specified for an object or file.	Check and correct the invalid name.
MET0083: Client has shutdown	Conversion Services has been shutdown.	If this error occurs when the Open Data Access Service has not been shut down, it may indicate an internal service problem. Contact IBM if assistance is required.
MET0084: Client has disconnected	The client being serviced by the current conversion engine has been disconnected.	The service should automatically correct the problem.
MET0085: Conversion engine has disconnected	The conversion was not completed because the assigned conversion engine disconnected from the Open Data Access Service. This may indicate a network communications problem exists or that the conversion engine has abnormally terminated.	Retry the failing conversion. If the error persists, contact the system administrator for assistance. If the network appears to be operating properly, Conversion Services should be examined to determine whether the conversion engine is terminating abnormally.

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Error Message	Description	Remedy
MET0086: No conversions are pending	The conversion client is attempting to wait for completion of its queued conversions, but no conversions have been submitted.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0087: The specified conversion does not exist	The conversion client is attempting to wait for a specific conversion request to complete, but no such request exists.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0088: A client is already waiting for conversion completion	The conversion client is attempting to wait for completion of its queued conversions, but a wait request is already pending.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0089: An unexpected error code was received from the file server	The response to a file server request indicated a problem which Open Data Access Service cannot identify.	Retry the operation. If the error persists, contact IBM for assistance.
MET0090: Invalid argument	An incorrect command argument was specified.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0091: Invalid connect parameters	The client type is invalid.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0092: Invalid command	The specified command is not recognized by the server.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0093: No request is being processed	A task is attempting to set or retrieve a request result, but no request is currently being processed.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0094: The specified session was not found	A task has requested an operation upon a session that does not exist.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0095: Unable to create the file	The service is unable to create the specified file. This may indicate a number of problems including insufficient free disk space, lack of change privileges, network or file server problem, or possible service error.	Verify that sufficient free disk space is available in the specified location and that change privileges are allowed for the target directory or container. Also verify that the network and file server are operating correctly.
MET0096: The specified flags are invalid	One or more of the flag values supplied on the function call are not valid for that function.	Check the function arguments to ensure that a valid combination of flags is being passed to the function.

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Error Message	Description	Remedy
MET0097: This client is not a monitor	Events can only be retrieved by event monitors.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0098: The request was cancelled	The specified request has been cancelled.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0099: The session has been terminated	The specified session ended normally.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0100: Job was not submitted by this service	The requested operation can only be performed on capsule jobs that were submitted by the service on which the session is active.	Perform the operation on a job that was submitted by this service.
MET0101: File is not open	The file transfer request specifies a non-zero offset, but the specified file is not currently open.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0102: Sequence error in file transfer	The file transfer request specifies an offset that does match the current file location.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0103: File end has been reached	All data from the file has been returned.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0104: The configuration is invalid	The system directory variable is missing from the program environment.	Verify that the service has been installed correctly. If this is the only error that occurs during service startup, it may indicate an internal service problem.
MET0105: Invalid information level	The specified level of information is invalid.	Specify one of the valid values for the information level.
MET0106: The administrator disconnected the client	The system administrator forced the client to disconnect from the server.	Contact the system administrator to determine why the session was terminated.

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Error Message	Description	Remedy
MET0107: The log file is corrupt	The logging service has detected an error while reading the log file.	Delete the corrupted log file from the service LOGS directory. A corrupt session log file will eventually be deleted depending on the maximum number of session logs configured for the service. If the service log has been corrupted, delete the 00000000.RAS file from the LOGS directory. The service will lose all session history when this occurs.
MET0108: The server has shut down	The session or connection was terminated because the server was shut down by the system administrator.	Contact the system administrator to determine when the service will become available.
MET0109: Unable to rename the object	The object cannot be renamed. This probably indicates a network, file server, or service error.	Retry the operation. Contact the system administrator if the error persists.
MET0110: The specified job was not found	The specified job does not exist in the Capsule Service job queue. The job may have already completed. If returned by DisWaitCapsuleStatus, the specified job has not been submitted by the current session.	Specify the identifier of a job that exists in the Capsule Service queue or that was submitted by this session.
MET0111: Operation timed out	The specified timeout period expired before the operation completed.	Retry the request to continue waiting and/or specify a longer timeout period.
MET0112: Session timed out due to inactivity	The session was terminated because no requests were issued for at least the time specified by the session timeout parameter configured by the system administrator.	Attempt a new connection to the server. Contact the system administrator to determine the current maximum idle connect time.
MET0113: Session exceeded maximum connect time	The session was terminated because it exceeded the maximum session length time configured by the system administrator.	Attempt a new connection. Contact the system administrator to determine the current maximum connect time.
MET0114: The object is not a capsule object	The operation can only be performed on a capsule object.	Specify the name of a capsule object.
MET0115: Not logged on to a desktop	The operation cannot be performed unless logged on to a desktop.	Log on to a desktop, then retry the operation.
MET0116: The request is invalid	The specified request code is not in the valid range of codes.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0117: Insufficient software capabilities are assigned.	The operation cannot be performed because sufficient software capabilities have not been assigned in the network configuration.	Consult the installation and administration documentation for information about assigning the required software capabilities.

