Advanced Reporting
with
Prolog Manager 6.0

Student
Workbook

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Printed in the USA.

Document Number PM6AR100005.15.01

Contents

ABOUT THIS COURSE

This course provides you with the information you need to use Prolog Manager™ 6.0's advance reporting capabilities. This course assumes you have already taken the Introduction to Prolog Manager training course and that you are familiar with the standard features of Microsoft Windows®-based computer applications. It also assumes you are familiar with what a database is and what it does.

This workbook teaches concepts and procedures by walking you through common report use and modification tasks. It breaks the tasks up into short, easy to understand segments. Training classes using this workbook can combine hands-on learning, visual aids and lecture.

Course Objectives

When you complete this course, you will understand the workings of Prolog Manager's Report Manager and the basics of Seagate Crystal Reports®. You will know how to:

- Run a system report with Prolog Manager's Report Manager
- Create a report using Prolog Manager's Report Manager
- Create a run-time filter for a Prolog Manager report
- Change security settings on a Prolog Manager report
- Modify a Prolog Manager report using Seagate Crystal Reports
- Create a new report from scratch using Seagate Crystal Reports
- Add a subreport to an existing report

Conventions in This Workbook

Prolog Manager may use different jargon and nomenclature from what your company uses to describe the same process.

The following conventions are used throughout this book.

Lessons

Each lesson in the workbook is made up of tasks. Each task relates to a particular process or element in Prolog Manager. The number of tasks varies from lesson to lesson.

Tasks

Each lesson contains several individual tasks, which are written in a two-column format. The left column, or **What do I do?** contains numbered steps that list specific instructions, such as words to type, specific keys to press, or commands to choose from the menus. The right column, or **What happens?/Comments**, describes what is happening in the program, reasons for the results you see, and pictures to help you identify certain elements of Prolog Manager, such as toolbar buttons dialog boxes or forms.

Note: **Note**s point out special details that you should consider.

Important: **Important** notes point out details which, if ignored, could seriously adversely effect your use of Prolog Manager.

A Cool Tool: **Cool Tools** point out powerful Prolog Manager features that make your work easier.

Typographic Conventions

This book uses the following typographic conventions:

- **Frudiger bold** type indicates the names of most elements of the user interface, such as windows, dialogs, fields, rows, features and Wizards, as well as specific information you enter into fields.
- SMALL CAPS indicate the names of keyboard keys, such as TAB or CTRL.

LESSONS

PROLOG MANAGER BASICS

Prolog Manager is project management and documentation control software designed for the construction industry. Prolog Manager is a user-friendly program that helps you control project costs, streamline your paperwork and organize the details of your construction project. Using Prolog Manager, you can concentrate on your project and forget the hassles of constantly shuffling paper.

The user interface in Prolog Manager 6.0 has been designed to emulate Microsoft Office® products.

This introduction reviews basic information about Prolog Manager databases and the Prolog Manager environment that is essential to using advanced reporting features.

About Prolog Manager 6.0 Databases

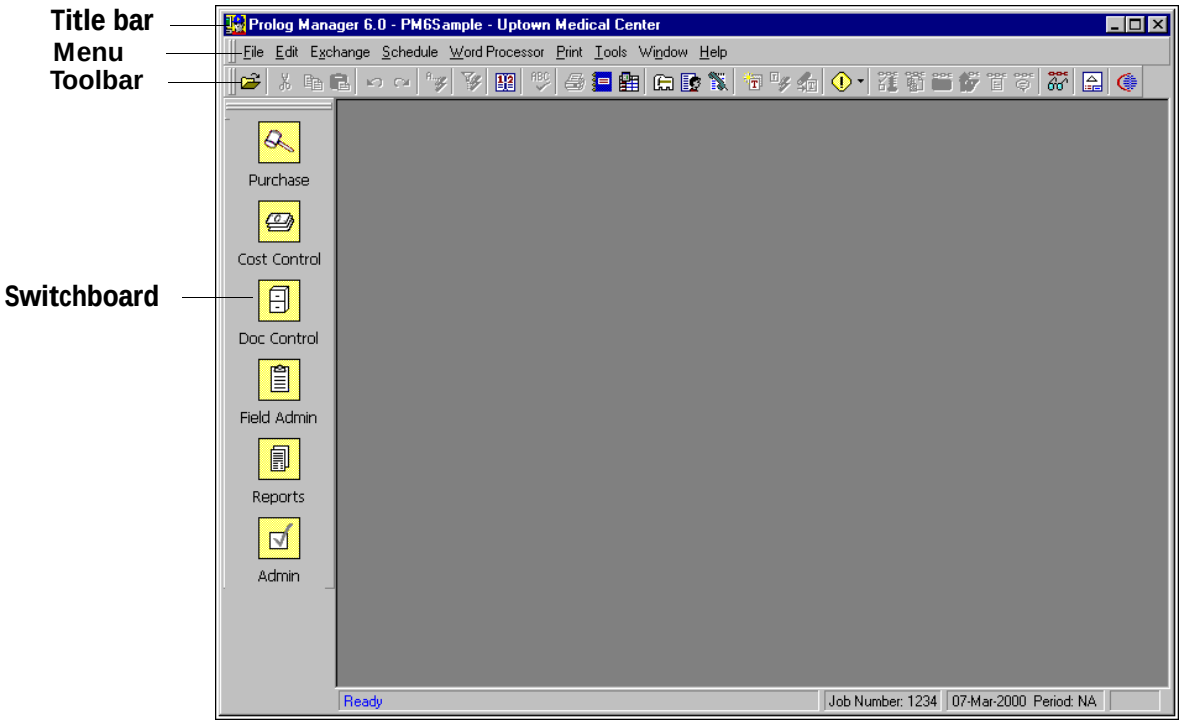
Prolog Manager 6.0 database files have the extension**.mdf** (Microsoft Database File). One database file can contain multiple projects. Each database contains information about the companies working on your projects contained in it, as well as materials used to build the projects and progression of the projects themselves. You can set up Prolog Manager with multiple **.mdf** files based on how you need the database to function for particular projects or groups of projects. Each database may contain records and documents that are similar to or different from other Prolog Manager databases.

Important: Unless stated otherwise, for all the exercises in this book, log on to the **Prolog Sample Database** as **Admin** and select the **Downtown Medical Center** project.

Navigating the Main Prolog Manager Window

The main window in Prolog Manager contains several essential navigational elements. The following sections briefly describe the Switchboard and toolbars in the main window.

Prolog Manager main window



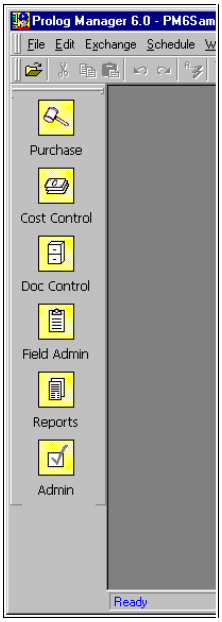
Switchboard

The Switchboard appears on the left side of the Prolog Manager window. When you click a button on the Switchboard, a menu of forms appears. You use these forms to perform tasks or functions related to those forms. You can view the Switchboard in two different

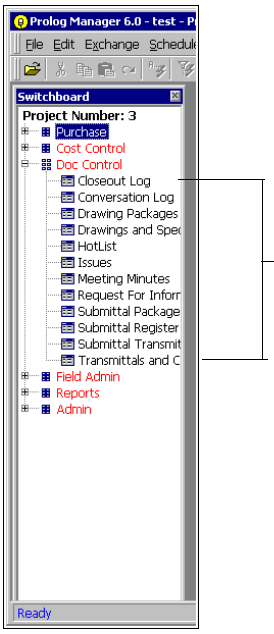
modes: in **normal view** or in **tree view**.

Prolog Manager Switchboard in normal and tree views

Normal view

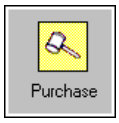


Tree view



Forms in the Cost Control group

The table below gives the function for each button on the Switchboard.

Button	Name	Function
	Purchase	Opens the list of purchasing forms
	Cost Control	Opens the list of cost controlling forms
	Doc Control	Opens the list of forms related to documentation
	Field Admin	Opens the list of field administrative forms

Button	Name	Function
	Reports	Opens the list of reports
	Admin	Opens the list of administrative forms

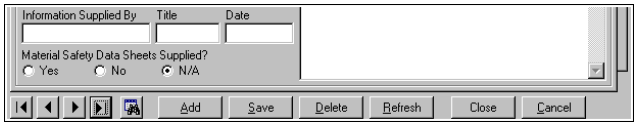
Toolbar

The buttons on the Standard toolbar, or simply “the toolbar,” give you access to the most commonly used commands in Prolog Manager, such as opening a project, checking spelling and printing reports. For a complete listing of each of the buttons on the toolbar, see “Standard Toolbar” on page 128.

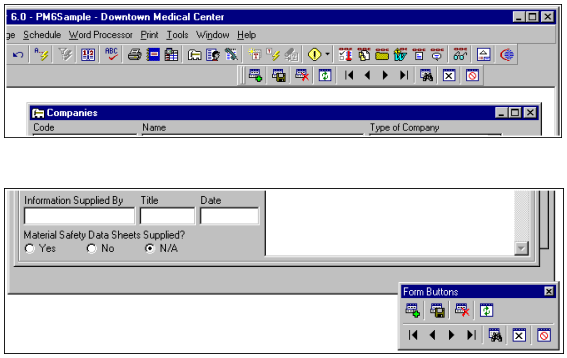
Using Form Buttons versus the Form Buttons toolbar

Several buttons called “form buttons” appear at the bottom of forms in Prolog Manager. They include buttons to save, close, and add a record. You can also use these buttons via the Form Buttons toolbar. The Form Buttons toolbar can either appear at the top of the window or floating separately.

Form with buttons



Form Buttons toolbar in use



For a complete list of the buttons as they appear in the Form Buttons toolbar, see “Form Buttons Toolbar” on page 131.

Getting Help in Prolog Manager

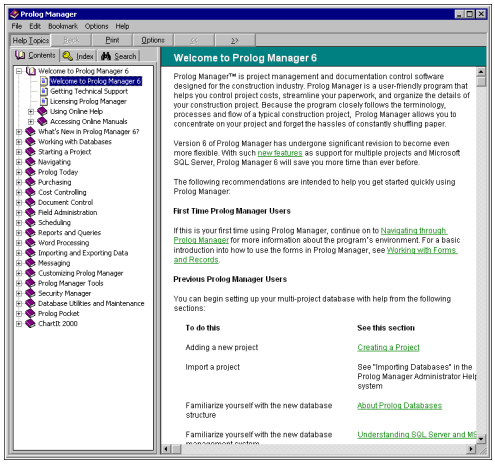
To assist you in your use of Prolog Manager, several options are available to you, including online help and Meridian Project Systems' Technical Support department.

How Do I Contact Meridian Project Systems' Technical Support?

- Call (916) 294-2100 Monday-Friday, 5am-5pm PST
- Visit *SupportLink* at Meridian Project Systems' Web site at www.mps.com for our Knowledge Base and Technical Documentation Library
- Send faxes to (916) 294-2001, or e-mail **tech@mps.com**.

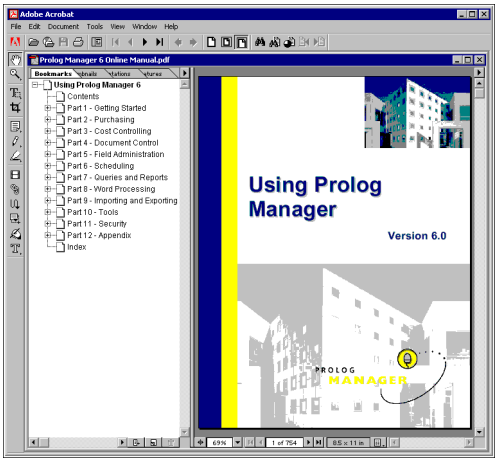
Note: Please have your serial number and version ready when you contact Technical Support. To locate this information, on the **Help** menu, click **About**.

How Do I Access Prolog Manager Online Help?

What do I do?	What happens?/Comments
1. On the Prolog Manager menu bar, click **Help**, and on the submenu, click **Contents and Index**.	The Online **Help** system appears: 

How Do I Access the Prolog Manager User Guides?

Prolog Manger includes a **User Guide** and an **Administrator Guide** in .pdf format. To view these Guides, you must have Adobe Acrobat Reader 3.0 or 4.0 on your computer. These manuals are located on your hard drive in the folder: **\\Program Files\Meridian\Prolog WebSite6\Help\Documentation**. You can also open them as follows:

	What do I do?	What happens?/Comments
1.	On the Prolog Manager menu bar, click **Help**, and on the submenu, click **Online Manuals**.	Adobe Acrobat Reader opens and the **Online Manual** system appears: 

Lesson 1

REPORT MANAGER

Lesson Overview

This lesson describes the basic report modifications available in Prolog Manager's Report Manager. This chapter is essentially the same as the Report Manager chapter of the Training Manual for Introduction to Prolog Manager 6.0. In this lesson, you will generate a system report and then create and customize a new report. You will also create a report filter which prompts you for a value when you run the report. This lesson includes the following

A. Using Report Manager

B. Running System Reports

C. Creating a Report

D. Creating a Run-Time Record Filter

A. Using Report Manager

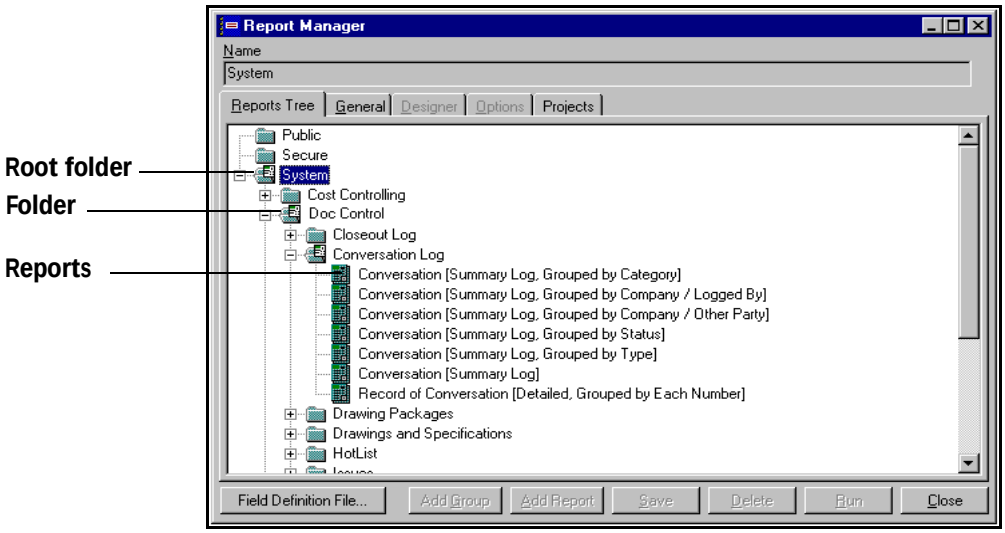
Report Manager creates and generates reports. It searches your project database for records which meet a set of criteria and then displays the information in an organized format. Report Manager comes with a number of pre-defined reports. Using Report Manager, you can customize these reports or create your own reports.

When you open Report Manager, you see the Reports tree displayed on the Reports Tree tab. The Reports tree looks and works like Windows Explorer. You can click the plus sign next to a folder to expand that part of the tree and see all of the folders or reports in that branch of the tree. Click the minus sign next to a folder to collapse the branch and hide the folders and reports.

The Reports tree always displays the three root folders: Public, Secure and System. Root folders cannot be renamed, moved, or deleted. Root folders are used to organize pre-defined and custom reports. Reports in the Public folder are available to all users. Reports in the Secure folder are available only to the person who created the report. Reports in the System folder are the default reports created for Prolog Manager and are included in the software you receive. When a user runs a report in the Secure folder or the System folder, Security Manager checks the access rights of the user and only displays information the user has been given access to see.

The following illustration identifies the main parts of the Reports tree.

Reports tree



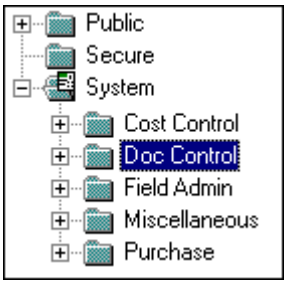
Yellow icons appear next to folders and reports beneath the Public folder and Secure folder. Green icons appear next to folders and reports beneath the System folder.

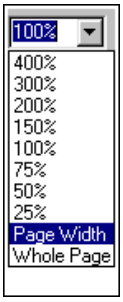
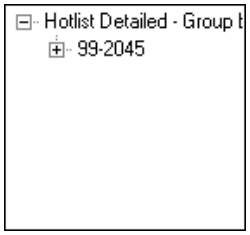
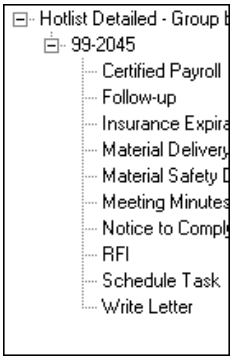
B. Running System Reports

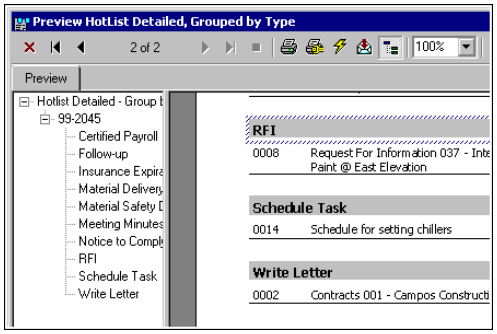
When you run a report, Prolog Manager selects all the records in your database which match a specified criteria and then displays the information in an organized format. The System folder in Report Manager contains all the default reports for Prolog Manager. Reports in the System folder cannot be modified.

Task B.1 How Do I Run a System Report?

In this task, you will run a system report.

	What do I do?	What happens?/Comments
1.	On the toolbar, click **Report Manager**.	 The Report Manager opens.
2.	On the **Reports Tree** tab, click the **+** (plus sign) next to the **System** folder.	Report Manager displays the System reports subfolders. 
3.	Click the **+** (plus sign) next to the **Doc Control** folder.	The **Doc Control** report folders appear.
4.	Click the **+** (plus sign) next to the **HotList** folder.	The **HotList** reports appear.
5.	Select the **HotList Detailed, Grouped by Type** report.	The report title and subtitle appear at the top of the **Report Manager** window.
6.	Click **Run.**	 The **Preview** window opens and displays the report.

What do I do?	What happens?/Comments
7. To see the entire report, set the view to **Page Width**.	 The report page appears resized so that you can see the width of the page in the **Preview** window.
8. In the tree view, click **99-2045.**	 The tree expands to display the section headers by which the items in the report are subdivided: 

	What do I do?	What happens?/Comments
9.	Click **RFI**.	The open report displays its RFI section: 
10.	Click the **Close** button.	 The **Preview** window closes.

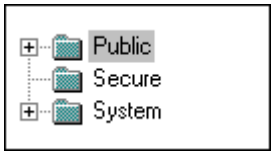
C. Creating a Report

In Prolog Manager you can create a report by copying and customizing an existing report. If you want to customize a System report, you need to first copy the report from the System report folder to the Public folder or Secure folder.

In this set of tasks, you will create a report folder and then copy and modify the report you generated in Task B.1 on page 12. You are going to change the report so that the report displays HotList items by type and responsibility. You will also specify the order that records are sorted in the report and determine the appearance of the report.

Task C.1 How Do I Create a Report Folder?

In this task, you will create a new folder for your reports in the Public folder. The Public folder contains customized or user-defined reports available to all users.

What do I do?	What happens?/Comments
1. In the Reports tree, click the **Public** folder.	
2. At the bottom of the Report Manager window, click **Add Group**.	 A new folder appears in the Public folder called **New Group**. 
3. Clear the **Name** field and type: **Weekly Reports**.	
4. Click **Save**.	

