



Crystal Reports 4.0 Readme

by

CRYSTAL *A Seagate Software Company*

Installation

[Installing Crystal Reports version 4.0](#)

[Installing Crystal Reports on a network](#)

[Installing Crystal Reports on a Workstation](#)

[Upgrading from Crystal Reports 3.0](#)

[Upgrading from Crystal Reports 2.0 for Visual Basic 3.0](#)

[Upgrading from Crystal Reports for dBASE](#)

[Upgrading from the Crystal Reports Server System](#)

New Features

[New features included in 4.0](#)

[Borland Database Engine \(IDAPI\) Support](#)

[Lotus Notes and ODBC](#)

[Watcom stored procedure support](#)

[Access 2.0 OLE field support](#)

[Exporting in Excel 5.0 format](#)

[Case-insensitive SQL data](#)

[Convert database driver on next refresh](#)

[File|Report Options](#)

Miscellaneous

[Database Configuration Section](#)

[Manual Changes](#)

[Technical Support Information](#)

[Buying Additional Licenses](#)

[Reference for Commands, Functions, and Operators](#)

[License Agreement](#)

[IDAPI Considerations](#)

License Agreement

LICENSE AGREEMENT AND LIMITED WARRANTY

This is a legal agreement between you the purchaser and Crystal Computer Services, Inc., herein referred to as Crystal. By opening the sealed software package and/or by using the software, you agree to be bound by the terms of this agreement. If you do not agree, promptly return the software diskette(s) and documentation and accompanying items in resalable condition to the place you obtained them for a full refund.

1. Limited License.

(a) You are purchasing only a single copy of the software, and are acquiring no rights to the software itself except the limited license granted herein.

(b) Except as stated in 1(c), Crystal grants you a limited license to use one copy of the software on a single computer. You may access the software from a hard disk, over a network or by any other method you choose, strictly according to the terms hereof.

(c) For additional users to use the software on the network you must acquire network packs, which will allow additional simultaneous users in numbers and on terms specified by the documentation accompanying the software. You may have as many copies of the software in simultaneous use on the network as is specifically authorized in the documentation. If you are acquiring the Crystal Server, 5 users may be set up to use the software simultaneously. To configure additional users you must acquire additional Crystal Report Managers, each of which allows the addition of users as authorized in the accompanying documentation.

2. **Copyright.** Crystal owns all title to the software and its copyright, which are protected by copyright law and international treaty provisions. Therefore, you must treat the software like a book or musical recording or like any other copyrighted material and make no copies except that you may make one archival copy of the software as a backup or transfer it onto a computer to be used.

3. **Other Restrictions.** You may not rent or lease the software. Unless this is a "Not for Resale" product, you may transfer the software and accompanying materials provided you retain no copies and the recipient agrees to the terms of this agreement. If the software is an upgrade you may use or transfer it only in conjunction with the prior version of the software. Any export of the software or its technical data from the United States may be restricted by U.S. export control laws, and accordingly you must comply with such laws before engaging in any such export.

4. Limited Warranty.

(a) Crystal warrants the physical diskette(s) and physical documentation to be free of defects in materials and workmanship for a period of 60 days from the purchase date. If Crystal receives notification within this warranty period of any such defects and such notification is determined to be correct, Crystal will replace the diskette(s) or documentation.

(b) Crystals entire liability for any breach of this limited warranty is limited to replacement of defective diskette(s) or documentation and does not include or extend to claims for any other damages, including but not limited to loss of profits, data or use of the software, or special, incidental, or consequential damages or other similar claims, even if Crystal has been specifically advised of the possibility of such damages. In no event will Crystals liability for any damages to you or any other person ever exceed the lower of suggested list price or the actual price paid for the software, regardless of the form of the claim.