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Error Message	Description	Remedy
MET0118: The buffer is too large	The size of the buffer is too large to complete the operation. In some cases, this error indicates an internal service problem.	Reduce the buffer size and retry the operation. Contact IBM if an internal service problem is suspected.
MET0119: Unable to locate a master icon	The service is unable to create a new icon because the master icon cannot be located. This probably indicates a network or file server problem.	Contact the system administrator for assistance.
MET0120: Unable to copy a master icon	The service is unable to create a new icon because it cannot copy the master icon. This probably indicates a network or file server problem.	Contact the system administrator for assistance.
MET0121: The envelope has an invalid format	There is an error in the internal format of the envelope.	Create a new envelope.
MET0122: The print object has an invalid format	There is an error in the internal format of the object.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0123: The object is not an envelope	Only envelopes can be placed in the Mail Tray.	Verify the object that is being placed in the Mail Tray is an envelope. If the object is being transferred from the client, verify that it is being converted to envelope format.
MET0124: Access is denied	The operation cannot be performed because you do not have the correct privileges.	Perform the operation on objects for which you have the correct privileges, or contact the system administrator to obtain the necessary privileges.
MET0125: The object has an invalid icon type	The specified icon type is not valid.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0126: Insufficient free disk space	The operation cannot be completed because there is not sufficient free disk space available. This error can indicate a lack of disk space on the client, the server, or the file server.	Verify that sufficient disk space is available, deleting unneeded files and/or icons if necessary.
MET0127: The object is not a container	The operation can only be performed upon a container.	Specify the name of a container object (folder, file drawer, or file directory).
MET0128: No conversion is available between the object types	Conversion services does not support conversion between the source and destination formats.	If the source or destination is a file on the Open Data Access client, verify that the correct client file type is specified; the default file type may not be correct.

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Error Message	Description	Remedy
MET0129: Error querying the icon options	The service is unable to query the icon options of the object. This probably indicates a network or file server problem.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0130: Error setting the icon options	The service is unable to set the icon options of the object. This probably indicates a network or file server problem.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0131: Error locating the Post Office	The service is unable to locate the network Post Office. This indicates a network or file server problem.	Contact the system administrator for assistance.
MET0132: Error moving the file/object	The file or object cannot be moved. This error probably indicates a network or file server problem.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0133: Error querying the icon info	The service is unable to query the icon information of the object. This may indicate a network or file server problem.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0134: Error setting the icon info	The service is unable to set the icon information of the object. This may indicate a network or file server problem.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0135: Error deleting the file/object	The file or object cannot be deleted. This error probably indicates a network or file server problem. It may also indicate a problem on the server's local file system.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0136: Error locating the file/object	The file or object cannot be located. This error probably indicates a network or file server problem.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0137: Error querying the object information	The object status information cannot be obtained. This error probably indicates a network or file server problem.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0138: Error dereferencing the object pointer	The service was unable to follow the indirect object reference. The original file drawer may have been deleted or moved by the system administrator. This may also indicate a network or file server problem.	Contact the system administrator to find out whether the file drawer still exists in its expected location. If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.

