TestTrack Pro Windows Client

User Guide
Admin Guide

Seapine Software™
changing the world of software development

January 2003

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0110-5.1
Printed in the USA

Contents

Introduction
About TestTrack Pro

Welcome to TestTrack Pro!

You have an important job to do - deliver a quality product on time and within budget. And, whether you are developing, testing, fixing bugs, or managing the team, you do not have time to learn another complex application. TestTrack Pro helps you control your bug tracking process. Design a complex tracking structure, or simply install the software, and **start tracking the TestTrack Pro way!**

In this section:

About the guide

Using TestTrack Pro provides step-by-step instructions for all the tasks you perform when working with TestTrack Pro. This guide is not necessarily meant to be read from start to finish. It includes information for users, and administrators, at a variety of levels. To get the most out of the documentation, start by reading the chapters that are most relevant to your use of TestTrack Pro.

The guide includes two sections: the **User Guide** (user-related tasks) and the **Administrator Guide** (admin-related tasks). Information included in some chapters can be for both a user and an administrator. Admin-related tasks are clearly marked in the User Guide chapters.

- **Chapter 1, "Getting Started,"** page 5, includes instructions for starting TestTrack Pro, opening databases, and connecting to the server.

User-related tasks

- **Chapter 2, "Personalizing TestTrack Pro,"** page 13, includes instructions for personalizing TestTrack Pro by setting user and local options.
- **Chapter 3, "Learning the Basics,"** page 19, provides an overview of the TestTrack Pro interface.
- **Chapter 4, "Working with Defects,"** page 29, explains how to work with defects, including adding, editing, deleting, and numbering defects.
- **Chapter 5, "Using SCC Integration,"** page 55, includes information about integrating SCC applications with TestTrack Pro.
- **Chapter 6, "Managing the Workflow,"** page 69, explains how to assign defects and move a defect through the lifecycle.
- **Chapter 7, "Using Filters,"** page 91, explains how to use filters, including adding, editing, and deleting filters.
- **Chapter 8, "Managing Test Configs,"** page 99, explains how to set up test configurations, including adding, editing, and deleting test configs.
- **Chapter 9, "Generating Reports,"** page 103, explains how to create and print reports.
- **Chapter 10, "Using the Workbook,"** page 125, explains how to add, change, view, and delete To Do tasks in the Workbook.
- **Chapter 11, "Integrating with Developer Tools,"** page 129, includes instructions for programmers who are using the add-in to access TestTrack Pro.

Admin-related tasks

- **Chapter 12, "Configuring Databases,"** page 141, explains how to create and customize a database and set database options.

- **Chapter 13, "Customizing Fields,"** page 161, explains how to add custom fields, customize field values, rename filed labels, define required and default values, and set up field relationships.
- **Chapter 14, "Configuring SCC Integration,"** page 175, includes SCC integration information.
- **Chapter 15, "Managing User Groups,"** page 185, explains how to add, edit, and delete user groups. It also explains how user groups provide security.
- **Chapter 16, "Managing Users,"** page 193, explains how to manage TestTrack Pro users, including adding and deleting users and editing user information.
- **Chapter 17, "Managing Customers,"** page 203, explains how to manage customers, including adding and deleting customers and editing customer information.
- **Chapter 18, "Importing and Exporting Files,"** page 213, includes instructions for importing and exporting data using XML or text files.
- **Chapter 19, "Customizing Email Templates,"** page 227, explains how to customize email templates that are used with notifications and email acknowledgements.
- **Chapter 20, "Working with SoloBug,"** page 231, includes information about customizing and distributing SoloBug to customers and importing SoloBug files.

Conventions used in the guide

There are a few conventions used throughout the guide that are designed to be completely predictable – making it is easy to understand what you are reading and what you're supposed to do. Many of the TestTrack Pro commands are available from menus, toolbars, shortcut menus, and shortcut keys. Throughout this guide, most commands are explained using both the menu command and the toolbar button. As you become more familiar with TestTrack Pro, you may find shortcut menus and shortcut keys more efficient to work with. When you are instructed to select a menu command, you will find the menu name, followed by an arrow. For example, to add a defect, choose **Create > Defect**. Indented text, set off with icons and rules, is also used to draw attention to notes, tips, examples, etc.

Icon	Description
	**Notes** generally provide additional information about a command, "one-time only" information, or a reference to additional documentation.
	**Tips** provide helpful suggestions for using TestTrack Pro.
	**Indicates** supplemental information, such as examples.
	Indicates an **admin** command.

Before you start

This guide assumes your PC, printer, and network (if applicable) are set up and ready to use. It also assumes you know how to perform the basic skills needed to use them. If you need more information on basic features, refer to the user guide that came with your computer.

Contacting Seapine support

We offer technical support, 9 AM - 6 PM, EST, Monday through Friday.

Telephone: 513-754-1655

Email: support@seapine.com

Web site: http://www.seapine.com

Check our web site for the latest news and updates. You can also find help in our Knowledgebase.

Documentation feedback

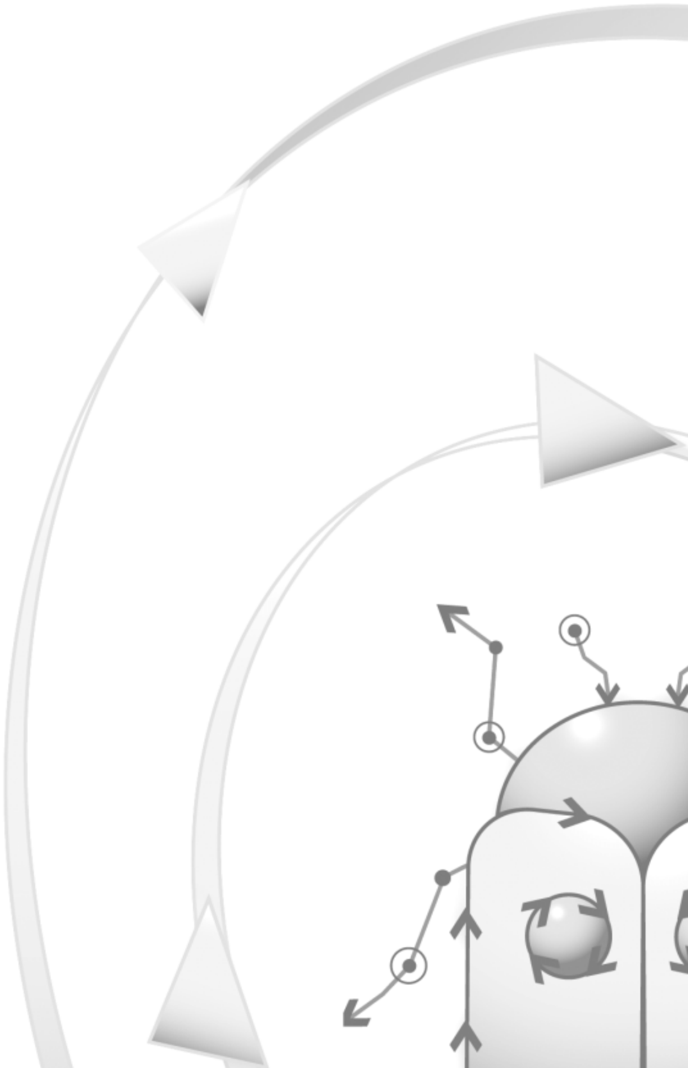
Seapine Software welcomes your feedback on the documentation included with this product. If you have comments or suggestions about the documentation, please email: documentation @seapine.com. This email address is provided for documentation only. You may not receive a reply to your email. For technical questions or support, contact support@seapine.com.

