



Scholastic ONline Information System
for the Web

Report Customization

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You can change most of the reports created by RJM Systems, Inc. to meet your special needs. You can add new and additional reports and include them in the standard report list.

This guide shows the replacement and the addition processes. It provides some suggestions on building and modifying reports and testing them.

The Report Builder from ColdFusion™ is the base for reports in SONISWEB® version 2. New reports and enhancements to existing reports will be offered only with Report Builder.

Existing reports built with Crystal Reports™ still work and the information for customizing them is included in this manual.

This text starts with **navigating** the functions on page 4 then provides an **introduction** on page 6. To see the **changes** in this edition look on page 3.

March 2006

The logo for RJM Systems, Inc. The letters 'R', 'J', and 'M' are stacked vertically in a stylized, blue, serif font. To the right of the 'M' is the text 'Systems, Inc.' in a blue, italicized, serif font.

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(ReportCustomization.doc - 03/20/06 10:56 AM)

NEW IN THIS EDITION

- This edition is for SONISWEB® version 2.0.
- Most of the reports have been rewritten in the ColdFusion™ Report Builder. Those have “(RB)” following their names as seen in Figure 2. The older Crystal Reports™-Enterprise reports (without the “RB”) are still available in most cases.
- “Copy Where You Use a Remote Server”, page 8.
- “Report Builder”, page 9.
- “Report Files Upload for a Remote Server”, page 10.
- “Placing the Report on the SONISWEB® Server”, page 10.
- “Report Files Upload for a Remote Server”, page 10.
- “Report Builder: Suggestions for Modifying an Existing Report”, page 20.
- “Report Builder: Installation and Set Up”, page 29.
- “Viewing Column Parameters Using the Data Dictionary”, page 31.

NAVIGATING THE FUNCTIONS

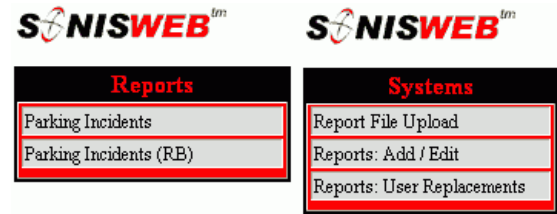


• Figure 1 Toolbar¹ for those with User-ID access

Administrative users have User-IDs and Passwords and see an initial display like Figure 1. Administrative users can be anyone in your system with an ID but typically they're paid Staff and those few Faculty with additional administrative duties.

The access rights of an administrative user is defined by:

1. The **Profile** selected when you were issued a User-ID and Password. Typical Profile categories are the Registrar, the Registrar's staff, the Financial Officer, Admissions staff, Deans, etc. One profile covers all the people in each staff category.
2. The **individual limits** specified for you when you were issued a User-ID and Password. Typical limits are preventing access to faculty and staff personal records.
3. The **privileges** added for you when you were issued a User-ID and Password. The right to "Make Grades Official" or "View and Change PINs" are examples.



• Figure 2 Function Lists¹ - Partial

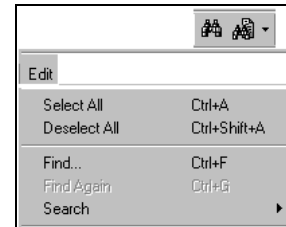
After clicking **Systems** in Figure 1 you get the selections shown on the right in Figure 2. Clicking **Reports** in Figure 1 gets you the selections shown on the left in Figure 2

WHAT DO YOU WANT TO DO?

- Adding a New Report, page 13.
- Designing or modifying a Crystal Reports™ report, page 24.
- Designing or modifying a Report Builder report, page 20.
- Introduction to Report Customization, page 6.
- Link Report Page to the Report, page 15.
- Replace Original Report, page 11.
- Replacement versus Addition, page 6.
- Replacing an Existing Report, page 8.
- Report Modifications and Modification Limits, page 25.
- Report Selection Structure, page 26.

¹ You only see what you're authorized to see by your Profile and individual Limits and Privileges. So your choices may be fewer than these.

- Report Structure, page 27.
- Reverting to the Original Report, page 12.
- Selection Options for a New Report, page 23.
- Viewing Column Parameters Using the Data Dictionary, page 31.
- If you don't see what you need above, check the table of contents on page 2. You can also use the Adobe® find or search functions illustrated in Figure 3. It allows a Google®-like search² by word or phrase.



• Figure 3 Adobe® Find and Search

Diagnosing and Fixing Problems

See the text “Messages, Errors, and Diagnosis”.

Setting Your Browser for Proper Function and Security

Internet Explorer³ (IE), Firefox™, Netscape®, and Opera Web browsers have an “auto-complete” or password-form save feature that is handy for individual computers but defeats privacy on shared computers like those in computer labs and libraries. See the text “Browser Settings” to set your browser for security, good performance, and to prevent your getting old data.

² If you're unfamiliar with this searching, click Adobe® reader Help or see the SONISWEB® text “Index to Texts”.

³ Only Internet Explorer (IE) version 5.5 or later is supported for administrative use.

BACKGROUND

Most of the reports in SONISWEB® are developed using the Report Builder in ColdFusion™. Reports before version 2 were built with a report generator named Crystal Reports™. SONISWEB® has a process for replacing the reports created by RJM Systems, Inc. with ones you have customized or written.

The ColdFusion™ Report Builder is a no-cost addition to the ColdFusion™ run-time software used for SONISWEB®. Like Cold Fusion™, Macromedia⁴ has tested it on most operating systems and nearly all browsers. See:

www.macromedia.com/software/coldfusion/reporting/

If you use the “RB” (Report Builder) reports, you don’t need Crystal Reports™.

Crystal Reports™ and Crystal Enterprise⁵ (required for reports via the Web) must be purchased from Business Objects SA. See:

www.businessobjects.com/products/reporting/

This guide covers both the replacement process and the addition of new reports of your design. It provides suggestions on making the modifications and testing replacement reports.

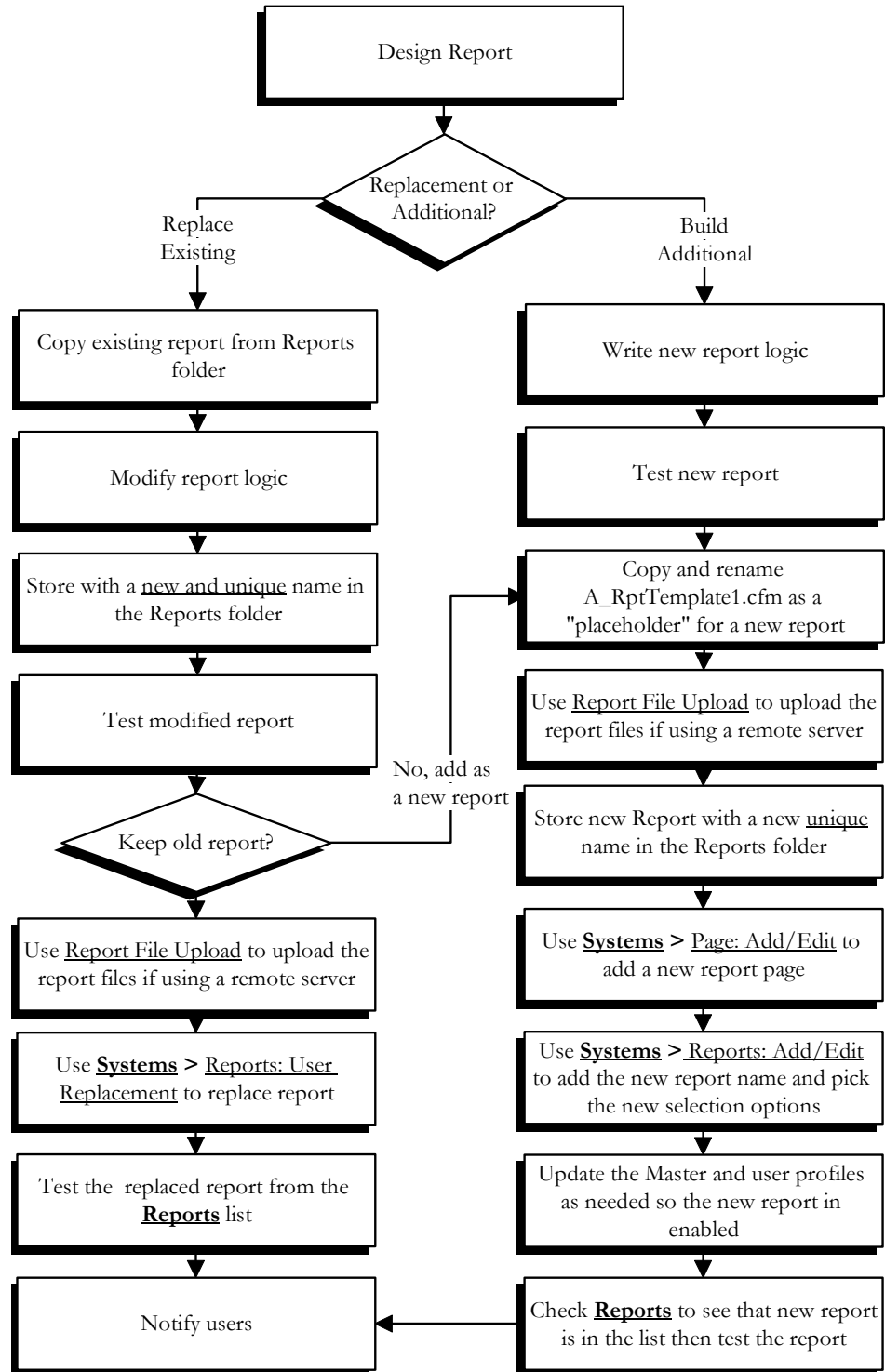
REPLACEMENT VERSUS ADDITION

As Figure 4 shows, you have three options in replacing and adding reports.