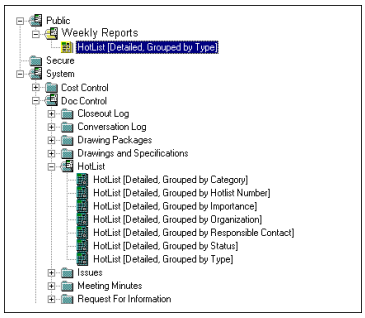
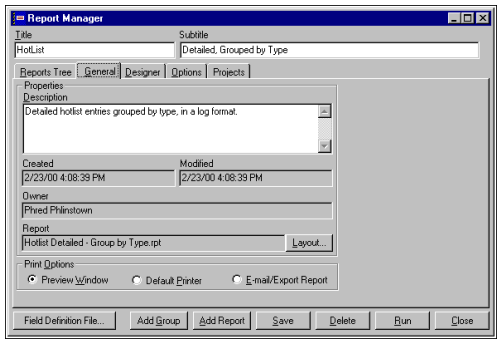
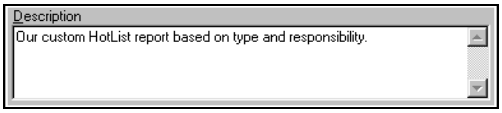
Task C.2 How Do I Create a Report from an Existing System Report?

Now that you have a place to store your custom reports, you can copy a **System** report and place it into the **Weekly Reports** folder. You cannot modify a **System** report, but if you place a copy of the report into the **Public** or **Secure** folders, you can modify the copy of the **System** report.

	What do I do?	What happens?/Comments
1.	In the **Reports** tree, click the **System** folder, the **Doc Control** folder and the **HotList** folder, so you can see the HotList report list.	
2.	Right-click the **HotList Detailed, Grouped by Type** report, and on the menu, click **Copy**.	
3.	Right-click **Weekly Reports** folder and select **Paste** on the shortcut menu.	A copy of the **HotList Detailed, Grouped by Type** report has been copied into the **Weekly Reports** folder.
4.	Click **Save**.	

Task C.3 How Do I Rename a Report?

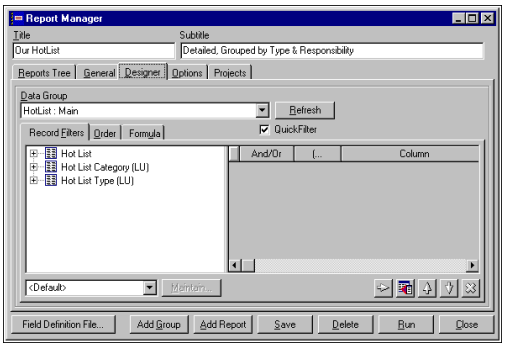
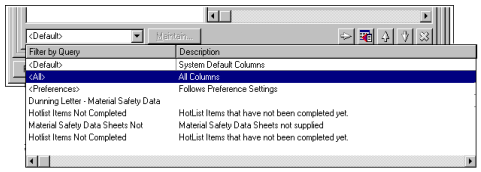
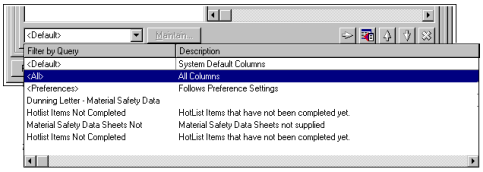
Any of the reports in the Public or Secure folders can be renamed. In this task, you will rename the copy of the **HotList Detailed, Grouped by Type** report you placed in the **Weekly Reports** folder.

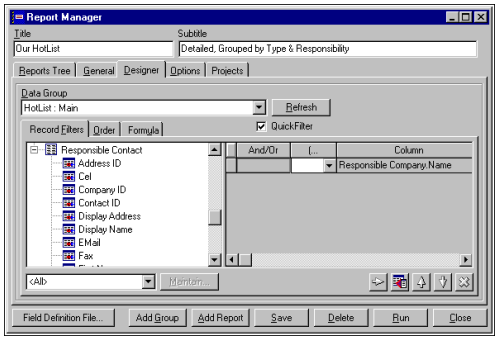
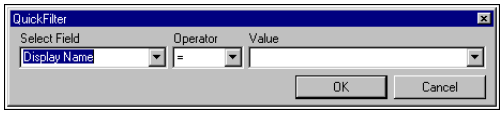
What do I do?	What happens?/Comments
1. In the **Reports** tree, select the copy of the **HotList Detailed, Grouped by Type**.	
2. Click the **General** tab.	
3. In the **Title** field, type: **Our HotList**.	
4. In the **Subtitle** field, type: **Detailed, Grouped by Type & Filtered by Responsibility**.	
5. In the **Description** field, delete the existing description.	
6. In the **Description** field, type: **Our custom HotList report based on type and responsibility**.	
7. Click the **Reports Tree** tab.	The new **Title** and **Subtitle** of the report appear in the **Reports Tree**.

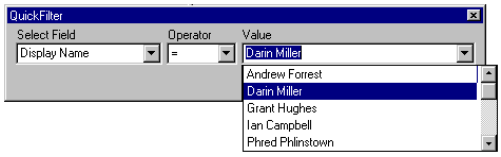
	What do I do?	What happens?/Comments
8.	Click **Save**.	
9.	Click **Run**.	 The report is generated. It appears with the new title and subtitle.
10.	In the Report viewer click **Close** to close the report.	

Task C.4 How Do I Create a Record Filter?

Report Manager uses record filters to determine which project records are displayed in reports. A record filter is an expression or set of expressions you create so that a report only displays records which meet certain conditions. In this task, you will create a record filter that selects HotList records for which Darin Miller of Acme Construction is the responsible contact.

What do I do?	What happens?/Comments
1. In the **Reports Manager**, click the **Designer** tab.	
2. On the **Record Filters** tab, click the ▼ next to the **<Default>** list.	A list of queries you can use to view tables in the **HotList: Main** data group appears: 
3. Select **<All>**.	You want to view all the columns for the **HotList: Main** data group. 

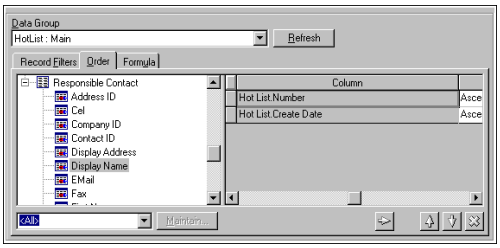
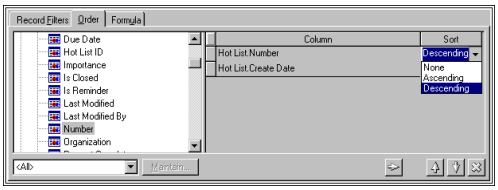
What do I do?	What happens?/Comments
4. In the Record Filters tree, click the **+** (plus sign) next to the **Responsible Contact** table.	
5. In the **Record Filters** tree, double-click **Display Name**.	The **Quick Filter** dialog appears:  The **Display Name** column records the name of the responsible contact for the HotList records. If you do not see the **Quick Filter** dialog, make sure the **Quick Filter** check box on the **Designer** tab is checked.
6. In the **Operator** list, make sure **=** is displayed.	The Operator list displays the list of possible algebraic relationships by which you can filter: **=** **Equal to** **<>** **Not equal to** **>** **Greater than** **>=** **Greater than or equal to** **<** **Less than** **<=** **Less than or equal to** **Like** **Approximately**

	What do I do?	What happens?/Comments
7.	In the **Value** list, select **Darin Miller**.	
8.	Click **OK**.	The expression appears in the grid on the **Record Filters** tab.
9.	Click **Save**.	
10.	Click **Run**.	The report appears in the **Preview** window. The report only displays HotList items assigned to **Darin Miller**.
11.	To close the preview window, click **Close**.	

Note: You can filter by any value listed in the Record Filters tab for that report. You can select more than one filter and select **Or** or **And** to indicate whether you want to select records with either or both criteria. For example, after you have selected **Darin Miller**, you could select **Andrew Forrest** and indicate in the **And/Or** column that you want items with either Darin or Andrew as the display name. Or, you could only display Darin for the **Display Name** and also select **Project Name = Downtown Medical Center**, and select **And** in the **And/Or** column only Darin's items for that project appear.

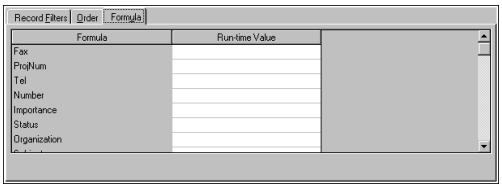
Task C.5 How Do I Change the Sort Order?

You can determine the order in which records are sorted and displayed in a report. For this report, you will set up the report to sort the Hotlist records by record number.

What do I do?	What happens?/Comments
1. In the **Reports Manager**, click the **Order** tab.	
2. In the **Order** tree, click the **+** (plus sign) next to the **Hot List** table.	All of the columns in the Hot List table appear.
3. Scroll down until you see **Number**. Double-click **Number**.	The **Hot List.Number** column appears in the grid.
4. In the **Sort** column, select **Descending**.	 The records will appear in descending order based on the HotList item number. Descending order sorts records from Z–A and 9–1.
5. Click **Save**.	
6. Click **Run**.	The report appears in the **Preview** window. HotList records are now sorted from highest number to lowest number.
7. To close the preview window, click **Close**.	

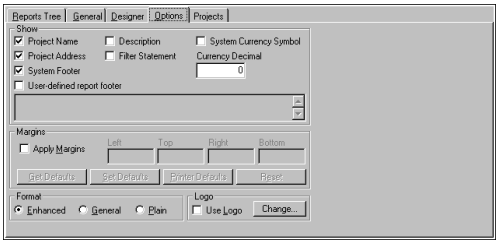
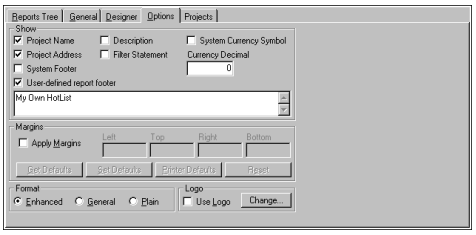
Task C.6 How Do I Change a Column Name?

If you do not like the column name used in a report, you can change it. This is also referred to as changing the run-time value. In this task, you will change the name of the **Importance** column in the report to **Priority**.

	What do I do?	What happens?/Comments
1.	In the **Reports Manager**, click the **Formula** tab.	
2.	In the **Run-time Value** column next to **Importance**, type: **Priority**.	**Priority** will appear as the column header instead of **Importance**.
3.	Click **Save**.	By clicking **Save**, you cause **Priority** to be used instead of **Importance** every time the **Our Hotlist Detailed, Grouped by Type & Responsibility** report is generated.
4.	Click **Run**.	The report in the **Preview** window. The **Importance** column is now the **Priority** column.
5.	To close the preview window, click **Close**.	

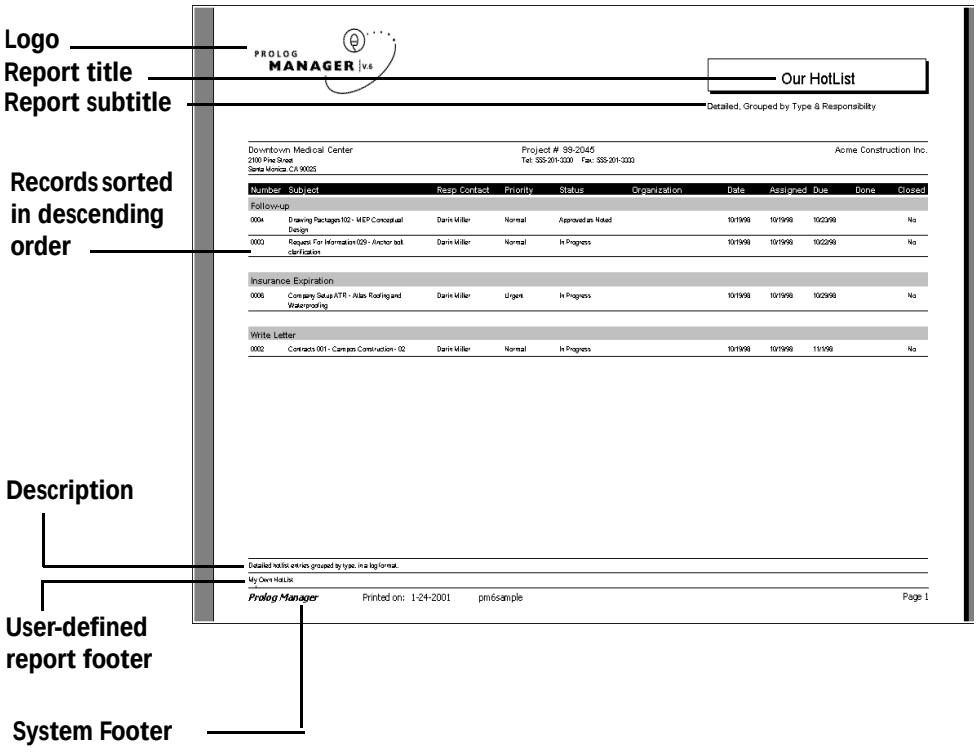
Task C.7 How Do I Use Footers and Logos?

In this task, you will customize the appearance of the report by adding and removing footers and adding a logo.

What do I do?	What happens?/Comments
1. In the **Reports Manager**, click the **Options** tab.	
2. Under **Show**, make sure the **System Footer** check box.	 This check determines that the **System Footer** will appear on the report. The **System Footer** displays the date the report was generated, and the database used to generate the report.
3. Under **Show**, select the **User-defined report footer** check box.	Now a footer you create to appear on the report. Now you can enter text in the **User-defined report footer** text box.
4. In the field under **User-defined Report Footer** check box, type: **My Own HotList**.	
5. Check **Description.**	Checking this box causes the text in the **Description** field on the **General** tab to appear at the bottom of the report.

	What do I do?	What happens?/Comments
6.	Under **Logo**, check **Use Logo**.	 Now the logo will appear in the report.
7.	Click **Save**.	
8.	Click **Run**.	The Preview window displays the **Our HotList Detailed, Grouped by Type & Responsibility** report.
9.	To close the preview window, click **Close**.	
10.	Click **Close** in the Report Manager window.	**Report Manager** closes.

HotList Detailed, Grouped by Type & Responsibility report



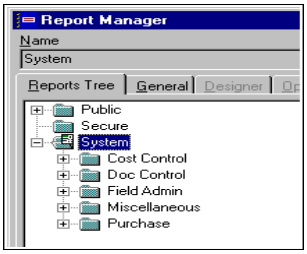
D. Creating a Run-Time Record Filter

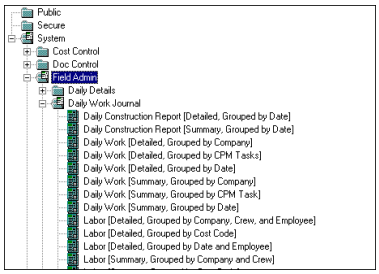
In Task C.4 “How Do I Create a Record Filter?” on page 19, you created a record filter for a report. When you created the record filter, you specified the precise criteria or values you wanted to see in the report. When you run the report, the report displays HotList items assigned to Darin Miller of Acme Construction. However, you can also create a record filter which prompts you for a value when you run the report. You select a value from a list of existing values. You can select a different value each time you run the report.

In this set of tasks, you will create a new report by copying a System report, and then create a run-time record filter for the report.

Task D.1 How Do I Create a Report from an Existing System Report?

In this task, you will create a new report by copying a System report.

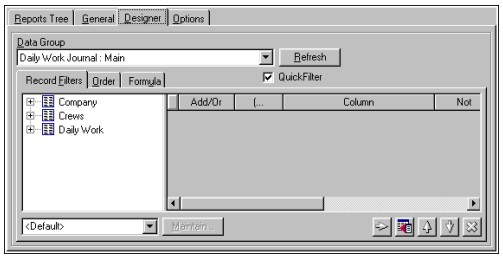
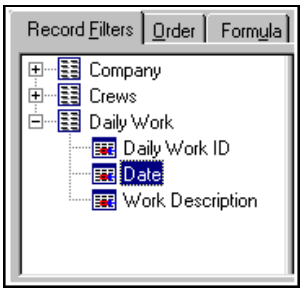
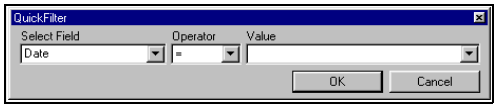
	What do I do?	What happens?/Comments
1.	On the toolbar, click **Report Manager**.	 The **Report Manager** opens.
2.	On the **Reports Tree** tab, click the **+** (plus sign) next to the **System** folder.	The System reports subfolders appear: 
3.	Click the **+** (plus sign) next to the **Field Admin** folder.	The subfolders in the **Field Admin** folder appear.

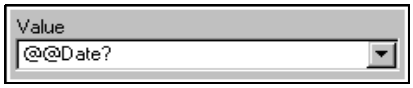
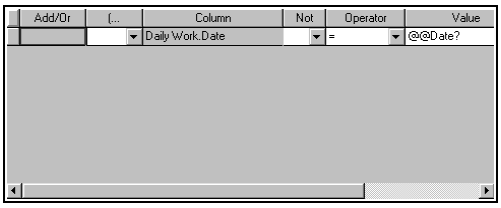
	What do I do?	What happens?/Comments
4.	Click the **+** (plus sign) next to the **Daily Work Journal** folder.	All the reports in the Daily Work Journal folder appear: 
5.	Right-click the **Daily Construction Work Detailed, Grouped by Date** report, and on the popup menu, click **Copy**.	
6.	Right-click the **Public** folder, and on the popup menu, click **Paste**.	A copy of the **Daily Construction Work Detailed, Grouped by Date** report appears in the **Public** folder.
7.	In the **Subtitle** field, type: **Filtered by Date**.	 The **Title** and **Subtitle** of the report appear in the Reports tree.
8.	Click **Save**.	When you save the report, The color of the report changes from blue to yellow.

Task D.2 How Do I Create a Run-time Record Filter?

Report Manager uses record filters to determine which project records are displayed in report results. A record filter is an expression or set or expressions you create so that a report only displays records which meet the criteria specified in the expressions. When you create a run-time record filter, you specify the criteria each time you run the report.

In this task, you will create a record filter for the date of the daily report.

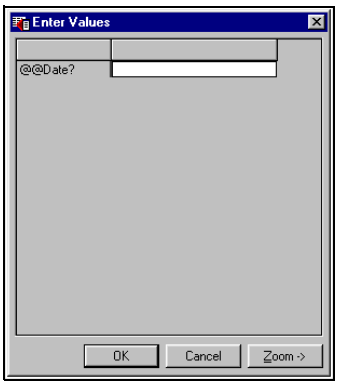
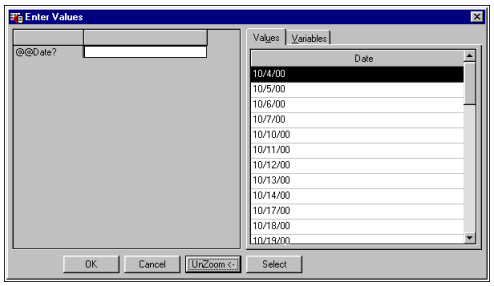
What do I do?	What happens?/Comments
1. On the **Reports Tree** tab, select the **Daily Construction Report Filtered by Date** report.	
2. Click the **Designer** tab.	
3. On the **Record Filters** tab, in the **Record Filters** tree, click the **+** (plus sign) next to the **Daily Work** table.	The columns in the Daily Work table appear: 
4. Double-click **Date**.	The **Quick Filter** dialog appears:  If you do not see the Quick Filter dialog, make sure the Quick Filter check box is selected.

What do I do?	What happens?/Comments
5. Make sure **=** is selected in the **Operators** list.	
6. In the **Value** list, type: **@@Date?**	 When you run the report, "@@" instructs Report Manager to prompt you to select a date. "Date?" reminds you what type of information you need to select.
7. Click **OK**.	The expression appears in the grid on the **Record Filters** tab. 
8. Click **Save**.	

Note: You can type in any text after @@, but make sure the text you type will remind you what type of information to enter when you run the report.

Task D.3 How Do I Run the Report?

In this task, you will run the report you just created and select the value you want to use to filter the report.

What do I do?	What happens?/Comments
1. On the **Report Manager**, click **Run**.	The **Enter Values** dialog appears: 
2. Click the **Zoom** button.	 Report Manager displays a list of dates for existing Daily Work Journal entries. 
3. On the **Values** tab, select a date, and click **Select**.	 The selected date appears in the **Enter Values** dialog.

	What do I do?	What happens?/Comments
4.	Click **OK**.	The report appears in the Preview window. The report only shows information for the date you selected in the **Enter Values** dialog.
5.	When you finish viewing the report, close the **Close** to close the **Preview** window.	

Lesson 2

Lesson Overview

In this lesson, you will use Security Manager to modify the reports available through Prolog Manager and the information available within a report.