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Error Message	Description	Remedy
MET0139: Error replacing the file/object	The file or object cannot be replaced. This error probably indicates a network or file server problem.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0140: Error opening the file/object	The file or object cannot be opened. This error probably indicates a network or file server problem. It may also indicate a problem with the server's local file system, probably lack of sufficient free disk space or incorrect file permissions.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0141: Error closing the file/object	The file or object cannot be opened. This error probably indicates a network or file server problem. It may also indicate a problem with the server's local file system, probably lack of sufficient free disk space.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0142: Error reading from the file/object	The file or object cannot be read. This error probably indicates a network or file server problem. It may also indicate a problem with the server's local file system.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0143: Error writing to the file/object	The file or object cannot be written. This error probably indicates a network or file server problem. It may also indicate a problem with the server's local file system, probably lack of sufficient free disk space.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0144: Error copying the file/object	The file or object cannot be copied. This error probably indicates a network or file server problem. It may also indicate a problem with the server's local file system, probably lack of sufficient free disk space.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0145: Error reading the object directory	The file or object directory cannot be read. This error probably indicates a network or file server problem. It may also indicate a problem with the server's local file system.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0146: Error initializing the file/object copy task	The service cannot start the file-copy subtask because the server has exhausted its system resources.	Contact the system administrator for assistance. The resource demands on the server should be reduced by closing unneeded applications.

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Error Message	Description	Remedy
MET0147: Error setting the file/object info	The service is unable to set the file or object status information. This may indicate a network or file server problem. It may also indicate a problem with the server's local file system.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance. The administrator should verify that the server has sufficient free disk space.
MET0148: Error setting the current directory	The service is unable to set the default disk and directory. This indicates a problem on the server's local file system. The server file system may be damaged, or a required service directory may have been accidentally deleted.	Verify that no service directories have been deleted and that the server file system has not been damaged. Use the OS/2 CHKDSK command to analyze and repair the disk drive.
MET0149: Error creating the directory/container	The directory or container cannot be created. This may indicate a network or file server problem. It may also indicate a problem with the server's local file system.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance. The system administrator should verify that the server has sufficient free disk space.
MET0150: Error deleting the directory/container	The directory or container cannot be deleted. This may indicate a network or file server problem. It may also indicate a problem with the server's local file system.	If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0151: Failed to connect to conversion server	The session manager is unable to establish a connection to the Open Data Access conversion manager.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0152: The object conversion failed	The object conversion did not complete successfully. This probably indicates an error in the format of the data you are attempting to convert. It might also indicate a problem in Conversion Services.	Verify that the data format is correct in the source file or object. Retry the operation, or attempt conversion of different data. If the error persists, contact the system administrator for assistance.
MET0153: Error locating the capsule object	The specified capsule object cannot be located. This may indicate a network or file server problem.	Verify that the correct capsule name is specified. If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0154: Error locating the output container	The specified output container for the capsule cannot be located. This may indicate a network or file server problem.	Verify that the correct output container name is specified. If you suspect network or file server trouble, retry the operation after waiting a time, or contact the system administrator for assistance.

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Error Message	Description	Remedy
MET0155: The software has been installed incorrectly	A required software component is missing or installed in an incorrect location. This probably indicates that the client node software has not been installed on the disk drive that the node was configured for on the Open Data Access server.	Verify that the software has been installed as instructed by the documentation in the location for which it was configured.
MET0156: Error submitting the job to Capsule Service	The Capsule Service job could not be submitted to the Capsule server. This may indicate a network or file server problem, or may indicate that Capsule Service is shut down or having trouble.	Retry the operation after waiting a time, or contact the system administrator for assistance.
MET0157: Error setting the initial job status	The initial capsule job status could not be set in the service manager. The capsule job will execute normally, but you will be unable to wait for it to finish.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0158: Error querying the Capsule Service job queue	The service was unable to query the Capsule Service job queue. This may indicate that Capsule Service is shut down or having trouble, or may indicate a network or file server problem.	Retry the operation after waiting a time, or contact the system administrator for assistance.
MET0159: Error canceling the Capsule Service job	The service was unable to cancel the specified Capsule Service job. This may occur if the job has already completed and has been removed from the job queue. It may also indicate that Capsule Service is shut down or having a problem, or may indicate a network or file server problem.	Retry the operation after waiting a time, or contact the system administrator for assistance.
MET0160: Error modifying the Capsule Service job	The service was unable to modify the specified Capsule Service job. This may occur if the job has already completed and has been removed from the job queue. It may also indicate that Capsule Service is shut down or having a problem, or may indicate a network or file server problem.	Retry the operation after waiting a time, or contact the system administrator for assistance.
MET0161: Error waiting for the Capsule Services job	The service was unable to wait for the Capsule Service job to complete.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0162: The Capsule application data does not exist	The internal format of the capsule is incorrect.	Specify the name of another capsule object, or contact the system administrator for assistance in repairing the capsule object.