Chapter 1
Getting Started

Start Tracking!

This chapter includes instructions for starting TestTrack Pro, opening databases, and connecting to the server - everything you need to begin tracking bugs!

In this section:



Starting TestTrack Pro server

The TestTrack Pro administrator is responsible for maintaining and running the TestTrack Pro server application.

The server must be running before users can access TestTrack Pro databases. The server can be run as an application, as an NT/2000 service, or as a Windows pseudo service. Refer to the **TestTrack Pro Installation Guide** for more information.

If the TestTrack Pro server is running as an NT/2000 or Windows service, it starts automatically. If the TestTrack Pro server is running as an application, you have to manually start the server each time the computer is restarted.

Manually starting TestTrack Pro server

1 On the Start menu, choose **Programs > TestTrack Pro > TestTrack Pro Server**.

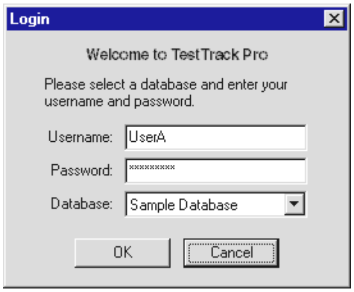
Active databases are loaded when the TestTrack Pro server is started.

When the TestTrack Pro server is running, an icon is placed in the server PC's status bar. If the bug is green, the server is running correctly. If the bug is yellow or red, the server is not running correctly.

Starting TestTrack Pro

1 On the Start menu, choose **Programs > TestTrack Pro > TestTrack Pro Client**.

The Login dialog box opens.



2 Enter your **Username** and **Password**.

3 Select a database from the **Database** menu and click **OK**.

You are logged in and ready to start using TestTrack Pro.

4 If there is a problem connecting to the server, check the following and try reconnecting to the server:

- Double-check the IP address and/or port number.
- Make sure you are connected to the network, intranet, or Internet.
- Contact your TestTrack Pro administrator for help.

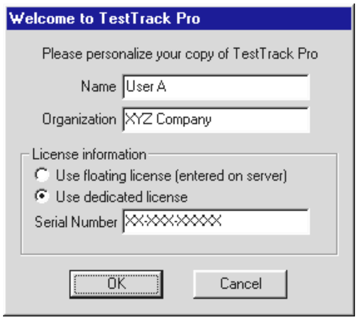
If you are the **TestTrack Pro administrator**, check the following:

- Make sure the server computer is on.
- Make sure the TestTrack Pro Server application is running on your server computer.

Initially starting TestTrack Pro

1 The first time you start TestTrack Pro, the Welcome to TestTrack Pro dialog box opens.

The Welcome to TestTrack Pro dialog box opens.



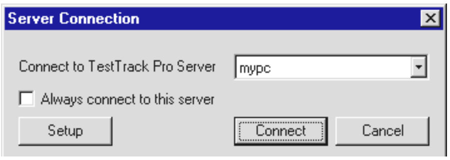
2 Enter your **Name** and **Organization**.

3 Select a **License information** option.

- If you are using a **floating license**, the serial number is entered on the server.
- If you are using a **dedicated license**, you must enter your serial number. The serial number can be found on your registration card or your TestTrack Pro license card.

4 Click **OK**.

The Server Connection dialog box opens.



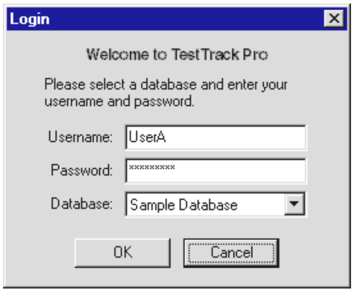
5 Select a server from the **Connect to TestTrack Pro Server** menu.

Select **Always connect to this server** to automatically connect to the selected server.

If the menu is not populated, you need to configure the server connections. See **Setting up server connections,** page 9.

6 Click **Connect**.

The Login dialog box opens.



7 Enter your **Username** and **Password**.

During installation, a default user named “Admin” is added to the system. This user has no password. **You must log in as Admin the first time.**

8 Select a database from the **Database** menu and click **OK**.

You are now ready to start using TestTrack Pro.

Where do I start?

If you are the **Project Manager,** start with the Defects list to view all the defects in the database. You will probably want to create filters to view specific defect information. For example, create a filter that displays all defects currently in an Open state. You may also want to print a report that lists all defects opened in the past week.

If you are the **Lead Engineer,** start with the Defects list. Create a filter that displays all defects created, fixed, or verified in the last week **and** are not currently assigned and not in the closed state. Then, assign the defects to the appropriate person.

If you are an **Engineer/Developer,** start with the Workbook. The Workbook displays all the defects assigned to you and any to do tasks you added. You can also start with the Defects list and create a filter to displays only the defects assigned to you.

If you are the **Lead QA** person, start with the Defects list and create a filter that displays all defects that are currently released to testing. Then, assign these defects to a QA team member for verification. You can also create a filter that displays defects that failed verification.

If you are a member of the **QA team,** start with the Workbook. The Workbook displays all the defects assigned to you and any to do tasks you added. If you need to add new defects, start with the Defects list.

Setting up server connections

Server connections, used to access TestTrack Pro databases, need to be set up. The TestTrack Pro administrator can enter server connection information using the Server Admin Utility or users can set up server connections. Depending on your company's process, you may be required to set up server connections.

Adding server connections

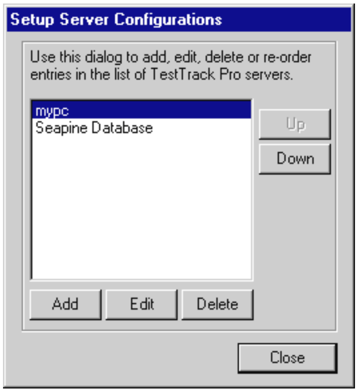
The databases you use can be located on different servers. You need to add a server connection to access the TestTrack Pro server.

1 Choose **File > New Server Connection**.

The Server Connection dialog box opens.

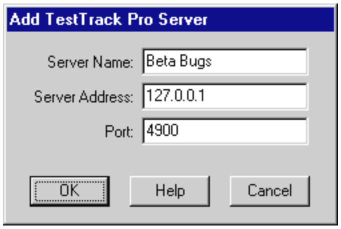
2 Click **Setup**.

The Setup Server Configurations dialog box opens.



3 Click **Add**.

The Add TestTrack Pro Server dialog box opens.



4 Enter a **Server Name** and **Server Address**.

The server address is the IP address of the computer where the TestTrack Pro server application is installed. Your TestTrack Pro administrator can tell you the server address.

5 Enter the **Port** number.

TestTrack Pro clients connect to the server on this port via TCP/IP. Valid values are 1-65535. The default value is 99.