A. Restricting Access to Reports

B. Restricting Access to Reports Data

A. Restricting Access to Reports

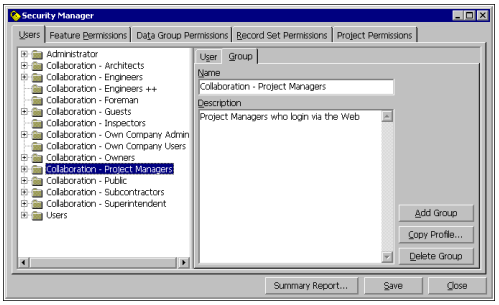
Prolog Manager's Report Manager contains over 400 system reports. These system reports are available to all Prolog Manager users. This number is sufficiently large that it may be confusing to users, causing them to generate the wrong reports. Some of them contain information for which you want to restrict access.

Using the Security Manager, you can restrict access by any user group to individual reports or to a whole group of reports tied to a specific form.

Prolog Manager come pre-configured with several user groups, but these are all configured for collaborating team members who access Prolog Manager data through Prolog WebSite. Therefore, in this task you will first log into Prolog Manager as Admin and create a new user group. Then you will create profile for a person in that user group. Then, still as Admin, you will restrict access to some reports and some data by a members of the user group. Then you will log out and log in again as the new user to view how these changes affect your access.

In this task you will create a test user group, remove its members' permission from viewing a few reports, and then assign a user to that group.

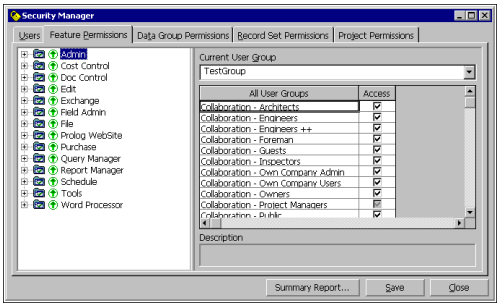
Task A.1 How Do I Set Up a New User Group?

	What do I do?	What happens?/Comments
1.	Log in as **Admin** to the **Prolog Sample Database** and the **Downtown Medical Center** project.	The **Admin** user has persmission to make all possible changes in Prolog Manager.
2.	In the **Tools** menu, click **Security**, and on the submenu, click **Security Manager**.	The **Security Manager** opens:  All of the user groups starting with Collaboration - are configured to use Prolog Manager data through Prolog WebSite. Of the pre-installed groups, only **User** and **Admin** can enter Prolog Manager directly.

	What do I do?	What happens?/Comments
3.	Click **Add Group**.	**NewGroup** appears.
4.	Change the **Name** field to read **TestGroup**.	
5.	Change the **Description** field to read **Test group to limit access to data for reporting**..	
6.	Click **Save**.	A message asks if you wish to **Commit changes?**
7.	Click **Yes**.	

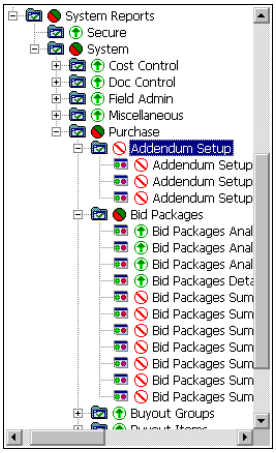
Task A.2 How Do I Change Permissions for a User Group?

	What do I do?	What happens?/Comments
1.	In the list of user groups, select **TestGroup**.	Make sure you select it so it changes to **blue** (rather than grey).
2.	Click the **Feature Permissions** tab.	The **Feature Permission**s list appears with **TestGroup** in the **Current User Group** field on the right.

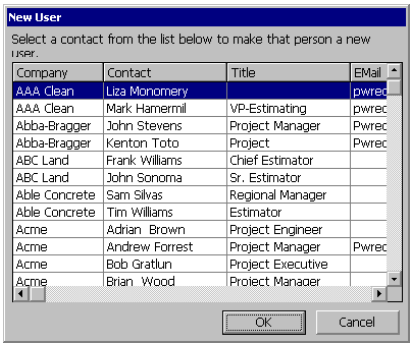


Important: The default for a newly created group allows users in this group the same permissions as **Admin**. When you create a new group, be sure to restrict access to data as appropriate.

3.	Click the **+** next to **Report Manager**.	The tree expands to display the subfolders.
4.	Click the **+** next to **System Reports**.	
5.	Click the **+** next to **System**.	
6.	Click the **+** next to **Purchase**.	
7.	Click the **+** next to **Addendum Setup**.	

	What do I do?	What happens?/Comments
8.	Click the **green arrow** next to **Addendum Setup**.	The **green arrows** change to **red No** indicators. In addition, the green arrow next to the Purchase group changes to a **split circle** , indicating the tree below contains both of the other two symbols.
9.	Click the **+** next to **Bid Packages**.	
10.	Click the **green arrows** next to the bottom seven items beneath **Bid Packages**, all beginning with **Bid Packages Summary**.	
11.	Click **Save**.	A message asks if you wish to **Commit changes?**
12.	Click **Yes**.	

Task A.3 How Do I Add a User to a User Group?

	What do I do?	What happens?/Comments
1.	Click the **Users** tab.	
2.	Select **Test Group**.	Make sure you select it so it changes to **blue** (rather than grey).
3.	Click **Add User**.	The **New User** list appears:  The listed names have already been entered in the database as **Contacts**. Use the Contacts form (under Admin) enter a new person on this list.
4.	Select **Liza Montgomery** of **Allstate Steel**.	
5.	Click **OK**.	Liza's name appears in the Name field.
6.	In the **Password** field, type **fred**.	
7.	Click **Save**.	A message asks if you wish to **Commit changes?**
8.	Click **Yes**.	
9.	In the **Access** column, check all four boxes.	Liza will be working in all these projects.
10.	Click **Save**.	A message asks if you wish to **Commit changes?**
11.	Click **Yes**.	

	What do I do?	What happens?/Comments
12.	Click **Close**.	**Security Manager** closes.

Task A.4 How Do I View My Changes?

Now you can log out of your database (as Admin) and log back in as Liza to view your changes in the reports Liza can generate.

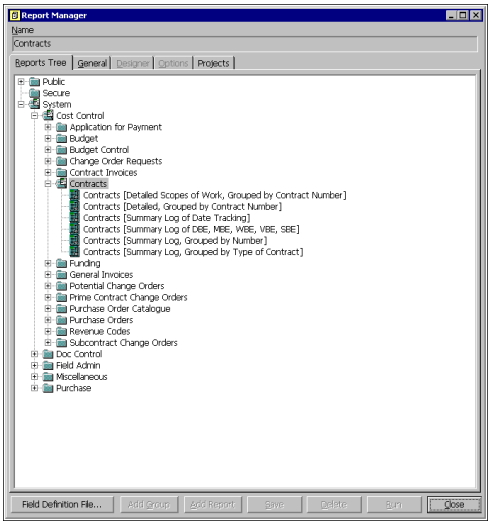
	What do I do?	What happens?/Comments
1.	On the Prolog Manager File menu, click **Open Database**.	A message informs you this action will close the current database.
2.	Click **Yes**.	The **Log On** dialog appears.
3.	In the **User Name** field, select **Liza Montgomery**.	If Liza's name does not appear in the list, click the **Refresh** button and drop down the list a second time.
4.	In the **Password** field, type **fred**.	
5.	Click **OK**.	The **Select Project** list appears.
6.	Select **Downtown Medical Center**.	
7.	Click **OK**.	
8.	On the Switchboard, click **Reports**, and on the submenu, point to **Purchase**.	**Addendum Setup** does not appear on the second submenu.
9.	On the second submenu, click **Bid Packages**.	The Report Manager opens to **Bid Packages**, and the **Bid Package Summary** reports are not visible. **Addendum Setup** appears in the tree beneath **Purchase** without a **+** sign. If you click on the folder icon, no report names appear.

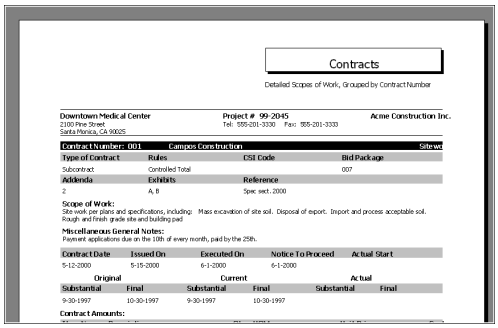
B. Restricting Access to Reports Data

You can also restrict access to specific data within your database. You can specify data groups which cannot be viewed by users in specific user groups. If you restrict access to a datagroup and a user runs a report which includes data from that datagroup, the data does not appear in the report.

In this task you will restrict the TestGroup members' access to contract data and then view the results when a member of this group runs a contract report.

Task B.1 How Do I View Default Report Access?

What do I do?	What happens?/Comments
1. If you have not already done so, log in to **Downtown Medical Center** as **Admin**.	
2. On the Switchboard, click **Reports**, and on the menu click **Cost Control** and on the submenu click **Contracts**.	The **Report Manager** tree appears opened to the **Contract** group: 
3. Select **Contracts [Detailed Scopes of Work, Grouped by Contract Number]**.	

What do I do?	What happens?/Comments
4. Click **Run**.	The report appears with detailed contract information: 
5. On the **Preview** window, click **Close**.	
6. On the **Report Manager**, click **Close**.	

Contracts

Detailed Scopes of Work, Grouped by Contract Number

Downtown Medical Center
2100 Pine Street
Santa Monica, CA 90025

Project # 99-2045
Tel: 555-201-3330 Fax: 555-201-3333

Acme Construction Inc.

Contract Number: 001 Campos Construction Site wo

Type of Contract	Rules	CSI Code	Bid Package
Subcontract	Controlled Total		007

Addenda	Exhibits	Reference
2	A, B	Spec sect. 2000

Scope of Work:
Site work per plans and specifications, including: Mass excavation of site soil. Disposal of export. Import and process acceptable soil. Rough and finish grade site and building pad

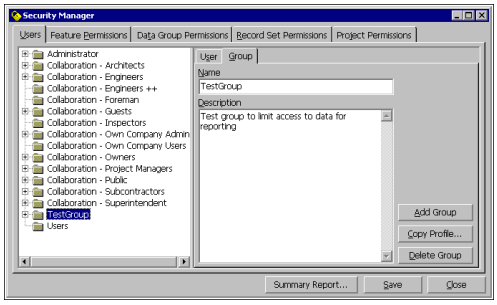
Miscellaneous General Notes:
Payment applications due on the 10th of every month, paid by the 25th.

Contract Date	Issued On	Executed On	Notice To Proceed	Actual Start
5-12-2000	5-15-2000	6-1-2000	6-1-2000	

Original		Current		Actual	
Substantial	Final	Substantial	Final	Substantial	Final
9-30-1997	10-30-1997	9-30-1997	10-30-1997		

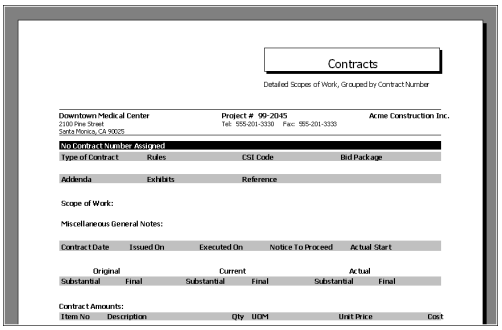
Contract Amounts:

Task B.2 How Do I Restrict Data Access in Report Manager?

	What do I do?	What happens?/Comments
1.	On the **Tools** menu, click **Security** and on the submenu, click **Security Manager**.	The **Security Manager** appears: 
2.	On the **Users** tab, select **TestGroup**.	This is the user group you created.
3.	Click the **Data Group Permissions** tab.	The **User Group** field on the page displays **TestGroup**.
4.	In the **Data Group** list, select **Contracts**.	
5.	Click on the green arrow next to **Contacts**.	 A message informs you that changing the permission status of a data group sets the same permission status for all fiels in that data group.
6.	Click **Yes**.	The **green arrow** changes to a pair of **eyeglasses**, indicating the group users can view data but not change it.
7.	Click on the **eyeglasses** next to **Contacts**.	A message informs you that changing the permission status of a data group sets the same permission status for all field in that data group.
8.	Click **Yes**.	The eyeglasses change to a **red No**  symbol, indicating users in that group can not view data in this datagroup.
9.	Click **Save**.	A message asks you to confirm your changes.

	What do I do?	What happens?/Comments
10.	Click **Yes.**	
11.	Click **Close**.	
12.	In the Prolog Manager **File** menu, click **Close Database**.	You will log out as **Admin** and re-log in as Liza Montgomery, the member you created for the TestGroup group.

Task B.3 How Do I View the Effects of My Changes?

	What do I do?	What happens?/Comments
1.	In the Prolog Manager **File** menu, click **Prolog Sample Database - Downtown Medical Center.**	The **Log On** dialog appears.
2.	In the **User Name** field, select **Liza Montgomery**.	
3.	In the **Password** field, type **fred**.	
4.	Click **OK**.	
5.	On the Switchboard, click **Reports**, and on the menu click **Cost Control** and on the submenu click **Contracts**.	The **Report Manager** tree appears as before, opened to the **Contract** group.
6.	Select **Contracts [Detailed Scopes of Work, Grouped by Contract Number]**.	
7.	Click **Run**.	The report appears with no data: 
8.	On the **Preview** window, click **Close**.	
9.	On the **Report Manager**, click **Close**.	

INTRO TO CRYSTAL REPORTS

Lesson Overview

This lesson provides a first look at using Crystal Reports to modify Prolog Manager reports. It includes the following tasks and explanations:

A. Crystal Reports Features

B. Deleting Columns

C. Adding Columns to a Report

A. Crystal Reports Features

Prolog Manager's Report Manager retrieves records from the database to create reports. It also can be used to make some changes in the report's formatting and display.

Seagate Crystal Reports, however, is an advanced report customization tool. Using Crystal Reports you can add or remove fields from a report and redesign the entire report layout.

You can work in a "virtual report" interface to modify a report without ever viewing actual data. You can also customize reports easily, without revealing potentially confidential data or tying up your computer or network to gather the data.

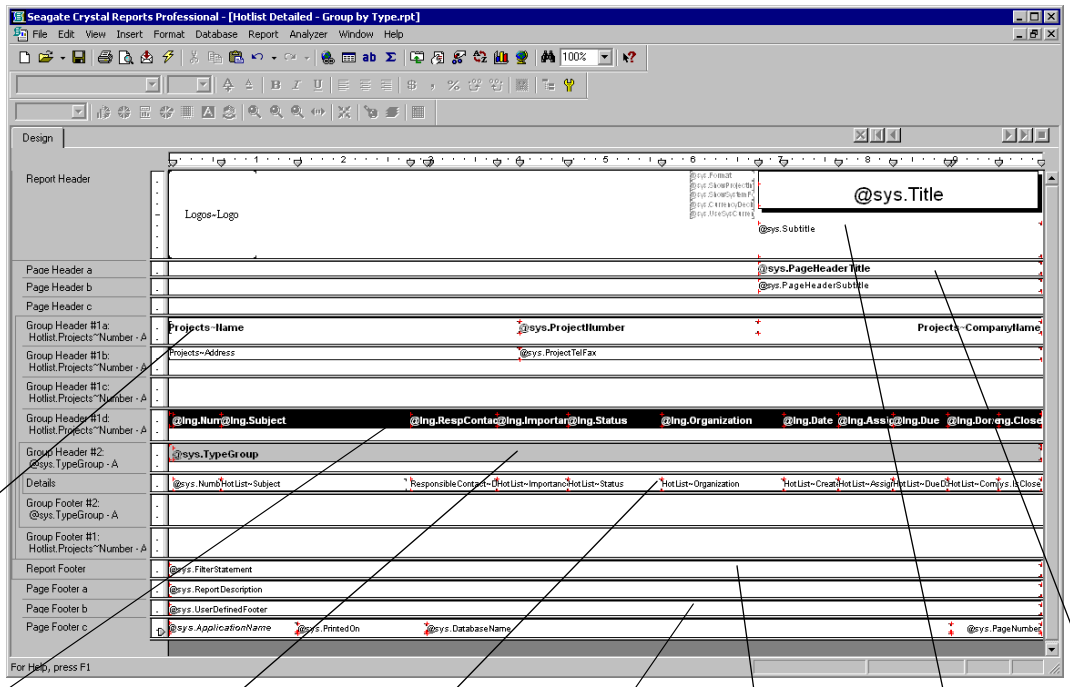
Prolog Manager has been designed to work with Crystal Reports easily. You can enter the Crystal environment from within Prolog Manager. Once you create a report in Crystal Reports, you can use it with all Meridian Project Pack applications.

Crystal Reports allows you to:

- Specify how to sort columns of data, how to group related information together and whether to display or hide each data group at printing
- Design formulas to control formatting or to calculate values (such as column totals), using the data contained in the report's other fields
- Insert a company logo or other graphic
- Format text, use background color and border styles
- Format report in sections, so as to call attention to selected data
- Create running total fields which total running amounts from column data
- Insert subreports–reports within reports–to combine unrelated data in a single report and display that data independently or linked with other fields

The Crystal Environment

The Crystal Reports Designer environment allows you to modify Prolog Manager reports to your specifications. Each section of the Crystal environment shows up as a corresponding section of a Prolog Report. The following illustration depicts this correspondence:


Seagate Crystal Reports Professional - [Hotlist Detailed - Group by Type.rpt]
File Edit View Insert Format Database Report Analyzer Window Help
Design
Report Header
Logos~Logo
@sys.Title
@sys.Subtitle
Page Header a
@sys.PageHeaderTitle
Page Header b
@sys.PageHeaderSubtitle
Page Header c
Group Header #1a: Hotlist.Projects~Number - A
Projects~Name
@sys.ProjectNumber
Projects~CompanyName
Group Header #1b: Hotlist.Projects~Number - A
Projects~Address
@sys.ProjectTelFax
Group Header #1c: Hotlist.Projects~Number - A
Group Header #1d: Hotlist.Projects~Number - A
@lng.Num @lng.Subject @lng.RespContac @lng.Importan @lng.Status @lng.Organization @lng.Date @lng.Assig @lng.Due @lng.Done @lng.Close
Group Header #2: @sys.TypeGroup - A
@sys.TypeGroup
Details
@sys.Numb HotList~Subject ResponsibleContact~D HotList~Importanc HotList~Status HotList~Organization HotList~Creat HotList~Assig HotList~Due D HotList~Com @sys.IsClose
Group Footer #2: @sys.TypeGroup - A
Group Footer #1: Hotlist.Projects~Number - A
Report Footer
@sys.FilterStatement
Page Footer a
@sys.ReportDescription
Page Footer b
@sys.UserDefinedFooter
Page Footer c
@sys.ApplicationName @sys.PrintedOn @sys.DatabaseName @sys.PageNumber
For Help, press F1
Page Headers
2nd page on
Group Headers #1
Column Headers
Group Headers #2
Details Section
Page Footer
Reports Footer
Report Header
1st Page only
PROLOG MANAGER V.6
Our Hotlist
Detailed HotList entries grouped by type and filtered by responsibility
Downtown Medical Center
2100 Pine Street
Santa Monica, CA 90025
Project # 99-2045
Tel: 555-201-3330 Fax: 555-201-3333
Acme Construction Ir
Number Subject Resp Contact Priority Status Organization Date Assigned Due Done Closed
Follow-up
0004 Drawing Packages 102 - MEP Conceptual Design Darin Miller Normal Approved as Noted 10-19-2000 10-19-2000 10-23-2000 No
0003 Request For Information 029 - Anchor bolt clarification Darin Miller Normal In Progress 10-19-2000 10-19-2000 10-25-2000 No
Insurance Expiration
0006 Company Setup ATR - Atlas Roofing and Waterproofing Darin Miller Urgent In Progress 10-19-2000 10-19-2000 10-29-2000 No
Write Letter
0002 Contracts 001 - Campos Construction - 02 Darin Miller Normal In Progress 10-19-2000 10-19-2000 11-1-2000 No
ResponsibleContact.DisplayName = N'Darin Miller' and HotList.ProjectID in (4) order by HotList.Number desc
Our custom HotList report based on type and responsibility
My Own HotList
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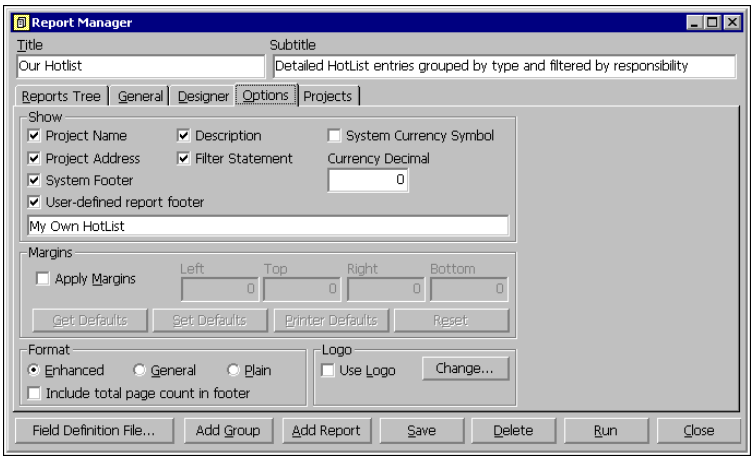
Many of these elements on the report itself and the Crystal environment can also be set from **Option**s tab of Prolog Manager's Report Manager:



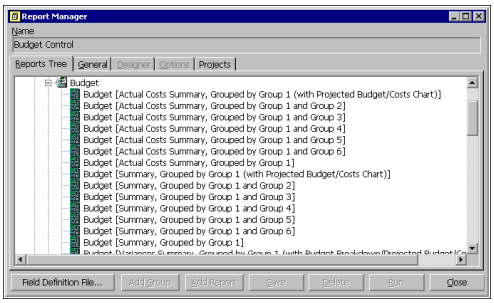
The following table relates the fields in Prolog Manager to the rows in Crystal reports and their effects on reports. The Words in My HotList Report column refers to the report shown on the previous page.