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Error Message	Description	Remedy
MET0163: Error opening the capsule application data	The application data for the capsule object cannot be opened. This may indicate a network or file server problem.	If you suspect a network or file server problem, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0164: Error reading the capsule application data	The application data for the capsule object cannot be read. This may indicate an internal format error in the application data. This may also indicate a network or file server problem.	If you suspect a network or file server problem, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0165: The capsule @-variable name is invalid	The specified capsule @-variable name does not fall in the range of A' to GZ'.	Specify a valid capsule @-variable name. Also ensure that the name is terminated by a null (0) character.
MET0166: Error writing the capsule application data	The application data for the capsule object cannot be written. This may indicate a network or file server problem.	If you suspect a network or file server problem, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0167: Error processing object conversion	An error occurred while the conversion was being processed by Open Data Access or Conversion Services. This might indicate an problem in either of those services, or it might indicate a network or file server problem.	Retry the operation after waiting a short time. You might also want to attempt a different type of conversion to determine whether the problem is with the specific data you are attempting to convert. Contact the system administrator for assistance if the error persists.
MET0168: The destination is not valid	The operation is not allowed for the specified destination.	Specify a different destination.
MET0169: Error querying the Mail Tray contents	The service is unable to examine the contents of the desktop Mail Tray. The Mail Tray object may be missing or inaccessible, or there may be a network or file server problem.	Verify that a single valid Mail Tray object exists on the desktop. If you suspect a network or file server problem, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0170: Error querying the current session status	The service is unable to determine the status of the current session.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0171: Error transferring the object to the desktop	The object could not be transferred to the desktop, probably because of a network or file server problem. This may also indicate a service problem.	If you suspect a network or file server problem, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0172: Error transferring the object from the desktop	The object could not be transferred from the desktop, probably because of a network or file server problem. This may also indicate a service problem.	If you suspect a network or file server problem, retry the operation after waiting a time, or contact the system administrator for assistance. Verify that sufficient free disk space is available on the server's local file system.

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Error Message	Description	Remedy
MET0173: Unable to locate the original object	The service is unable to locate the object to be overwritten. This probably indicates a network or file server problem.	If you suspect a network or file server problem, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0174: Unable to locate the source object(s)	The service is unable to locate the specified object(s). The object(s) may not exists, or there may be a network or file server problem.	Verify that the specified object(s) exist. If you suspect a network or file server problem, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0175: Codepage is not set	The request requires that a codepage be set for the session.	Use the DisSetSessionInfo function to set the session codepage.
MET0176: Unable to create a destination object	The service is unable to create one of the specified destination objects. This may indicate a network or file server problem.	If you suspect a network or file server problem, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0177: Error moving the object into the destination	The destination object has been successfully created but cannot be moved into the specified destination container (Printer or Mail Tray). This may indicate that the destination is unavailable or that there is a network or file server problem.	If you suspect a network or file server problem, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0178: Error while expunging the discarded object(s)	The service is unable to expunge the object(s) from the desktop Discard folder. This may indicate that another service or user is currently accessing this desktop. The accuracy or retrievability of the Discard folder's contents cannot be guaranteed.	This error may, in general, be ignored.
MET0179: Failed to discard the object	The service is unable to discard the specified object by moving it into the desktop Discard folder. This may indicate a network or file server problem.	If you suspect a network or file server problem, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0180: Failed to expunge the object	The service is unable to expunge the specified object. This may indicate a network or file server problem.	If you suspect a network or file server problem, retry the operation after waiting a time, or contact the system administrator for assistance.
MET0181: Error querying the user options	The logon cannot be completed because the desktop user options cannot be read. This may indicate that the internal format of the desktop is incorrect, or it may indicate a network or file server problem.	Contact the system administrator for assistance.