6 Click **OK**.

The server connection is added. You return to the Setup Server Configurations dialog box. To change the order of the servers, select a server entry and click **Up** or **Down**.

7 Click **Close** to close the Setup Server Configurations dialog box.

Editing server connections

1 Choose **File > New Server Connection**.

2 Click **Setup**.

3 Select the server and click **Edit**.

4 Make any changes and click **OK**.

Deleting server connections

1 Choose **File > New Server Connection**.

2 Click **Setup**.

3 Select the server and click **Delete**.

You are prompted to confirm the deletion.

4 Click **Yes**.

The server is deleted.

Opening a database

Use this command to open a database that is located on the server you are connected to.

1 Choose **File > Open Database** or click the **Open Database** toolbar button.

You are prompted to close the open database.

2 Click **Yes**.

The Login dialog box opens.

3 Enter your **Username** and **Password**.

4 Select a database from the **Database** menu.

5 Click **OK**.

The database is opened.

Connecting to a server

Use this command to connect to a different server and open a database on that server.

1 Choose **File > New Server Connection**.

The Server Connection dialog box opens.

If you are logged in to a database, you are prompted to close the database. Click **Yes**.

2 Select a server from the **Connect to TestTrack Pro Server** menu and click **Connect**.

The Login dialog box opens.

3 Enter your **Username** and **Password**.

4 Select a database from the **Database** menu and click **OK**.

Viewing project information

You can view information about the database you are logged in to.

1 Choose **Help > Project Info**.

The Project Information dialog box opens. It includes the project name, description, and creation date.

2 Click **OK** to close the dialog box.

Logging out

Logout of TestTrack Pro when you finish working with defects. This is important if your company uses floating licenses. The license you are using is not available to other users until you logout.

1 Choose **File > Logout and Disconnect**.

You are logged out from the database and disconnected from the server.

To close the TestTrack Pro application, choose **File > Exit.**

Chapter 2
Personalizing TestTrack Pro

Up Close and Personal!

This chapter includes instructions for personalizing your copy of TestTrack Pro. Take the time to set the options that will make your job easier!

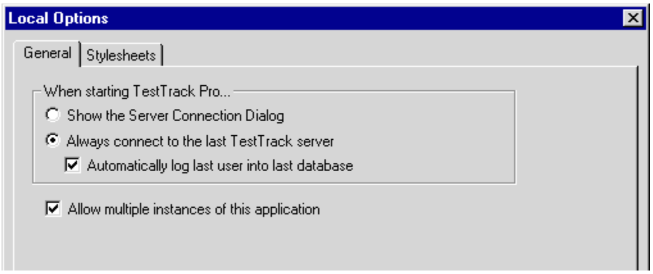
In this section:

Setting local options

Local options are global. You do not need to log in to a specific database to set these options.

1 Choose **Edit > Options > Local Options**.

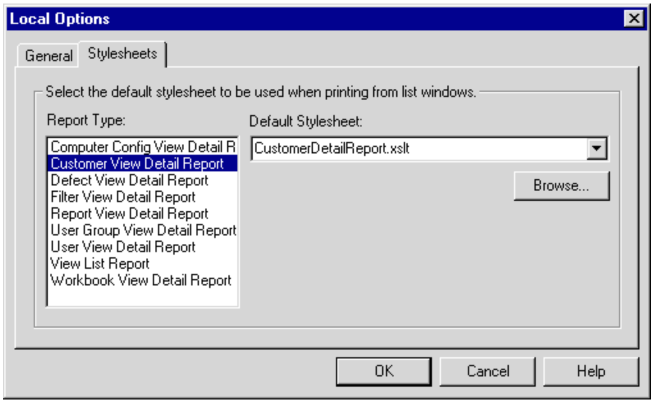
The Local Options dialog box opens with the General tab selected.



2 Select the general options.

- Select **Show the Server Connection Dialog** if you connect to different servers. When you start TestTrack Pro, the server connection dialog box opens so you can choose a server.
- Select **Always connect to the last TestTrack server** if you always connect to the same server.
- Select **Automatically log last user into last database** if security is not a concern. You are automatically connected to the server and logged in to the last database used.
- Select **Allow multiple instances of this application** if you want to login to different databases at the same time. You can open multiple instances of TestTrack Pro.

3 Click the **Stylesheets** tab to select the default stylesheet you want to use when printing from list windows.



4 Select a **Report Type** from the list.

Each **Report Type** corresponds to a list window. For example, the **Filter View Detail Report** prints a detail report for all filters in the database.

5 Select a **Default Stylesheet** for the selected report or click **Browse** to use a customized stylesheet.

For more information, see **Using stylesheets,** page 104.

6 Click **OK** to save the local options you set.

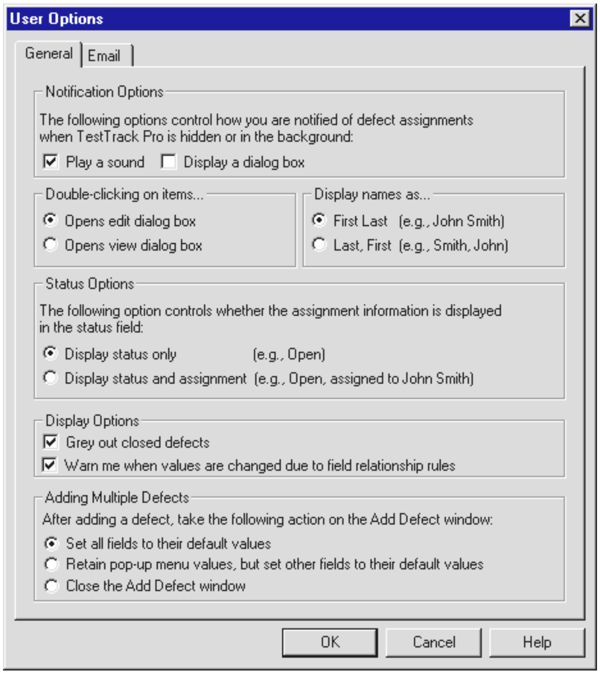
Setting user options

Set user options and customize such things as notification options, display options, email notifications, etc. User options are database-specific. Any options you set only affect the database you are logged in to.

Setting general options

1 Choose **Edit > Options > User Options**.

The User Options dialog box opens with the **General** tab selected.



2 Select a **Notification Option**.

TestTrack Pro can either play a sound or open a dialog box to notify you of defect assignments. You can also clear both options.

3 Select a **Double-clicking on items...** option.

This option affects records displayed on list windows. For example, you set this option to open the edit dialog box. If you double-click a user on the Users list window, the Edit User dialog box opens.

4 Select a **Display names as...** option.

Names can be displayed on First/Last or Last/First order.

5 Select a **Status** option.

You can display the status or the status and the assignment information.

6 Select a **Display** option.

- Select **Grey out closed defects** if you want closed defects to appear dimmed on the list window. If you work with a large number of defects, this option can help you quickly view closed defects.

- If your database uses field relationships, select **Warn me when values are changed due to field relationship rules** to display a warning if you change a value that affects field relationship rules. This option helps enforce field relationship rules.

- You can also clear both options.

