

SEAGATE CRYSTAL REPORTS

WEB REPORTING GUIDE

SEAGATE CRYSTAL REPORTS 6.0

Web Reporting Guide

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WELCOME TO SEAGATE CRYSTAL REPORTS WEB REPORTING

The Seagate Crystal Reports Web Reporting Guide is designed to introduce the new Web Reporting technology in Seagate Crystal Reports 6.0. This powerful technology makes deploying reports on your intranet as simple as possible and, at the same time, it offers the powerful reporting and analysis capabilities that professional users have come to expect from Seagate Crystal Reports.

The Web Reporting Guide will help you understand the features and advantages of using Web Reporting, provide important reference information, and guide you, step by step, through some of the Web Reporting operations you can perform with the product. After installing Seagate Crystal Reports, you can use this guide to get a feel for the product by completing the hands-on exercises in chapter 4.

About This Guide

The Seagate Crystal Reports 6.0 Web Reporting Guide is organized into the following chapters:

- Product Installation
- Introduction to Web Reporting
- Web Reporting Test Drive
- Additional Information
- Appendix A: Web Server File Locations
- Appendix B: Database Configuration
- Appendix C: Web Server Configuration

The Web Reporting Guide contains enough information to help get you up and running with the Crystal Web Report Server. Seagate Crystal Reports 6.0 also provides other powerful Web Reporting capabilities for advanced applications. After reading this guide, you can consult the comprehensive reference information provided with Seagate Crystal Reports (in the *Seagate Crystal Reports Technical Reference* or in the online help) to select the best approach for implementing your Web Reporting solution.

Who Should Use This Guide

Although this guide is suitable for most reporting users, you may want to focus on areas related to your specific needs. Locate the category below that best describes your experience for a summary of the information you may find helpful as well as some tips for extending your knowledge.

Web Developers

The Web Reporting Guide provides Web Developers with a good overview of Crystal Web Report Server technology and important installation and troubleshooting information.

Once you have read this guide you can consult the *Seagate Crystal Reports Technical Reference* for more in-depth information. You should also read about the new Crystal Active Server Component, which allows

you to integrate the Crystal Report Engine directly into Active Server Pages (ASPs), and the Visual InterDev Design-time ActiveX Control wizard.

Application Developers

In addition to an overview of Web Reporting, this guide provides Application Developers with an explanation of the basic inner workings of the Crystal Web Report Server components.

After you have completed the exercises in chapter 4, you should read about the new Automation Server for advanced applications. More information about this powerful new tool is included in the *Seagate Crystal Reports Technical Reference*.

IT Professionals

This guide provides IT Professionals with a good understanding of Web Reporting as well as important installation and configuration information for NT-based web servers.

You should read the appendices carefully for important information specific to your database and web server configuration. If you, or your users, are interested in deploying Web Reporting, you should also consult the Crystal Web Server Notes in the README.HLP file for important limitations and compatibility issues.

End Users

Although most of this guide is oriented to the installation and architecture of the Crystal Web Report Server, it does provide an excellent overview of almost every aspect of deploying reports to the Web. If you are only interested in an overall understanding of how Web Reporting works and what it means to you as an end user, read chapter 3: Introduction to Web Reporting for a good overview.

Note	This document assumes a working knowledge of Windows NT operation and administration. If you do not feel comfortable installing and configuring applications on your server, please consult your IT Professional prior to proceeding.
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PRODUCT INSTALLATION

This chapter will step you through the installation procedure for the Crystal Web Report Server; you must install it properly before attempting the hands-on exercises in chapter 4.

Before You Begin

Seagate Crystal Reports 6.0 and the Crystal Web Report Server must be installed on a Windows NT-based Web Server system under the Administrator account. If you are *not* the IT Professional for your company or the Administrator for the NT Server/Web Server system, please ask your IT Professional to install the proper components for you.