(c) **CRYSTAL SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

5. Runtime Software. If this software includes a Runtime package, Crystal also grants you a limited license to reproduce and distribute exact copies of the Runtime software, and to modify, reproduce and distribute the sample applications made from the original disks in this package (or a set of backup copies made directly from them), but only if all of the following conditions are satisfied: (a) you may distribute such copies solely for the purpose of executing specific-purpose application programs written using an authorized copy of Crystal Reports; (b) you remain solely responsible to anyone receiving such copies for any support, service, upgrades, and technical or other assistance; (c) you may not use Crystals name, logo, or trademark to distribute your product; (d) you may not alter, disassemble, decompile or reverse engineer the Runtime software; (e) Crystal makes no warranty other than the limited warranty provided in this agreement to the original purchaser; and (f) you will indemnify Crystal against any claims or liabilities arising out of its use, reproduction or distribution, and the use by the recipients of copies made thereunder. You may not include the Runtime software or custom applications in any general purpose report writing and/or database querying product, or any other product that is generally competitive with Crystal Reports. If you wish to distribute copies of the Runtime software or custom application on other terms, please contact Crystal directly. NOTE: Please check the manual of your development tools to see if there are additional tool specific requirements. If this is a "Not for Resale" product, there is no runtime license included, and you may not distribute the Crystal Reports' Report Engine Runtime, including but not limited to CRPE.DLL and CRW.EXE files.

6. Governing Law. If you acquired this product in Canada, this Agreement is governed by the laws of the Province of British Columbia, Canada and each party irrevocably attorns to the exclusive jurisdiction of the courts of the Province of British Columbia. If you acquired this product in the United States or elsewhere other than Canada, this Agreement is governed by the laws of the State of California and each party irrevocably submits to the exclusive jurisdiction of the courts of the State of California.

Restricted Rights Legend

Use, duplication, or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013. Crystal Computer Services Inc, 1050 West Pender St., Suite 2200, Vancouver, B.C., Canada V6E 3S7

File|Report Options

When you select File|Report Options from the menu, the Options Per Report dialog box appears. You use the check boxes to change options for the report you currently have open.

The options are:

- Convert Date-Time to Date checkbox
- Convert Null Field to Default checkbox

Select this option to use the Crystal Reports default when a null value is encountered.

- Use Index for Speed checkbox
- Translate DOS Strings checkbox
- Translate DOS Memos checkbox
- More Print Engine Error Messages checkbox

Select this option to receive more detailed Print Engine Error Messages when they arise.

- Case Insensitive SQL Data checkbox

- Preview Pages Start With

- Convert Report

Installing Crystal Reports 4.0

1. To install Crystal Reports 4.0, insert the Crystal Reports 4.0 Disk 1 in the appropriate drive.
2. Select the File|Run command from Program Manager.
3. When the Run dialog box appears, type:

a:\setup (if your disk is in drive A:)

and then select *OK* or press *Enter* to run the Crystal Reports Setup program.

4. Follow the directions that appear on screen to install Crystal Reports 4.0.

Once the Setup program has completed, you will have a new Crystal Reports program group in Program Manager. This program group contains icons for Crystal Reports, Crystal Data Dictionary, Crystal Reports Help, This Readme file, the Paradox Engine Configuration application, ODBC Setup, and ODBC Administrator.

NOTE: Windows must be Version 3.1 or later.

The Crystal Reports Setup program creates a text file called CRWSETUP.LOG. This file contains a log of the entire installation process. If you have a problem with the installation, please have the information from this file ready when you contact our [Technical Support Department](#).

NOTE: If you are concerned with the amount of time the installation process may take, consider using the custom install option. With the custom install, you can select which options you want to install, and as a result the installation process will take less time.

See Also:

[Installing Crystal Reports on a network](#)

Installing Crystal Reports on a network

Installing a network version of Crystal Reports is a straightforward procedure. Since the installation is to serve several users, however, it is somewhat more involved than a single user installation.

To install Crystal Reports on a network

1. With Windows running, insert Disk 1 into the appropriate floppy drive on the network server.

NOTE: It is important that you run the installation program from the server node, not from a workstation node. The installation program makes changes to system files that will not be available to all authorized users if you install from the workstation node.

NOTE: If your server does not run Windows, you will need to install the network version of Crystal Reports from a workstation following the procedure below. Instead of having the program installed on the default drive (Step 4 below), have it installed on the network drive you wish to use. Besides installing the program files on your network drive, the installation program will load a number of files to the \Windows\System directory on your installing workstation and modify your WIN.INI and other local files as well. Then, for each workstation you want to make an authorized user of Crystal Reports, follow the steps beginning with Copying files to each workstation node below. Instead of copying the files from the workstation, however, copy them from the installing workstation.

2. Make certain that the Windows Program Manager is active. When it is, select the File menu, and then select the Run command from that menu.