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Error Message	Description	Remedy
MET0182: Error setting the user options	The logon cannot be completed because the desktop user options cannot be written. This may indicate that the internal format of the desktop is incorrect, or it may indicate a network or file server problem.	Contact the system administrator for assistance.
MET0183: Invalid desktop name	The specified desktop name does not exist, or the required file server disk is not available.	Verify that a valid desktop name is specified. Contact the system administrator for further assistance.
MET0184: Invalid password	The specified password does not match the current desktop password.	Verify that the correct password is specified. If necessary, contact the system administrator to have the password changed.
MET0185: Desktop verification failed	The service is unable to verify the specified desktop name. This probably indicates a network or file server problem.	Verify that the correct desktop name and password are specified. Contact the system administrator for assistance.
MET0186: Error initializing the file subsystem	The service is unable to allocate required resources for this session. This may indicate that the server does not have enough free storage, or it may indicate a network or file server problem.	Contact the system administrator for assistance.
MET0187: Too many active sessions	The maximum number of configured sessions has been exceeded.	Try again later. If this error occurs often, the service may need to be reconfigured to support a greater number of concurrent sessions.
MET0188: The resident client data is invalid	The client global data area is invalid.	Unload the resident client module (MRES) and reload it. If the problem persists, restart the workstation and try again.
MET0189: Storage has been corrupted	The client global data area has been corrupted.	Attempt to terminate the current connection, then begin a new connection. If the problem occurs again, please note the circumstances and report the problem to IBM.
MET0190: Target already exists	You have attempted to add something that already exists.	Specify a different name, or use the overwrite option, if available.
MET0191: Conversion service is not available	There are no conversion engines available to process the requested conversion. A Conversion Services host has not been configured or the service is off line or having trouble.	Contact the system administrator for assistance.
MET0192: The object is locked	The specified object is locked and cannot be accessed.	If access is required, contact the capsule owner to have the object unlocked.

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Error Message	Description	Remedy
MET0193: Unable to connect to the service	The configured service could not be contacted. This may indicate that the target service is shut down or having trouble, or it may indicate a network or file server problem.	Verify that the correct service name (Capsule Service or Object Conversion Services) is specified and that the service has been started.
MET0194: Invalid handle	The specified handle is invalid.	Verify that the handle has the same value that was returned from the function that allocated the handle.
MET0195: The software versions do not match	Two software components have different software versions.	Verify that all the software components are from the same software release.
MET0196: The resource is not owned by you	You cannot perform that operation unless you own the resource.	Specify the identifier for a resource that you own.
MET0197: The request does not exist	The specified request does not exist. If this error occurs in the server, it indicates an internal service problem.	Specify zero or the index of a request that was executed between DisInitBatch and DisSubmitBatch.
MET0198: The request did not complete in the allotted time	The server has not accepted the current request. This probably indicates a problem in the client or server communications managers or with the communications line.	Terminate the current connection and attempt a new connection. Contact the system administrator if the problem persists.
MET0199: An error occurred in a batch subrequest	One or more of the batch subrequests completed in error.	Correct the problems that caused the errors, or specify the DIS_IGNORE_ERROR flag on the failing requests or DisSubmitBatch call.
MET0200: An unexpected server response was received	A server result has been received, but there is no client request with which to match it.	This is an internal service error. Record the circumstances surrounding the error and contact IBM for assistance.
MET0201: The client software has not been initialized	DisInitClient must be called before making any other calls to the Open Data Access application program interface (API).	Correct the programming error.
MET0202: Capsule Service encountered an error processing the capsule	A processing error occurred in Capsule Service. The capsule application may or may not have been executed correctly.	Resubmit the capsule application, and if the problem reoccurs, contact the system administrator for assistance.
MET0203: An error occurred during capsule execution	The capsule application did not execute correctly.	Examine the Capsule Run Log to determine the source of the error.
MET0204: A system error occurred in Capsule Service	A system error occurred in Capsule Service. The capsule application may or may not have been executed correctly. This may indicate a problem in the Capsule Service or may indicate a network or file server problem.	Contact the system administrator for assistance.