Note	The Crystal Web Report Server is only available with Seagate Crystal Reports 6.0 Professional (32-bit).
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Installation Requirements

Seagate Crystal Reports Professional (32-bit) requires the following components for Web Reporting:

- Microsoft Windows NT Server 4.0 or higher
- Microsoft IIS (Internet Information Server) 3.0, Netscape Enterprise Server, or Netscape Fast Track Server 2.0
- At least 16 MB of RAM (32 MB or higher recommended)
- At least 148 MB of hard disk space
- CD-ROM drive and/or disk drive

If your system does not meet these requirements, the program may not run correctly.

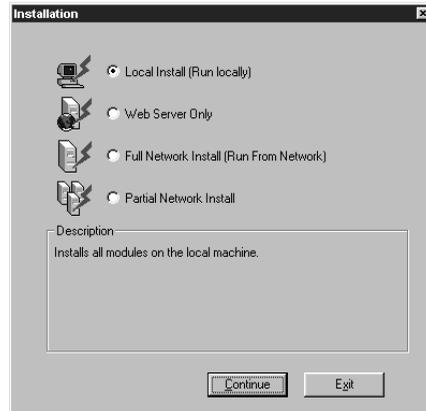
Installing the Crystal Web Report Server

The Crystal Web Report Server is a required component for Web Reporting with Seagate Crystal Reports 6.0.

To install the Crystal Web Report Server, complete the following steps:

1. Insert the Seagate Crystal Reports 6.0 CD or disk into the appropriate drive on your NT 4.0 Server/Web Server system.

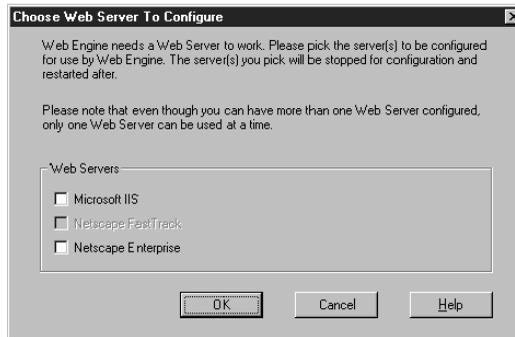
- When prompted, select Install (Win32) and follow the instructions on the screen until the following Installation dialog box appears:



- If you have not already installed Seagate Crystal Reports 6.0, click Local Install. If Seagate Crystal Reports 6.0 was previously installed on this system but the web components have not been installed, click Web Server Only.
- Accept the default installation directory shown in the text box.
- Select Automatic as the Installation Mode and click Continue.
- If earlier versions of Seagate Crystal Reports are detected, a dialog box appears to inform you that this new version will replace the version that currently exists. If you agree to replace the current version, click Yes. The Borland Database Engine Location dialog appears.
- Accept the default installation directory and click Continue. The Choose Web Server to Configure dialog box is displayed.

The only web server that should be highlighted on the list is the web server you have installed. If you have more than one web server installed, you can enable both servers to run the Crystal Web Report Server, but you can only have one server active at a time.

8. Select the check box beside the appropriate web server name and click OK.

**Note**

If your web server service is currently running, the Seagate Crystal Reports Installer stops the service for you before it installs any configuration files. Once the web server service has stopped, the installation of Seagate Crystal Reports continues.

The Seagate Crystal Reports install procedure does not restart your web service. To manually restart it, select Control Panel from the Start menu and then select Services. Highlight your web server and click Start.

9. The installation process will then continue. Follow the directions on the screen to complete the installation.

Configuring the Crystal Web Report Server

The Crystal Web Report Server is installed with default settings that should be suitable for most applications. It is also possible to customize some common settings to meet your specific needs using the configuration application included with the product (WEBCONF.EXE). More information about this utility is available in the *Seagate Crystal Reports Technical Reference*.

INTRODUCTION TO WEB REPORTING

Web Reporting is an exciting and powerful feature of Seagate Crystal Reports 6.0. Before trying the hands-on examples in chapter 4, however, you need to understand what Web Reporting is. This chapter provides a brief overview of the primary Web Reporting features and the Seagate Crystal Reports Web Reporting system architecture.