Calling up Crystal Reports' installation program

3. When the Run dialog box appears, type:

a:setup

(if your Crystal Reports program disk is in drive A:) or

b:setup

(if your Crystal Reports program disk is in drive B:),

and then select OK or Press Enter to call up the Crystal Reports installation program. The Installation Options dialog box appears.

Installation Options dialog box

The first dialog box you come to is the Installation Options dialog box. You use this dialog box to change the default installation directory (if you wish), and to select either an automatic installation of all program files or a custom installation, tailored to your needs.

4. In the top section of the dialog box, specify the directory into which you want Crystal Reports installed *if you want something different than the default directory, C:\CRW.*

- If you're satisfied with the default directory, you don't have to make any changes in the Directory section.
- If you want the program installed in a different directory, enter the new path in the Directory edit box or Click the Set Location button and select a directory from the Set Directory dialog box which appears.

NOTE: Make certain that you install the files in a location that can be shared by all authorized LANPAK users.

5. In the center section of the dialog box, select automatic or custom installation.

- If you select automatic, the program installs all Crystal Reports components. If you have adequate disk space, you're probably better off having the program install all of the files for you. In that way you get all the tools and samples you need.
- If you select custom, the program will let you select the components you want to install.
- Click Continue once you've made your selections in this dialog box.

NOTE: The program checks, calculates, and displays disk space requirements versus disk space available at the bottom of the dialog box.

6. Once you Click continue, the program looks for existing copies of Crystal Reports on your hard disk. If it finds any, it asks you if you want to continue.
- If you continue and you've chosen automatic installation, the program installs your files and displays a playbyplay to let you know what's going on.
 - If you continue and you've chosen custom installation, the Custom Installation Options dialog box appears.
 - If you don't continue, the program returns you to the Installation Options dialog box.

Custom Installation Options dialog box

7. The box on the left lists the categories of components you can install. To select a component, highlight it and then Click the Add button. The program will add your selection to the installation list on the right, and it will calculate and display the disk space required for installing the components you have selected.
- If you want to return to the previous installation window, Click the Back button.
 - If you want to abort the installation, Click the Exit button.
 - If you're not sure what any of the components are, some descriptive text appears in the thin box in the middle of the dialog box to help you out.
 - If you want to remove a component from the installation list, highlight it in the box at the right, and Click the Remove button. The program removes it from the list.
8. When you've selected all the components you want to install, Click Continue. The installation procedure begins. During the installation process, Crystal Reports displays a running account of what is going on in the box at the bottom of the screen.

After the files are installed

9. When the program is done installing all the files, it displays a message box telling you that the installation is complete. Click OK and the File Change dialog box appears.
10. The File Change dialog box suggests changes to your AUTOEXEC.BAT file that will help enhance system performance.

NOTE: If you decide to go ahead with the proposed changes, the program saves your original AUTOEXEC.BAT file under a different name. In this way, you can always reinstall your original settings should you so desire.

NOTE: Write down whatever changes are made to your AUTOEXEC.BAT file, regardless of whether you make them yourself or let the program make them. You will need this information in a later step.

- If you want the program to make the changes, Click the Continue (with change) button.
 - If you want to make your own changes, you can modify the current settings in the New Contents box and then Click Continue (with change)
 - If you decide to undo your changes, Click the undo button.
 - If you want to return to the settings as suggested by the program, Click the Original button.
 - If you want to continue with the installation process without making any changes, Click Continue (no change). Bear in mind that system performance may not be as good if you don't make the suggested changes.
11. When you Click one of the Continue buttons, another File Change dialog box appears proposing other changes. Accept, modify, or reject the changes and Click one of the Continue buttons when you're finished.

NOTE: Again, write down whatever changes are made for use in a later step.

Reviewing the README file

12. A message box appears telling you that Setup is complete and asking you if you'd like to read the README file. The README file is a Windows Help file that tells you about changes to the program that occurred after this manual was completed, and other important information. Crystal Reports will display that file for you if you wish to read it at this time.
- If you select Yes, Crystal Reports takes you to the Windows Help

- If you select No, Crystal Reports returns you to the Program Manager.
When you return to the Program Manager, the Crystal Reports Program Group Window is now active (if you had Crystal Reports install the Program Group).

Setting up Workstations

Once Crystal Reports 4.0 has been installed on your network, individual workstations must be set up to use the application. To set up a network workstation to use Crystal Reports, see [Installing Crystal Reports on a Workstation](#)

Support for Borland Database Engine

There is a new PDBBDE.DLL which uses the Borland Database Engine. This will enable Crystal Reports to read Paradox 5.0 data. Crystal can use PDBBDE.DLL for creating and opening reports based upon Paradox and dBASE.