- Replacement is easiest. You copy the “source” of an existing SONISWEB® report, make modifications to it, test it, then replace the old report as described on pages 8 to 12. Most of the SQL selection logic and formatting is in the existing report, so you don’t have to figure it out. However, you are limited to the same report selection choices as the report you are replacing.
- Adding a new report gives you more choices. You can design a report that is completely different from any report shipped with SONISWEB®. You can use different selection choices from an existing report. Adding a new report requires more skill and the development process is longer. Once you have the new report tested, you add it to the list of standard reports as described on pages 13 to 16.
- A compromise is to keep the existing report while adding a modified version of that existing report. As with a replacement report, you copy and modify the existing report. Instead of replacing the existing report, though, you add it as a new report.

⁴ In 2005 Macromedia was purchased by Adobe, so Web site names and product names are likely to change in the coming months.

⁵ Check the requirements at the Web site. Some of the product names have changed and products after release 9 have unique software requirements that may make them incompatible with SONISWEB®. Current SONISWEB® testing is with release 8.5 and 9.



• Figure 4 Process for Replacing or Adding Reports

Figure 4 is the process flow for replacing and adding reports.

REPLACING AN EXISTING REPORT

This section follows the “Replace...” flow in Figure 4.

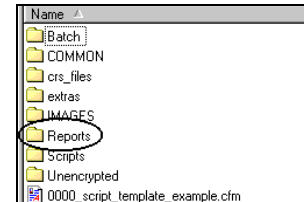
Copy the Existing Report

Depending on where your SONISWEB® system is located, you choose either “Copy From Your Local Server” or “Copy Where You Use a Remote Server”.

Copy From Your Local Server

You must have the proper systems-security to access the directories⁶. The original reports are in a Reports directory. It is wherever your support staff put the SONISWEB® programs. Typically it is in

```
x:\inetpub\wwwroot\SONISWEB200
```



• Figure 5 Reports Directory

where *x* is your root drive. Figure 5 is an example that shows the Reports directory.

The names of the files are in the pulldown list shown in Figure 9. (The report name is usually different from the file name.) The file names:

- Report Builder file names end in .cfr; Parking_Incidents.cfr for example.
- Crystal Reports™ file names end in .rpt; Parking_Incidents.rpt for example.

Copy the report to a convenient working directory from which you will change it.

Change the name of your report copy to a unique name that does not duplicate any file in the Reports directory. If you use the same name as the SONISWEB® original, you will not be able to restore the original as described in “Reverting to the Original Report”, page 12.

Copy Where You Use a Remote Server

If you use a remote server – such as SONISWEB® Hosted Services – you don’t have a convenient copy of the Report files nor of the Report Page template (see page 13). To get those copies, contact support@sonis.com and ask for the report and, if needed, the template to be sent to you.

Change the name of your report copy to a unique name that does not duplicate the name of the file you received from support@sonis.com. If you use the same name as the SONISWEB® original, you will not be able to restore the original as described in “Reverting to the Original Report”, page 12.

⁶ The terms directory and folder are synonymous.

Modify the Report Logic

Report Builder

The Report Builder from ColdFusion™ uses a blend of an IDE⁷ process and an ad-hoc report generator. Macromedia⁴ offers several articles on using it. A Web search like that in Figure 6 will reveal the articles.

As of this writing, an introductory article is available at:



The screenshot shows a list of search results for 'ColdFusion Report Builder'. The results include links to articles from Macromedia, Forta.com, and MX Developer's Journal, all providing information on installing and using the report builder.

• Figure 6 Finding Report Builder Articles

www.macromedia.com/devnet/coldfusion/articles/reporting_print.html

See “Report Builder: Suggestions for Modifying an Existing Report” on page 20 for guidance in modifying a report.

Crystal Reports™

You need training and a good reference text to modify Crystal Reports™. See “Crystal Reports™: Suggestions for Modifying an Existing Report” on page 24 for guidelines on making modifications.

Test the Modified Report on Your Local Computer

Initial testing of the report should be done on your local computer to make sure it works, before you do the final test on the SONISWEB® server.

You should test the report before replacing the original. With your modified report in the your test directory, double-click its name with your mouse. The report should start and run correctly. Use the guides in the Report Builder articles or your Crystal Reports™ reference text to diagnose and fix any problems before replacing the original.

Replacing or Adding

If you wish to keep the original report in the reports list, you can add your modified version as a new report. To do that, go to “Copy and Rename Report Page Template” on page 13.

⁷ IDE = Integrated Development Environment, familiar to those trained in programming.

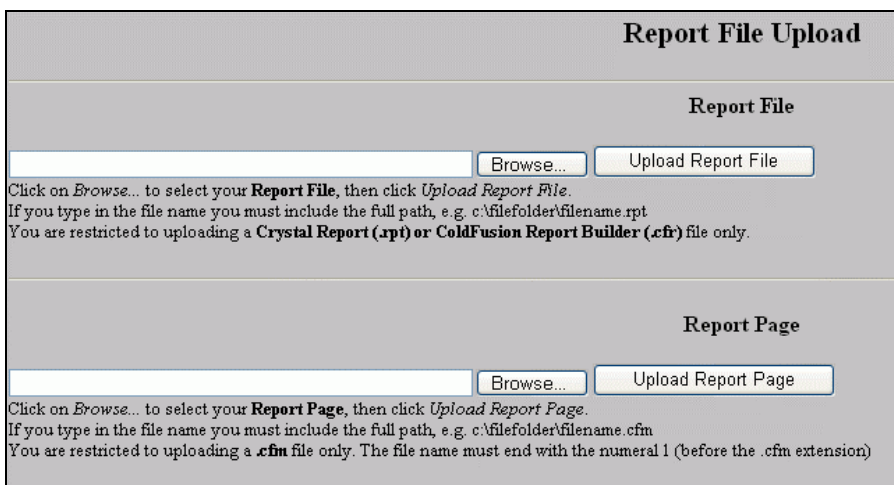
Placing the Report on the SONISWEB® Server

There are two options depending where your server is:

- Where your server is “local” for you and you have full access to the SONISWEB® software files, you simply copy the tested report from your local computer to the report files in the “Reports” directory-folder like that shown in Figure 5.
- Where your server is “remote” and you don’t have access to the SONISWEB® software files, you use Report File Upload as described below.

Report Files Upload for a Remote Server

In Figure 2 click Report File Upload. You get Figure 7.



The screenshot shows a web interface titled "Report File Upload". It is divided into two main sections: "Report File" and "Report Page".

Report File Section:

- Input field: []
- Buttons: "Browse..." and "Upload Report File"
- Text: "Click on *Browse...* to select your **Report File**, then click *Upload Report File*.
If you type in the file name you must include the full path, e.g. c:\filefolder\filename.rpt
You are restricted to uploading a **Crystal Report (.rpt)** or **ColdFusion Report Builder (.cfr)** file only.

Report Page Section:

- Input field: []
- Buttons: "Browse..." and "Upload Report Page"
- Text: "Click on *Browse...* to select your **Report Page**, then click *Upload Report Page*.
If you type in the file name you must include the full path, e.g. c:\filefolder\filename.cfm
You are restricted to uploading a **.cfm** file only. The file name must end with the numeral 1 (before the .cfm extension)

• Figure 7 Report File Update

1. To replace, not add, a report, you need only upload the report file, the top of Figure 7.
To add a new report or a new version of an existing report with a different report name, you upload both the report file (top) and the report page (bottom).
2. Upload the files one at a time.
3. Since you need the full file name, it’s best to use the Browse button in Figure 7 to find it. Typically it’s in the your test directory-folder on the computer you used for testing.
4. With the full name in Figure 7, click the Upload button. You get confirmation that the file has arrived. It’s place in the Reports directory on the SONISWEB® server.
5. Go to “Replacing an Existing Report” on page 8 or “Add New Report Page” on page 14.

If you try to upload a file other than the types shown in Figure 7, you get an error message.

Replace Original Report

Make sure your report is in the “Reports” directory-folder of the SONISWEB® server before using this process. See “Placing the Report on the SONISWEB® Server” on page 10.

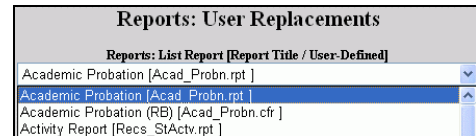


• Figure 8 Report Replacement Display 1⁸

In Figure 2 click Reports: User Replacements. You get Figure 8⁸.

Click the pulldown list arrow. You see a list similar to Figure 9.

Scroll down the list until you find the report you are replacing; click that report then click the Submit button (Figure 8). You get Figure 10.



• Figure 9 Report Replacement Pulldown List



• Figure 10 Report Replacement Display 2⁸

At the bottom of Figure 10, enter the full file name of your replacement report then click the Submit button.

Report Page: is the name of the report delivered with SONISWEB®.

Crystal Report: is the name of the report file which can be from Crystal Reports™ (ends in .rpt) or Report Builder (ends in .cfm).