Web Reporting Versus Static File Export

Static file export has always provided a simple way to distribute reports to remote users electronically. Exported reports are usually static—they represent a snapshot in time because they do not have live access to the data source. Reports exported in HTML format can be viewed in a browser by a user thousands of miles away, but they are still just static views.

Web Reporting, on the other hand, is more than just another way to distribute reports. Web Reporting is dynamic. The reports you create can be both live and interactive—live because the report designer lets users refresh reports against live data, and interactive because remote users can still exploit the navigation and drill-down capabilities of Seagate Crystal Reports. You can effectively extend desktop reporting to anyone, anywhere your intranet can reach.

Applying Web Reporting

There are dozens of ways you can use Web Reporting to solve existing problems you may have with information access. Web Reporting can help you in the following ways:

- Implement cost-effective access to current inventory or order status reports for both central and regional offices
- Create added value for premium customers by giving them the ability to check their orders or invoices on-line
- Enable salespeople in regional or home offices to review period-to-date sales performance specific to their accounts
- Satisfy a business manager's or owner's needs for user-friendly, on-demand access to key reports, even outside of normal office hours
- Provide a simple method for hosted web site customers to remotely check on web site traffic and customer registration information

Web Reporting Features

Seagate Crystal Reports 6.0 is designed to offer superior Web Reporting functionality. It's also designed to build on your existing development skills. Seagate Crystal Reports offers the following technological advantages:

Thin-wire Architecture

Even when deploying large reports to your intranet, the thin-wire architecture of the Crystal Web Report Server ensures superior response times and helps reduce web traffic. Page-on-demand access to reports lets users download only the specific pages of a report which they need to see; with optional dynamic refresh, you can give users more control over reports by turning on or off the capability to rerun reports on demand for up-to-the-minute information.

Smart Navigation™

Rather than having to page through an entire report, users can quickly navigate to specific details via a new page-on-demand interface that presents a summary of the report. They can pull reports from the web server to the browser, one page at a time, then drill down for more detail on graphs, group totals, and embedded hyperlinks. Automatically generated group trees provide an index to reports so users can quickly jump, with a single mouse click, to the section of the report they need to analyze.

Smart Viewers

Seagate Crystal Reports 6.0 has Smart Viewers—thin-client add-ins that enable you to add functionality to web reports without the hassles of application setup on client desktops. When users browse to a page containing reports, Seagate Crystal Reports detects their browser type and automatically returns the report with the appropriate Smart Viewer technology—ActiveX, Java, HTML frames, or plain HTML. Browsers supporting ActiveX or Java display reports in native Crystal Reports

format, in virtually the same manner as the Runtime Preview Window does for desktop users.

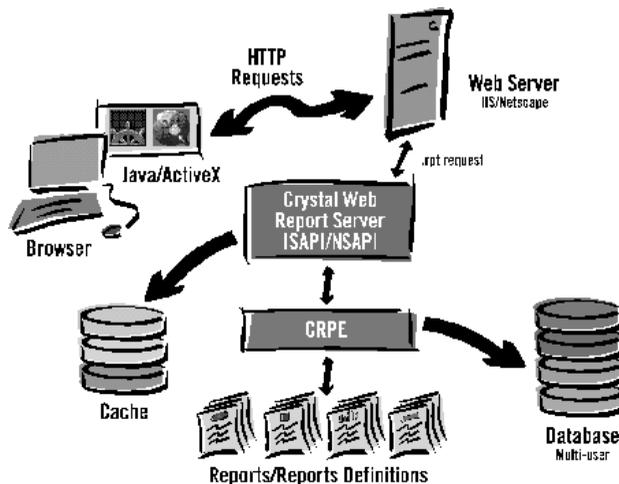
Crystal Web Report Server

An ISAPI/NSAPI-compliant component, the Crystal Web Report Server is compatible with Windows NT-based Microsoft Internet Information Server, Netscape Enterprise Server, and Netscape Fast Track Server. Working with the Crystal Report Engine and your web server, it handles requests for report files, manages caching, and delivers reports to users along with the appropriate Smart Viewer.