7 Select an **Adding Multiple Defects** option.

This option affects the Add Defect dialog box and the action that is applied when you are adding new defects.

- Select **Set all fields to default values** if you want fields on the Add Defect dialog box reset with their default values.

- Select **Retain pop-up menu values, but set other fields to their default values** to keep the values you choose for pop-up fields and reset all other fields with default values. Pop-up fields include: Type, Product, Disposition, Priority, Component, and Severity. The other fields include: Entered By, Found By, Version Found, Reproduced, Computer Config, and Custom fields.

- Select **Close the Add Defect window** if you want the Add Defect dialog box to close after a defect is added.

Setting email options

Email notifications provide a way to stay up to date with changes to defects. You can choose as many email notifications as you want.

The TestTrack Pro administrator can also set user notification options. When adding or editing a user or customer, click **Notification Options.**

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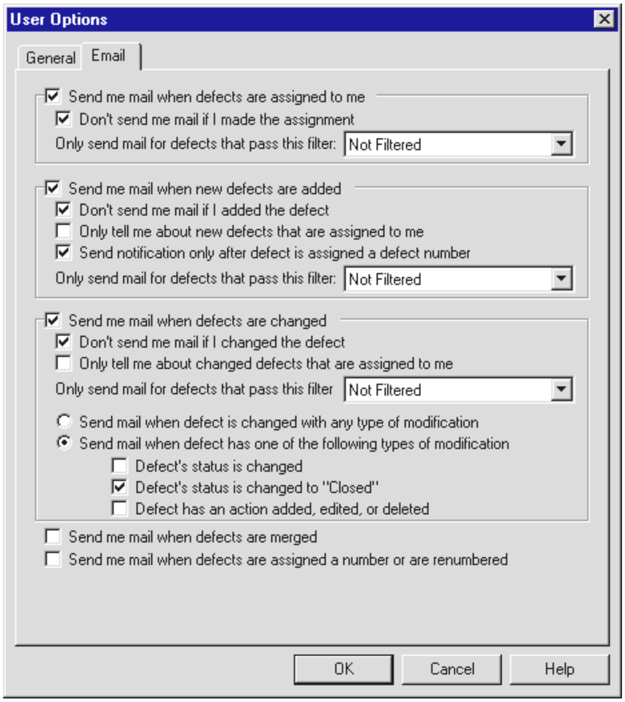
1 Choose **Edit** > **Options** > **User Options**.

2 Click the **Email** tab and select the options.

Choose options carefully so you do not receive an email each time a defect moves to another state in the lifecycle. You can also select filters to further restrict the email notifications you receive.

- If you are a team lead, you might want to receive an email notification when a defect is added to the database. Select **Send me mail when new defects are added**.
- If you are a developer, tech writer, or QA person, you are probably interested in defects that are assigned to you. Select **Send me mail when new defects are added** then select **Only tell me about new defects that are assigned to me**. You will receive an email if the new defect is assigned to you.



Setting passwords

1 Choose **File > Set Password**.

The New Password dialog box opens.

2 Enter a password and click **OK**.

The Verify Password dialog box opens.

3 Retype the password and click **OK**.

Changing passwords

1 Choose **File > Set Password**.

The Old Password dialog box opens.

2 Enter your old password and click **OK**.

The New Password dialog box opens.

3 Enter a new password and click **OK**.

The Verify Password dialog box opens.

4 Retype the password and click **OK**.

The password is saved.

Removing passwords

1 Choose **File > Set Password**.

The Old Password dialog box opens.

2 Enter your old password and click **OK**.

The New Password dialog box opens.

3 Leave the field blank and click **OK**.

The Verify Password dialog box opens.

4 Leave the field blank and click **OK**.

The password is removed.

Chapter 3
Learning the Basics

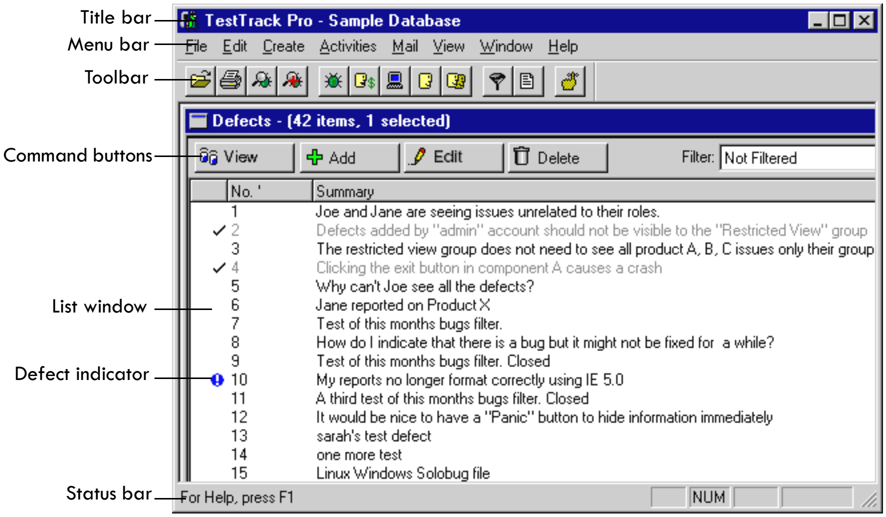
Take a tour!

This chapter provides an overview of the TestTrack Pro interface. TestTrack Pro is easy to use, but it is even easier when you understand the basics and learn a few shortcuts.

In this section:

TestTrack Pro interface

TestTrack Pro provides complex functionality with an easy to use, and learn, interface. The interface includes eight list windows: **Defects**, **Customers**, **Users**, **User Groups**, **Test Configs**, **Filters**, **Reports**, and **Workbook**. Features, such as the title bar, command buttons, menu bar, toolbar, status bar, and tooltips are common to all list windows. Some features and options, such as active menus and commands, depend on the list window and your security permissions.



Title bar

Lists the name of the open database or the name of the open list window.

Menu bar

The menu bar, located below the title bar, contains the available menus. Menu commands vary depending on the function you are performing, your security permissions, and the list window you are working on. If a menu command is greyed out and unavailable, you do not have access to that command or the command is not available for the list window you are on. For example, you are working with users on the Users list window. The edit commands are all user-specific (**Edit > Delete User**).

Toolbar

The TestTrack Pro toolbar, located below the menu bar, provides access to TestTrack Pro commands and list windows. For more information, see **Printing**, page 28.

Command buttons

Command buttons are located at the top of every list window. These buttons provide another way to access the View, Add, Edit, and Delete commands.

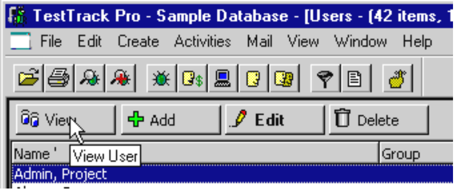
Button	Description
View	Opens the corresponding View dialog box
Add	Opens the corresponding Add dialog box
Edit	Opens the corresponding Edit dialog box
Delete	Deletes the selected item

Status bar

A status bar is located at the bottom of list windows. It includes information such as the number of defects assigned to you or a toolbar button description.

Tooltips

When you place the cursor over a toolbar button, a command description opens.