User Defined: is the name of your replacement report file, either Report Builder or Crystal Reports™.

Your replacement report file must reside in the same reports directory⁶ as the original SONISWEB® reports. You must enter the full and exact file name such as park-

⁸ These include reports created with both Report Builder and Crystal Reports™.

ing_incidentnRB2.cfr. If the file name is in error or it is not in the normal reports directory, running the report will result in a “Page not found” browser error.

Test Replaced Report

To test the report, select **Reports** on the toolbar at the top of the display as shown in Figure 1. You get a list of reports in a function list on the left of your display.

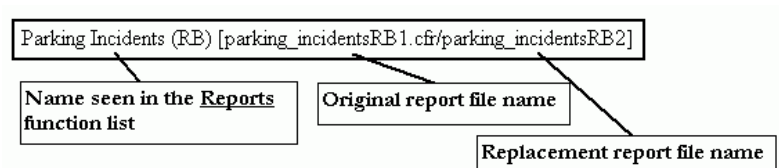
Click the name⁹ of the report you replaced and – barring any errors in your modifications – it will appear in place of the original report.

REVERTING TO THE ORIGINAL REPORT

You can return to the SONISWEB® original report with the same process used in “Modify the Report Logic” above.

Click Reports: User Replacements in Figure 2. You get Figure 8.

Click the pulldown list arrow. You see a list similar to Figure 9 except that both the old and new names will be present as shown in Figure 11.



• Figure 11 Original / Replacement Report File Names

At the bottom of Figure 10, delete the text for the original report then click the Submit button. When you review the pulldown again, you will see only the name of the SONISWEB® original.

Test your change as defined in “Test” above.

⁹ The name of the report in the list does not change, only the actual report file you provided.

ADDING A NEW REPORT

This process follows the “Additional...” flow in Figure 4. If an existing SONISWEB® report has many of the features you want for your new report, use it as a model. Copy it as described on page 8 and use its logic as an example from which to build your new report.

This is a multi-step process:

- “Copy and Rename Report Page Template”, below.
- “Add New Report Page”, page 14.
- “Link Report Page to the Report”, page 15.
- “Update Profiles”, page 16.
- “Check New Report and Test”, page 16.

Copy and Rename Report Page Template

The template is a ColdFusion™ object that provides a place for the report invocation logic. You copy the template, give it your name, then use it in Figure 12.

Find the file

```
A_RptTemplate1.cfm
```

Typically it is in

```
x:\inetpub\wwwroot\SONISWEB200
```

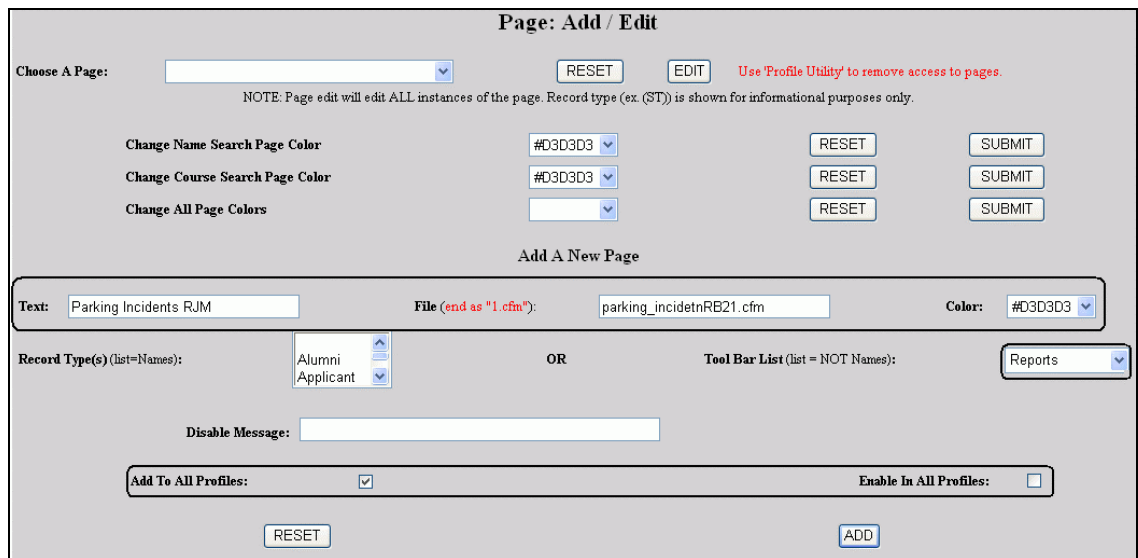
where *x* is your root drive.

Copy and rename *A_RptTemplate1.cfm*, for example *Flat_Fee_List_1.cfm*.

The name must end with *1.cfm*. The “1” is tied to SONISWEB® security. The “.cfm” lets ColdFusion™ see it as one of its objects.

Add New Report Page

Make sure your report is in the “Reports” directory-folder of the SONISWEB® server before using this process. See “Placing the Report on the SONISWEB® Server” on page 10.



• Figure 12 Page Add/Edit

Click [Page: Add/Edit](#) in Figure 2. You get Figure 12.

Figure 12 is used for all sorts of pages (Web displays) in SONISWEB®, not just for reports. For reports you use only a part of the “Add a New Page” section at the bottom of Figure 12. The fields you use for reports are outlined in Figure 12.

- The “Text” field should be filled in with the name of the report as you want it to appear in the list of reports. The left side of Figure 2 shows part of the **Reports** function list with the report names you click to start a report.
- The “File” must be the name you used when you saved the template in “Copy and Rename Report Page Template” on page 13.
- The “Tool Bar List” must be Reports. That causes the report to go into the reports list.
- Checkmark the “Add to All Profiles” checkbox if you want all users to have the potential of running your new report.
- Typically you do not check “Enable In All Profiles”. That means that each security profile must be explicitly set to enable access to your new report. If you check it, all users with all profiles can use the report.

To learn more about security profiles and enabling SONISWEB® reports, see the text “User Authorization & Profiles”.

Click the Reset button to clear all your entries so you can start over.

Click the Add button to save your entries. You get Figure 14 with Figure 13 beneath it.

Scroll to the bottom of the display. You should get an affirming message like Figure 13. If you get an error message, it usually guides you to the error. The most common is not using the same name in Figure 12 as you used in “Copy and Rename Report Page Template” on page 13.

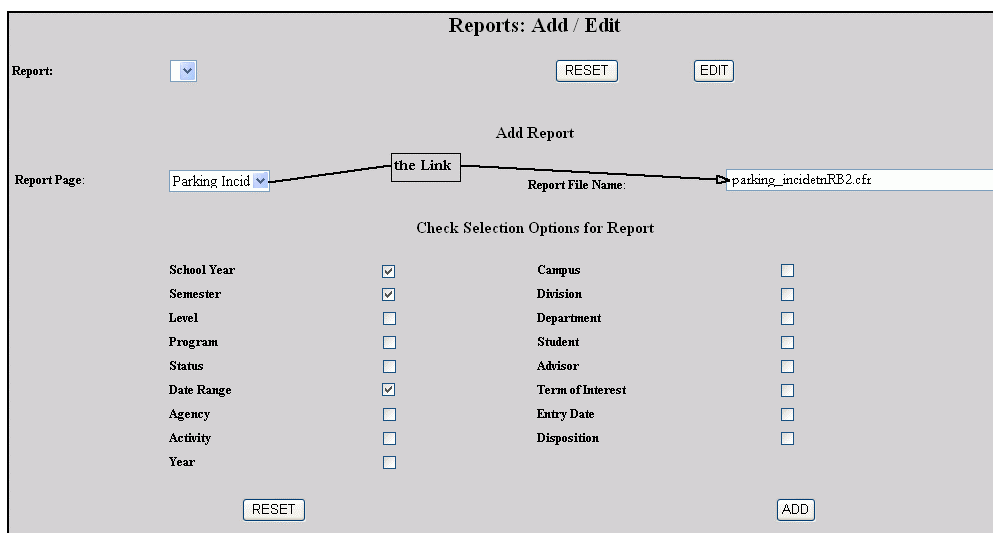
'Parking Incidents R.JMU (RB)' added to WEBLIST TEMPLATE and PROFILES

• Figure 13 Confirmation of Page Addition

Link Report Page to the Report

Now you specify the Report Builder or Crystal Reports™ filename and the selection options for the report parameters that you use in your report options. If you are unfamiliar with these options and their use, see “Selection Options for a New Report” on page 23.

When you click the Add button in Figure 12 you get Figure 14.



• Figure 14 Reports: Add/Edit¹⁰

In Figure 14 you link the Page you established in Figure 12 to the report name you used in “Copy and Rename Report Page Template” on page 13.

Use the “Report Page” pulldown arrow in Figure 14 to pick the page name you used in “Copy and Rename Report Page Template” on page 13 and Figure 12.

In the “Crystal Report” field enter the name of the report file. Report Builder files always end with “.cfr”. Crystal Reports™ files always end with “.rpt”.

In writing the logic of your report, typically you use selections as described in “Selection Options for a New Report” on page 23. Use the checkboxes¹⁰ in Figure 14 to select those you used in creating the report.

¹⁰ The “Check Selection Options for Report” choices change as new report capabilities are added to SONISWEB®. The list you see in Figure 14 may be different.

Click the Reset button to clear all your entries so you can start over.

Click the Add button to save your entries.