NOTE: PDBBDE.DLL cannot be used if Clipper or Fox Pro indexes were used to create the report.

When creating a new Paradox report, PDBBDE.DLL will be used automatically if possible. If you create a new dBASE report, PDBBDE.DLL will not be automatically used unless no other drivers are available.

However, once you create a report, you may specify the driver the program uses when running your report.

IDAPI Considerations

You can now run reports using both xBASE (except Clipper and FoxPro) data and Paradox data using the IDAPI driver, PDBBDE.DLL. The program deals with Paradox and xBASE reports in a somewhat different manner with regards to the use of this driver.

For existing Paradox reports

If you want to run existing Paradox reports using PDBBDE.DLL,

1. Set the *Convert database driver on next refresh* switch in Report Options to *on*.
2. Change the *To* setting to PDBBDE.DLL.
3. Refresh your data (if data isn't saved with the report, then run the report).

For new Paradox reports

New Paradox reports are automatically run using PDBBDE.DLL. No conversion is necessary. dBASE reports will not automatically use PDBBDE.DLL.

For xBASE reports (except Clipper and FoxPro)

1. Set the *Convert database driver on next refresh* switch in Report Options to *on*.
2. Change the *To* setting to PDBBDE.DLL.
3. Refresh your data (if data isn't saved with the report, then run the report).

NOTE: If you don't convert the reports, they will continue to run with the driver with which they were originally run.

See also: [Convert database driver on next refresh](#)

Installing Crystal Reports on a Workstation

If you are operating a network workstation that runs Windows locally, and Crystal Reports is already installed on your network Server, you do not need to install Crystal Reports to your workstation. Instead, you must run the workstation setup application that was installed with Crystal Reports.

Workstation setup (SETUP.EXE) is installed in the \CR\WWKCSETUP directory on the network drive on which Crystal Reports was installed. To set up your workstation:

1. From Program Manager, Select File|Run. The Run dialog box appears.
2. In the Run dialog box, select the drive and directory in which Workstation setup resides and run the SETUP.EXE application.
3. Follow the directions on screen to set up your workstation.

Workstation setup configures your workstation and copies several files to your local drive. When Workstation setup is finished, you can access Crystal Reports as you would any other application on your network.

Upgrading from Crystal Reports 3.0

During the installation procedure for Crystal Reports 4.0, the Setup program searches your hard drive for an earlier version of Crystal Reports. When it finds the earlier version, Setup renames each of the DLLs in the \CRW directory (or the directory the previous version was installed in) from *.DLL to *.OLD. The *.OLD files are then moved to the newly created \WINDOWS\CRYSTAL directory.

If you should, for some reason, need to recover your previous version of Crystal Reports, you can rename each of these DLLs and reconstruct the original version. This install procedure assures that Crystal Reports 4.0 does not conflict with any previous versions of Crystal Reports that you may have, while reserving the option to completely delete the older version of Crystal Reports to your own discretion.

Upgrading from Crystal Reports 2.0 for Visual Basic 3.0

If you are upgrading from Crystal Reports 2.0 for Visual Basic 3.0, the Crystal Reports 4.0 Setup program takes care of updating your system.

During the installation procedure for Crystal Reports 4.0, the Setup program searches your hard drive for an earlier version of Crystal Reports. When it finds the earlier version, Setup renames each of the DLLs in the \VB\REPORTS directory (or the directory the previous version was installed in) from *.DLL to *.OLD. The *.OLD files are then moved to the newly created \WINDOWS\CRYSTAL directory.

If you should, for some reason, need to recover your previous version of Crystal Reports, you can rename each of these DLLs and reconstruct the original version. This install procedure assures that Crystal Reports 4.0 does not conflict with any previous versions of Crystal Reports that you may have, while reserving the option to completely delete the older version of Crystal Reports to your own discretion.