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Error Message	Description	Remedy
MET0205: The system administrator reset the network	A network reset has been issued by the system administrator.	Wait for the Open Data Access Service to reset.
MET0206: Version not supported	The version is not supported.	If this error occurs, contact IBM for assistance.
MET0207: Network failure	A failure has occurred in the network communications.	Check your network hardware and software. Attempt a new connection. Contact the system administrator if the problem persists.
MET0208: Network unreachable	The specified remote network cannot be reached through any of the attached networks.	Verify that you have specified the correct network address and that the required network routing infrastructure is operating between you and the remote network.
MET0209: Host is down	The specified network host is not operating.	Attempt a connection later. Contact the system administrator to determine when the host will return to service.
MET0210: Host is unreachable	The specified remote host cannot be reached through any of the attached networks.	Verify that you have specified the correct network address and that the required network routing infrastructure is operating between you and the remote host.
MET0211: Network buffers exhausted	Buffer space was not available to perform the network operation.	Try the operation again. Check your network hardware and software.
MET0212: Host not found	The specified hostname does not exist in the network name service.	Check that you have specified the correct host name. Ask your network administrator to add the host to the name service.
MET0213: Host not found (non-authoritative)	The name service does not recognize the hostname you specified, but another name service may recognize the name.	Try the operation again. If the error persists, verify that you have specified the correct hostname, or ask your network administrator to add the host to the name service.
MET0214: Unable to contact the name service	The service was unable to contact the name service to obtain the host's network address.	Try the operation again. If the error persists, check your network hardware and software, or contact your network administrator to determine whether the name service is running.
MET0215: Network error	An unknown error occurred in a network operation.	Try the operation again. If the error persists, check your network hardware and software.
MET0216: Incorrect network software version	The installed network software does not support the required interface version.	Verify that you have installed the correct software version and that it is configured correctly.

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Error Message	Description	Remedy
MET0217: Resource in use	The resource cannot be accessed because it is being used by another task or user.	Try the operation again later.
MET0218: The administrator has reset the service	The system administrator has shut down the Open Data Access server.	Contact your system administrator to determine how long the service will be unavailable. If your Open Data Access Services is provided by a pool of servers, you may attempt a new connection as there may still be servers available in the pool.
MET0219: The service is not accepting new sessions	The system administrator has placed the service in suspend mode. It will not accept any new Open Data Access sessions until the administrator resumes service.	Contact your system administrator to determine how long the service will be unavailable.
MET0220: The service is down	The service is not on line and cannot accept new sessions. This may mean the service, the host the service is running on, or the network is having problems.	Contact your system administrator to determine how long the service will be down.
MET0221: Database entry not found	The requested database entry could not be located. This indicates an internal service problem. The user profile database may be damaged.	Retry the operation. If trouble persists, contact IBM for assistance.
MET0222: Database is corrupted	An error was detected in the saved database file. The database may be damaged.	If trouble persists, contact IBM for assistance.
MET0223: No database name has been specified	The database cannot be loaded or saved because a database name has not been configured.	Specify a database name in the server configuration.
MET0224: AFD processing was terminated due to an error	During Automated File Distribution processing, an error was detected which caused further processing to cease.	Check the actions specified in the AFD lists assigned to the user and the user's groups. Verify that server and client file specifications are correct. Also verify that the required IDS file servers and/or other network file systems are on line and that there is sufficient disk space on the server and client file systems.
MET0225: The database has not been changed	The database was not saved because no changes have been made since the last save.	None required.
MET0226: The member cannot be added because it creates a membership loop	You are attempting to make an entry a member of itself or one of its members.	Revise your memberships so that the membership loop will not exist.

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Error Message	Description	Remedy
MET0227: AFD list not found	No AFD lists matching the specified name can be located in the User Profile Database. The lists may exist but are not accessible to the current user.	Verify with the system administrator that the requested list (or lists) exist and are assigned properly. Retry the request, if desired.
MET0228:Capsule Service job queue is full	The Capsule Service job queue has reached the configured size limit and cannot accept any new jobs at this time.	Retry the request after the number of jobs in the queue decreases, or ask your system administrator to increase the job queue maximum size.

Glossary

application. A collection of software components used to perform specific types of user-oriented work on a computer. The terms application, application program, program, and tool are sometimes used interchangeably.