Scroll to the bottom of the display. You should get an affirming message like Figure 13. If you get an error message, it usually guides you to the error. The most common is not using the same name in Figure 14 as you used in “Copy and Rename Report Page Template” on page 13 or entering the report name incorrectly.

Update Profiles

New SONISWEB® functions and reports are not available to users until their role-based security profiles are updated. To test your new report as a standard report, you need to update the profiles of all those who will use it.

In a profile update, a new report often looks like the circled example in Figure 15.

To activate the report for the profile, click the Disabled checkbox until the checkmark disappears.

If you do not know how to use the security profile functions, get assistance from your SONISWEB® administrator. The text to use is “User Authorization & Profiles”.

Reports			
Activity Reports	Disabled: <input type="checkbox"/>	Applicant Disposition	Disabled: <input type="checkbox"/>
Applications by Zip	Disabled: <input type="checkbox"/>	Attendance	Disabled: <input type="checkbox"/>
Charges / Credits Report	Disabled: <input type="checkbox"/>	Course Listing	Disabled: <input type="checkbox"/>
Course Section Listing	Disabled: <input type="checkbox"/>	Course Section Roster	Disabled: <input type="checkbox"/>
Enrollment by Date	Disabled: <input type="checkbox"/>	Enrollment Detail	Disabled: <input type="checkbox"/>
Flat Fee List	Disabled: <input checked="" type="checkbox"/>	Housing	Disabled: <input type="checkbox"/>

• Figure 15 Typical New Report in a Profile

Check New Report and Test

Log in as an administrator, see Figure 38.

Click **Reports** on the toolbar at the top of the display as shown in Figure 1. You get a list of functions like that on the left of Figure 2.

You should see your new report name in the alphabetical list of reports in the right list in Figure 2. If you do not, retrace your steps. Look for misspelled names or the failure to update the profiles (Figure 15) are the likely culprits.

Click the name of your report. You get Figure 16.

Main Report Generator

Building: Flat Fee List

Select campus(s)

Asian Campus ▲
 Centerville East Campus ▲
 Centerville Main Campus ▼

Select school year(s)

200102 ▲
 200001 ▼

Fall ▲
 Spring ▲
 Summer ▼

Select level(s)

0 ▲
 1 ▲
 2 ▼

Clear Name

Reset to Defaults

Build Report

• Figure 16 Example of a Report Prompt

You get a prompting display like Figure 16. Of course, your selection options will be different. They will be whatever you chose at the bottom of Figure 14¹⁰.

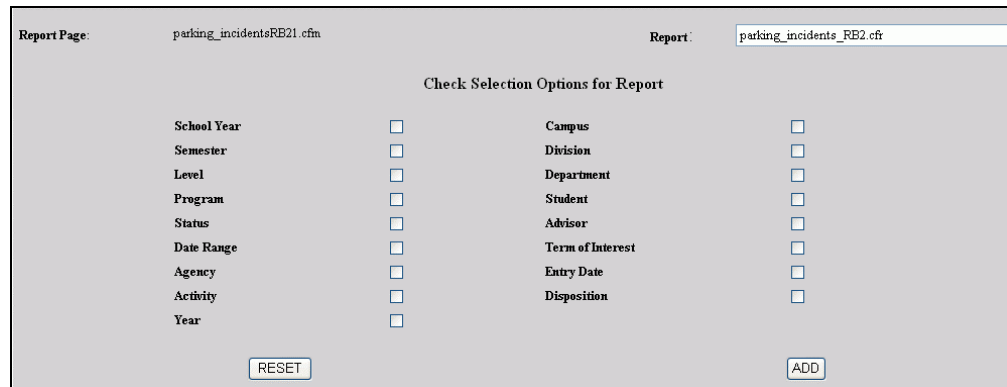
[To Parent Directory]	
Tuesday, October 15, 2002 11:42 AM	2220 appbyzip.cfm
Tuesday, June 18, 2002 2:48 PM	77824 Billing.rpt
Thursday, January 31, 2002 6:19 PM	37376 Crs List.rpt
Monday, November 12, 2001 4:52 PM	49664 Crs ListSummary.rpt
Friday, October 11, 2002 2:52 PM	84992 Crs SectList.rpt
Monday, October 21, 2002 2:14 PM	72192 Crs SectRost.rpt
Tuesday, October 29, 2002 1:16 PM	61440 Crs StudCrs.rpt
Thursday, March 28, 2002 4:04 PM	52736 Crs Waitlist.rpt
Thursday, March 28, 2002 5:44 PM	54784 Crs Waitlistz.rpt
Tuesday, October 15, 2002 11:42 AM	3520 Crsect Attend.cfm
Tuesday, October 15, 2002 11:42 AM	3300 Drill Attend.cfm
Tuesday, October 15, 2002 11:42 AM	3308 Drill Dorm.cfm
Tuesday, October 15, 2002 11:42 AM	2376 Drill Event.cfm
Tuesday, October 15, 2002 11:42 AM	2350 Drill ProsType.cfm
Tuesday, October 15, 2002 11:42 AM	15903 EnrollmentRaceGender.cfm
Monday, October 14, 2002 2:38 PM	81408 Fin CCSumry.rpt
Friday, August 16, 2002 2:57 PM	47104 Fin Trans.rpt
Wednesday, October 30, 2002 9:20 AM	62976 FlatFeeTable.rpt
Tuesday, October 15, 2002 11:42 AM	4560 Fund Event.cfm
Tuesday, October 15, 2002 11:42 AM	2609 HousingRpt.cfm

• Figure 17 Partial Report Operation

If you see the a display like Figure 17, you know that “Add New Report Page” (page 14) worked but “Link Report Page to the Report” (page 15) did not. Check the spellings of your entries in Figure 14 to see why the linking did not take place.

EDITING THE REPORT AND PARAMETERS

Once you have added the report, you can change the options set in Figure 14. Click **Systems** (Figure 1) then Report Add/Edit (Figure 2) and use the top of Figure 14 to select the report then click the Edit button. You get Figure 18.



• Figure 18 Reports Edit

You change the name of the report file and the selection parameters in Figure 18. You change the name of the Report Page – if that’s needed – using Page: Add/Edit (Figure 2).

Click the Reset button to clear all your entries so you can start over.

Click the Add button to save your entries.

Scroll to the bottom of the display. You should get an affirming message like Figure 13. If you get an error message, it usually guides you to the error. The most common is not using the same name in Figure 14 as you used in “Copy and Rename Report Page Template” on page 13 or entering the report name incorrectly.

Go to “Check New Report and Test” (page 16) to make sure your changes worked.

PARAMETERS USED IN A REPORT QUERY

Figure 18 shows all the supported prompt options that you may select from. The ones you pick by checking them appear in a prompt like Figure 23 (Report Builder) or Figure 27 (Crystal Reports™).

Each selection from Figure 23 or Figure 27 is put in a SONISWEB® table whose names begin with

rpt_

These are the parameters and their table names:

Activity in table rpt_actv.

Advisor does not use a “rpt_”, it uses the ID number.

Agency uses the table rpt_agency

Campus that uses the table rpt_camp.

Date Range uses the table rpt_dts.

Department, table rpt_dept.

Disposition in table rpt_disp.

Division that uses the table rpt_div

Entry Date in the table rpt_appentrydt.

Level (class-year) that uses the table rpt_lvl.

Program that uses the table rpt_prog.

School year that uses the table rpt_schy.

Semester that uses the table rpt_sem.

Status that uses the table rpt_mdst.

Student does not use a “rpt_”, it uses the ID number.

Term of Interest uses the table rpt_term.

Year in the table rpt_year.

You cannot select both Student and Advisor in Figure 14 since only one ID can be handled in the query.

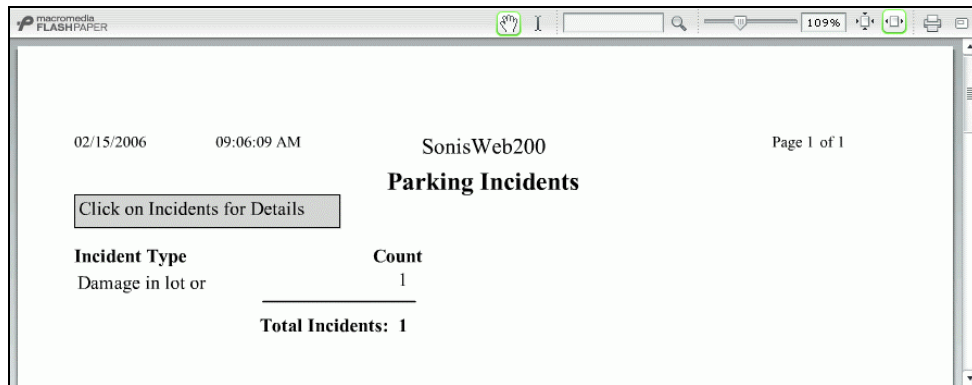
The use of these is describe on page 23 for Report Builder and page 28 for Crystal Reports™.

REPORT BUILDER: SUGGESTIONS FOR MODIFYING AN EXISTING REPORT

If the Report Builder has not been set up on your system, see “Report Builder: Installation and Set Up” on page 29. As noted on page 9, you need to review the Macromedia⁴ articles and practice exercises for Report Builder as your training.

Test the Original Report

We suggest you test the original report to see what it does and to gather parameters so that during testing you see if your new report includes the same information.