System Architecture

The system architecture for Web Reporting can be simplified into the following three major software components:

- The Crystal Web Report Server (CRWEB.DLL)
- The Crystal Report Engine
- The host web server software (i.e., Microsoft IIS, Netscape Enterprise Server, or Netscape Fast Track Server)



Process Flow

Requests for *.RPT files are passed by the host web server to the Crystal Web Report Server. A check is made to see if the requested page is currently available in the temporary cache; if the report page is available, it is returned to the host web server for delivery to the user.

If the report page is not available in cache, or if a request is made to refresh an existing page, the Crystal Web Report Server sends a request to the Crystal Report Engine to run the report. The Crystal Report Engine accesses the report file, retrieves any necessary data, and processes the report. The resulting file is placed in the cache and a message is sent to the Crystal Web Report Server indicating that the process is complete. The Crystal Web Report Server then returns the report page to the host web server with the appropriate Smart Viewer.

Note	The Report Engine consists of two components: the Page Server (CRPGSVR.EXE) and the Crystal Report Engine (CRPE.DLL).
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WEB REPORTING TEST DRIVE

In this chapter, you will have the opportunity to complete two hands-on exercises:

- Creating a simple Web Reporting site
- Exploring a full-featured Web Reporting site

These examples are designed to provide you with a good understanding of how simple it is to implement Web Reporting, and they offer some design ideas for more advanced users.

Hands-on: Creating a Simple Web Reporting Site

In this example, you will create a very simple Web Reporting site. This will demonstrate how to quickly and easily add report access to web pages and allow you to see what reports will look like in your browser.

Before You Begin

Confirm that you have installed *all* of the Seagate Crystal Reports Web Reporting components on your computer.

Confirm that you have *at least one* of the following servers installed on your computer:

- Microsoft Internet Information Server 3.0
- Netscape FastTrack
- Netscape Enterprise Server

Confirm that you have a web browser such as Microsoft Internet Explorer, Netscape Navigator, or Mosaic installed on your computer.

Confirm that you have the following applications installed on your computer:

- A text editor (NOTEPAD.EXE)
–or–
- A word processor

To create a simple Web Reporting site, complete the following steps:

1. Open your text editor or word processor and create a new, empty text file.
2. Type in the following HTML code: (Replace SERVERNAME with the name of your web server).

```
<HTML>  
<TITLE>Web Reporting Test</TITLE>  
<BODY>
```

To view Sales by Model please

```
<B><A HREF="http://SERVERNAME/crweb/craze/craze5.rpt">
```

Click Here

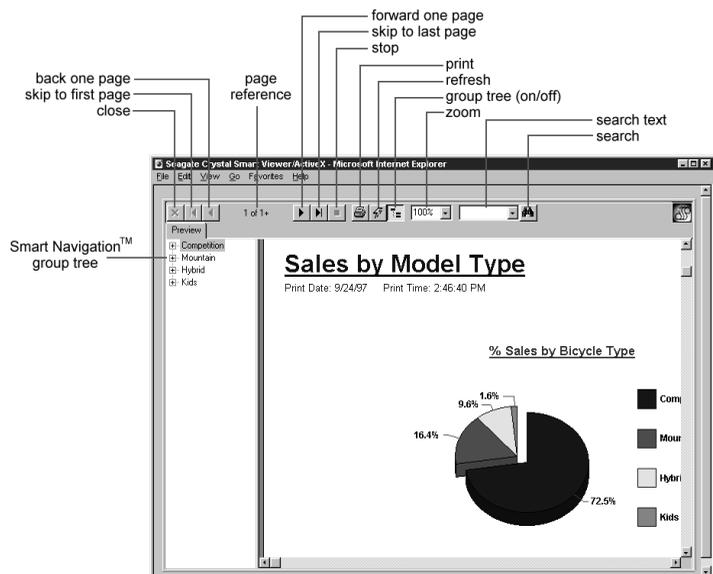
```
</B>
```

```
</BODY>
```

```
</HTML>
```

You have now created a web page with a link to the CRAZE5.RPT sample file. This link could be changed to reference any report file your server can access.