TestTrack Pro toolbar

The toolbar contains buttons that give you access to TestTrack Pro commands and list windows—just a click away!

Click	To do this...
	Open a database
	Open the Print Option dialog box
	Open the Find Defects dialog box
	Open the Advanced Find Defects dialog box
	Open the Defects list window
	Open the Customers list window
	Open the Test Configs list window
	Open the Users list window
	Open the User Groups list window
	Open the Filters list window
	Open the Reports list window
	Open the Workbook list window

You can also access these commands from TestTrack Pro menus. For example, to open the Defects list window, choose **View** > **Defects**.

List windows

List windows are used to display basic record information. TestTrack Pro includes the following list windows: Defects, Customers, Users, User Groups, Test Configs, Filters, Reports, and Workbook.

Opening list windows

Click the corresponding **TestTrack Pro toolbar** button. Or select the list window you want to open from the **View** menu.

Selecting records

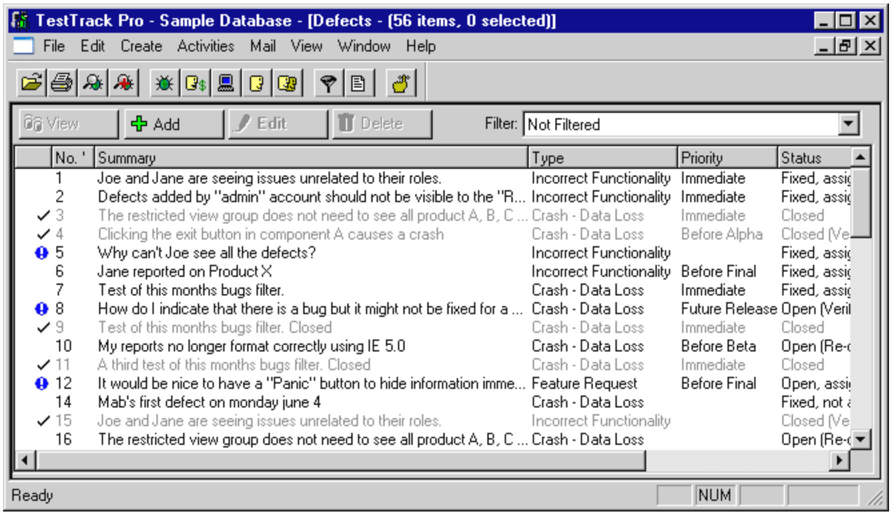
Before you can work with records, you need to select the records on the list window.

- To select all records, choose **Edit > Select All** or press **Ctrl + A**.
- To select more than one record, hold down the **Ctrl** key while clicking the records.
- To select a range of records, click the first record, then hold down the **Shift** key and click the last record.

Defects list window

The Defects list window provides access to defects and defect actions. For more information, see **Chapter 4, "Working with Defects,"** page 29.

This list window also includes defect indicates that point out new, changed, and closed defects and the defects assigned to you. You can also filter the records that are displayed in the list window.



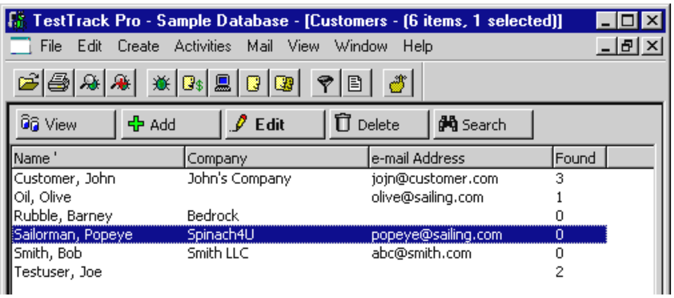
Defect indicators

Defect indicators are icons on the Defects list window that point out new defects, changed defects, closed defects, and the defects that are assigned to you.

Icon	Name	Indicates
	New Defect	Defects added since you last logged in
	Changed Defect	Defects that changed since you last logged in
	Closed Defect	Closed defects
	Assigned Defect	Defects assigned to you

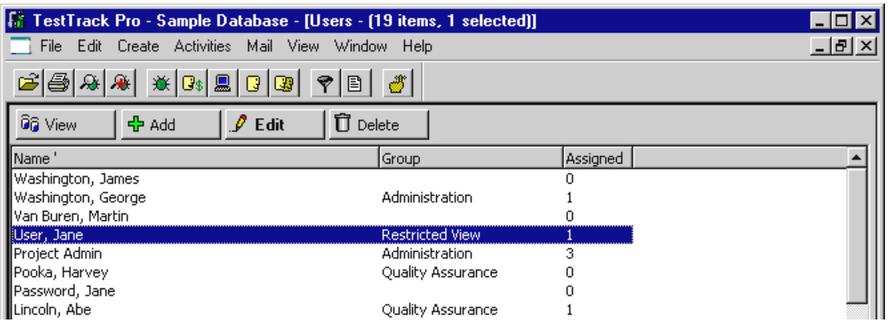
Customers list window

The Customers list window provides access to customers and customer commands. For more information, see **Chapter 17, "Managing Customers,"** page 203.



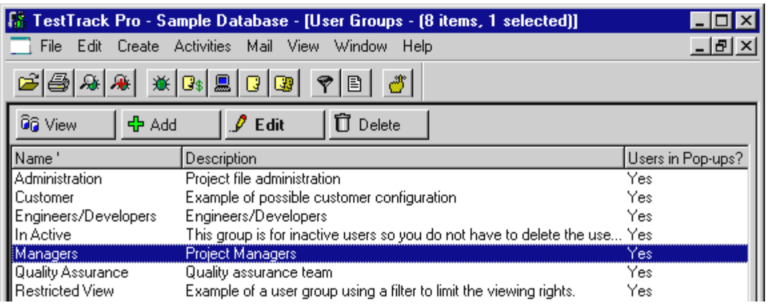
Users list window

The Users list window provides access to users and user commands. For more information, see **Chapter 16, "Managing Users,"** page 193.



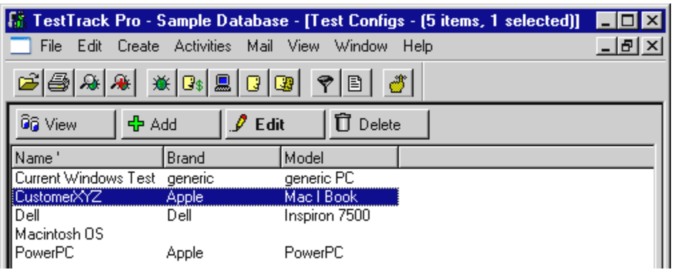
User groups list window

The User Groups list window provides access to user groups and user group commands. For more information, see **Chapter 15, “Managing User Groups,”** page 185.