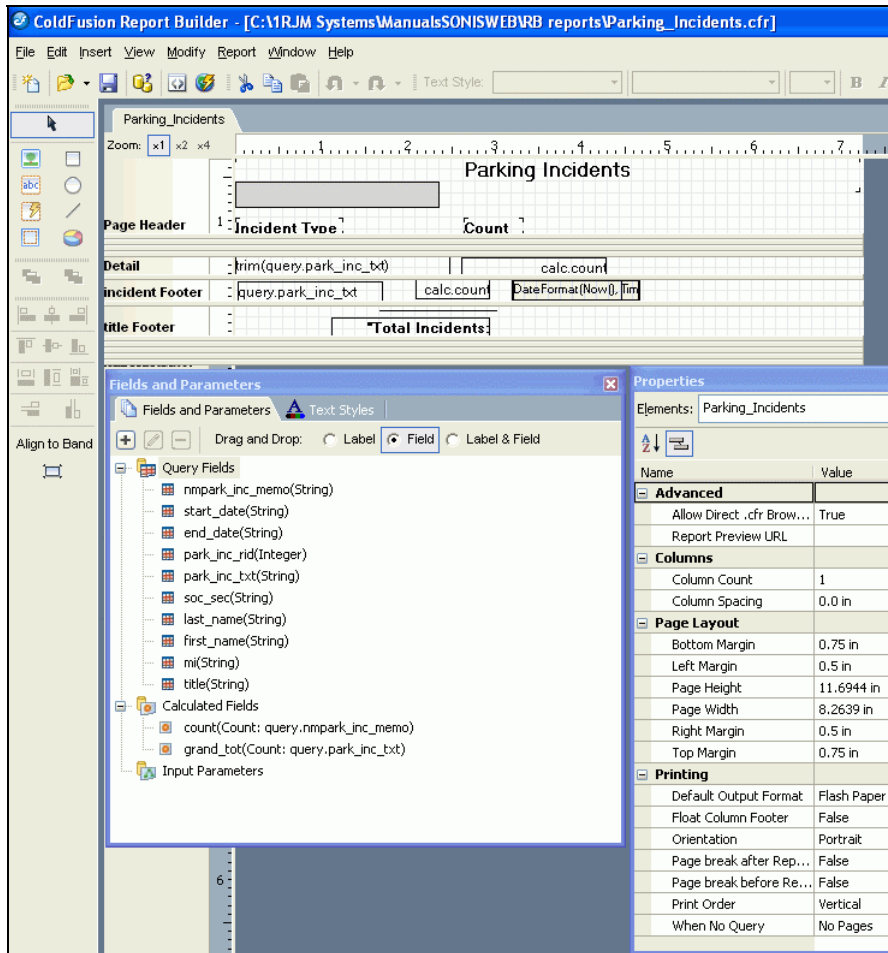


• Figure 19 Report Display - Report Builder

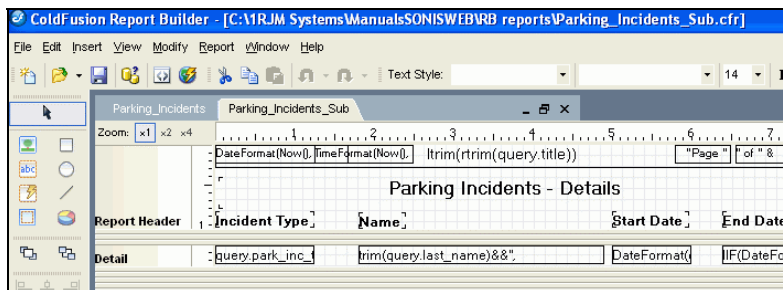


• Figure 20 Report Builder - Drill-Down Report

Note the information provided. With Figure 19 as an example, use the arrows to find out how many pages are in the original. For financial reports you can note page and report totals. For reports that provide counts, subtotals or report totals you can note them. Then when you run your modified report, you can see that all of the information was included in your modification.



• Figure 21 Report Builder IDE⁷ for Figure 19



• Figure 22 Report Builder IDE⁷ for Figure 20

Figure 21 shows what Figure 19 looks like while being edited.

Figure 19 is a “drill-down” type of report. Click an incident and you see Figure 20, a second report that give the details of each incident. With Report Builder you create two reports, the summary (Figure 19 and Figure 21) and the detail (Figure 20 and Figure 22). This contrasts with Crystal Reports™ where you define the drill-down while building the summary report.

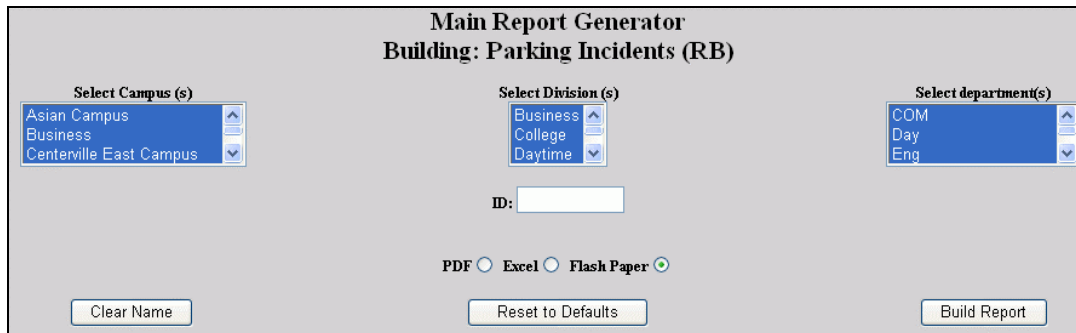
Report Modifications and Modification Limits

You can modify a copy of an existing SONISWEB® report or create a totally new one. If you want your version of the report to work over the Web as the original reports do, you must work within these constraints:

- You must use the same report selection criteria – campus, status, etc. – as the report you are replacing.
- You must have Report Builder software that supports development installed on the computer that contains your copy.
- You must place your replacement report in the same reports directory⁶ as the original.

Orientation

Run the original report directly from SONISWEB®. Note the selection criteria that SONISWEB® requests.



• Figure 23 Report Selection Criteria - Report Builder

In Figure 23 you see the selections that SONISWEB® requires the user to make and that is used by the report you selected.

Start your copy outside SONISWEB®. Usually you can simply double-click the name of the file. The report must use the same selection criteria as the original. You get Figure 21 or Figure 22.

Report Structure

Figure 21 and Figure 22 show the designer’s view of the report.

You can move fields around so they are displayed in different places on the report. You can replace headings or add counts and totals.

To become more familiar with this process, add a comment near the heading in an existing report, give it a new name and use it to replace the original (see “Replacing an Existing Report”, page 8). That helps you understand the process. When you make greater changes you can diagnose what problems occurred because of your report changes and what emanated from the replacement process.

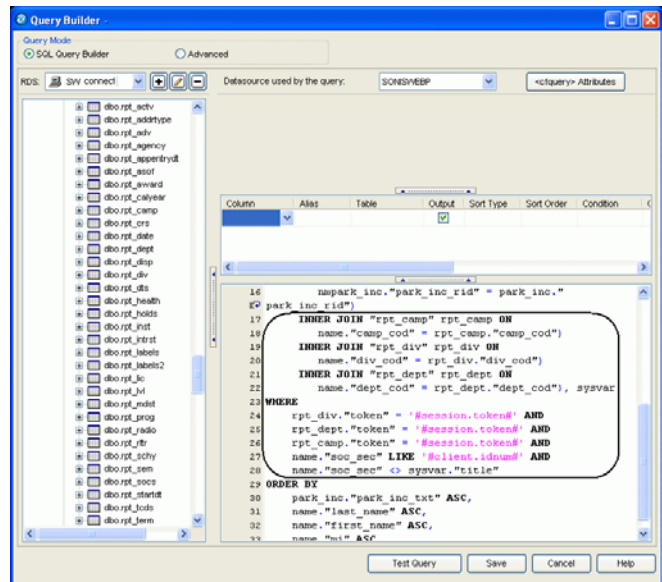
If you plan to get data from additional database tables¹¹, check the data dictionary. See page 31 for guidance.

You add and remove database table¹¹ connections using the Query Builder function as illustrated in Figure 31.

You will recognize this feature from ColdFusion™ Report Builder articles (page 9).

Selection Options for a New Report

For a new report – not a copy of an existing report – you have more selection options¹⁰ for the prompt in Figure 23. The supported options are shown in Figure 18 and are saved in a set of database tables described in “Parameters Used in a Report Query” on page 18. They’re outlined in the SQL shown in Figure 24.



• Figure 24 Report Builder - Query Builder

¹¹ A database consists of several tables that contain the data. For example SONISWEBP contains tables like “name” (the basic biographic information), campus (a list of all the campuses you defined), etc.