3. Save the file as WEBTEST.HTML. If you are using a word processor, you may have to explicitly save the file in "text only" format.
4. In Windows, locate and double-click the WEBTEST.HTML file you just created. Your web browser will then open and display the test page.
5. Click the "Click Here" hyperlink. The browser will then retrieve the report file and appropriate Smart Viewer. If your browser supports ActiveX or Java, you will see a window similar to the following:



Note	Browsers not supporting ActiveX or Java will display reports in either Frame or Plain HTML format. The display format for these types of browsers is slightly different than shown in the example above due to limitations in these types of browser.
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6. Try using the Group Tree or Smart Navigation™ buttons shown above to navigate around the report. Double-click one of the segments in the pie graph to drill down for even more detail.

Hands-on: Full-Featured Web Reporting

In this exercise, you will have a chance to see what a more complex Web Reporting site can provide. You will test drive XtremeNet, a sample intranet site for a fictitious mountain bike manufacturer called Xtreme Mountain Bikes. The content of XtremeNet includes a number of reports created with Seagate Crystal Reports 6.0. The mechanics of how this site works are the same as the simple example earlier in this chapter. It consists of several reports for different departments in a fictitious company.

Before You Begin

Confirm that you have installed *all* of the Seagate Crystal Reports Web Reporting components on your computer.

Confirm that you have *at least one* of the following servers installed on your computer:

- Microsoft Internet Information Server 3.0
- Netscape FastTrack
- Netscape Enterprise Server

Confirm that you have a web browser such as Microsoft Internet Explorer, Netscape Navigator, or Mosaic installed on your computer.

Note	This demo site is best viewed with Microsoft Internet Explorer 3.02 or Netscape Navigator 3.0 (or more recent versions).
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Opening XtremeNet

To open XtremeNet, complete the following steps:

1. Open your web browser.
2. Type in the following URL:

`http://SERVERNAME/xtremehtm/`

where **SERVERNAME** is the name of the web server on which you have installed the Crystal Web Report Server.

The introductory page to XtremeNet appears.

3. Click the link to log on to XtremeNet.
A log-on page appears; access rights vary by user. Mark Ellison, President, for example, can access all areas of the site, while Caroline Patterson, Receptionist, can only view the Company Information section of the site.
4. Log in as Mark Ellison. You don't need to enter a password.
A Company Information page appears with a letter from Mark Ellison displayed in the right hand frame. On the left, a listing of all the reports available is displayed. You can click whichever report you want to see. At the top of the page, there is also a set of buttons which access different sets of reports grouped by function.
5. View some of the reports. Try using the Group Tree or Smart Navigation™ buttons to navigate around the report. Double-click the graphs to drill down for more details.

Summary

After completing the exercises in this chapter, you can see how easy it is to implement Web Reporting. Now you have enough information to experiment on your own. You may want to take some of your existing reports and use them to create a new web site or enhance an existing one. If you run into difficulties, refer the simple examples in this chapter first before attempting further troubleshooting.

ADDITIONAL INFORMATION

A wide range of information, from technical support to product documentation, is available to help you use, understand, and troubleshoot problems you may encounter with Seagate Crystal Reports 6.0. This chapter lists various available resources and offers basic troubleshooting information as it relates to Web Reporting issues in Seagate Crystal Reports 6.0.

Crystal Web Report Server Facts

User Limitations

The Crystal Web Report Server is designed to support small, departmental-level workgroups and is suitable for about 10 to 15 concurrent users. Although additional users are not prevented from accessing reports, users may notice very slow report loading and refreshing if this limit is exceeded. Other factors impacting performance include: size of server RAM, report size, database performance, and overall intranet traffic.

Browser Compatibility

Web browsers offer varying levels of support for Java, ActiveX, and other technologies. Unfortunately this support varies both by version number and platform. To see which Smart Viewers are supported by your browser(s), please refer to How Crystal Smart Viewers perform on different platforms in README.HLP.