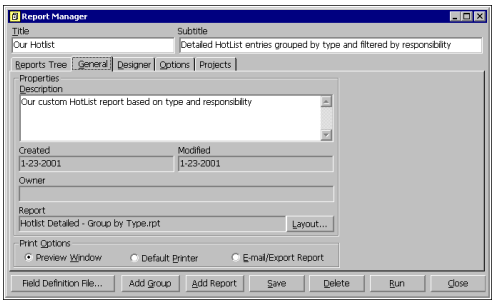
Field on Options tab of Report Manager	Row in Crystal Reports environment	Words in My HotList Report
Project Name	Group Header #1a	Downtown Medical Center Project # 99-2045 Acme Construction
Project Address	Group Header #1b	2100 Pine Street Santa Monica, CA 90025 Tel No./Fax No.
System Footer	Page Footer c	Prolog Manager Print date Database name
User-defined report footer	Page Footer b	My Own HotList
Description	Page Footer a	Our custom HotList based on type and responsibility
Filter Statement	Report Footer	ResponsibleContact.DisplayName = etc.

A Cool Tool: In the Crystal environment, you can right-click the left-hand column on the name for a row and from the shortcut menu, click Format Section. A Section Expert dialog appears which allows a wide range of formatting options for that section, including page breaks after sections.

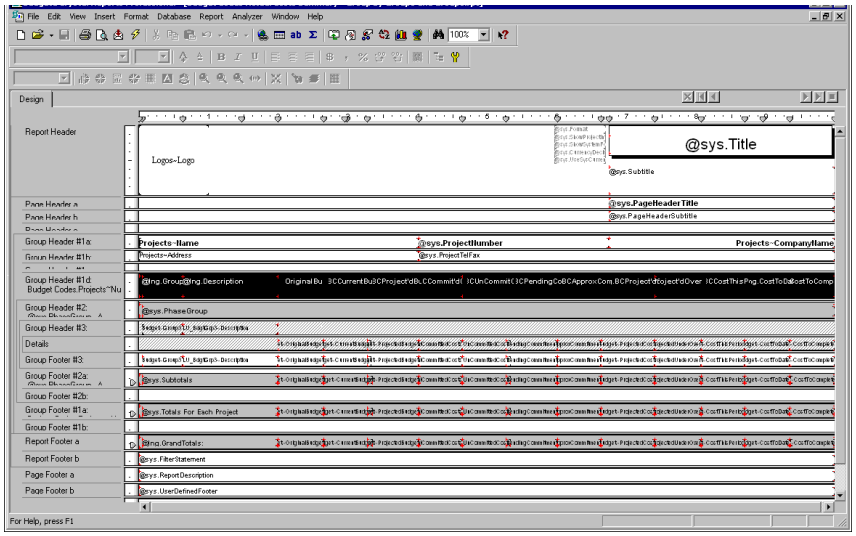
Task A.1 How Do I View a Report through Crystal Reports Designer?

This exercise you will copy a report and then view its setup through the Crystal environment.

	What do I do?	What happens?/Comments
1.	If you have not already done so, log into Prolog Manager as **Admin**.	Access to Crystal requires **Admin** privileges.
2.	On the Switchboard, click **Reports**, and on the submenu click **Cost Control** and on the submenu click **Budget Codes**.	The **Reports** tree opens, expanded to show the groups beneath System:  You cannot edit **System** reports in Crystal. You can copy a **System** report as a **Public** report and then edit it.
3.	Select **Budget Codes [Actual Cost Summary Grouped by Group 1 and Group 3]**.	
4.	Right-click and on the shortcut menu, click **Copy**.	
5.	In the **Reports** tree, select **Public**.	

	What do I do?	What happens?/Comments
6.	Right-click and on the shortcut menu, click **Paste**.	The name of the report appears in the **Report** tree as a **Public** report, indicating a copy of the report has been created in the **Public** folder. The copy of the report is an **.rpt** file located in the **\\Program files\ Meridian\PM6\Programs\User Reports** folder. This file can be edited, modified or shared with other users.
7.	With the name of the copy of the report still selected, click the **General** tab.	
8.	Click **Layout...**.	 **Crystal Reports Designer** opens the copied **.rpt** file with the setup information for the selected report:

What do I do?	What happens?/Comments

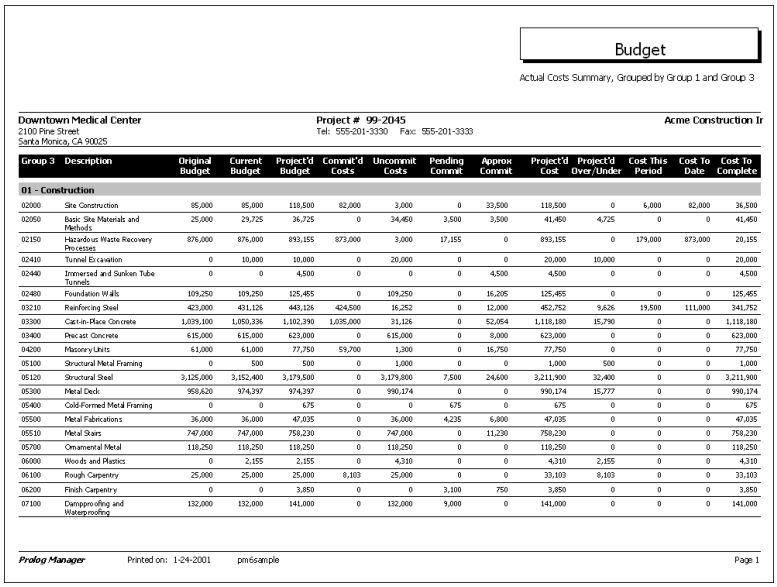


B. Deleting Columns

Task B.1 How Do I Delete Columns from a Report?

In this task, you will run the report you just copied. Then you will delete a column from it, adjust the column layout and run the report again.

What do I do?	What happens?/Comments
1. In the **Report Manager**, click **Run**.	The report appears:



Budget

Actual Costs Summary, Grouped by Group 1 and Group 3

Downtown Medical Center
2100 Pine Street
Santa Monica, CA 90025

Project # 99-2045
Tel: 555-201-3330 Fax: 555-201-3333

Acme Construction In

Group 3	Description	Original Budget	Current Budget	Project'd Budget	Commit'd Costs	Uncommit Costs	Pending Commit	Approx Commit	Project'd Cost	Project'd Over/Under	Cost This Period	Cost To Date	Cost To Complete
01 - Construction													
02000	Site Construction	85,000	85,000	118,500	82,000	3,000	0	33,500	118,500	0	6,000	82,000	36,500
02050	Basic Site Materials and Methods	25,000	29,725	36,725	0	34,450	3,500	3,500	41,450	4,725	0	0	41,450
02150	Hazardous Waste Recovery Processes	876,000	876,000	893,155	873,000	3,000	17,155	0	893,155	0	179,000	873,000	20,155
02410	Tunnel Excavation	0	10,000	10,000	0	20,000	0	0	20,000	10,000	0	0	20,000
02440	Immersed and Sunken Tube Tunnels	0	0	4,500	0	0	0	4,500	4,500	0	0	0	4,500
02480	Foundation Walls	109,250	109,250	125,455	0	109,250	0	16,205	125,455	0	0	0	125,455
03210	Reinforcing Steel	423,000	431,126	443,126	424,500	16,252	0	12,000	452,752	9,626	19,500	111,000	341,752
03300	Cast-in-Place Concrete	1,039,100	1,050,336	1,102,390	1,035,000	31,126	0	52,054	1,118,180	15,790	0	0	1,118,180
03400	Precast Concrete	615,000	615,000	623,000	0	615,000	0	8,000	623,000	0	0	0	623,000
04200	Masonry Units	61,000	61,000	77,750	59,700	1,300	0	16,750	77,750	0	0	0	77,750
05100	Structural Metal Framing	0	500	500	0	1,000	0	0	1,000	500	0	0	1,000
05120	Structural Steel	3,125,000	3,152,400	3,179,500	0	3,179,800	7,500	24,600	3,211,900	32,400	0	0	3,211,900
05300	Metal Deck	958,620	974,397	974,397	0	990,174	0	0	990,174	15,777	0	0	990,174
05400	Cold-Formed Metal Framing	0	0	675	0	0	675	0	675	0	0	0	675
05500	Metal Fabrications	36,000	36,000	47,035	0	36,000	4,235	6,800	47,035	0	0	0	47,035
05510	Metal Stairs	747,000	747,000	758,230	0	747,000	0	11,230	758,230	0	0	0	758,230
05700	Ornamental Metal	118,250	118,250	118,250	0	118,250	0	0	118,250	0	0	0	118,250
06000	Woods and Plastics	0	2,155	2,155	0	4,310	0	0	4,310	2,155	0	0	4,310
06100	Rough Carpentry	25,000	25,000	25,000	8,103	25,000	0	0	33,103	8,103	0	0	33,103
06200	Finish Carpentry	0	0	3,850	0	0	3,100	750	3,850	0	0	0	3,850
07100	Dampproofing and Waterproofing	132,000	132,000	141,000	0	132,000	9,000	0	141,000	0	0	0	141,000

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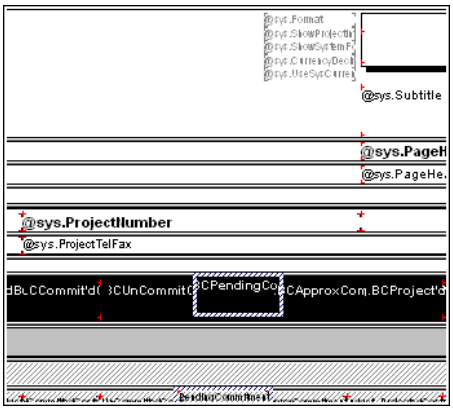
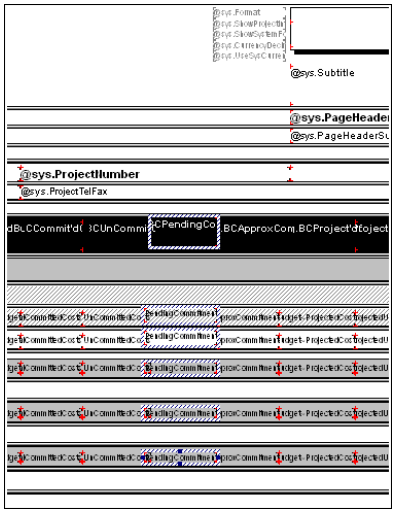
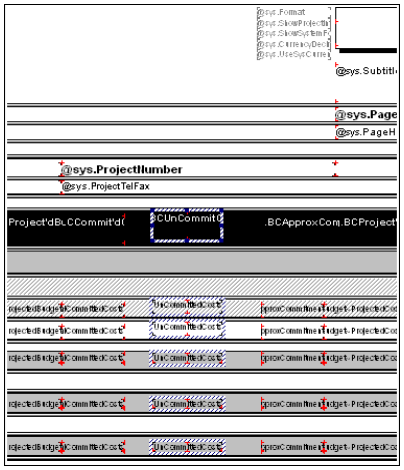
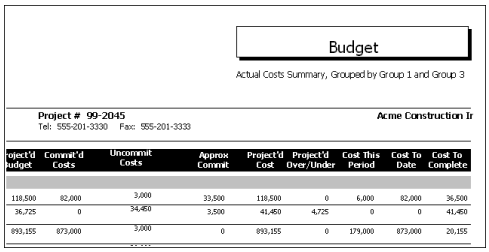
The report includes a column for **Uncommitted Costs**.

2. Close the Report **Viewer**.

What do I do?	What happens?/Comments
3. In the **Crystal** environment, in the (shaded black) **Group Header #1d** row, click **BCPendingCom**.	 This is the header name for the reports's column labeled **Pending Commintments**. The tool tip for this cell reads **Ing.BCPendingCommit (string)**.
4. Hold down the CTRL key and click the cells in the five rows of the **PCPending Com** column for the five rows with entries: **Details** **Group Footer #3** **Group Footer #2a** **Group Footer #1a** **Report Footer #a**	
5. Press DEL.	The column is erased. As you can see, the report now has an empty space between columns. You will adjust the layout

What do I do?	What happens?/Comments
6. Click in the column header for the column to the left of the empty space labeled **BCUnCommitCosts**.	
7. Hold down the CTRL key and click the cells in the five rows beneath it the header, the same rows listed in **step 3** above.	
8. Release the CTRL key and drag the column heading cell to the right to center it in the empty space.	 As you can see, this will center the column but the columns will not be balanced. When rearranging columns it usually takes a “good guess” and a few trial runs until the right effect appears. In this exercise you are only centering one column to take the place of two. In a real work situation, you may want to move several columns in a grid to appear balanced while taking up the freed space.
9. In the Crystal environment, click **Save**.	

What do I do?	What happens?/Comments
10. On the Prolog Manager **Report Manager** (with this same **Public** report still selected), click **Run**.	The revised version of the report appears. Note that the column for **Pending Commitments** has been removed and the column for **Uncommitted Costs** straddles the space:



A Cool Tool: For precise allignment of a cell, you can right-click the cell and on the shortcut menu click **Object Size** and **Position**.

C. Adding Columns to a Report

When you wish to add a column to a Prolog Manager report through Crystal Reports, you must do all of the following:

1 Copy the existing system report as a public report (in Prolog Manager's Report Manager)

2 Create a **.ttx** file and add information to it about the new column (in Prolog Manager Report Manager)

3 Associate the new modified .ttx file with the public report (in Crystal Reports Design view)

4 Rearrange the existing columns (in Crystal Reports Design view)

5 Create, position and format a detail cell for the new column (in Crystal Reports Design view)

6 Create, position and format column header/formula cell for the new column (in Crystal Reports Design view)

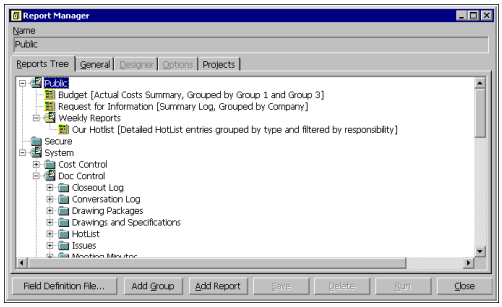
Important: For this exercise to work, you must have the 32-bit version of Seagate Crystal Reports 8.0 installed on your computer.

Task C.1 How Do I Copy a Report?

As you have already seen in previous tasks, you cannot modify a system report. You must copy it as a public report and then modify the copy.

In this task you will copy and rename an RFI report so that it is available for additional modification.

What do I do?	What happens?/Comments
1. In Prolog Manager's Switchboard, click **Reports**, from the menu click **Doc Control**, and from the submenu click **Request for Information**.	The **Report Manager** opens to the **RFI** reports.
2. Select **Request for Information [Summary Log, Grouped by Company]**.	
3. Right-click and on the shortcut menu, click **Copy**.	

	What do I do?	What happens?/Comments
4.	In the Report Manager **Reports Tree**, select **Public**.	
5.	Right-click and on the shortcut menu, click **Paste**.	The copied report appears in the **Reports Tree** beneath **Public**. 
6.	In the Report Manager **Title** field, rename this report as **RFI Summary (with Importance)**.	
7.	In the **Subtitle** field, change the entry to read **Grouped by Company**.	The **[]** brackets are added automatically.
8.	Click **Save**.	**RFI Summary (with Importance) [Grouped by Company]** is selected in the **Reports Tree**.

Task C.2 How Do I Create a .ttx File?

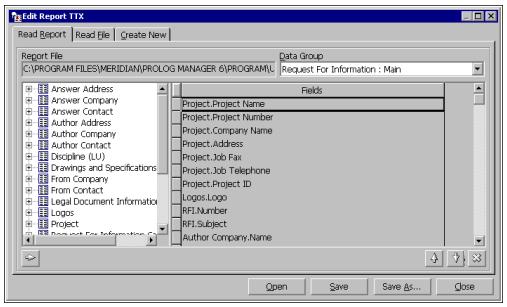
.ttx files or Field Definition Files are the bridge connecting Seagate Crystal Reports with Prolog Manager data groups. Existing Prolog Manager reports contain .ttx file information within their coding, so they do not require separate **.ttx** files. To add a field to a report, you must first create a **.ttx** file from the information in the original report and then add information about the additional field.

You will add a column which will include the value in the **Importance** field for each RFI.

1. In the **Reports Tree**, select the Request for Information report you copied.

2. Click **Field Definition File**.

   The **Edit Report TTX** dialog for the report appears:



   The **Fields** list on the right lists the fields already included in the .ttx information for this report. The list on the left lists all the table names available for this report.

   You will add a field indicating the RFI's **Importance**.

3. In the table name list click on the (+) sign next to **RFI**.

   The list expands to display the fields in the table.

4. Beneath RFI, double-click **Importance**.

   RFI.Importance appears in the **Fields** list.

5. Click **Save As**.

6.	Name the file **RFI Summary (with Importance)** and save it in the **User Reports** folder.	The file is saved with **.71.ttx** appended to the name. The data group that makes up the report determines the number that is assigned. Do not change the **.71.ttx** part of the file name or an error may result when you run the report.
7.	Click **Close**.	This procedure creates a new **.ttx** file out of the **.ttx** information in the original file, but it does not associate that new file to the copy of the report. The Report Manager returns.

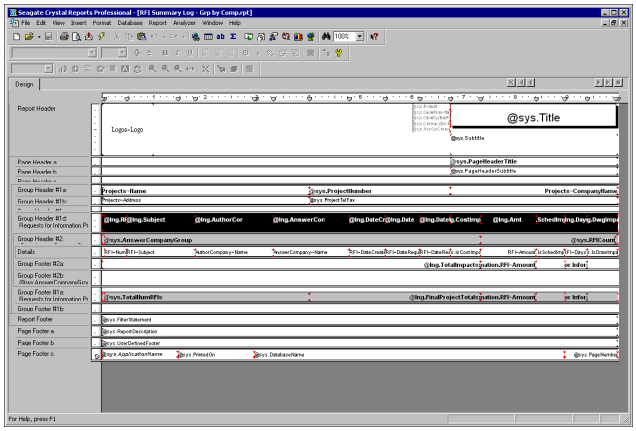
Task C.3 How Do I Associate a .ttx file?

After you create a .ttx file, you must associate it with the report.

1. In the Report Manager, click the **General** tab.

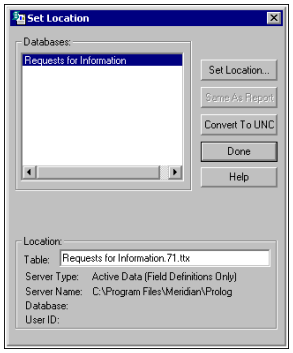
2. Click **Layout**.

Crystal Reports appears in the **Design** view.