CRYSTAL REPORTS™: SUGGESTIONS FOR MODIFYING AN EXISTING REPORT

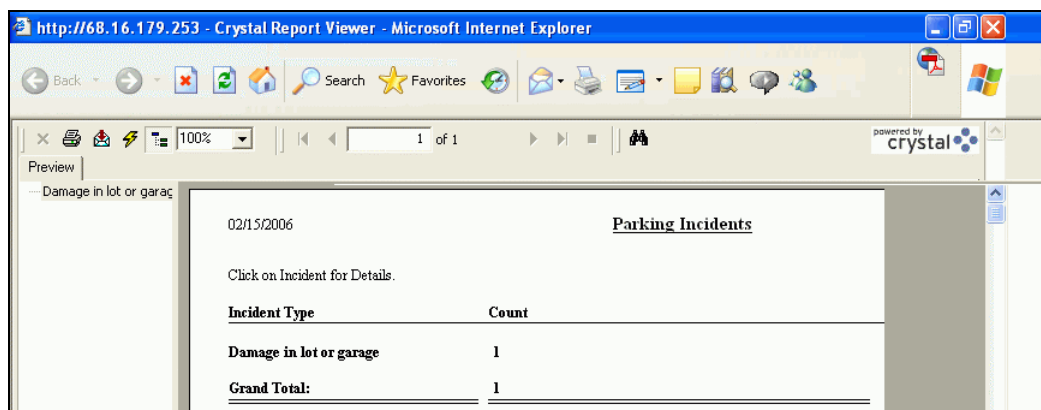
The person replacing or modifying the report needs to be trained in the use of Crystal Reports™. Check with your local community college, university, or computer technical school for course offerings in Crystal Reports™. An Internet search with the key phrase “crystal reports” will likely yield some other training opportunities if no local courses are offered. You can also check the Web site:

<http://www.crystaldecisions.com/>

The developers used the text “Seagate Crystal Reports™ 8: The Complete Reference”, ISBN 0-07-212565-9. You may find other texts that you prefer.

Test the Original Report

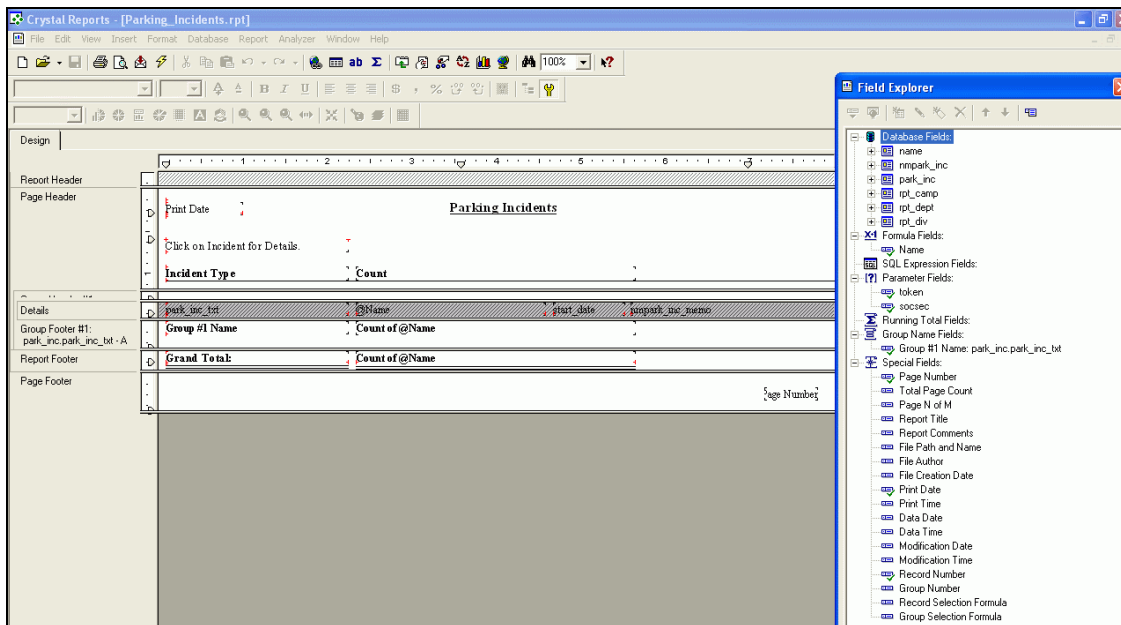
We suggest you test the original report to see what it does and to gather parameters so that during testing you see if your new report includes the same information.



Incident Type	Count
Damage in lot or garage	1
Grand Total:	1

• Figure 25 Report Display - Crystal Reports

Note the information provided. With Figure 25 as an example, use the arrows to find out how many pages are in the original. You can count the number of entries in the Preview panel on the left. For financial reports you can note page and report totals. For reports that provide counts, subtotals or report totals you can note them. Then when you run your modified report, you can see that all of the information was included in your modification.



• Figure 26 Crystal Reports Edit Session Display

Figure 26 shows what Figure 25 looks like while being edited.

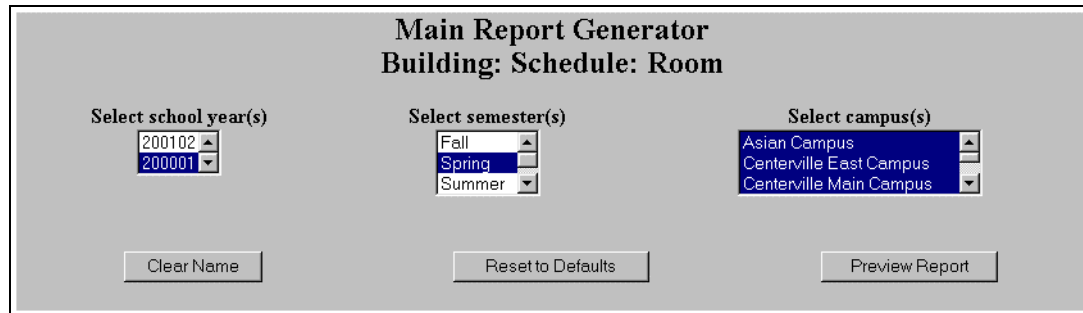
Report Modifications and Modification Limits

You can modify a copy of an existing SONISWEB® report or create a totally new one. If you want your version of the report to work over the Web as the original reports do, you must work within these constraints:

- You must use the same report selection criteria – campus, status, etc. – as the report you are replacing.
- You must have Crystal Reports™ software that supports development installed on the computer that contains your copy.
- You must place your replacement report in the same reports directory⁶ as the original.

Orientation

Run the original report directly from SONISWEB. Note the selection criteria that SONISWEB® requests.



Main Report Generator
Building: Schedule: Room

Select school year(s): 200102, 200001

Select semester(s): Fall, Spring, Summer

Select campus(s): Asian Campus, Centerville East Campus, Centerville Main Campus

Buttons: Clear Name, Reset to Defaults, Preview Report

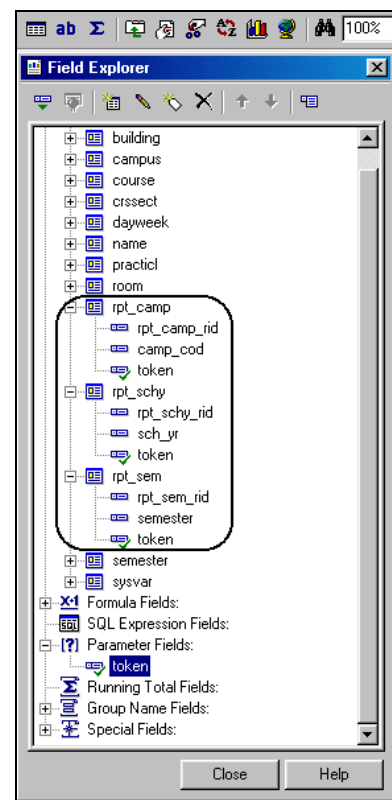
• Figure 27 Report Selection Criteria

In Figure 27 you see the selections that SONISWEB® requires the user to make and that is used by the report you selected.

Start your copy outside SONISWEB®. Usually you can simply double-click the name of the file. Select the Field Explorer icon to examine what selection criteria are used. Figure 28 shows a field explorer list.

Selection Structure

- token: this is the User ID logged in to SONISWEB®. The options offered the user in Figure 27 are limited by the role-based profile for that user. For example, a user with access to records for just one campus will see only that campus in Figure 27 and will be able to select no others.
- rpt_ tables: there is an “rpt_” table (see Figure 28) for every selection criterion in Figure 27. Currently¹⁰ the tables run from rpt_adv (advisor) to rpt_term (prospect term-of-interest). Of course each report uses only the “rpt_” tables that are relevant to it.



• Figure 28 Crystal Reports Field Explorer

Figure 29 is an example. Note the campuses this user (token) has chosen for this report.

rpt_camp rid	camp cod	token
744	ASN001	super1
745	CAMP4	super1
746	CAMP1	super1
747	CMED	super1
748	CAMP2	super1
749	CAMP3	super1
750	EUR001	super1
751	PIC	super1
752	reeces	super1
753	reeces2	super1
754	TBD	super1

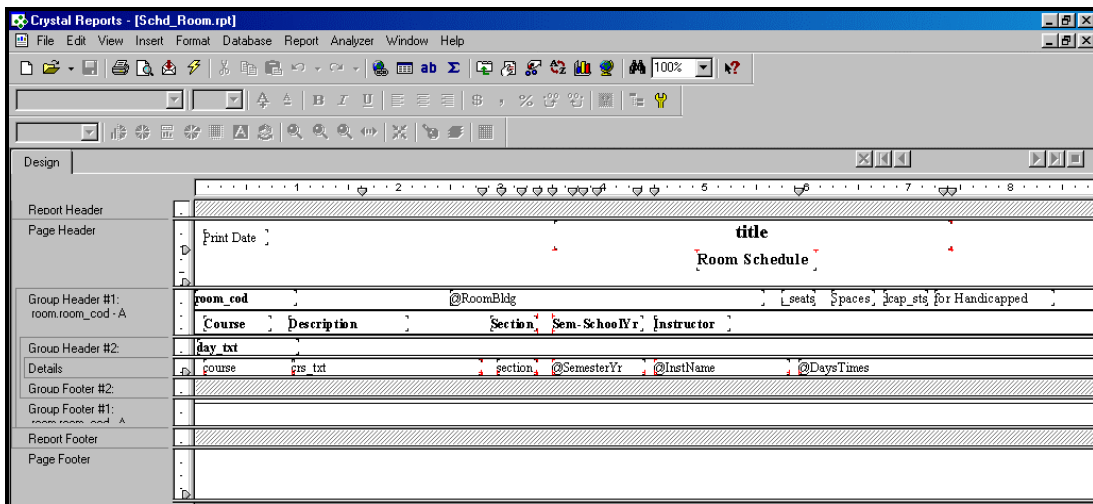
SONISWEB® compares the token (User ID) to the profile for the user, then offers the selections seen in Figure 27.