Application Description Data. Information used by each of the open clients to identify components in the IDS environment, locate and catalog capsule applications, and maintain reusable open client applications.

application program interface (API). The interface through which an application program interacts with a service. An API usually consists of a set of functions or commands.

@-variable. A control variable used to represent a value in any tool that can be run inside a Capsule application. These values are frequently used as constraints and variable titles in the Query, Plot, Spreadsheet, Layout, and other IDS tools.

back up. To copy information, usually onto diskette or tape, for safekeeping.

browser. In the internet world, a program that requests and displays resources located across networks.

button. An object, in a window or window header, that contains graphics or text and is used to open other windows, open a menu, perform an action, or set a condition.

Capsule Application. A reusable process that queries and manipulates data in the IDS environment.

Capsule Descriptor Table. A spreadsheet used by the IDS ODBC Open Client to store information about a particular capsule application.

CERN. The name of the European Laboratory for Particle Physics in Geneva, Switzerland where the Web was developed.

CGI. **See** Common Gateway Interface.

client. A personal computer that interacts with an Open Date Access Service (ODAS) for access to desktop functions such as Capsule applications and mail.

click. (1) To press and release a mouse button without moving the pointer. (2) To press and release the left mouse button while the pointer is on a desired object. For example, "Click on **Show Controls**," "Click anywhere in the window header." On a left-handed mouse, the right mouse button is used instead of the left one.

Common Gateway Interface (CGI). The standard interface between http servers and other external programs.

configure. To prepare a data-access icon to retrieve data from a specific database by specifying the database gateway, database category, and other data in the Icon Options window.

container. Any folder, file drawer, or other icon that can contain other icons.

Capsule. A tool for building an automated processing sequence using icons that represent IDS tools and PC applications.

Capsule application. A IDS software application that combines IDS tools inside a Capsule icon and produces results at the click of the Run button.

Capsule Service. A Metaphor product that lets a user run a Capsule application in the background, either immediately or at a specified time.

database administrator (DBA). The person who issues administrative instructions to a database service. The DBA defines the data tables used by data access tools, monitors database performance, and assigns user access.

desktop. An electronic representation of the supplies and equipment in a typical office. It includes file drawers, folders, a text editor, tools to create spreadsheets and graphs, an electronic mail facility, and more. For IDS this desktop is sometimes referred to as the developer's desktop.

disk operating system (DOS). IBM DOS or MS-DOS, an operating system for processors in the 80*n*86 family.

double-click. (1) (1) To click a mouse button twice (transitive), as in "point to the icon and double-click the left mouse button." (2) (2) To click the left mouse button twice (intransitive), as in "double-click on the Envelope icon." On a left-handed mouse, the right mouse button is used instead of the left one.

DOS. **See also** disk operating system.

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file drawer. A container, created or renamed by the system administrator, that is shared among desktops. A file drawer typically contains folders. **See also** folder.

file server. A server that contains all users' desktops and their contents, the software implementing the various workstation tools and most system services, and any other stored information other than databases.

File Transfer Protocol (FTP). A standard internet protocol that allows transmission of files across the network.

folder. An organizing container that resides on a single desktop and is used to store icons and other folders. Folders are represented on the IDS desktop by the Folder icon, on which a file folder is depicted. **See also** file drawer.

FTP. **See**File Transfer Protocol.

GIF. **See**Graphic Interchange Format.

Graphic Interchange Format. A standard graphic file format.

Host. A computer on the internet.

home page. A Web page that is represents a user's starting point.

HTML. **See**Hypertext Markup Language.

Hypertext Transfer Protocol (HTTP). The protocol used on the internet to allow Web users to retrieve information from the Web server.

Hypertext Markup Language (HTML). The language used for documents on the Web.

icon. An electronic desktop representation of a spreadsheet, plot, folder, or other object. Every workstation tool is represented on the workstation desktop by an icon, which includes a distinct name and a descriptive picture. The use of icons makes the Intelligent Decision Server considerably easier to use than systems that require typed commands.

IDS Lotus Notes Open Client. Software that translates request from Lotus Notes end-users and stores parameters from running IDS reports.

IDS ODBC Open Client. Software that translates requests from ODBC compatible application users to run IDS reports.

IDS Web Open Client. Software that translates requests from Web browser users to run IDS reports.

internet. An internetwork; two or more networks, of the same or different types, interconnected for exchange of data and mail.