Other Issues

Please consult Other Known Crystal Web Server Issues in README.HLP for late-breaking information.

Basic Troubleshooting

If you are having difficulty opening or viewing reports using the Crystal Web Report Server, you should ensure that your web server is operating normally and note any error messages.

To quickly verify that the Crystal Web Report Server is installed on your server, please refer to Appendix A: Web Server File Locations, and verify that the appropriate files are present.

You may also want to refer to Appendix B: Database Configuration to correctly configure your databases under Windows NT. Appendix C: Web Server Configuration also contains important configuration information specific to your web server software.

Also check the extensive reference material included with Seagate Crystal Reports 6.0. Important documentation relevant to Web Reporting is listed in the Related Documentation section of this chapter.

Additional Technical Support

If you need more help with the Web-related technology in Seagate Crystal Reports 6.0, refer to the following sources:

Web Site	http://www.seagatesoftware.com
Internet	tsweb@img.seagatesoftware.com
CompuServe	GO REPORTS
Fax Support	(604) 681-7163
Telephone Support	(604) 669-8379

Related Documentation

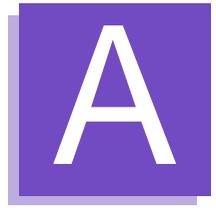
The following sections list the documentation available on various aspects of Seagate Crystal Reports 6.0. You can find these documents in the online help and in the document directory on the Seagate Crystal Reports 6.0 product CD.

General Information

- Crystal Web Report Server in DEVELOPR.HLP or *Seagate Crystal Reports Technical Reference*
- Crystal Web Server Notes in README.HLP

Advanced or Developer Information

- Building Active Web Sites in DEVELOPR.HLP or *Seagate Crystal Reports Technical Reference*
- ReportServer settings and corresponding Registry keys in README.HLP
- Configuring the Crystal Smart Viewers in *Seagate Crystal Reports Technical Reference*
- *Seagate Crystal Reports Technical Reference* (TECHREF.PDF)



APPENDIX A: WEB SERVER FILE LOCATIONS

Crystal Web Report Server and Web Report Engine Configuration

The files that comprise the Crystal Web Report Server and the Crystal Web Report Engine should be located in the directories on your hard drive shown below.

Note	These locations are the default destinations for a typical installation and may vary if alternate directories were specified during a custom installation.
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Web Reporting DLLs

DLL Name	Directory
CRWEB.DLL	C:\Program Files\Seagate Crystal Reports\CRWEB.DLL
CRIMAGE.DLL	C:\Program Files\Seagate Crystal Reports\CRIMAGE.DLL
CRPGSVR.EXE	C:\Program Files\Seagate Crystal Reports\CRPGSVR.EXE
WEBCONF.EXE	C:\Program Files\Seagate Crystal Reports\WEBCONF.EXE

Smart Viewers

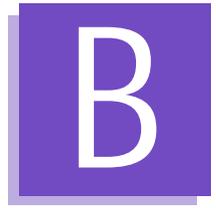
Viewer	Directory
Smart Viewer for ActiveX	C:\Program Files\Seagate Crystal Reports\CRWEB\ActiveXViewer
Smart Viewer for Java	C:\Program Files\Seagate Crystal Reports\CRWEB\JavaViewer
Smart Viewer for HTML	C:\Program Files\Seagate Crystal Reports\CRWEB\IMAGES

Cache Directory

The Report Cache directory is the following:

C:\Program Files\Seagate Crystal Reports\CRWEB\CACHEDIR

This directory is referenced in the WEBCONF.EXE file and is used by the Crystal Web Report Server to cache the report pages for viewing.



APPENDIX B: DATABASE CONFIGURATION

Database Configuration for Web-based Reporting

Reports that you wish to view through your web browser need to have their data source(s) configured as System DSNs (Data Source Name). The Crystal Web Report Server is started by the web server as a service under Windows NT and does not acquire rights to use User Profile Resources. The web server administrator will need to create system DSNs using the ODBC Administrator in order to access data.