The user picks the selection criteria then clicks the Preview button in Figure 27. SONISWEB® uses the lists in the rpt_ tables like Figure 29 to find appropriate records with which to build the report.

• Figure 29 Typical Contents of a rpt_ Table Required for Crystal Reports

Your replacement report must use the same selection criteria as the original.

Report Structure



• Figure 30 Designer View of Crystal Reports

Figure 30 shows the designer view of the report. Used in conjunction with Figure 28 you can see how the report is structured.

You can move fields around so they are displayed in different places on the report. You can replace headings or add counts and totals.

To become more familiar with this process, add a comment near the heading in an existing report, give it a new name and use it to replace the original (see “Replacing an Existing Report”, page 8). That helps you understand the process. When you make greater changes you can diagnose what problems occurred because of your report changes and what emanated from the replacement process.

If you plan to get data from additional database tables¹¹, check the data dictionary. See page 31 for guidance.

You add and remove database table¹¹ connections using the Database function of Crystal Reports. Figure 31 is typical.

You will recognize these features from your Crystal Reports™ training class.

Selection Options for a New Report

For a new report – not a copy of an existing report – you have more selection options¹⁰ for the prompt in Figure 27. The supported options are shown in Figure 18 and are saved in a set of database tables described in “Parameters Used in a Report Query” on page 18. They’re outlined in the SQL shown in Figure 28.

Two parameters are passed from SONISWEB® to Crystal Reports™, “prompt0” and “prompt 1”. Prompt0 is the “token”, the ID of the user logged in. Prompt1 is the ID number of either the student-alumn-faculty-etc or the advisor. The “token” parameter is used for all the “rpt_” tables. This is easier seen than described. Look at an existing SONISWEB® source file to see similar selection options. Use it as a model for your report.



• Figure 31 Crystal Reports - Adding, Removing and Visualizing Databases

REPORT BUILDER: INSTALLATION AND SET UP

Full installation information comes with the download of Report Builder from the Macromedia⁴ Web site.

The link between Report Builder and your database server needs to be set.

Click the Server Setup Wizard. You see Figure 32 where you click the highlighted plus icon to add a new “RDS Server” connection. Click the Next button for Figure 33.

In Figure 33 enter a description and the Host Name as defined for your system¹².

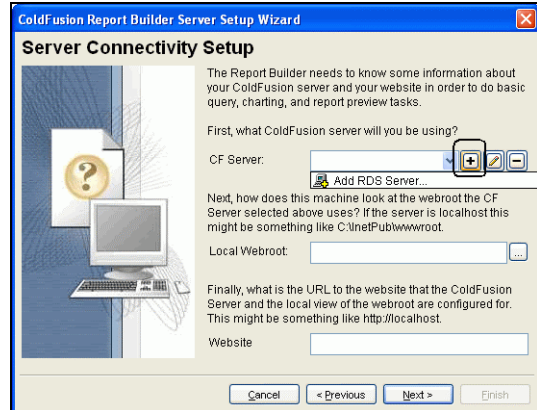
“RDS Security” should follow your security rules. “Prompt for Password” is usually left blank since your login to SONISWEB[®] covers your security. However your security rules may not permit that. If it is checked, every time you click a report, you’ll be asked to enter the password.

Click the “Test Connection” button to verify that the Report Builder is connected to the server. You see Figure 34.

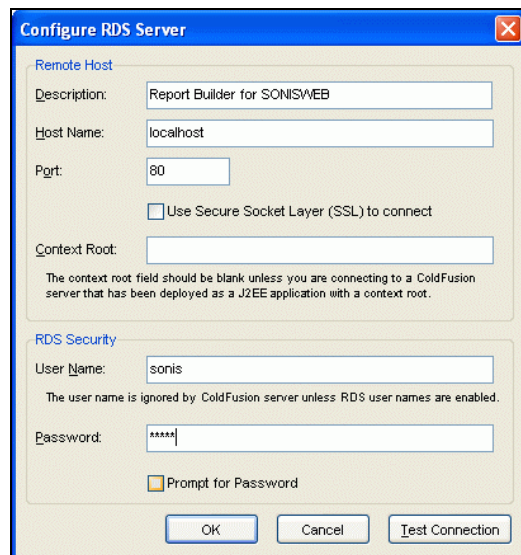
In Figure 33 you connected to the server but you’re not yet connected to ColdFusion[™] and the database managed by that server.

Figure 34 is where you connect to the Cold Fusion[™]. Use either the browse button (highlighted in Figure 34) or type in the “LocalWebroot” name.

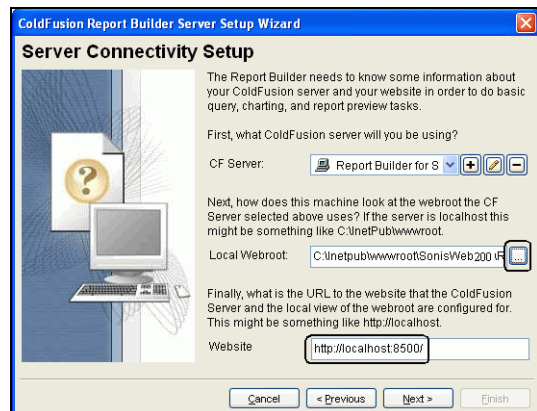
If not already present, enter the URL¹² for the Website you’ll be connecting to. For editing, adding, and testing reports, this is often



• Figure 32 Server Setup Wizard Step 1



• Figure 33 Server Setup Wizard Step 2



• Figure 34 Server Setup Wizard Step 3

¹² This is defined by the Information Technology staff. See them if you don’t know what to enter here.

http://localhost:8500/.

You can change this connection by clicking Edit and then Preferences while using Report Builder, see Figure 21.

VIEWING COLUMN PARAMETERS USING THE DATA DICTIONARY

The data dictionary has been available as a text or Web page document in the past. It is also available as a system function. This dictionary is key to making changes and/or adding new columns and tables to the SQL database.

Click **Systems** in Figure 1 and then Data Dictionary in Figure 2. That yields Figure 35.

SONISWEB 2.0 Data Dictionary							
February 23, 2006							
By Tables - Columns - Keys							
Table	Column	Type	Len.	Keys	Column	Type	Len. Keys
acadcal	acadcal_ce1	char	10		acadcal_ce2	char	10
	acadcal_ce3	char	20		acadcal_de1	date	8
	acadcal_fe1	float/dec	8		acadcal_le1	bit/log	1
	acadcal_ne1	int	4		acadcal_rid	int	4 PK_acadcal
	activity	memo	16		date_from	date	8
	date_to	date	8		sch_yr	char	6
	semester	char	2	FK_acadcal_semester			
acadstat	acadstat_ce1	char	10		acadstat_ce2	char	10
	acadstat_ce3	char	20		acadstat_cod	char	8 PK_acadstat
	acadstat_de1	date	8		acadstat_desc	char	25
	acadstat_fe1	float/dec	8		acadstat_le1	bit/log	1
	acadstat_ne1	int	4		disabled	bit/log	1
actcal	actcal_ce1	char	10		actcal_ce2	char	10
	actcal_ce3	char	20		actcal_de1	date	8
	actcal_fe1	float/dec	8		actcal_le1	bit/log	1
	actcal_ne1	int	4		actcal_rid	int	4
	activity	memo	16		date_from	date	8
	date_to	date	8		time_from	date	8
	time_to	date	8				
activity	act_desc	char	30		act_letter	bit/log	1
	act_mem	memo	16		activity_ce1	char	10
	activity_ce2	char	10		activity_ce3	char	20
	activity_cod	char	3	PK_activity	activity_de1	date	8
	activity_fe1	float/dec	8		activity_le1	bit/log	1
	activity_ne1	int	4		alum_access	bit/log	1

• Figure 35 Data Dictionary - Top Portion

Figure 35 shows the beginning of the dictionary. It is alphabetical by table name. It is a two column table.