Upgrading from Crystal Reports for dBASE

After Crystal Reports 4.0 has been installed on your system, you must make some changes before the application will work correctly with dBASE for Windows:

1. Copy the CRW.EXE and CRPE.DLL files into the \DBASEWIN\CRYSTAL directory, replacing the older versions of these files. CRW.EXE is normally installed in the \CRW directory, and CRPE.DLL is normally installed in the \WINDOWS\SYSTEM directory.
2. Delete the CRWRES.DLL file from the \DBASEWIN\CRYSTAL directory.
3. If you are installing Crystal Reports 4.0 over the version of Crystal Reports that came with dBASE, the installation procedure will rename your existing Crystal DLLs to avoid conflicts. If you are installing Crystal Reports 4.0 to a different directory, rename all of the Crystal DLL files in the \DBASEWIN\CRYSTAL directory, with the exception of the new CRPE.DLL, from *.DLL to *.OLD. This assures that the new version of Crystal Reports will not accidentally use an older DLL file.
4. Copy the CRSUPPRT.DLL and CRSUPREG.DLL files into the \DBASEWIN\CRYSTAL directory. These files are normally installed in the \CRW directory.
5. Add C:\DBASEWIN\BIN to the beginning of your PATH statement in your AUTOEXEC.BAT file.

Once you have finished this process, you will be able to use Crystal Reports 4.0 from dBASE just as you did before.

Upgrading from the Crystal Reports Server System

During the installation procedure for Crystal Reports 4.0, the Setup program searches your hard drive for an earlier version of Crystal Reports. When it finds the earlier version, Setup renames each of the DLLs in the \CRW directory (or the directory the previous version was installed in) from *.DLL to *.OLD. The *.OLD files are then moved to the newly created \WINDOWS\CRYSTAL directory.

If you should, for some reason, need to recover your previous version of Crystal Reports, you can rename each of these DLLs and reconstruct the original version. This install procedure assures that Crystal Reports 4.0 does not conflict with any previous versions of Crystal Reports that you may have, while reserving the option to completely delete the older version of Crystal Reports to your own discretion.

At the end of the installation procedure, Setup will ask you if you want to upgrade your Crystal Server System. If you select Yes, Setup will search your hard drive for the location of the Server System and make several changes:

1. The settings in your CRSDRP.INI, CRSMGR.INI, and CRSADM.INI files will be automatically changed to use Crystal Reports version 4.0.
2. A new version of CRSMGR.EXE (the Report Manager) will be installed.
3. The `CRPEPath` entry in CRSDRP.INI and CRSMGR.INI will be updated to point at the \WINDOWS\SYSTEM directory, the new location of CRPE.DLL.

For Network Systems running Windows locally

If you are using the Crystal Reports Server System on a network where Windows is installed locally on each workstation that acts as a Report Manager or DRP, you need to run the new version of Workstation Setup at each workstation. For instructions on how to run the new version of Workstation Setup, refer to [Installing Crystal Reports on a Workstation](#)

Once this process is completed, your Crystal Server System will use Crystal Reports 4.0 correctly.

New Features in Crystal Reports 4.0

Crystal Report 4.0 includes many new powerful features including Graphing, Visual Linking, Styles, Top N Groups, a Search facility and over a dozen Experts for Report Design, Record and Group Selection, and Report Distribution. For complete descriptions of all of the new features of Crystal Reports 4.0, refer to [A QUICK LOOK AT NEW FEATURES IN VERSION 4.0....](#).

Using Access 2.0 files

Although you can use Microsoft Access 2.0 files with Crystal Reports by creating an ODBC data source, you may find it easier to configure Crystal Reports to use Access 2.0 files directly. Once configured, Crystal Reports version 4.0 uses the powerful Jet database engine in Access 2.0 and allows you to use Access 2.0 database files directly to build reports.

Jet is the name of the database engine Microsoft uses with the Microsoft Access Database Management System. By using this database engine, Crystal Reports can open Access 2.0 data without requiring an ODBC data source.

To set up Crystal Reports on your system to use Microsoft Access 2.0 files directly, use the following procedure:

1. During the Install procedure, you will be asked if you would like to setup Crystal Reports to use several common PC databases. If you select yes, Setup will proceed to install the files necessary for accessing the PC databases.
2. During this install, Setup searches your \WINDOWS\SYSTEM directory for the MSAJT112.DLL Jet file. This file is provided by the Microsoft Access Developers Kit (ADK) or the Microsoft Software Library. If Setup finds this file on your system, the following message is displayed:

You have Access 2.0 data installed. Please see the Help file "Using Access 2.0 files" topic. Proceed to install Crystal Access 2.0 drivers (instead of Access 1.1)?