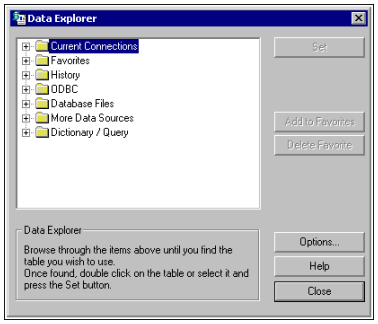
3. In the Crystal **Database** menu, click **Set Location**.

The **Set Location** dialog appears:



4. Click **Set Location**.

The **Data Explorer** appears:



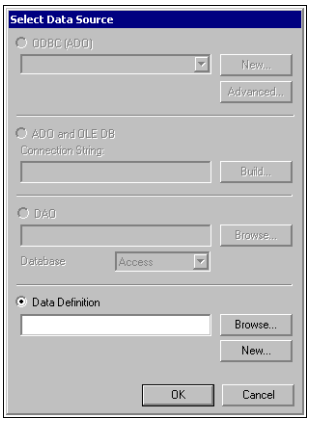
5. Click the (**+**) next to **More Data Sources**.

The tree expands.

6. Click the (**+**) next to **Active Data**.

7. Click the (**+**) next to **Active Data (Field Definitions Only)**.

The **Select Data Source** dialog appears:



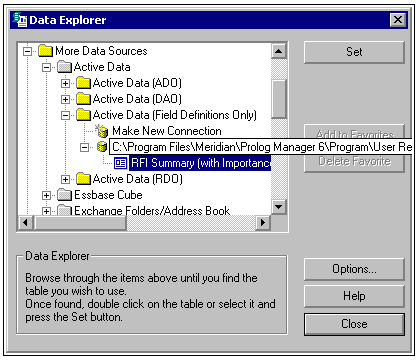
8. Click **Browse**.

9. Open **C:\Program Files\Meridian\Prolog Manager 6\Program\User Report\RFI Summary (with Importance).71.ttx**.

This is the file you created. You can associate the report to a .ttx file located anywhere.

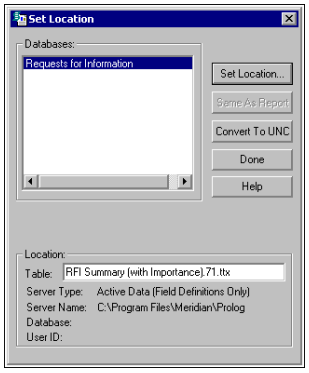
10. On the **Select Data Source** dialog, click **OK**.

The **Data Explorer** returns with the file you created appearing and selected in the tree:



11. Click **Set**.

The **Set Location** dialog returns showing **RFI Summary (with Importantce).71.ttx** in the **Table** field:



12. Click **Done**.

A message informs you that the file “Requests for Information” has changed and asks if you want to proceed to fix up the report.

13. Click **Yes**.

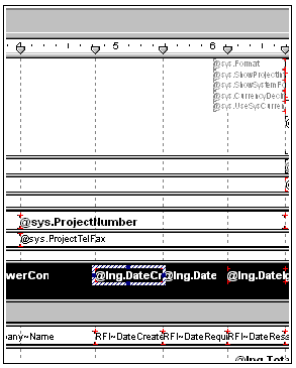
The new **.ttx** file is now associated with your copy of the report.

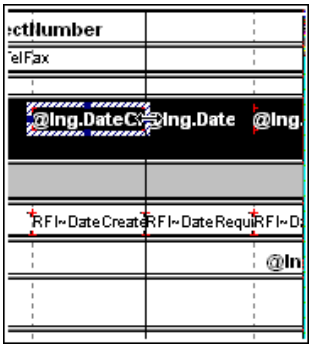
A Cool Tool: Now that the **.ttx** file has been associated with the report, you can add additional fields to the report by editing the **.ttx** and no re-associating is necessary. Open the report in **Reports Manager**, click **File Definition File**, add the fields and save. Then in Crystal Reports's **Database** menu, click **Verify Database**. A confirmation message asks if you want to fix up the report, click **Yes**.

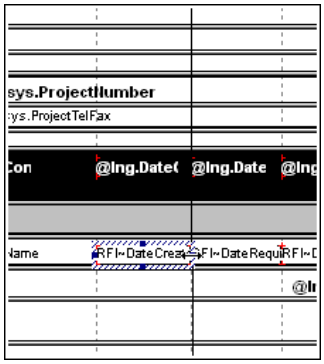
Task C.4 How Do I Reposition Columns in a Report?

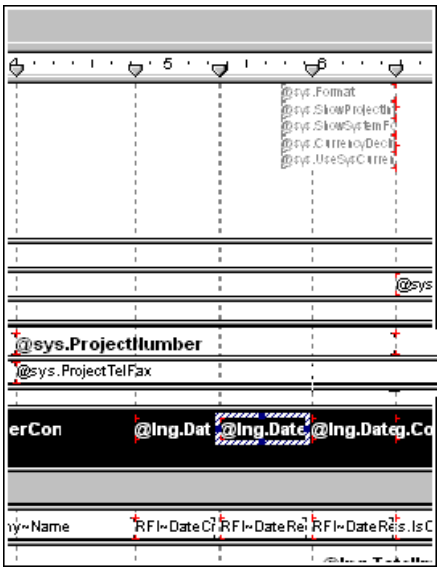
Before you can add a column to a report, you must create a space for that column in the Crystal Reports Designer.

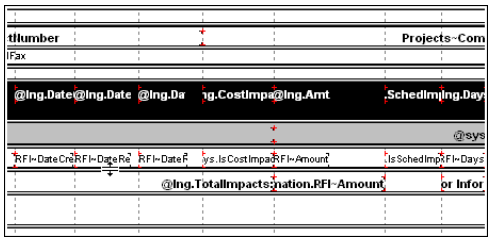
A Cool Tool: You can set options in Crystal Reports that determine how the application display and behaves. To access these options, on the **File** menu, click **Preferences**. The rest of this Task assumes the following settings:
Snap to Grid has been checked
Grid Size is set to **.01** inch
Show Rulers in Design has been checked
Show Guidelines in Design has been checked
If this is your first time using Crystal Reports, check that these options have been set before proceeding.

What do I do?	What happens?/Comments
1. In the Crystal Reports toolbar, set the **Zoom Control** to **200%**.	 This setting allow for more accurate placement of elements in the workspace.
2. Click on the column header (black) cell for the **@Ing.DateCreated** column.	The full name of the column does not display, since it is longer than the column width allows. **@Ing.DateC** displays. The full title appears in a ToolTip. When you click on a cell, it becomes bordered in black and white stripes: 

What do I do?	What happens?/Comments
3. Drag the right hand edge of the striped cell border to the left and drop so as to reduce the cell width from (approximately) .62” (5/8”) to **.5**”.	When your cursor is properly positioned over the white cell border, the cursor becomes a small two-headed arrow and a dark vertical line shows shows the edge of the cell across the gird: 
	Note: Use the rulers at the top of the design area to set the width properly.
4. In that same column, click on the cell in the **Details** row (two rows down).	

	What do I do?	What happens?/Comments
5.	Drag the right hand edge of the striped cell border to the left and drop so as to reduce the cell width to match the cell header at **.5”**.	When your cursor is properly positioned over the white cell border, the cursor becomes a small two-headed arrow and a dark vertical line shows shows the edge of the cell across the gird:.  Moving to the next column to the right, the column header for **@Ing.DateReq’d** is already set at .5”.
6.	In the next column to the right, click on the **Details** cell for this row, **RFI~DateRequired**.	

What do I do?	What happens?/Comments
7. Drag the right hand edge of the striped cell border to the left and drop so as to reduce the cell width to match the cell header at **.5”**.	Now that you have reduced this column to **.5”**, you want to slide it to the left to recreate space for the new column you will add. The light dashed lines on either end of the column are guidelines.  The small red **x**’s on the left hand edge of the cells touching the guidelines indicate that the cell is “stuck” to guideline. Dragging the arrow will drag the cells.
8. Drag the arrow at the top of the left side of this column and drop it so that it touches the left edge of the column on its left (**Date Created**).	You now have two **.5”** columns instead of **.62”** columns, and the extra space is to the left of the **Date Required** column. Move now to the next column to the right, **Date Responded**.
9. Reduce the width of the **@Ing.DateRep** cell to **.5”**	
10. Reduce the width of the **@RFI~DateResp** cell to **.5”**.	

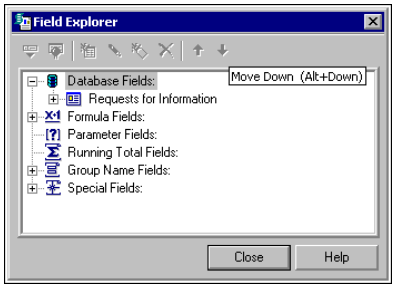
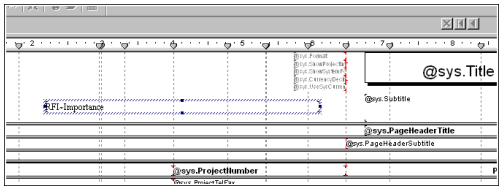
	What do I do?	What happens?/Comments
11.	Drag the arrow at the top left of this column and drop it on the left edge of the **Date Required** column.	The next column to the right, **Cost Impact** is already set at .5”, but you must drag it to the left.
12.	Drag the arrow at the top left of the **Cost Impact** column and drop it on the left edge of the **Date Responded** column.	
13.	Reduce the width of the **@Ing.Amt** cell to **.5”**.	
14.	Reduce the width of the **RFI~Amount** cell to **.5”**	You should now have about **.5”** of empty space between these two cells in the **Amount** column and the column to its right, **Schedule Impact**. Now you have realigned the columned and created a space for the column you wish to add: 
15.	Click **Save**.	

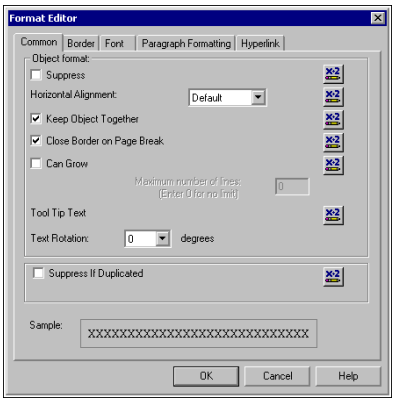
A Cool Tool: Occasionally, after you click somewhere in Crystal Reports, the screen does not refresh. Crystal Reports does not have a **Refresh** command on any of its menus. To make your screen refresh, minimize Crystal Reports and then maximize it again.

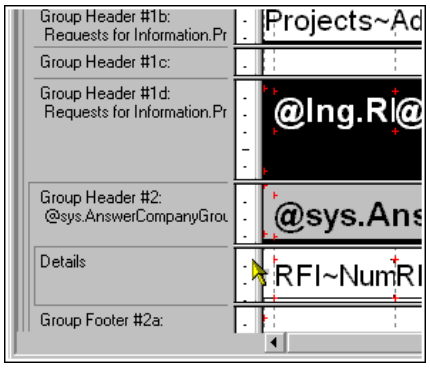
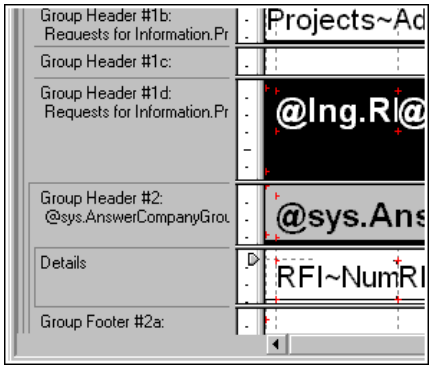
A Cool Tool: When trying to select a column header cell in Crystal Reports, you may “just miss” the column and instead select the entire black column head region. To try again to select the cell, first click on a plain white area of the workspace to “remove” the selection of the whole black area. Then try again.

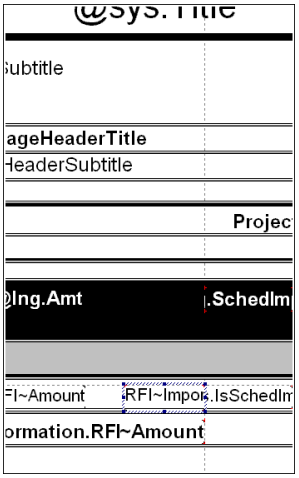
Task C.5 How Do I Set Up Column Detail Information?

Now that you have created a space, you will create a table header cell and a detail cell for that column. The details cell specifies which field in the database appears in that column for the record that matches the report description. The table column includes the formula that is applied to the field named in the details cell. In this task you will create, format and position the details cell.

What do I do?	What happens?/Comments
1. In Crystal Reports, in the **Insert** menu, click **Database Field**.	The **Field Explorer** appears with **Database Fields** selected:  You want to select a field in the database which will be inserted into the report. That field can be inserted "as is," or acted upon by a formula which will be specified in the column header field.
2. Click the (**+**) next to **Requests for Information**.	The fields in the report expand beneath **Requests for Information**.
3. Select **RFI~Importance**.	This is the field you added to the **.ttx** file when you created it.
4. Drag **RFI~Importance** and drop in an unused white area of Crystal Reports.	The field appears in Crystal Reports.  By placing the field first in an unused area, you can format it before dropping in where it belongs.

	What do I do?	What happens?/Comments
5.	Click on the field and reduce its width to **.5”**	The full name of the field will not be visible when you reduce it.
6.	Right-click on the field and on the shortcut menu, click **Format Field**.	The **Format Editor** appears: 
7.	Click the **Font** tab.	You want to format this cell to match the other cells in the **Details** row.
8.	In the **Font** field, select **Arial (Western)**.	
9.	In the **Size** field, select **8**.	
10.	Click **OK**.	Now the cell is ready to drag and drop to where it belongs, but first you will create a guideline to make it easier for you to line it up accurately.

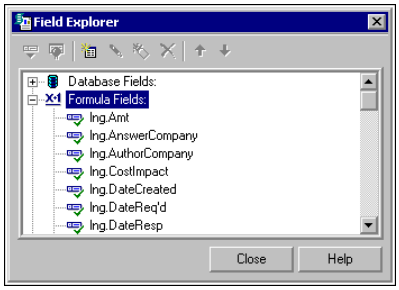
What do I do?	What happens?/Comments
11. Click on the **ruler** on the left-hand edge of the **Details** row to create a guideline to which appears to run through the red x's at the top of each cell.	 When you click on the left-hand ruler, a new guideline appears with an arrow at its end. If you hit it right, the guideline appears to run through the red x's at the top of each cell.  If you miss, drag the arrow at the end of the guideline up or down to adjust it: Now you can drag the cell you created to the **Details** row; but first you will insert a similar guideline in the (black) column header row.
12. Click on the ruler at the top of the **Group Header #1d** row to set a guideline that goes through the red x's in the (black) column header row.	You will use this guideline when you place the formula cell in this row.

What do I do?	What happens?/Comments
13. Click the cell you created, drag it and drop on the space you created between **RFI~Amount** and **sys.IsSchedImpact**	 If you created the guideline accurately and drop the cell close to it, the cell will grab onto the guideline and be lined up properly. Now you will create the table header cell.
14. Click **Save**.	 Now you have created and placed the details field and you can now create and place the column header/formula field.

Task C.6 How Do I Set Up Column Header Formula Information?

The table column header (or title) includes the formula that is applied to the field named in the details cell. In this task you will create, format and position the table header or formula cell.

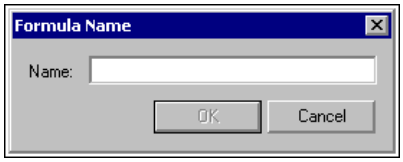
1. In the **Field Explorer**, select **Formula Fields**.



Formula fields are fields in which a formula is applied to the value in a field in the database and the calculated value is inserted into the report. When you create a formula field, you specify the formula.

2. Right-click and in the shortcut menu, click **New**.

The **Formula Name** dialog appears:

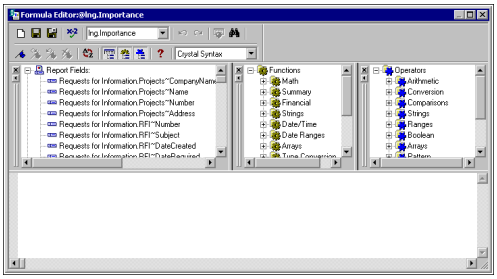


3. Type **Ing.Importance**.

Formula fields for column headers begin with **Ing**., followed by the column header text. This column will be titled **Importance**. An @ sign will appear before this name in the Crystal Reports Design environment.

4. Click **OK**.

The **Formula Editor** appears, set to create the formula for the **@Ing.Importance** field:



5. In the editing area type:

   //Passed at runtime from language database.

   "Importance"

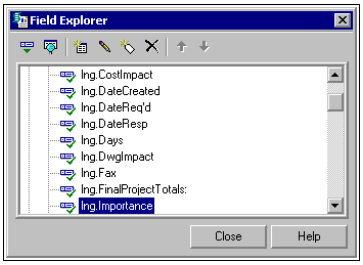
This is the formula describing what happens when the report generates.

// indicates that the text that follows is a comment; it describes in English which the body of the formula directs Crystal Reports to do. It this case it indicates, “When the reports run, get the value from the language database and insert it.”

“Importance” mean “Find the value in the Importance field and insert it.”

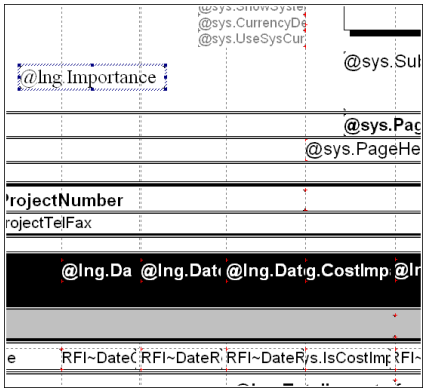
6. In the **Formula Editor**, click **Save and Close**.

7. In the **Field Explorer**, select **Ing.Importance**.



8. Drag **lng.Importance** and drop on a blank (white) area of Crystal Reports.

The **@lng.Importance** cell appears:



You want to format this cell before you position it in the grid. You could change the font name, size and color, as you did in step 6–10 of Task C.5 “How Do I Set Up Column Detail Information?” on page 71. However, the follow three steps are a shortcut to copy all formatting from one cell to another.

9. With **@lng.Importance** still selected, press CTRL+right-click on **@lng.Amt**.

You could right-click on any (black) column header cell as they are all formatted identically.

10. On the shortcut menu, click **Format Objects**.

The **Format Editor** appears, displaying the formatting information for **@lng.Amt**.

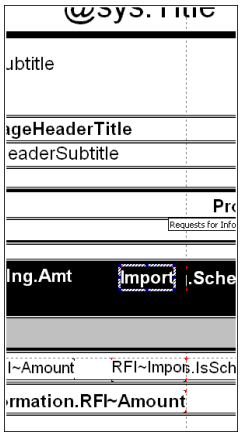
11. Click **OK**.

All of the formatting information for **@lng.Amt** is applied to **@lng.Importance**. Since this format includes white text, the cell appears empty.

12. Click the **@lng.Importance** cell and reduce its width to **.5”**.

13. Click the **@Ing.Importance** cell and drag it and drop on the empty space between **@Ing.Amn** and **@sys.SchedImpact**.

The cell will stick to the guideline you created earlier.



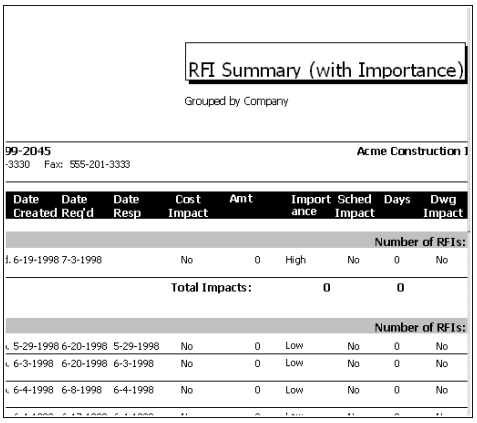
14. Click **Save**.

A Cool Tool: If you do not know the Crystal Reports formula syntax for the column you wish to define, you can open the **Formula Editor** for a column header than acts similarly, copy the text, and paste it into the **Formula Editor** for the new field, and then edit it. For example, in this procedure if you didn't know the text needed for **step 5**, you could open the **Formula Editor** for the **@Ing.Amt** column header which also selects the designated field (**"Amt"** in this case) from the record in the database and enter it, and then edit **"Amt"** into **"Importance"**.