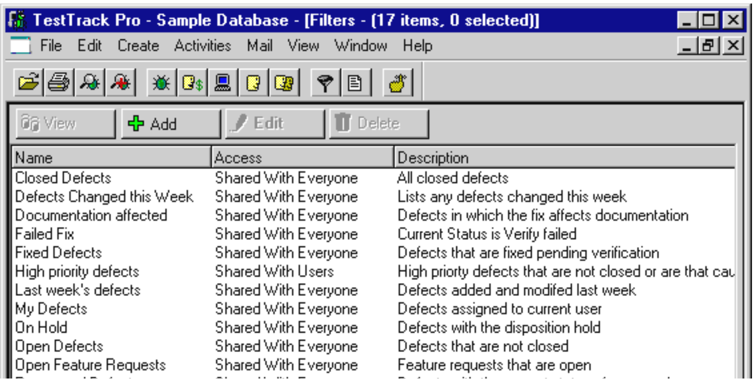
Test configs list window

The Test Configs list window provides access to test configs and test config commands. For more information, see **Chapter 8, “Managing Test Configs,”** page 99.



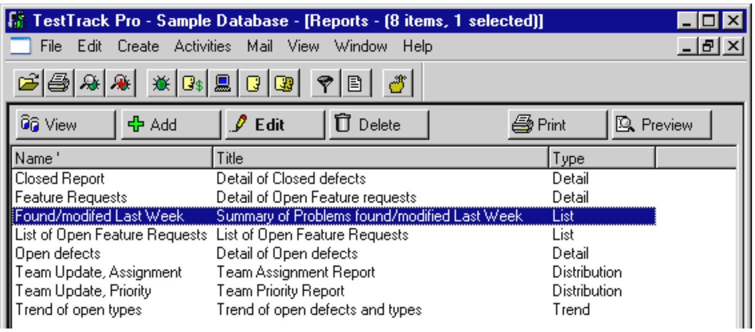
Filters list window

The Filters list window provides access to filters and filter commands. For more information, see **Chapter 7, “Using Filters,”** page 91.



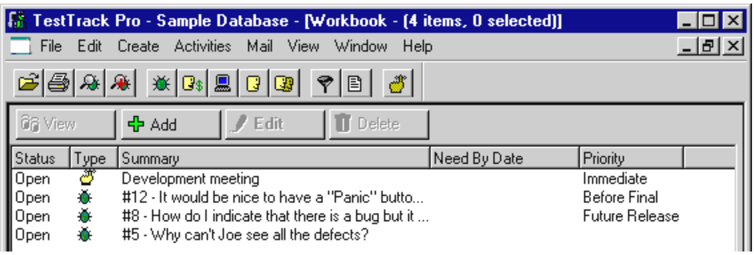
Reports list window

The Reports list window provides access to reports and reports commands. For more information, see **Chapter 9, "Generating Reports,"** page 103.



Workbook list window

The Workbook list window provides access to your personal workbook, your assigned defects, and tasks you add to the Workbook. For more information, see **Chapter 10, "Using the Workbook,"** page 125.



Adding columns

List window information is displayed in a column format. This lets you customize the information that is displayed. For example, you can add and remove columns or sort columns to easily view information that's important to you.

1. Right-click the column heading you want to add a column next to.

2. Select **Insert Column** from the shortcut menu. An empty column is added to the left of the selected column.

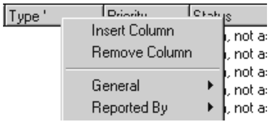
3. Select a field name to add column contents.

Adding column contents

To add or change column contents, select a new field for the column.

1 Right-click the column heading you want to change.

The shortcut menu lists all the available fields.



2 Select the field name from the menu.

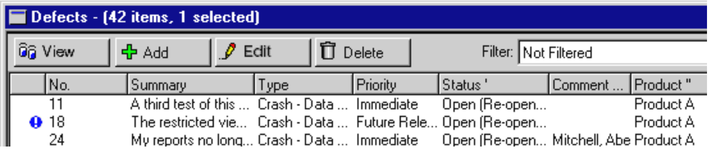
The column heading changes to the field name and the selected field contents are displayed.

Sorting columns

You can sort by any column and you can perform primary and secondary sorts.

- To sort a **primary column**, click the column heading. A single tick mark appears to the right of the column heading. Click the column heading again to toggle the sort order between ascending and descending.

- To sort a **secondary column**, **Shift+click** the column heading. Two tick marks appear to the right of the column heading. **Shift + click** the column heading again to toggle the sort order between ascending and descending. For example, the following list is sorted first by Status and then by Product.



Changing column widths

To make a column wider or narrower:

1 Move the cursor to the divide bar located between the column headings.

The cursor changes to a **resize** cursor.

2 Click and drag the divide bar to change the width of the column to the left of the divide bar.

Removing columns

1 Right-click the column heading you want to remove.

2 Select **Remove Column** from the shortcut menu.

Printing

If you do not want to print every record in the list, select the items you want to print on the list window. Make sure you select the **Only Print Selected Items** check box on the Print Options dialog box!

1 Choose **File > Print** or click the **Print** toolbar button.

The Print Options dialog box opens.

2 Select print options.

- **Print as list** prints all the records in a list format. Select the check box if you want grid lines to print.
- **Print as detail** prints the details for each record. Select the check box if you want each item printed on a separate page.
- **Create report file from template** lets you print a report based on a previously created template. After choosing this option, click **Save** (the Print buttons changes to a Save button). The Select Report Template dialog box opens. Select the report template you want to use and click **Open**. The Save Report As dialog box opens. Select a directory and enter a filename. The report is saved as a text document.

3 Click **Print**.

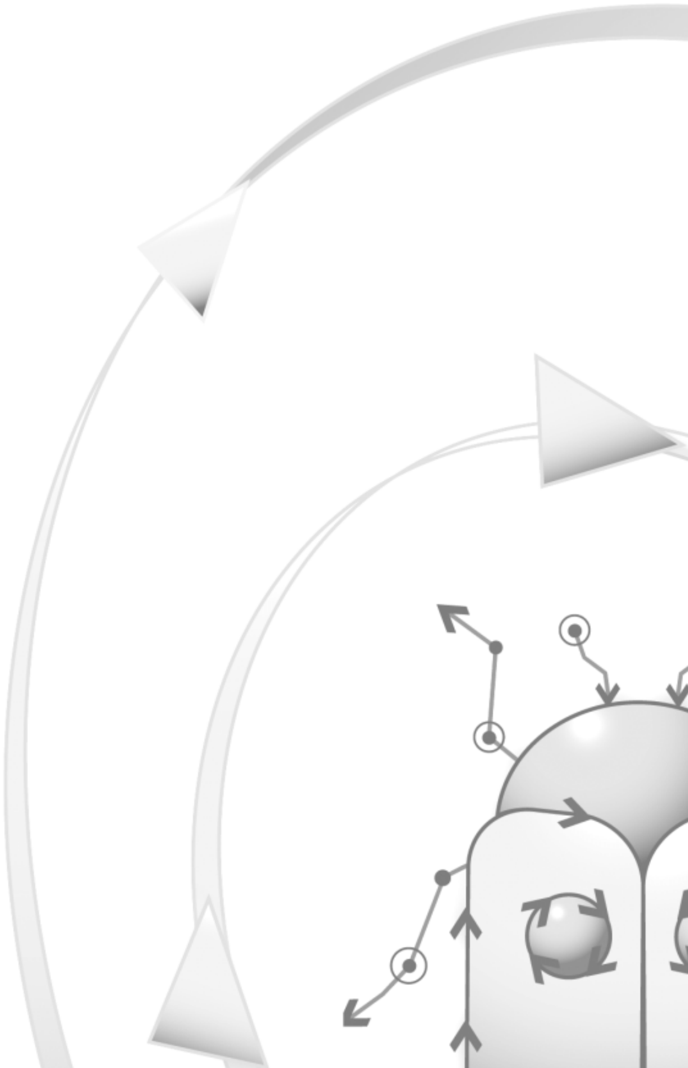
You can also click **Preview** to open the report in preview mode.