3. If you select Yes in the message box, Setup automatically initializes and installs the correct Crystal Reports files that allow you to use Access 2.0 data directly without an ODBC data source. You do not need to do anything further, and you may ignore the rest of this procedure.

NOTE: If you have created an Access 2.0 database that links to SQL Server data, you will still have to run the Crystal Access 2.0 setup program manually. See the following steps.

4. If you select No in the message box, you will not be able to use Access 2.0 data directly in Crystal Reports. However, you can run the Crystal Access 2.0 setup program manually at a later time if you wish.
5. To run the Crystal Access 2.0 setup program manually, you must run the CRWACC20.EXE application from DOS. This application is located in the Crystal Target directory. At a DOS prompt, change directories to the Crystal Target directory. Type in the following command to update CRW.EXE and the Jet DLL files at the same time

```
CRWACC20 C:\WINDOWS\SYSTEM
```

The program will tell you it is modifying the files. When it is finished, return to Windows.

6. If you are using Visual Basic with the Crystal Reports Print Engine, update your VB.INI to use the 200 versions of the ISAM DLLs instead of the 110 versions. A sample [Installable ISAMs] section after being updated would appear as:

```
[Installable ISAMs]

Btrieve=C:\WINDOWS\SYSTEM\btrv200.dll

FoxPro 2.0=C:\WINDOWS\SYSTEM\xbs200.dll

FoxPro 2.5=C:\WINDOWS\SYSTEM\xbs200.dll

dBASE III=C:\WINDOWS\SYSTEM\xbs200.dll
```

dBASE IV=C:\WINDOWS\SYSTEM\xbs200.dll

Paradox 3.X=C:\WINDOWS\SYSTEM\pdx200.dll

Paradox 4.X=C:\WINDOWS\SYSTEM\pdx200.dll

[dBase ISAM]

Deleted=On

[Paradox ISAM]

ParadoxNetStyle=3.x

7. Test that existing reports continue to work in Crystal Reports as before, and that you are able to create new reports on Access 2.0 databases. If you encounter any problems at this stage please try following the above steps again.

The Access 2.0 compatibility relies on additional Microsoft DLLs which are not included with Crystal Reports. They are: MSAJT112.DLL and MSAJT200.DLL. MSAJT112.DLL is available from the Microsoft Access Developers Kit (ADK) or from the Microsoft Software Library. MSAJT200.DLL is installed with Microsoft Access 2.0.

A more automated version of this update process is available with the Access Developers Kit (ADK) from Microsoft. Please refer to the ADK documentation for more information.

Manual Changes

The following comments are changes and additions to the Crystal Reports 4.0 documentation. Page numbers have been given where applicable.

- Page 3--59 of the Developer's Reference shows the last parameter of the PEGetSelectedPrinter function as:

```
DEVMODE FAR *mode
```

this should be:

```
DEVMODE FAR * FAR *mode
```

- Page 3--101 of the Developer's Reference states that to export a file in Word for Windows format using the PEEExportTo function, the `formatDLLName` member of the PEEExportOptions structure should be initialized with "uxfdoc.dll". This is incorrect. To export a file in Word for Windows format, initialize the `formatDLLName` member with the "uxfwordw.dll" DLL file.
- On page 4-33 of the Users Guide the screen shots show a small box on the right side of the screen for selecting the number of records. This small box does not exist in the final version of Crystal Reports. The option is available however under File|Print|Preview Sample from the menu.

(additional changes to the Developers manual)

Developers Manual

3-104, &

3-115 dBASE code for PEGetNParams (3-53), PEGetNthParam (3-104), and PEGetSQLQuery (3-115), does not appear in Crystal Reports Help. This information must be taken directly from the manual.

3-46 Under PEGetNGroups, omit the sentence that reads:
Then to fetch them by number, use PEGetNthGroup.

Technical Support Information

Before contacting Technical Support make sure you have registered your copy of Crystal Reports and have the following information ready:

- what version of Crystal Reports you are using (4.0).
- what type of data are you using
- how many versions of CRPE.DLL are on the system, their locations, file sizes, and dates
- listing of files in the CRW, Windows\System, report, and database directories
- if possible, a file sorted by file extension, created by typing:
`dir /oe > filename.dir`

Crystal, a SEAGATE SOFTWARE COMPANY, provides On-line (modem), fax, CompuServe and telephone support:

On-line (604)662

-8298

If you have a modem On-line support is the most convenient and effective way to solve your problems. To use it, go to the Help menu and choose Technical Support. Fill in the details on your problem and Attach any relevant files. To transmit, Click on the Connect button. Your request is electronically sent to the Crystal Reports Technical Support Server and is immediately given an Id #. Telephone charges are minimal as the connection time to the Server is brief.