Task C.7 How Do I View My Results?

Now you can return to Prolog Manager's Reports Manager and run your report and view the effects of your changes.

What do I do?	What happens?/Comments
1. In Prolog Manager, on the Switchboard, click **Reports** and on the menu, click **Public**.	
2. Select **RFI Summary (with Importance) [Grouped by Company]**.	
3. Click **Run**.	The revised report appears with the new name and including an Importance column:



RFI Summary (with Importance)

Grouped by Company

99-2045 Acme Construction I
-3330 Fax: 555-201-3333

Date Created	Date Req'd	Date Resp	Cost Impact	Amt	Importance	Sched Impact	Days	Dwg Impact
								Number of RFIs:
6-19-1998	7-3-1998		No	0	High	No	0	No
			Total Impacts:		0		0	
								Number of RFIs:
5-29-1998	6-20-1998	5-29-1998	No	0	Low	No	0	No
6-3-1998	6-20-1998	6-3-1998	No	0	Low	No	0	No
6-4-1998	6-8-1998	6-4-1998	No	0	Low	No	0	No

CREATING NEW REPORTS

Lesson Overview

In this lesson, you will create a new report using Prolog Manager and Crystal Reports. You will also install a report on your computer.

A. Creating a New Report

B. Installing a New Report

A. Creating a New Report

Now that you have removed and added columns to a Prolog Manager report using Crystal Reports, you have the tools to create a new report from scratch. This process involves the following tasks:

1 Create a .ttx file including the fields to appear in this report (in Prolog Manager's Report Manager)

2 Create a new report from a template (in Prolog Manager's Report Manager)

3 Associate the .ttx file to the report (in Crystal Reports Design view)

4 Set up the Group Name in the report (in Crystal Reports Design view)

5 Add and format details to the body of the report (in Crystal Reports Design view)

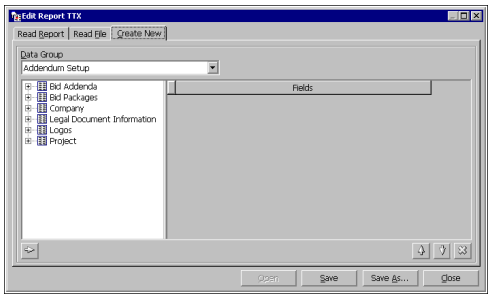
6 Add and format column headers and set their formulas (in Crystal Reports Design view)

7 Name the report (in Prolog Manager's Report Manager)

You will create a report which will list each company **Contact** person, sorted by company, and including their **Display Name**, e-mail address and telephone number.

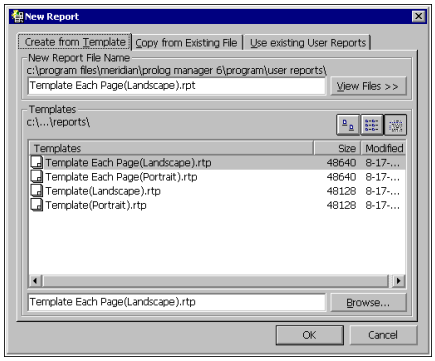
Task A.1 How Do I Create a .ttx File from Scratch?

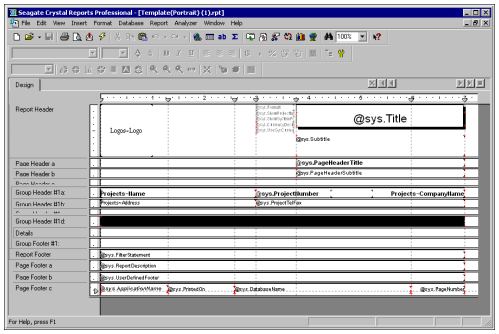
What do I do?	What happens?/Comments
1. In Prolog Manager, click **Report Manager**.	 The Report Manager opens.
2. Click **Field Definition File**.	 The **Edit Report TTX** dialog appears.

	What do I do?	What happens?/Comments
3.	Click the **Create New** tab.	 On this dialog you specify the fields you wish to appear in your report.
4.	In the **Data Group** list, select **Project Contact List**.	The tables in that data group appear beneath it.
5.	Click the (**+**) next to **Project**.	The fields in the table appear beneath it.
6.	Double-click the following fields: **Address** **Company Name** **Job Fax** **Job Telephone** **Project ID** **Project Name** **Project Number**	Double-clicking a field moves it to the right-hand window and includes it in the **.ttx** file. These are common fields in every Prolog Manager report. Strictly speaking they are not “required”, but the default report templates include them.
7.	In the list of tables, click the (**+**) next to **Logos**.	The one field in the table expands beneath it.
8.	Double-click **Logo**.	The default templates place the logo on each report.
9.	In the list of tables, click the (**+**) next to **Company**.	The rest of the fields to be selected are the unique set for this report.
10.	Double-click **Company Name**.	
11.	In the list of tables, click the (**+**) next to **Contacts.**	

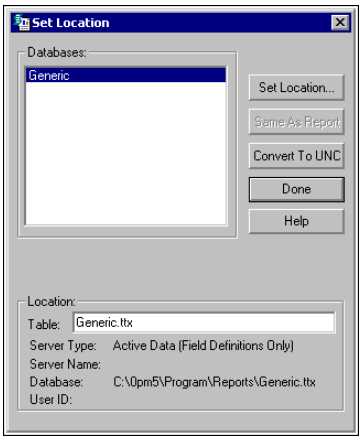
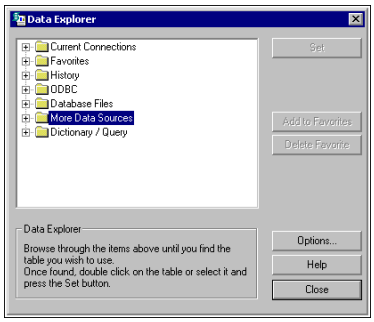
	What do I do?	What happens?/Comments
12.	Double-click the following fields: **Display Name** **E-mail** **Telephone**	
13.	Click Save.	The **Save As** dialog appears.
14.	In the **File Name** field of the **Save As** dialog, type **Contacts List**.	
15.	Click **Save**.	The file is saved as **Contacts List.112.ttx**. Do not change the **112.ttx** part of this file name.
16.	On the **Edit Report TTX** dialog, click **Close**.	The Report Manager returns.

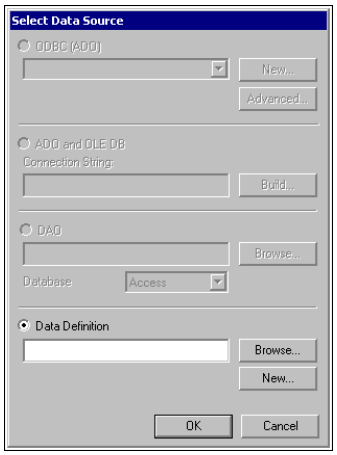
Task A.2 How Do I Create a New Report from a Template?

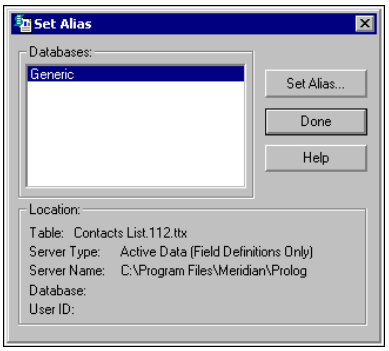
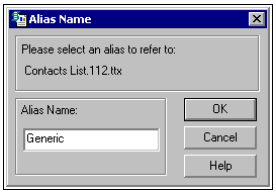
What do I do?	What happens?/Comments
1. On the Report Manager, click **Add Report**.	 The **New Report** dialog appears: 
2. On the Create from Template tab, select **Template(Portrait).rpt**.	You will modify this template to create your report. The “each page” templates start each company’s data on a separate page.
3. Click **OK**.	**New Report [New Subtitle]** appears in the **Public** folder of the Report Manager.
4. Click the **General** tab.	

What do I do?	What happens?/Comments
5. Click **Layout**.	 Crystal Reports appears with the template open in the Design mode:  Strictly speaking, the report is not created until you save it, but we won't save it until we associate the **.ttx** file and set the alias.

Task A.3 How Do I Associate the .ttx File to the New Report?

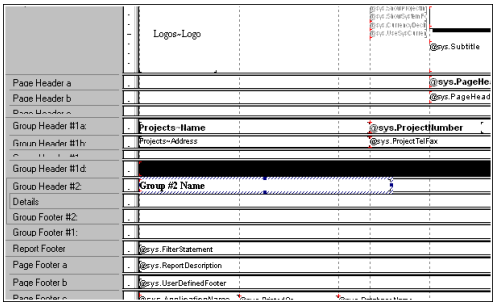
What do I do?	What happens?/Comments
1. In Crystal Reports, on the **Database** menu, click **Set Location**.	The **Set Location** dialog opens, showing the report is associated to **Generic.ttx**: 
2. Click **Set Location**.	The **Data Explorer** appears: 
3. Click the **(+)** sign next to **More Data Sources**.	Available data sources expand beneath.
4. Click the **(+)** sign next to **Active Data**.	

	What do I do?	What happens?/Comments
5.	Click the (**+**) sign next to **Active Data (Field Definitions Only)**.	The **Select Data Source** dialog appears: 
6.	Click **Browse**.	The **Select Data Definition File** dialog appears.
7.	In the **File Name** field, select **C:\Program Files\Meridian\ Prolog Manager 6\Program\ User Reports\Contact List.112.ttx.**	
8.	Click **Open**.	The **Select Data Source** dialog returns.
9.	Click **OK**.	The **Data Explorer** returns with **Contacts List.112.ttx** selected.
10.	Click **Set**.	The **Set Location** dialog returns.
11.	Click **Done**.	A **Verify Database** message informs you that the database file “Generic” has changed and asks if you want to fix up the report.
12.	Click **Yes**.	Now you will change the alias for this report.

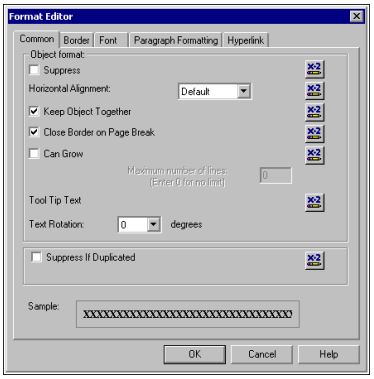
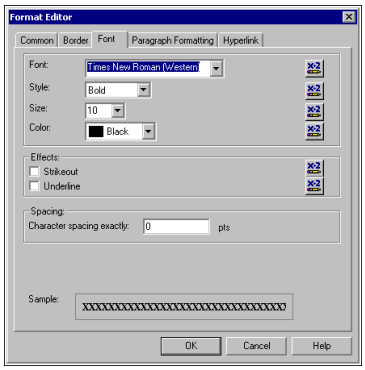
What do I do?	What happens?/Comments
13. In the **Database** menu, click **Set Alias...**	The **Set Alias** dialog appears: 
14. Click **Set Alias**.	The **Alias Name** -dialog appears: 
15. Replace **Generic** with **Contact List**.	
16. Click **OK**.	The **Set Alias** dialog returns.
17. Click **Done**.	

Task A.4 How Do I Set Up a Group Name in a New Report?

Prolog Manager reports display their information subdivided by groups. The primary group for all Prolog Manager reports is project. In this report, contacts display divided by project. You want them to be subdivided by company, so you will set the Company Name field in the Company table as the next group, and you will format that information in Crystal to appear as the information will appear in the report.

What do I do?	What happens?/Comments
1. In Crystal Reports **Insert** menu, click **Group**.	The **Insert Group** dialog appears: 
2. Select **Company~Name**.	
3. Click **OK**.	A new row is added to the Crystal Reports Design view called **Group #2 Name**: 

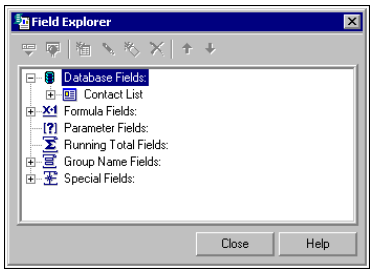
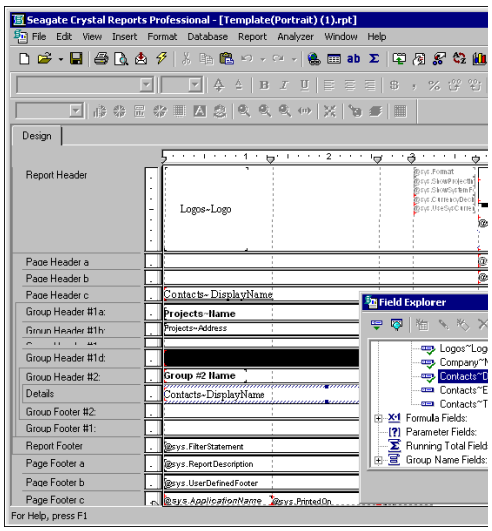
Next you will format this field.

What do I do?	What happens?/Comments
4. Right-click **Group #2 Name** and on the shortcut menu, click **Format Field...**.	The **Format Editor** appears: 
5. Click the **Font** tab.	
6. In the **Font** field, select **Arial (Western)**.	
7. In the **Size** field, select **9**.	
8. Click **OK**.	

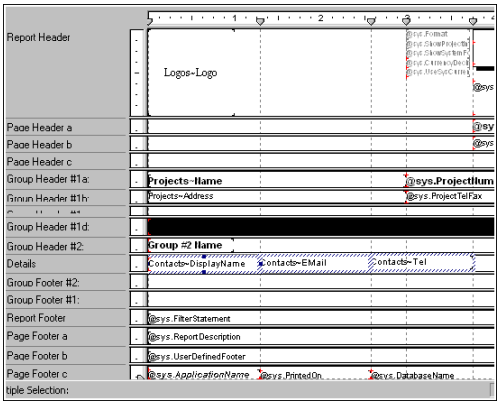
Task A.5 How Do I Insert Field Data Columns into a Report?

Beneath each company, you want to display the contact's name, e-mail address and telephone. Each contact is a record, and each of these bits of data is a field in the database. Each contact person will appear as rows and the data fields appear as column.

In this task you will specify which fields will be column. You will format the column information in Crystal to appear as you want that information to appear in the report.

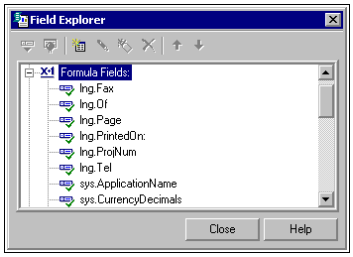
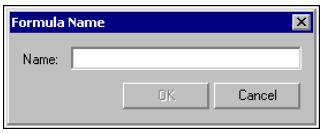
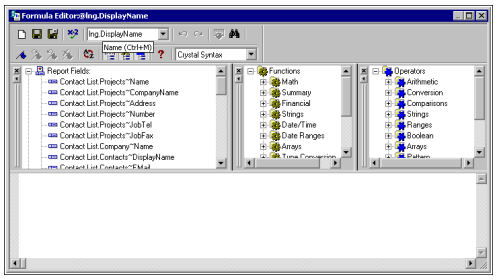
What do I do?	What happens?/Comments
1. On the **Insert** menu, click **Database Field**.	The **Field Explorer** appears: 
2. Click the (**+**) next to Contact Lists.	The list of fields appears.
3. Drag **Contacts~DisplayName** from the **Field Explorer** and drop in Crystal Reports Design environment on the left-hand side of the **Details** row.	Two new cells labeled **Contacts~DisplayName** appear in Crystal Reports:  The cell in the **Page Header c** row creates a column header for the **Contacts~DisplayName** field. You will delete this cell and create your own column header for this column.

	What do I do?	What happens?/Comments
4.	In the **Page Header c** row, select **Contacts~DisplayName**.	
5.	Press DEL.	The column header is deleted.
6.	In the Details row, select **Contacts~DisplayName.**	
7.	Reduce the width of this cell to **1”**.	
8.	In the **Field Explorer**, drag **Contacts~EMail** and drop in the **Details** row, to the right of **Contacts~DisplayName**.	
9.	Repeat **steps 4–7** for the **Contacts~EMail** cell.	
10.	In the **Field Explorer**, drag **Contacts~Telephone** and drop in the **Details** row, to the right of **Contacts~EMail**.	
11.	Repeat **steps 4–7**. for the **Contacts~Telephone** cell.	
12.	Select the **Contacts~DisplayName** cell.	The **Format Editor** appears.
13.	Click the **Contacts~EMail** cell.	Both cells are now selected.
14.	CTRL+right-click the **Contacts~Telephone** cell.	
15.	On the shortcut menu, click **Format Objects**.	The F**ormat Editor** appears.
16.	Click the **Font** tab.	
17.	In the **Font** field, select **Arial (Western)**.	

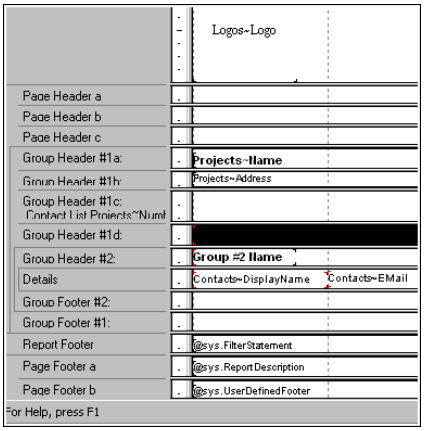
	What do I do?	What happens?/Comments
18.	In the **Size** field, select **9**.	Make sure the **Style** field set to **Regular** and the **Color** field is set to **Black**.
19.	Click **OK**.	The formatting of you specified is applied to all three cells:  Alternately, you can right-click each cell and set its formatting manually.

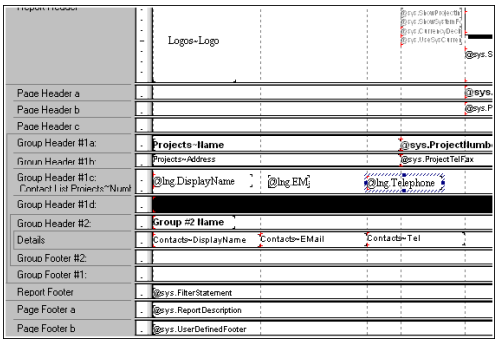
Task A.6 How Do I Set Column Headers/Formulae?

Column headers cells provide the formatting for the column headers in the report. They also contain within them the formula which is applied to the data in the rows beneath them. As the report template uses a black background with white text for the column headers, you will format them that way. Since this report presents the values in the fields without performing a mathematical operation on them, the formulae here are very simple.

What do I do?	What happens?/Comments
1. In the **Insert** menu, click **Formula Field**.	In the **Field Explorer**, the list of **Formula Fields** expands: 
2. On the **Field Explorer**, click **New**.	 The **Formula Name** dialog appears: 
3. In the **Name** field, type: **Ing.DisplayName**.	Formula fields begin with **Ing.**.
4. Click **OK**.	The Formula Editor opens to **@Ing.DisplayName**: 

	What do I do?	What happens?/Comments
5.	On the first line of the editing area, type: **//Passed at runtime from language database**.	The **//** means this statement is a comment. It has no significance except to explain to the next person who looks at it, what this formula is doing. It means that when the report run, Crystal Reports extracts the value from a field in the database.
6.	In the second line, type: **"Contact Name"**.	Include the quotation marks. **Contact Name** is the field whose value is extracted from the database. The quotation marks mean just display this value.
7.	On the **Formula Editor**, click **Save**.	
8.	On the **Formula Editor**, click **New**.	
9.	Repeat **steps 3-8** with the following changes: In **step 3**, in the **Name** field, type: **Ing.EMail**.	
10.	In **step 6**, in the second line of the Formula Editor, type **"EMail"**.	Include the quotes.
11.	Repeat **steps 3-6** once again with the following changes: In **step 3**, in the **Name** field, type: **Ing.Telephone**.	
12.	In **step 6**, in the second line of the Formula Editor, type **"Telephone"**.	Include the quotes.