SONISWEB 2.0 Data Dictionary				
Indexes On Tables				
February 23, 2006				
Table	Index	Index	Index	Index
acadcal	PK_acadcal			
acadstat	PK_acadstat			
actcal	actcal			
activity	PK_activity			
actmap	acct	PK_actmap		
actmod	PK_actmod_rid			
address	e_mail	PK_address	soc_sec	type
addressadd	addressadd			
addressdup	addressdup			
addrtype	PK_addrtype	type		
affiliation	PK_affiliation			
agency	PK_agency			
app_pages	PK_app_pages_app_pages_rid			
appacts	PK_appacts			
appchk	PK_appchk_cod			
appchklist	PK_appchklist	prg_cod		
appentrydate	PK_appentrydate			
appfee	PK_appfee_1			
applican	PK_applican	soc_sec		
appliedpmts	PK_applied_pmts			
approg	PK_approg	soc_sec		
archgrade	archgrade			
Audit	PK_Audit_Audit_rid			
award	PK_award			
batchnum	PK_batchnum			
batchnum_rc	batchnum_rc			

• Figure 36 Data Dictionary - Index Table

Scrolling down Figure 35 shows Figure 36, the list of indices designed to improve the performance of SONISWEB®.

SONISWEB 2.0 Data Dictionary
Column Headers (WEBCOL)

Column	Default	User	Description	Column	Default	User
ac_sem				ac_year		
acadcal_ce1				acadcal_ce2		
acadcal_ce3				acadcal_de1		
acadcal_fe1				acadcal_le1		
acadcal_ne1				acadcal_rid		
academic_ind	Academic Period			acadstat_ce1		
acadstat_ce2				acadstat_ce3		
acadstat_cod	Academic Status			acadstat_de1		
acadstat_desc				acadstat_fe1		
acadstat_le1				acadstat_ne1		
accept	Accept			accepted	Accepted	
account	Account			act_act_code	Accounting Code	
acct_dept	Acct. Dept.			act_num	Account Num	
act_token				ack_date	Acknow. Date	
acknowledg	Acknowledged			aclas_grad	A Class Grade	
act_code	Activity Code			act_comp	ACT Composite Score	
act_comp_pc				act_cumum	Cumulative	
act_date	Activity Date			act_desc	Activity	
act_done	Completed			act_eng	ACT English	
act_eng_pc	ACT Eng. Perc.			act_letter	Letter	
act_math	ACT Math			act_math_pc	ACT Math Perc.	
act_mem	Memo			act_memo	Comments	
act_nat_rank_comp	National Ranking			act_nat_rank_eng	National Ranking	
act_nat_rank_math	National Ranking			act_nat_rank_sci	National Ranking	
act_nat_rank_soc	National Ranking			act_sci	ACT Science	
act_sci_pc	ACT Sci. Perc.			act_soc	ACT Social Studies	
act_soc_pc	ACT Soc. Perc.			act_txt	Acct. Code Desc.	
act_type				actcal_ce1		
actcal_ce2				actcal_ce3		
actcal_de1				actcal_fe1		

• Figure 37 Data Dictionary - Column Headings

Nearer the bottom of Figure 35 you see Figure 37, the column headings that are changed or add as described on page 14.

GETTING STARTED - LOG IN AND THE USE OF TABS, BUTTON AND FIELDS

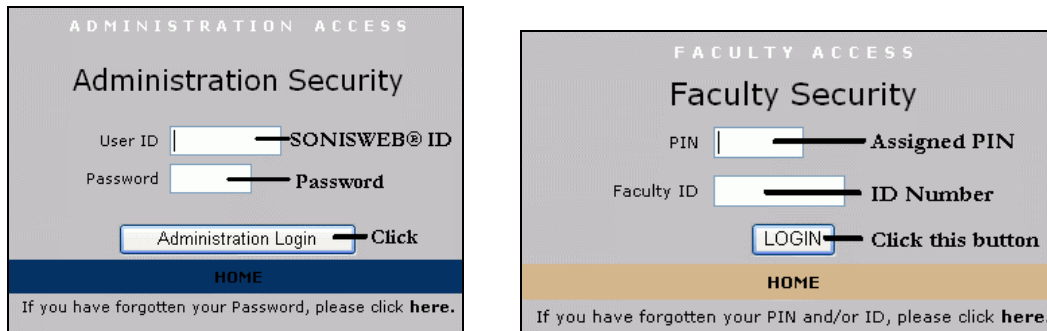
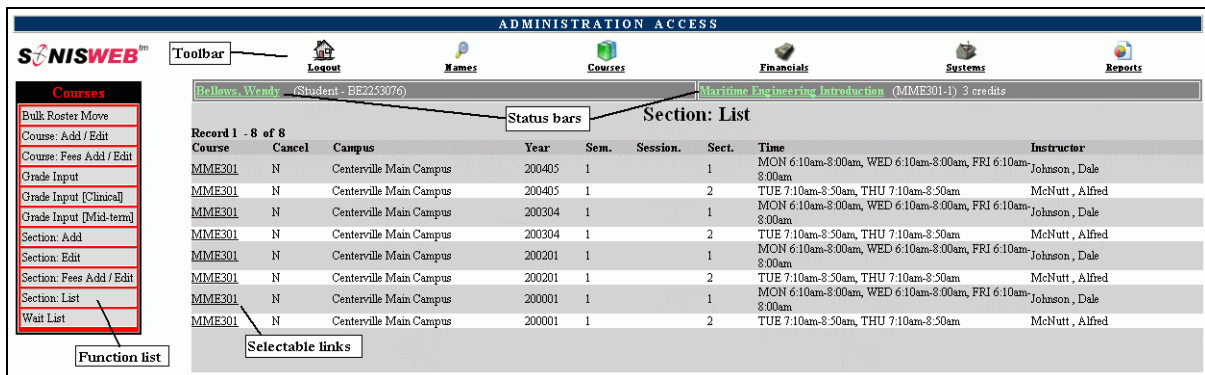


Figure 38 Login Displays

To log in as an administrator, select that option from your Web page. The standard SONISWEB® login pages look like Figure 38.



• Figure 39 Typical SONISWEB® Page

Figure 39 is a typical SONISWEB® page. The actions authorized in your profile appear at the top, called the **Toolbar**.

When you make a selection from the **Toolbar**, the applicable **Function List** appears on the left. Only the functions authorized in your assigned profile and your individual limits and privileges appear. Some might have only **Courses** in the toolbar and only **Course: Add/Edit** for functions.

Not apparent on the display is whether or not the profile permits editing or changing the information. Once the you select a function from the list on the left, you will see a Submit or similar button at the bottom of the display if you have the permissions to add, edit, or delete the data.

By clicking a **Status Bar** you quickly return to the “person” or the “course” you were processing even if you left it temporarily to look at a financial display or a report. Of course, if you have not selected a person with **Names** or a course with **Courses**, there will be no **Status Bars** at the top.

In Figure 39 click an underlined **Selectable Link** and you go to that record.

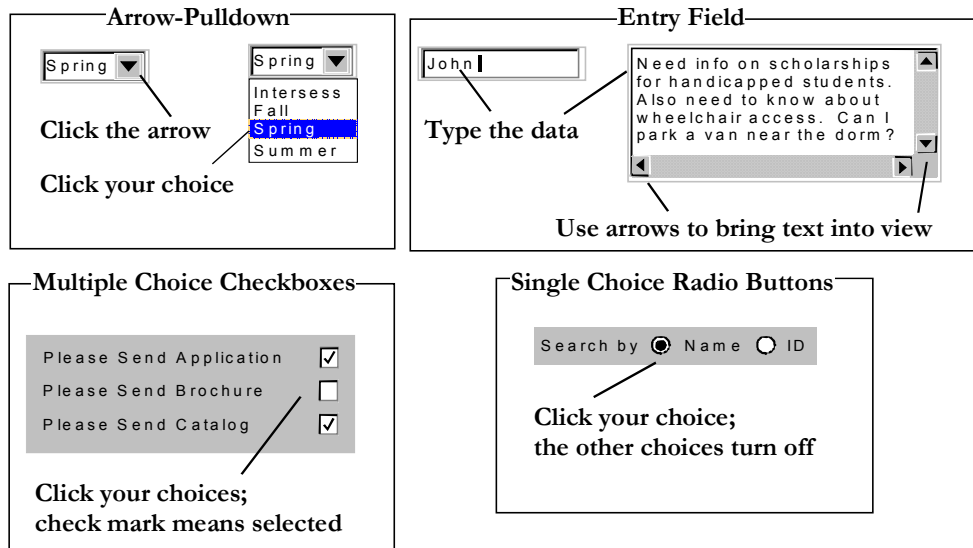


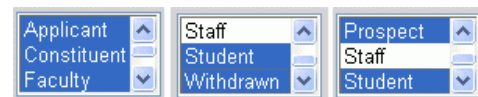
Figure 40 Arrows, Fields, Checkboxes and Buttons

SONISWEB® prompts you for information with windows like those in Figure 40. Use your mouse to click your selection.

- Once you have made your selection(s), you must click an action button; usually it is Submit, Delete, Reset, etc.
- For Entry Fields, click the beginning of the field so you don't get any blanks inserted in front of your entry.
- With Multiple Choice Checkboxes, each time you click a box it goes from selected (check mark) to unselected (no check mark). Click it again and it is selected, etc.
- Radio Buttons allow only one to be selected; when you click one, all the others are turned off.

Some SONISWEB® lists permit you to make multiple choices. It works just like most PC spread sheet software.

- To pick two or more in a series, click the top selection, hold down the **Shift** key on the keyboard and click the bottom item in the series. Release the shift key and they are selected as shown on the left and middle of Figure 41.



• Figure 41 Selecting Multiple Choices

To pick two or more that are not adjacent, click the first item, hold the **Ctrl** key on the keyboard, select the next item and the next, etc. When you have picked the last item you want, release the **Ctrl** key and you see the selections like those on the right of Figure 41.