A Technical Support Representative will review your request and send you a response. Check for a response by going to the Help, Technical Support and Clicking on Connect. Updated information on all outstanding requests is immediately transmitted back to you. If your problem is still outstanding, a reply such as requires liaison with the Crystal R&D team in progress will be provided.

NOTE: You do not require any communications software to use On-line support. The software is built in - all you need is a modem!

Fax (604) 681-7163

To prepare your fax request, go to the Help menu, choose Technical Support and fill in the details on your problem. Print the form and fax it to Crystal. Note that this form provides valuable information that often contributes to the resolution of your problem.

CompuServe CompuServe address 72223,2632

Please leave CompuServe messages in the Third Party area with the word CRYSTAL in the title. That way other users can benefit from the answer. You may find that the answer to your problem is already there! There are several forums to use:

GO REPORTS

GO MSBASIC (MS Basic Forum)

GO DBASEWIN (dBASEWin Forum)

Telephone (604) 669-8379

Make sure that Crystal Reports and the problem report are both loaded.

Facts On Demand (604) 681-3450

WWW <http://www.seagate.com/software/crystal/>

Borland Information

Borland ODBC Socket Set (800)233-2444

Borland FaxBack (800)822-4262

Borland Fee @2.00/Min (800)368-9222

Buying Additional Licenses

Licenses for Crystal Reports are not concurrent licenses. That is, if you have 20 people who will be using the Crystal Reports designer, you will need licenses for all 20 users, even if no more than 5 will be using the program at any given time.

To order additional licenses, contact Crystal Services at (800) 877-2340.

Reference for Commands, Functions, and Operators

Reference files covering Crystal Reports Commands and Functions & Operators available in the Formula Editor are available as Word for Windows document files. These files are COMMAND.DOC and FORMULAS.DOC and are available via the Crystal Bulletin Board System (BBS). To contact the Crystal BBS, use your modem to dial:

In the US or Canada:

1-604-681-9516

Lotus Notes and ODBC

Crystal Reports 4.0 now gives you the ability to create reports using Lotus Notes Data.

For more information, see:

[Creating reports using Lotus Notes data](#)

[Exporting to Lotus Notes Format](#)

Creating reports using Lotus Notes data

To create reports from Lotus Notes data using ODBC, the following steps are necessary.

- Install the ODBC driver for **Lotus Notes**. (See Installing ODBC drivers topic)
- Create an ODBC specific data source for Lotus Notes. (See Creating an ODBC data source topic)

Creating the report

1. Select File|New|Custom Report. The Choose Database File dialog box appears.
2. Click the SQL Table button. The Log On Server dialog box appears.
3. Select the Lotus Notes data source you want to use from the Server Type scroll box.
4. Click OK. The Choose SQL Table dialog box appears. Select the SQL Table you want to use for creating your report.
5. Click OK. The Insert Database Field dialog box appears. You are now ready to begin creating your report with Lotus Notes data.

Exporting to Lotus Notes format

With Crystal Reports you have the ability to export data to Lotus Notes format.

To export to Lotus Notes format from Crystal Reports, simply activate File|Print|Export and select **Lotus Notes** from the Destination drop down list and select the desired export format from the format drop down list in the Export dialog box. For more information, see the [Export command](#) topic.

NOTE: When you installed Crystal Reports, the file CRW.NSF was placed in your CRW directory. If you will be using data in Lotus Notes that has been exported from Crystal Reports, you should copy CRW.NSF to your NOTES directory. If CRW.NSF is not in your NOTES directory, the following error message may result:

Cannot Locate Form: Report Form

or,

Not A Form On The Database You Are Exporting To

The file CRW.NSF has some of the necessary fields that you may want to see in Lotus Notes for exported items from Crystal Reports. Additionally, Lotus Notes must be in your path to export in Notes format.