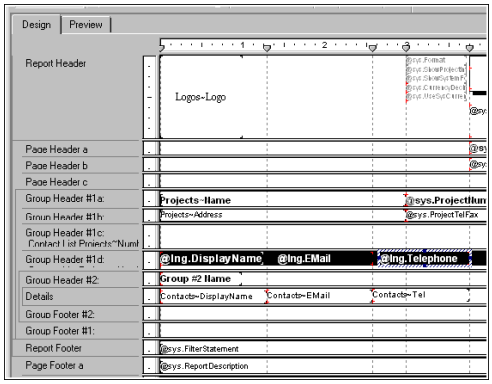
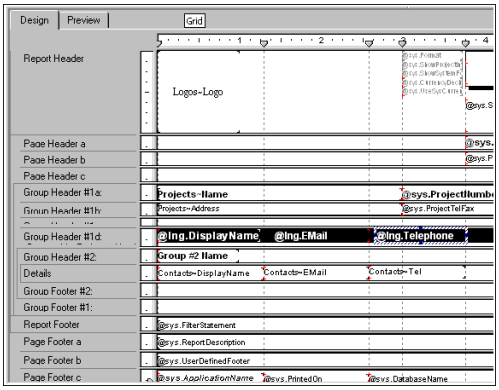
What do I do?	What happens?/Comments
13. Click **Save and Close**.	 The **Formula Editor** closes and the new **Formula Fields** you created appear in the **Field Explorer** list. Now you will create the format and position these **Formula Fields** as the column headers.
14. Drag the lower border of the **Group Header #1c** row (immediately above the black row) and drop when it is a bit wider than the black row.	 You will use this space to temporarily park cells for the Formula Fields you just created.
15. Drag **Ing.DisplayName** from the **Field Explorer** and drop on the left-hand side of row **Group Header #1c**.	
16. Drag **Ing.Email** from the **Field Explorer** and drop above and in line with **Contacts~Email**.	

What do I do?	What happens?/Comments
17. Drag **lng.Telephone** from the **Field Explorer** and drop above and in line with **Contacts~Telephone**.	 Now you have placed each Formula Field and you can edit and format them.
18. Right-click **@lng.DisplayName** and from the shortcut menu, click **Format Field**.	The **Format Editor** appears.
19. Click the **Font** tab.	
20. In the Font field, select **Arial (Western)**.	
21. In the **Style** field, select **Bold**.	
22. In the **Size** field, click **10**.	
23. In the **Color** field, click **White**.	
24. Click the **Formula** button next to **Color**.	 The **Format Formula Editor** for the **Font Color** appears.
25. In the editing space, type: **//This is the conditional formatting provided. It is passed at runtime.** **//If the flag passed is 1=Enhanced Report, else 0=General Report**	These are comments to describe what the subsequent lines will do. Each of these are one line of text in the editing window. If you break one of them into two lines, you must put **//** at the beginning of each line.

	What do I do?	What happens?/Comments

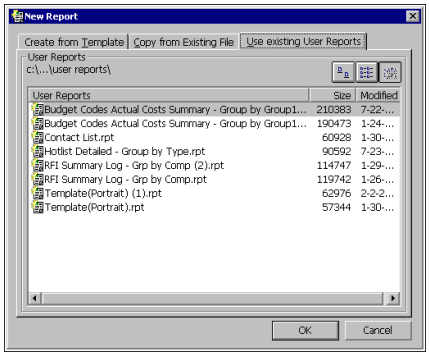
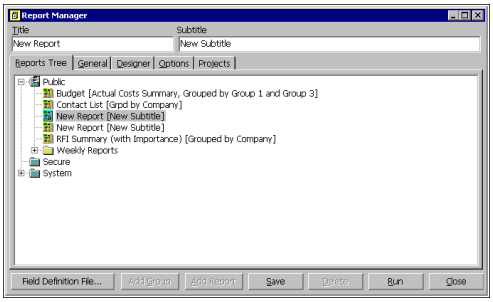
26.	Type:
	If {@sys.Format}="1" Then
	White
	Else
	Black
		This coding that ensures the column head print white text on their black background and black text on any other color background.

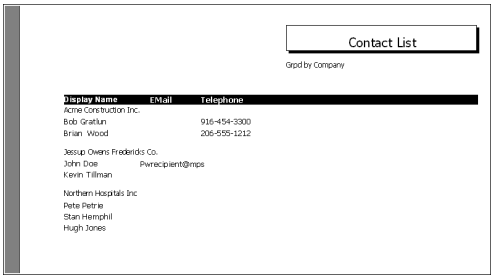
27.	Click **Save and Close**.	The Format Editor returns.
28.	Click **OK**.	The Format Editor closes. The cell in Crystal Reports appears blank; however, it only appears that way as its text is white.
29.	Click the **@Ing.Email** cell.	
30.	CTRL+right-click the **@Ing.ContactName** cell and from the shortcut menu, click **Format Objects...**.	The **Format Editor** appears.
31.	Click **OK**.	The formatting (including the formula) are copied from the **DisplayName** cell to the **Email** cell. It appears to be empty.
32.	Click the **@Ing.Telephone** cell.	
33.	CTRL+right-click the **@Ing.ContactName** cell and from the shortcut menu, click **Format Objects...**.	The **Format Editor** appears.
34.	Click **OK**.	The formatting (including the formula) are copied from the **DisplayName** cell to the **Email** cell. It appears to be empty.

What do I do?	What happens?/Comments
35. Drag each of the three “white” cells down one row and drop in the **Group Header #1d** row.	The cells now appears as white text in a black background: 
36. Drag the lower border of the **Group Header #1c** row upward and drop when the row returns to its original narrow size.	
37. Click **Save**.	 You can close Crystal Reports now, buy you might want to keep it open until you run the report and verify that it is correct.

Task A.7 How Do I Rename the Report?

The final segment of the report creation process is returning to Prolog Manager to name and run the report. Up to this point you have been modifying the .rpt file which generates the new report. Now you must assign that file to a report name.

	What do I do?	What happens?/Comments
1.	Return to the Prolog Manager's **Report Manager.**	.
2.	In the **Reports Tree** select the **Public** folder.	A message asks whether you want to save recent changes.
3.	Click **No**	
4.	Click **Add Report**.	The **New Report** dialog appears:
5.	Click the **Use existing User Reports** tab.	The **User Reports** list appears; 
6.	Select **Contact List.rpt**.	This is the file you have been creating.
7.	Click **OK**.	The **New Report** dialog closes a**nd the Report Manager appears with New Report [New Subtitle]** selected: 

What do I do?	What happens?/Comments
8. Change the **Title** field to **Contact List**.	
9. Change the **Subtitle** field to **Grpt by Company**.	
10. Click **Save**.	
11. Click **Run**.	The **Report** appears:  When you close the report, its name remains in the **Public** folder of the **Reports Tree** for with continued availability.

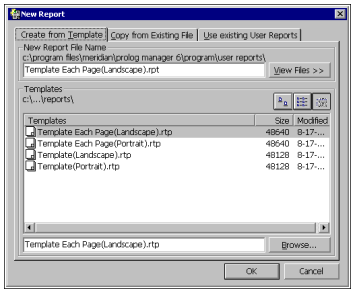
B. Installing a New Report

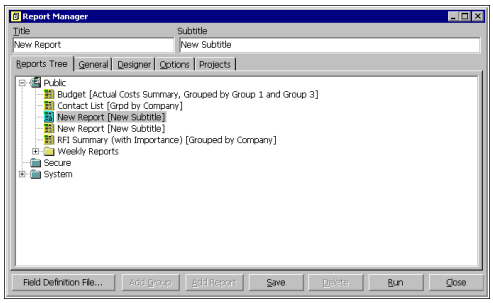
After you have created a new report, other staff people on your network have the ability to run that report on their computers. However, if you wish to allow people who are not on your network to run this report, you can copy the report to the other computers and then install it in Report Manager. You can send it to the other computer(s) by email or by copying on a floppy drive. (Reports created in Crystal Reports or other installations of Prolog Manager are referred to as “existing reports.”)

Note: This section generally applies to stand-alone installations of Prolog Manager. If you are running Prolog Manager on a network server, once you’ve added the report to the server installation, everyone accessing that server can use the new report.

Task B.1 How Do I Install an Existing Report to Another Computer?

This task pretends that the report you just created was created by someone else, and now you will install it to your computer.You receive the existing report **Contact List.rpt** attached to an e-mail or on a disk.

	What do I do?	What happens?/Comments
1.	Copy the existing report to the folder **C:\Program Files\Meridian\ Prolog Manager 6\User Reports**.	This file is already in that folder from the previous task.
2.	In Prolog Manager, click **Reports Manager**.	
3.	In the **Reports Tree**, select the **Public** folder.	You could also select **Secure** or a subfolder beneath either one.
4.	Click **Add Report**.	The **New Report** dialog appears: 

	What do I do?	What happens?/Comments
5.	Click the **Use existing User Reports** tab.	A list of all the reports in the **User Reports** folder appears.
6.	Select **Contact List.rpt**.	
7.	Click **OK**.	The **New Report** dialog closes, and **New Report** appears in the Report Manager **Reports Tree**: 
8.	Select **New Report [New Subtitle]**.	
9.	In the **Title** field, replace **New Report** with **Contact List 2**.	
10.	In the **Subtitle Field**, replace **New Subtitle** with **Grouped by Co**.	
11.	Click the **General** tab.	
12.	In the **Description** field, type **Existing Report Copy**.	
13.	Click **Save**.	Now you can run this copy of the report.

CREATING SUBREPORTS

Lesson Overview

In this lesson, you will create a new subreport using Prolog Manager and Crystal Reports.

A. Creating a Subreport

A. Creating a Subreport

In a Prolog Manager/Crystal report, either all of the fields that display must reside in the same datagroup or else you must create a subreport. A subreport allows you to include fields in a report from outside the datagroup, provided you can identify another field which resides in the report's datagroup and which is also in a common datagroup with the field you wish to add.

The process of creating a subreport is similar to creating a regular report. It can have the same characteristics of the main report with similar record selection criteria.

However, subreports differ from regular reports in that a subreport:

- Can be inserted as an object into a primary report
- Can be placed in any report section and the entire subreport will print in that section
- Can be saved as a primary report
- Cannot stand on its own unless saved as a primary report)
- Cannot contain another subreport

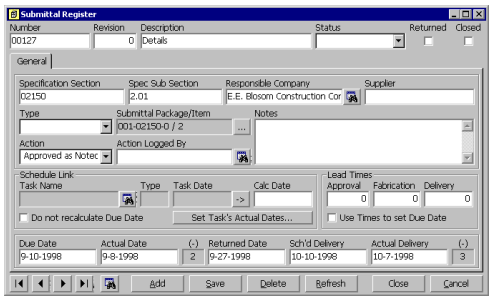
In this task you will add a field to a report by creating a subreport. You will start with the **Submittal Packages Summary, Grouped by Package Number with Register Items**. The field you want to add to this report is the description of the Submittal Type. The Submittal Type (LU) table is not included in the Submittal Packages data group. The Submittal Type (LU) table contains an ID and a description. The ID is part of the Submittal Register record. So, you will use the Submittal Type ID to link the Submittal Register description to the Submittal Packages report.

This process contains the following elements:

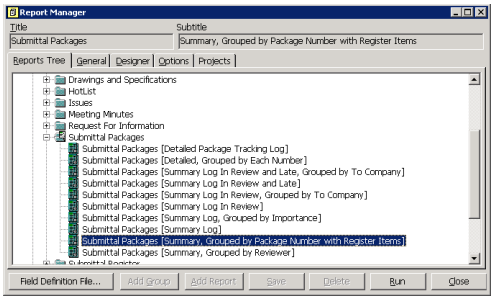
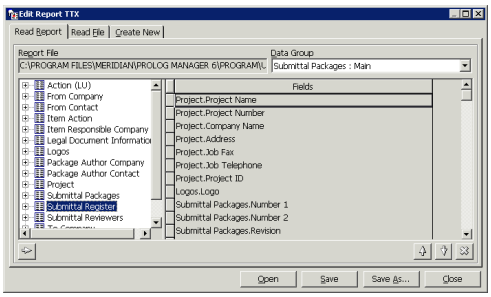
1. Copy the original report and create a new .ttx file to link to a new subreport
2. Modify the original report
3. Create the .ttx for the new subreport
4. Create the new subreport
5. Link the modified original report and the new subreport
6. Modify the subreport

Task A.1 How Do I Setup My Database for this Task?

The sample database requires a bit of data added to it that will appear in the subreport you will create.

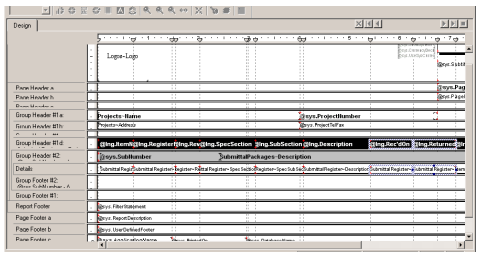
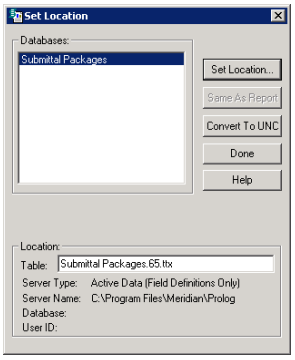
	What do I do?	What happens?/Comments
1.	On the Switchboard, click **Doc Control** and on the submenu, click **Submittal Register**.	The form appears: 
2.	Click **Lookup**.	The **Submittal Register** pick list appears.
3.	Double-click **0126 Plan Help**.	The record populates the form.
4.	In the Type field, type **Test Type**.	A message asks if you want to set up this lookup type.
5.	Click **Yes**.	The **Lookup Group Maintenance** dialog appears with **Test Type** in the **Type** column.
6.	In the **Type ID** column, type **TT**.	
7.	Type **OK**.	**Test Type** appears in the **Type** field.
8.	Click **Save**.	
9.	Click **Close**.	

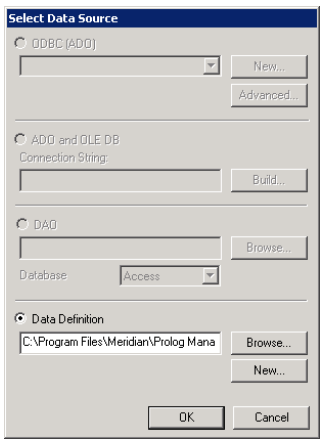
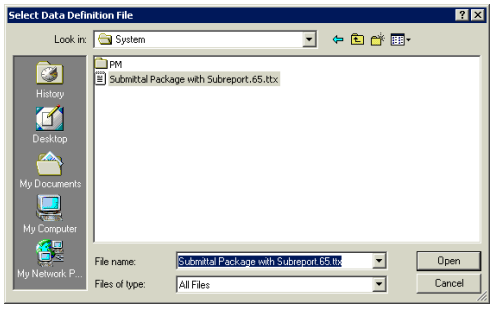
Task A.2 How Do Create a .ttx File to Link to a Subreport?

	What do I do?	What happens?/Comments
1.	Open the Report Manager to the **Submittal Packages Summary, Grouped by Package Number with Register Items** report.	
2.	Copy the report to the **Public** folder.	Follow the procedure in “How Do I Copy a Report?” on page 58. The newly created report is selected.
3.	Click **Field Definition File**.	The **Edit Report TTX** dialog appears: 
4.	Click the **+** next to **Submittal Register**.	
5.	Double-click **Type ID**.	**Submittal Register.Type ID** is copied to the **Fields** list.
6.	Move **Submittal Register.Type ID** down just below **Submittal Register.Description**.	This field is the link for the subreport. The order of fields in the .ttx file does not matter, but placing them in the order they appear is helpful for troubleshooting.
7.	Click **Save As** and name the new .ttx as **Submittal Package with Subreport.ttx**,	The file is saved as **Submittal Package with Subreport.65.ttx**.

What do I do?	What happens?/Comments
8. Close the **Edit Report TTX** dialog.	

Task A.3 How Do Modify My Original Report for a Subreport??

	What do I do?	What happens?/Comments
1.	On the **General** tab of the Report Manager, click **Layout...**	The Crystal environment appears: 
2.	Delete the **Rec'd On** and the **Returned** columns.	Follow the procedure in "How Do I Delete Columns from a Report?" on page 54.
3.	On the **Database** menu of Crystal Reports, click **Set Location**.	The **Set Location** dialog appears: 
4.	Click **Set Location**.	
5.	Click the **+** next to **More Data Sources**.	
6.	Click the **+** next to **Active Data**.	

	What do I do?	What happens?/Comments
7.	Click the + next to **Active Data (Field Definitions Only**.	The **Select Data Source** dialog appears: 
8.	Click **Browse**.	
9.	Point to the **Submittal Package with Subreport.65.ttx** you created and click **Open**.	 The **Select Data Source** dialog returns.
10.	Click **OK**.	The **Data Explorer** returns.
11.	Click **Set**.	The **Set Location** dialog returns.
12.	Click **Done**.	A message asks if you want to fix up the report.
13.	Click **Yes**.	
14.	In **File** menu of **Crystal Reports**, click **Save**. .	You have modified the original report to accept the subreport.

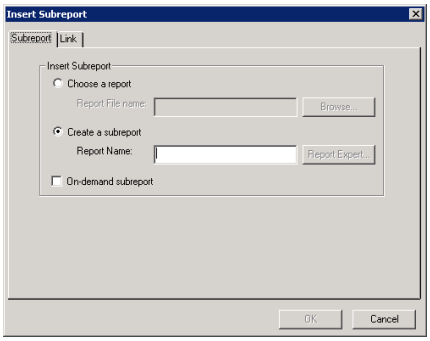
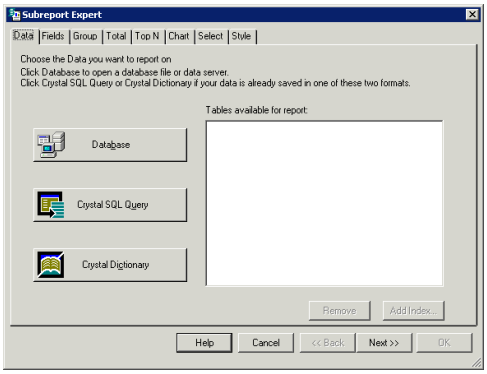
What do I do?	What happens?/Comments
15. In Prolog Manager's **Report Manager**, change the subtitle of the report to **with Type Description**.	
16. Click **Save**.	

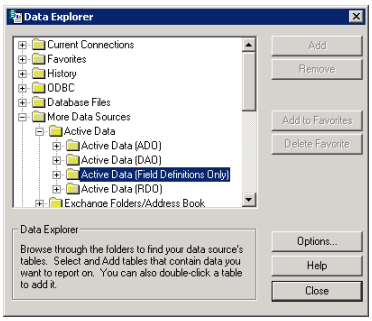
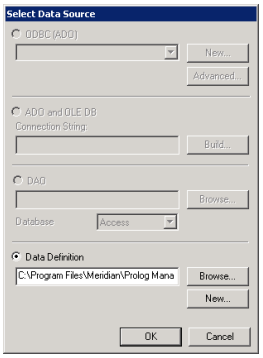
Task A.4 How Do I Create a .ttx File for the Subreport?

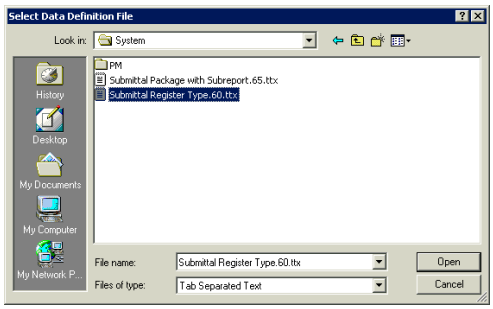
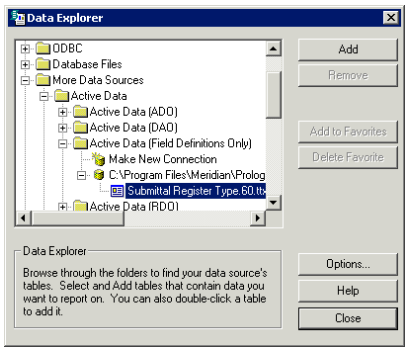
	What do I do?	What happens?/Comments
1.	In Report Manager, select **Submittal Packages [with Type Description]**.	
2.	Click **Field Definition File**.	
3.	Click the **Create New** tab.	
4.	In the **Data Group** list, click **Submittal Register**.	
5.	Click the **+** sign next to **Submittal Register Type (LU)**.	
6.	Double-click **Type** and **Type ID**.	
7.	Click **Save as** and name the file **Submittal register type**.	The file is name **Submittal register type.60.ttx**.
8.	Click **Close**.	