Chapter 4
Working with Defects

Squash the bugs...

...and **move on to the next challenge**! This chapter includes detailed information about defects - everything from adding defects to finding defects to logging historical defect information.

In this section:



About defects

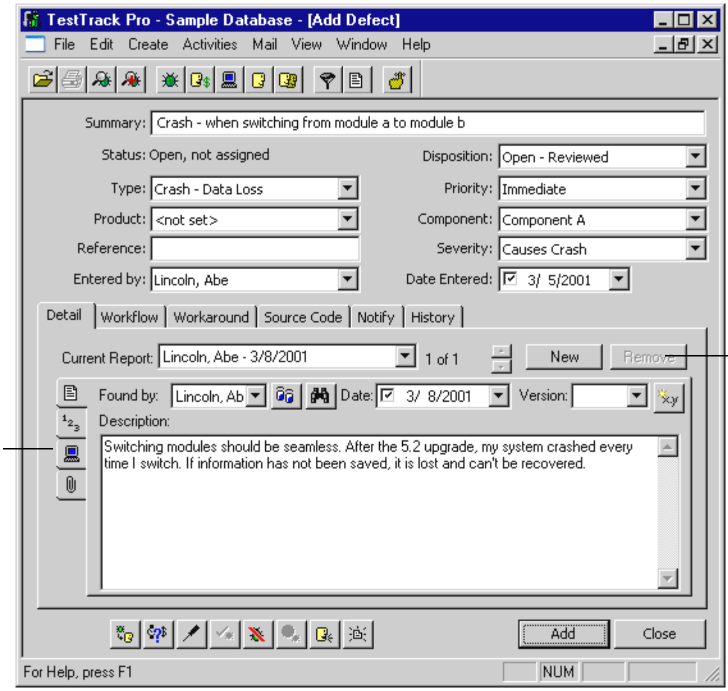
A defect is a bug, enhancement, change request, question, or any other product-related issue you need to track and resolve. It can be as simple as a typo in a Help file or as complicated as a system crash. Depending on your needs, you can configure complex tracking methods or simply use TestTrack Pro as a “to do” list.

Adding defects

1 Choose **Create > Defect** or click **Add** on the Defects list window.

The Add Defect dialog box opens. This dialog box includes the following tabs: Detail, Workflow, Workaround, Source Code, Notify, History, and Custom Fields (optional).

The Detail tab includes 4 mini tabs: Found By, Reproduce, Computer Config, and Attachments.



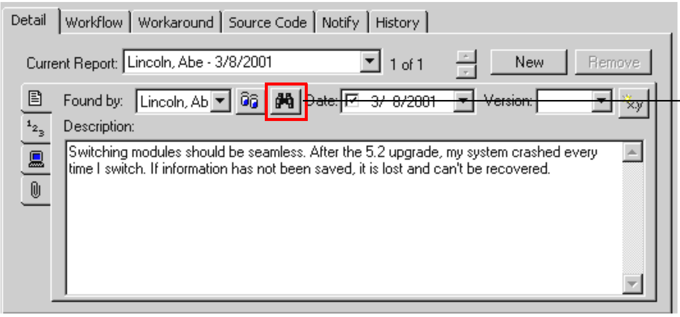
The **New** and **Remove** buttons on the Detail tab are used to add or remove additional defect reports. See **Adding additional reports to a defect,** page 34.

2 Enter the information in the top portion of the Add Defect dialog box.

- Enter a defect **summary**. You can enter up to 255 characters.
- Displays the defect **status** and whether it is assigned.
- Select the defect **disposition**.
- Select the defect **type**.
- Select the defect **priority**.
- Select the **product name**.
- Select the **component name**.
- Enter a **reference** number pertinent to the defect.
- Select the defect **severity**.
- **Entered by** defaults to the current user or you can select a user from the menu.
- **Date Entered** defaults to the current date or you can enter another date.

3 Enter the information on the **Detail: Found by** mini tab.

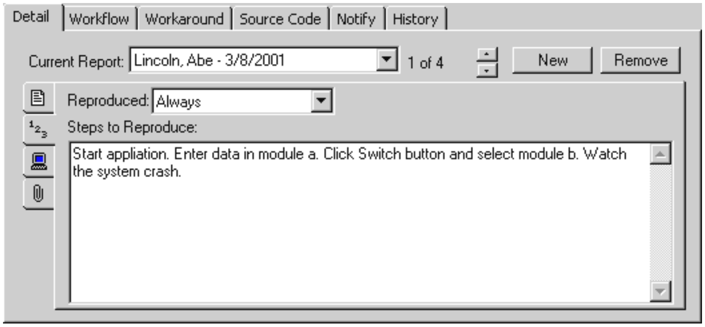
- **Found by** defaults to the current user or you can select a user from the menu. To search for a user or customer, click the **Find** button located next to the **Found by** field. Enter the search criteria. If matching users or customers are found, select one to populate the **Found by** field.
- **Date** defaults to the current date or you can enter another date.
- Select the **version** of the software containing the defect.
- Enter a detailed defect **description**.



Click to search for a user or customer. Select the user or customer to populate the Found by field.

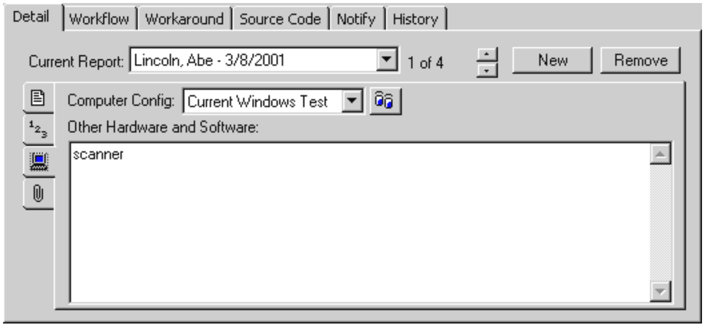
4 Enter the information on the **Detail: Reproduce** mini tab.

- Select a **reproduced** level.
- Enter the detailed **steps to reproduce** the defect. This information helps programmers, testers, etc., fix and test the problems.

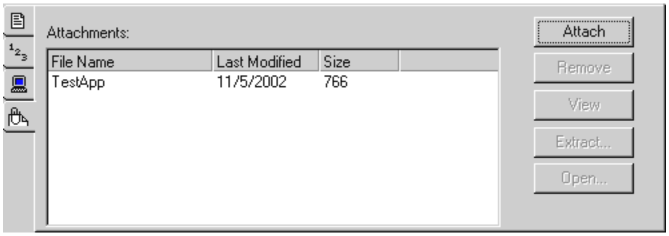


5 Enter the information on the **Detail: Computer Config** mini tab.

- Select a **computer configuration**. The default is the current user's configuration.
- Enter information about **other hardware and software** that could be affecting the problem.