Extended Btrieve Data Types Support

This version of Crystal Reports now supports the following extended Btrieve data types:

BCD 10

COBOL Decimal

COMP 6

Magic PC Date

Magic PC Numeric

Magic PC Time

TASPRO 3 Date

TASPRO 3 Numeric

TP Real

VB Currency

VB Date

YMD 3 Byte Date

YYMMDD 6 Byte Date

YYYYMMDD 8 Byte Date

New Btrieve DLL

This version of Crystal Reports uses a new Btrieve DLL. This new DLL:

- makes many Btrieve reports run faster,
- supports password-protected Btrieve files, and
- supports extended field types

Watcom Stored Procedure support

This version of Crystal Reports now supports Watcom stored procedures

Access 2.0 OLE field support

This version of Crystal Reports now supports the use of Access 2.0 OLE fields.

Exporting in Excel 5.0 format

This version of Crystal Reports now enables you to export reports in Excel 5.0 format.

Case-insensitive SQL data

The following example assumes the use of a value called apple.

Sorting, record selection, subtotals, and other summaries can be affected at times by case sensitivity issues (selecting records based on apple ignoring records with value Apple or APPLE). This version of Crystal Reports now enables you to specify that you want SQL data treated on a case insensitive basis (apple, Apple, and APPLE all treated the same). You do this by toggling the Case Insensitive SQL Data switch on in the options section of the Options Per Report dialog box. You access that dialog box via File|Report Options

Report Options – New menu command

Several options affecting reports are now grouped under the File|Report Options menu command. This menu command is active in the Design window only, not the preview window.

See Also

[Case-insensitive SQL data](#)

[Convert database driver on next refresh](#)

Convert database driver on next refresh

Crystal Reports provides a wide range of database drivers. Some of these drivers support more than one kind of database and some databases can be used with two or three different drivers. Depending on your report and the data source you're using, you may find it faster to run the report using one driver instead of the others. To help you make your reporting more efficient, the program has a new feature that allows you to specify the driver the program uses when running your report.

This new option lets you direct the program to use a different database driver (PD*.DLL):

- the next time it refreshes data
- or, if you aren't saving data with the report,
- the next time you open the report.

NOTE: You can only convert to a different database driver if the original report was created using PDBBDE, PDBXBSE, PDBPDX, or PDBJET drivers. If the original report was created using one of the above drivers, you may convert to either PDBBDE, PDBXBSE, PDBPDX, or PDBJET. If you open any other report that was not created using one of these drivers, or you open a report that uses multiple databases, the Convert Report section will be greyed out.

The option is found in the Convert Report section of the Options Per Report dialog box. You access that dialog box via the File|Report Options command (available only in the Design window, not the preview window).

You toggle the option on and off using the checkbox.

When you use the option, the program displays the database driver currently in use in the From box. It lists all of the database drivers found on the system in the To box. Select the driver you want to convert to in the To box and Click OK. The program attempts to run the report with the driver you specify.

NOTE: There is no verify feature on this option. You may select a driver that cannot be used for your report. When you attempt to run the report you will get an error message that tells you the report can't be run. To correct for this, return to the Options Per Report dialog box, select the original DLL or another DLL that is valid and run the report again.

NOTE: When you run a report via the print engine, the program doesn't automatically convert to the new driver. The print engine uses the driver as specified in the report. If you specified a new driver with the report but didn't refresh your data or reopen the report (if no data saved) before printing via the print engine, the report will print using the old driver.

Crystal Dictionaries

When you set the switch in Report Options, Crystal dictionaries are not automatically converted. To convert the dictionaries to use with a different driver, you will need to make the following changes to these three lines in the CDW.INI file.

NOTE: You can only convert to a different database driver if the original report was created using PDBBDE, PDBXBSE, PDBPDX, or PDBJET drivers. If the original report was created using one of the above drivers, you may convert to either PDBBDE, PDBXBSE, PDBPDX, or PDBJET. If you open any other report that was not created using one of these drivers, or you open a report that uses multiple databases, the Convert Report section will be greyed out.

DoAutoDbDllConvert=Yes

FromDbDllName=name of dll currently in use (in quotes, for example
PDBXBSE.DLL

ToDbDllName=name of dll you want program to use (in quotes, for example

PDBBDE.DLL

NOTE: When you change these INI settings and open the dictionary, only one kind of driver can be converted at a time. If you need to change the drivers for more than one kind of database (dBASE and Paradox both to IDAPI, for example), you will need to set the INI settings for one of the databases, open and save the dictionary, then revise the settings for the second database, and open and save the dictionary again.