Once you have completed the configuration, you should perform a test by attempting to view a report with your web browser.

To test your database configuration, complete the following steps:

1. Start Microsoft Windows Explorer and create a new folder in the following directory:
C:\InetPub\wwwroot named **reports**
2. Start the IIS Service Manager by clicking Start, selecting Programs, and then selecting Internet Service Manager from the Microsoft Internet Server (Common) menu.
3. Highlight the www service, and select Service Properties from the Properties menu.
4. Select Directories tab, make sure the Directory Browsing Allowed option is selected, and click Add.
5. Click Browse and select the following directory:
C:\InetPub\wwwroot\reports
6. Locate the Virtual Directory field and type “/reports” for the alias.
7. Under Access, make sure Read and Execute are both selected.
8. Click Apply.
9. Click OK.
10. Click Start and select Control Panel from the Settings menu.
11. Double-click ODBC Administrator.
12. Select the System DSN tab and click Add.
13. Select Microsoft Access Driver (.MDB) from the list and click Finish.

The ODBC Microsoft Access Setup dialog box appears.

14. In the Data Source Name field type “Craze” and under Description type “Sample Database for Crystal Reports.”
15. Under the Database heading click Select, then select the following directory:

C:\Program Files\Seagate Crystal Reports

The CRAZE.MDB file is visible in the left-hand list under Database Name.

16. Click OK.

To open the report from a web browser, complete the following steps:

1. Start Windows Explorer again and select the following directory:
**C:\Program Files\Seagate Crystal Reports\reports
\craze**
2. Right-click one of the reports and select Copy.
3. Browse to the InetPub\wwwroot\reports folder you created and select Paste from the File menu.
4. Open your web browser and enter the following URL to the reports directory:

http://<domain>/reports

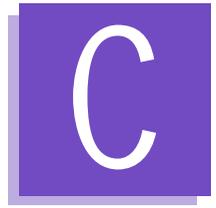
Note	<domain> is the domain name of your web server. An example of a domain name is: www.seagatesoftware.com
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The name of the report you copied appears as a hyperlink on the resulting HTML page. Click the hyperlink.

Your report appears in a Crystal Smart Viewer. Most current browsers will display reports using the ActiveX or Java-based viewers. If your browser does not support ActiveX or Java but does

support frames, your report will appear in the HTML frames viewer. If your browser does not support any of these formats, the report will appear in the HTML page Viewer.

Note	If you cannot view the report in the web browser after completing these steps, please refer to Appendix C: Web Server Configuration.
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APPENDIX C: WEB SERVER CONFIGURATION

Configuration for Netscape Web Servers

File Locations

The MIME.TYPE and OBJ.CONF files are found in the following default locations:

Server	Directory
Netscape Enterprise 3.0	C:\netscape\suitespot\https-domainname\config
Netscape Enterprise 2.0 –or– Netscape Fast Track	C:\netscape\server\https-domainname\config

The file MIME.TYPE should contain the following lines:

```
type=magnus-internal/rpt exts=rpt
type=magnus-internal/cri exts=cri
```

The file OBJ.CONF should contain the following lines:

```
Init fn="load-modules"
funcs="CrystalReportServer" shlib="C:/Program
Files/Seagate Crystal Reports/crweb.dll"
```

–and–

```
Init fn="load-modules"
funcs="send_crystal_image" shlib="C:/Program Files/
Seagate Crystal Reports/crimage.dll"
```

Also in OBJ.CONF, the following lines should appear under the heading <Object Name "Default">:

```
NameTrans fn="pfx2dir" from="/viewer" dir="C:/
Program Files/Seagate Crystal Reports/crweb

"NameTrans fn="pfx2dir" from="/xtremehtm" dir="C:/
Program Files/Seagate CrystalReports/sample/Xtreme/
htmweb

"NameTrans fn="pfx2dir" from="/crweb" dir="C:/
Program Files/Seagate Crystal Reports/reports"

Service fn="CrystalReportServer"
method="(GET|POST)" type="magnus-internal/rpt"

Service fn="send_crystal_image" method="(GET|POST)"
type="magnus-internal/cri"
```