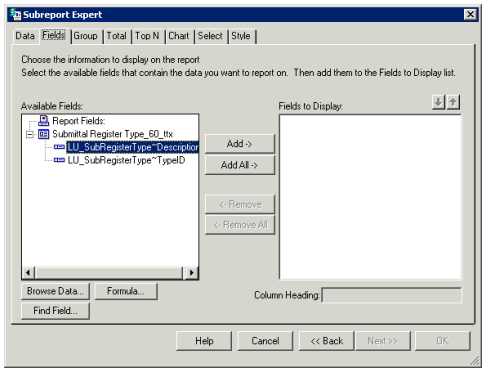
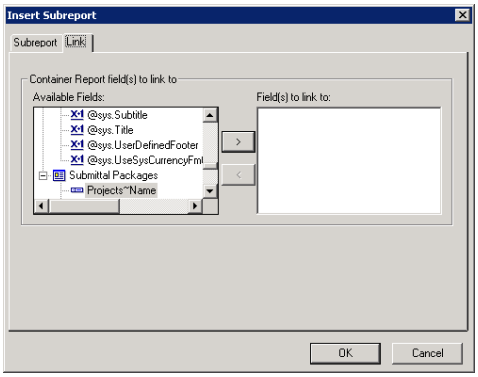
Task A.5 How Do I Create a Subreport?

Creating a subreport involves several components. FI

	What do I do?	What happens?/Comments
1.	In the Reports Manager, on the **General** tab of the **Submittal Packages [with Type Description]** report, click **Layout...**.	The **Crystal Reports** environment opens.
2.	On the **Insert** menu, click **Subreport**.	The **Insert Subreport** dialog appears:  **Create a subreport** is already checked.
3.	In the **Report Name** field, type **Register Type Subreport**.	
4.	Click **Report Expert**.	The **Report Expert** dialog appears: 

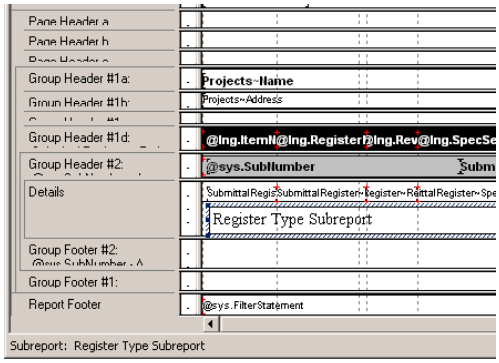
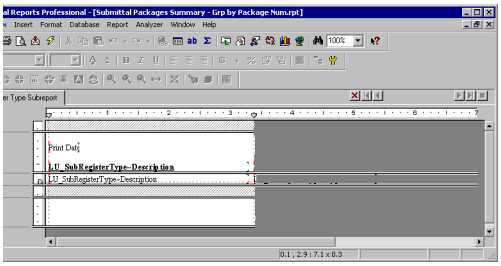
What do I do?	What happens?/Comments
5. Click **Database**.	The **Data Explorer** dialog appears: 
6. Click the **+** next to **More Data Sources**.	
7. Click the **+** next to **Active Data**.	
8. Click the + next to **Active Data (Field Definitions Only**.	
9. Double-click **Make a New Connection**.	The **Select Data Source** dialog appears: 
10. Click **Browse**.	

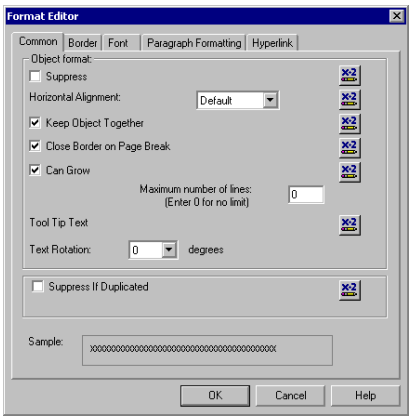
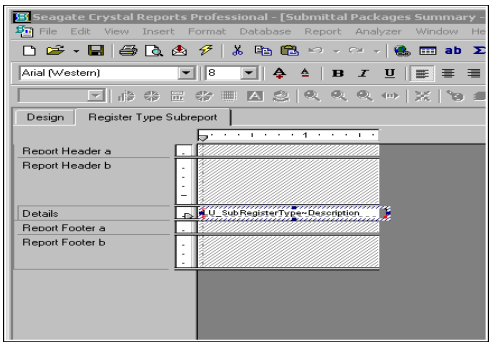
What do I do?	What happens?/Comments
11. Select the **Submittal Register Type.60.ttx** you created.	
12. Click **Open**.	The file appears in the **Select Data Source** dialog.
13. Click **OK**.	The file now appears in the **Data Explorer** tree: 
14. Click **Add**.	
15. On the **Data Explorer**, click **Close**.	**Submittal Register Type 60.ttx** appears in the **Subreport Expert**.

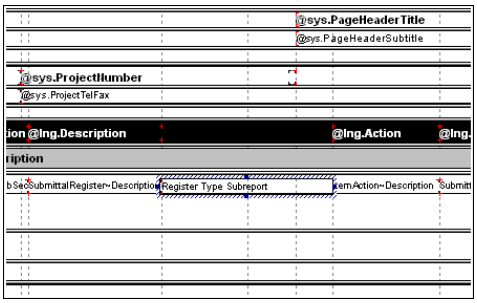
What do I do?	What happens?/Comments
16. **Click Next>>**,	The **Fields** tab of the **Subreport Expert** now appears: 
17. Select **LU_SubRegisterType~Description**.	
18. Click **Add->.**	The field name moves to the **Fields to Display** list.
19. Click **OK**.	This is the only field you want to display. The **Insert Subreport** dialog returns.
20. Click the **Link** tab.	 Here you will designate the field in the main report that will link to a field in the subreport.

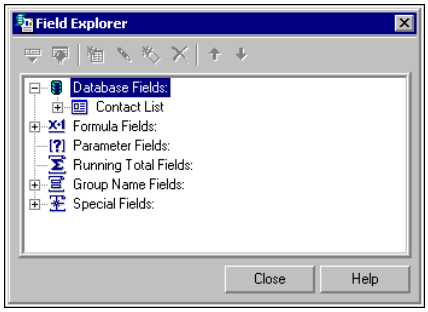
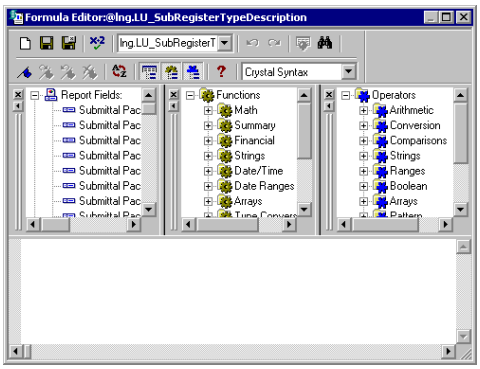
	What do I do?	What happens?/Comments
21.	In the **Available Fields** list select Select **Submittal Register~TypeID .**	
22.	Click the arrow button.	 The field name is copied to the **Field(s) to link to list**.
23.	In the **Select Data in subreport based on field** list, select **LU_SubRegisterType~TypeID**.	
24.	Click **OK**.	When you click OK, the subreport appears as a “dragable box field” labelled **Register Type Report**. It seems to be “glued” to the cursor in your Crystal Reports environment. When you click, it drops.

Task A.6 How Do I Format the Subreport?

What do I do?	What happens?/Comments
1. Drag the subreport cell to the **Details** row of the Crystal environment, and drop right below the field labels that already appear in that row.	 If you drop any place else in the Crystal environment, you can drag the box to the indicated location. You can also press CTRL+ARROW keys to move it into place.
2. Click the **Register Type Subreport** tab.	The design layout of the subreport appears in the Crystal environment: 
3. Drag the right-hand edge of the **LU-SubRegister~Type** cell to the left and drop at about **2** inches.	This sizes the cell to fit in the report.
4. Right-click the **Print Date** field and on the shortcut menu, click **Delete**.	This field is not necessary.

	What do I do?	What happens?/Comments
5.	Right-click on the column header in the **Report Header b** row for **LU_SubRegistetType~Description**, and on the shortcut menu, click **Delete**.	This label is not necessary here.
6.	In the **Details** row, right-click **LU_SubRegisterType~Description**, and on the shortcut menu click **Format Field**.	The **Format Editor** appears: 
7.	On the **Comman** tab, check **Can Grow**.	This setting allows the test to wrap if there is not enough room for it.
8.	On the **Font** tab, in the **Font** field, select **Arial (Western)**.	
9.	In the **Size** field, select **8**.	
10.	Click **OK**.	
11.	On the **Register Type Subreport** tab, drag the right-hand edge of **LU_SubRegisterType~Description** field and drop so the cell fits in the space indicated.	

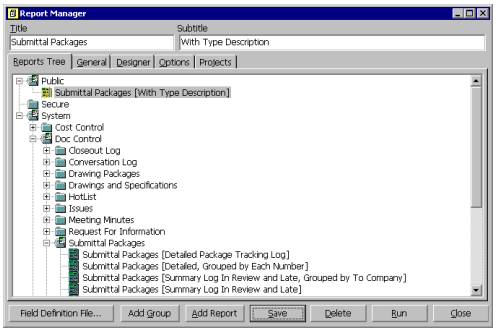
What do I do?	What happens?/Comments
12. In the left-hand title column, right-click **Report Header b** and on the shortcut menu, click **Hide**.	
13. In the left-hand title column, right-click **Report Footer b** and on the shortcut menu, click **Hide**.	
14. Click **Save**.	
15. Click the **Design** tab.	
16. Right-click the cell of the **Register Type Subreport** and on the submenu, click **Format Subreport**.	The **Format Editor** returns.
17. On the **Font** tab, in the **Font** field, select **Arial (Western)**.	
18. In the **Size** field, select **8**.	
19. On the **Border** tab in the **Line style** area, set all four sides to **None**.	
20. Click **OK**.	
21. In the **Details** row, drag the lower-right hand corner of the **Register Type Subreport** cell and drop on a size that will fit in the colum space provided.	When complete, your Crystal environment appears as follows: 

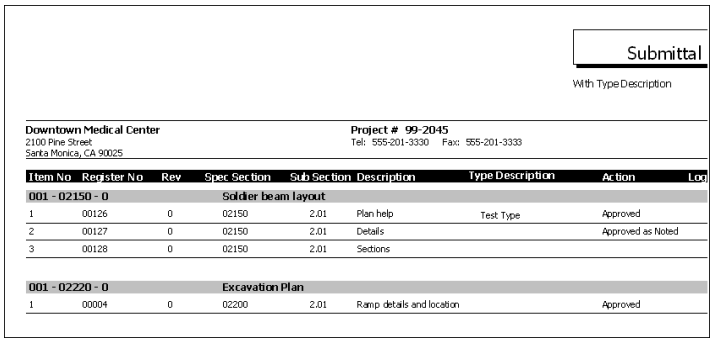
What do I do?	What happens?/Comments
22. In the **Insert** menu, click **Formula field**.	The **Field Explorer** appears: 
23. Click **New**.	 The **Formula Name** dialog appears: 
24. In the **Name** field, type **lng.SubRegisterTypeDescription**.	
25. Click **OK**.	The **Formula Editor** opens to the new field: 
26. On the first line of the editing area, type: **//Passed at runtime from language database**.	This is a comment, describing the process.

	What do I do?	What happens?/Comments
27.	On the second line of the editing area, type **"Type Desciption"**.	Include the quotation marks. This tells Crystal reports to use these words as the label for this column.
28.	Click **OK**.	The **Field Explorer** now includes the name of the new formula.
29.	Drag **lng.SubRegisterTypeDescription** and drop in an empty white space.	You want to format the title properly before you put it into place.
30.	Size the field so it will fit in the column above the subreport.	
31.	Right-click on **lng.SubRegisterTypeDescription** and click **Format field.**	
32.	On the **Font** tab in the **Font** tab, select **Arial (Western)**.	
33.	In the **Style** field, select **Bold**.	
34.	In the **Size** field, select **9**.	
35.	In the **Color** field, select **White**.	
36.	Drag the field and drop in the black row above the subreport field.	You can use ctrl+arrow keys to manuever the field into place.
37.	Click **Save**.	

Task A.7 How Does a Subreport Appear in a Report?

Now you can run the rewly created report. The subreport appears as the appropriate column in the report.

What do I do?	What happens?/Comments
1. In the Report Manager, select **Submittal Packages [With Type Description]**.	
2. The subreport appears as a new column in the report, displaying the Type.	



Submittal

With Type Description

Downtown Medical Center
2100 Pine Street
Santa Monica, CA 90025

Project # 99-2045
Tel: 555-201-3330 Fax: 555-201-3333

Item No	Register No	Rev	Spec Section	Sub Section	Description	Type Description	Action	Log
001 - 02150 - 0			**Soldier beam layout**					
1	00126	0	02150	2.01	Plan help	Test Type	Approved	
2	00127	0	02150	2.01	Details		Approved as Noted	
3	00128	0	02150	2.01	Sections			
001 - 02220 - 0			**Excavation Plan**					
1	00004	0	02200	2.01	Ramp details and location		Approved	

APPENDIX

Appendix A

TOOLBARS

This appendix references Prolog Manager toolbars. It provides an illustration and description of each toolbar button and any keyboard shortcuts for toolbar buttons. This appendix describes the following toolbars:

Standard Toolbar

Form Buttons Toolbar

Word Processor Toolbar

Seagate Crystal Reports Preview Toolbar

Standard Toolbar

The buttons on the Standard toolbar give you access to the most commonly used commands in Prolog Manager, such as opening a project, checking spelling and printing reports. The table below shows the Standard toolbar buttons, indicates keyboard shortcuts (if applicable), and describes the function of each button.

Button	Name	Keyboard Shortcut	Function
	Open Project	None	Opens the Select Project dialog from which to select an existing project
	Cut	CTRL+X	Cuts the selected text or object and moves it to the clipboard
	Copy	CTRL+C	Copies the selected text or object and moves it to the clipboard
	Paste	CTRL+V	Inserts the text or object from the clipboard to the location of the insertion point
	Undo	None	Deletes the last action (only for word processor functions)
	Redo	None	Repeats the last action (only for word processor functions)
	Quick Text	None	Opens the **Quick Text** feature
	QuickFilter	None	Opens the **QuickFilter** feature
	Prolog Today	None	Opens the **Prolog Today** featur.
	Calendar	CTRL+E	Opens the Calendar
	Spelling Checker	CTRL+S	Starts the Spelling Checker. This button is available only when a form, template, or document is open.

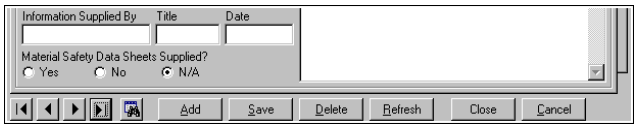
Button	Name	Keyboard Shortcut	Function
	Quick Print	CTRL+P	Opens **Report Manager** and selects a report for printing, unless you have changed your Printer destination preference
	Report Manager	CTRL+R	Opens **Report Manager**
	Query Manager	None	Opens **Query Manager**
	Companies and Contacts	None	Opens the **Company Setup** form
	Distribution Lists	None	Opens the **Distribution Lists** form
	Conversation Log	None	Opens the **Conversation Log** form
	Transmittal and Courtesy Copy Wizard	CTRL+T	Starts the **Courtesy Copies (cc) Log** and **Transmittal Queue Wizard**
	Quick Transmittal	None	Opens the **Transmittals and Correspondence Log** form
	Create Submittal Transmittal	None	Opens the **Submittal Transmittals** form and creates a submittal transmittal for the active submittal package. This button is only available when the **Submittal Packages** form is open.
	Auto Alerts	None	Runs the **Auto Alerts** feature
	Link to HotList	CTRL+H	Opens the **Link to HotList** form
	Link to Issue	CTRL+I	Opens the **Link to Issue** form

Button	Name	Keyboard Shortcut	Function
	Link to External File	None	Opens the **Link External File** dialog box to link an external file to the active recor.
	Link to Lynx Photo	None	Links a Lynx digital photo to a record in Prolog Manager. This button is displayed only if you have installed and set up the Lynx application to work with Prolog Manager.
	Link to MS Word Document	None	Creates a letter by merging a Microsoft Word template with data from the active record, and links the newly created letter to the active record
	Link to PM Writer Document	None	Creates a letter by merging a PM Writer template with data from the active record, and links the newly created letter to the active record
	Link Comments	None	Opens the Comments dialog box for you to add new comments, or view or respond to existing comments for a record
	Link Views	None	Opens the Link Views window
	Create PCO	None	Opens the **Potential Change Orders** form. If another form is open, Prolog Manager creates a potential change order with the data in the active record.
	Application Launcher	CTRL+L	Opens the Application Launcher dialog box to start other applications without quitting Prolog Manager

Form Buttons Toolbar

The command buttons on the Form Buttons toolbar are located at the bottom of each form by default.

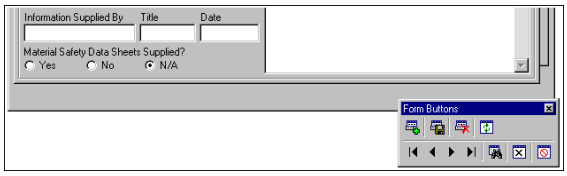
Form with buttons



If you choose to use the Form Buttons toolbar instead (in the **Tools** menu, click **Toolbars**, and in the submenu, click **Form Buttons toolbar**), the toolbar allows you to add, save, or delete a record, while saving space and giving you more room to view the form and enter data. This toolbar can be either “docked” or “float” anywhere on your screen:

Form Buttons toolbar in use

Docked



Floating

The arrow/navigation buttons on this toolbar  provide a means to scroll through a list of items which have been selected from a database.

The following table describes the keyboard shortcuts and functions of each button on the Form Buttons toolbar.

Button	Name	Keyboard Shortcut	Function
	Add	ALT+A	Adds a new record in a form
	Save	ALT+S	Saves the active record in a form
	Delete	ALT+D	Deletes the active record in a form

Button	Name	Keyboard Shortcut	Function
	Refresh	ALT+R	Reverts to the last saved copy of the active record. If you click Refresh in a new, unsaved record, Prolog Manager clears the form.
	Close	ESC	Prompts you to save your changes to the active record and then closes the form
	Cancel	ALT+C	Closes the active form without saving any changes
	First	F5	Retrieves the first record in a form
	Previous	F6	Retrieves the previous record in a form
	Next	F7	Retrieves the next record in a form
	Last	F8	Retrieves the last record in a form
	Lookup	F9	Opens a list of all the records in a form

Word Processor Toolbar

The Word Processor toolbar can be used as a shortcut to many of the items on the Word Processor menu. The Word Processor toolbar is only available when you are using PM Writer. The following items are available on the toolbar:

Button	Name	Function
	Quick Print	Prints the open document
	Print Preview	Previews the open document
	Delete All Documents	Deletes all documents
	Delete Merge Field	Deletes selected merge field
	Find	Finds text in a document
	Replace	Finds and replaces text in a document
	Page Break	Inserts a page break in the open document
	Insert Table	Inserts a table in the open document
	Insert Merge Field	Inserts a merge field in the open template. Merge fields can only be inserted in templates.
	Format Merge Field	Formats the selected merge field. Merge fields can only be formatted in templates.
	Merge Field Sort Order	Opens the Set Merge Fields Sort Order dialog box
	Courtesy Copy (cc) List	Inserts a Courtesy Copy list into a Microsoft Word or PM Writer document

Button	Name	Function
¶	Show/Hide Control Characters	Displays or hides nonprinting characters such as tabs, spaces, and paragraph marks
Format	Format	Accesses items in the Format menu
View	View	Accesses items in the View menu
	Convert to MS Word	Converts the open PM Writer document to Microsoft Word

Seagate Crystal Reports Preview Toolbar

The Seagate Crystal Reports Preview window contains a toolbar you can use to navigate the report displayed in the window.

Button	Function
	Closes the Print Preview window
	Displays the first page of the report
	Displays the previous page of the report
	Displays the next page of the report
	Displays the last page of the report
	Stops running the report
	Sends the report to the default printer
	Opens the Print Setup dialog box
	Refreshes the report data
	Exports the report to a file
	Switches the Group Tree view on/off in the Preview tab
100%	Sets the magnification level for viewing the report
	Searches for specific text in the report

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