IP address. Internet Protocol Address. A standard method of identifying computers connected to the network.

ISO. International Organization of Standardization. An industry-wide body that identifies network protocols.

job. A unit of work defined by a user that is to be accomplished by a computer. (Capsule Service) A Capsule application and its associated execution information as specified by the user or the system administrator.

LAN. *See* local area network.

local area network (LAN). A data communications network, spanning a limited geographical area, in which serial transmission is used for direct communication among computers or other devices.

local network. The same network that includes the specified user or resource. **See also** remote network.

log. A collection of messages or other information that is stored for data collection or troubleshooting purposes.

menu. A list of available choices that the user opens by pressing the left mouse button while the pointer is on certain buttons.

message area. The area, at the bottom of your desktop, that displays advisory or error messages.

mouse. A pointing device with buttons that the user manipulates to perform operations on the computer screen. The user slides the mouse on a flat surface to control the position of the pointer.

NDIS. **See** Network Device Interface Specification.

network. A set of workstations, servers, and other devices connected together for the interchange of information.**See also** local area network (LAN).

Network Device Interface Specification (NDIS). The standard used in IBM NETBIOS software.

NNTP. Network News Transfer Protocol. An internet news information service.

open. (1) To perform an action that causes a window or menu to appear on the desktop. For example, the user opens a tool window by double-clicking on an icon. (2) To prepare a file for processing.

Operating System/2. **See** OS/2.

option. A selectable item within a window, by which you can choose a format or operating parameter for a document, plot, or other desktop item.

OS/2. Operating System/2. A single-user, multitasking, IBM operating system that runs on microcomputers with an Intel 80286 or later microprocessor.

OS/2 desktop. In the OS/2 operating system, a work area that fills the entire screen and holds all of the objects that enable users to interact with and perform operations on the system.

password. A string of letters, numbers, or symbols, that you enter along with a user name for access to a desktop, system, gateway, or database service. **See also** user name.

PS/2. IBM Personal System/2. Intelligent Decision Server LAN Services components run on PS/2 computers with 80386, 80486, or Pentium processors. Workstation components also run on Personal System/55 computers, a Japanese version of the PS/2 computer.

remote network. A network other than the local network, but which is accessible to the local network by some means. **See also** local network.

scroll. To move the image in a window up, down, left, or right to view information that is not otherwise visible within the boundaries of the window.

select. To identify one or more objects on the computer screen so that they can be operated on. The user selects icons and choices in fields by clicking on them. **See also** click.

server. The computer in which a service runs.

service. A software process that provides facilities to other parts of the Intelligent Decision Server, such as a communications service, database service, file service, mail service, or print service.

system administrator. In IDS, the person who is responsible for maintaining and configuring IDS, including its workstations, servers, and network.

TCP/IP. **See** Transmission Control Protocol/Internet Protocol.

token-ring network. A network that uses a ring topology, in which tokens are passed in a circuit from node to node. A node that is ready to send can capture the token and insert data for transmission.

Transmission Control Protocol/Internet Protocol (TCP/IP). A transport protocol that packages information for transmission, reassembles received packets, and handles the routing and transmission of data between networks.

Uniform Resource Locator (URL). The current addressing scheme for resources on the Web, which provides the location of a resource.

user ID. A name used to access a desktop, system, gateway, or database service. **See also** password.

user name. The name you use to access a desktop, system, gateway, or database service.

Web server. Server designed for presenting HTML pages and running CGI applications.

window. A rectangle that displays a window header and display area, the contents of which vary depending on the type of window. For example, a tool window displays a view of the tool and the data associated with it.

workstation. A computer at which the user can use IDS to perform work.

IDS Publications

This section lists IDS publications, including order numbers. To order copies of the books listed here, or to get more information about a book, see your IBM representative.

General Publications

Getting Started with the Intelligent Decision Server (SC26-8892)

Working with the Intelligent Decision Server (SC26-8893)

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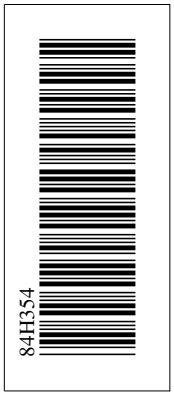

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