Note	If any of these lines are missing, the Crystal Web Report Server will not display reports properly. Users will receive a dialog to download a file of unknown type, extension .RPT and be prompted to save it to disk.
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Document Directories

Prefix	Directory
/Viewer	C:/Program Files/Seagate Crystal Reports/crweb This directory contains the Smart Viewer for Java applet, and is required for the Smart Viewer to launch.
/xtremehtm	C:/Program Files/Seagate Crystal Reports/sample/xtreme/htmweb This directory contains the sample web site for Xtreme Mountain Bikes, and is required to view the demo site.
/crweb	C:/Program Files/Seagate Crystal Reports/reports This directory contains various reports using the XTREME.MDB data source. This must be configured as a System Data Source using ODBC Administrator.

Configuration for Microsoft IIS 3.0 Web Servers

Directory Properties

When Seagate Crystal Reports 6.0 is installed to an NT 4.0 Server platform running IIS 3.0 as the web server with ASP (Active Server Pages) installed, four directories should be created. Select IIS Service Manager, select Directories from the WWW Service menu and create the following directories:

Directory	Alias	Access
C:\Program Files\Seagate Crystal Reports\reports	/crweb	Read/Execute
C:\Program Files\Seagate Crystal Reports\crweb	/viewer	Read only
C:\Program Files\Seagate Crystal Reports\sample\xtreme\aspweb	/xtremeasp	Read/Execute
C:\Program Files\Seagate Crystal Reports\sample\xtreme\htmweb	/xtremehtm	Read/Execute

If any of these entries are missing, they can be manually added. To do this click Add in the WWW Service Properties for <domain> dialog box. When the Directory Properties dialog appears, click the Browse button located to the right of the Directory field. Enter the information listed above and click the Apply button.

Virtual Directories

Note	You may encounter difficulties if you try to view reports in virtual directories that map to network drives. This is due to the specific security model used by IIS with Windows NT. To correct this problem you should manually start the Web Report Page Server component (CRPGSVR.EXE) under an account with access rights to the network drive containing the reports.
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Registry Settings

When Seagate Crystal Reports 6.0 is installed on the Microsoft IIS 3.0 web server, new entries will be made to the registry. If you are encountering difficulties in launching the Crystal Web Report Server you may want to check the registry to make sure the DLLs are registered correctly. Click Start, select Run, and type “regedit” to launch the Registry Editor.

Note	Do not perform these changes if you are not experienced with registry editing. Before making changes of any kind to your registry we recommend that you first back up the registry.
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The Crystal Web Report Server DLLs should be registered at the following location:

```
HKEY_LOCAL_MACHINE/System/CurrentControlSet/
Services/W3SVC/Parameters/ScriptMap
```

The Name column should contain two String Values: *.RPT and *.CRI.

The paths shown in the Data column should be as follows:

```
C:\Program Files\Seagate Crystal Reports\crweb.dll
```

-and-

```
C:\Program Files\Seagate Crystal Reports\crimage.dll
```

If these entries are missing or the path is incorrect, you will need to edit the registry String Value for each type.

The WebOptions keys can also be found at the following registry location:

```
HKEY_LOCAL_MACHINE/Software/Seagate Software/
Crystal Reports/
```

Click on the WebOptions folder and check for the following entries (default values shown):

Name	Data
(Default)	(value not set)
ActiveJobTimeout	60
CacheDir	C:\Program Files\Seagate Crystal Reports\crweb\cachedir
CacheSize	10240
CleanUpInterval	15
GroupView	1
GroupViewMaxSize	10000
MaxActiveJobs	20
RefreshReport	1
RequestTimeout	30
ServerStartupTime	10
ThreadPoolSize	1
Viewer	/viewer
ViewerPath	C:\Program Files\Seagate Crystal Reports\crweb

Note

These entries are created when you run the WEBCONF.EXE utility. If they are not present, run the utility with the default values listed above or reinstall Seagate Crystal Reports 6.0.