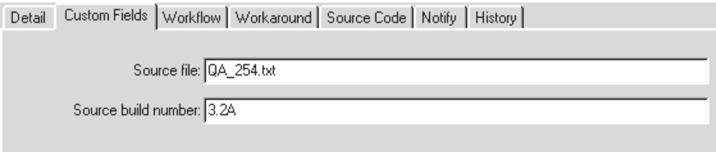
6 If necessary, attach a file to the defect using the **Detail: Attachments** mini tab. For more information, see **Attaching files to a defect**, page 35.



7 Optionally, click the **Custom Fields** tab.

> You may not have access to this tab, depending on your security permissions and database configuration.

If a database uses custom fields, up to two custom fields may be displayed in the main area of the Add Defect dialog box. Custom fields can also all be displayed on the Custom Fields tab – make sure you click this tab to enter or check custom field information.

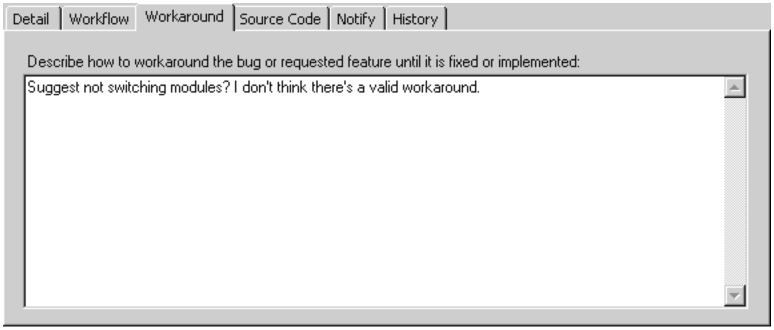


8 Skip the **Workflow** tab.

This tab is populated with defect action information and is useful when editing or viewing defects.

9 Click the **Workaround** tab.

Enter a workaround solution for the bug that can be used until it is fixed or implemented.

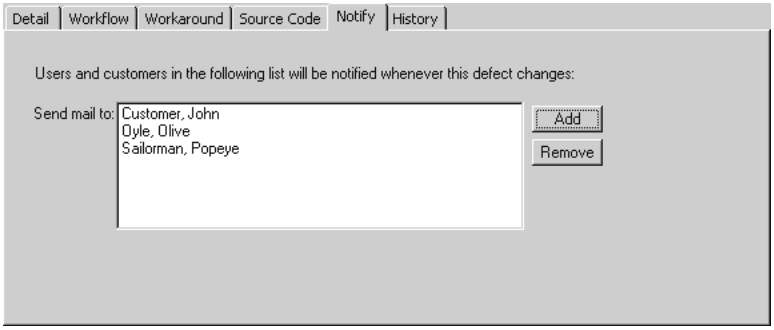


10 Skip the **Source Code** tab.

This tab is used for SCC application functions. Most users do not attach source code files while adding defects. For more information, see **Chapter 5, "Using SCC Integration,"** page 55.

11 Click the **Notify** tab.

- To add users or customers to the notification list, click **Add**.
- Select the users or customers from the Add Mail Recipients dialog box and click **Add**.
- To remove users, highlight the user /customer and click **Remove**.



12 Skip the **History** tab.

This tab is populated with defect historical information and is useful when editing or viewing defects.

13 When you finish entering information, click **Add** on the Add Defect dialog box.

The defect is added to the database.

Adding additional reports to a defect

Users, customers, or beta sites often report the same defect. To eliminate duplicates in your database, you should add the defect once and add all additional reports to the same defect.

1 Select the defect you want to add an additional report to.

2 Choose **Edit > Edit Defect** or click **Edit** on the Defects list window.

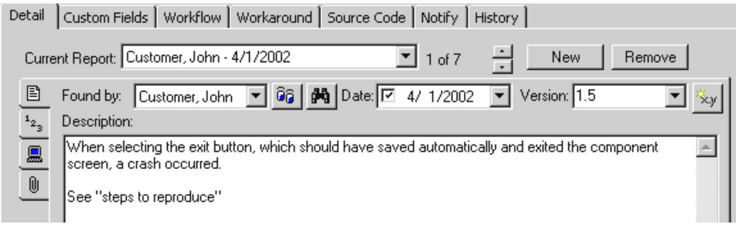
The Edit Defect dialog box opens.

3 On the Detail tab, click **New**.

4 Enter the additional report information.

For more information, see **Adding defects,** page 30.

5 Click **OK** when you finish adding the additional report.



The Detail tab includes a counter. If a defect is reported multiple times, the counter increases and shows the number of times the defect is reported.

Attaching files to a defect

When you add a defect, you can attach related files. For example, if a defect is corrupting a file, you can attach the corrupt data file for reference. If you want to point out a cosmetic changes to a dialog box, you can attach a screen shot that includes the changes.

You can attach multiple files to a defect. You can also attach zipped files.

1 Select the defect you want to attach a file to.

2 Choose **Edit > Edit Defect.**

3 On the Detail tab, click the **Attachments** mini tab.

4 Click **Attach**.

The Attach File dialog box opens.

5 Navigate to the directory containing the file, select the file and click **Open**.

The file is attached to the defect.

Finding defects

You can search against the summary field, the description field, or all notes. If you do not have security access to these fields, the Find Defects command is disabled.

If you know the number of a defect, you can jump directly to that defect. Choose **Edit > Go To Defect Number**, enter the defect number, and click **OK**.

1 Choose **Edit > Find Defects**.

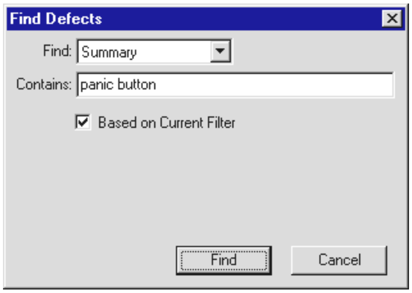
The Find Defects dialog box opens.

2 Select the search field from the **Find** menu.

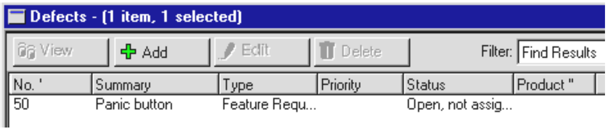
Fields you have security access to are listed in the menu.

3 Enter the text you want to search for in the **Contains** field.

Select **Based on Current Filter** if you only want to search the filtered defects.



4 Click **Find**. If matching defects are found, the search results are displayed on the Defects list window. Notice the **Find Results** filter is applied.



5 If matching defects are not found, a warning message opens. Click **OK**.

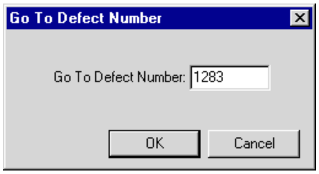
You return to the Defects list window, which is empty since no defects matched the search criteria. Notice the **Find Results** filter is applied.

Go to command

If you know the number of a specific defect, use the go to command to quickly find the defect.

1 Choose **Edit > Go To Defect Number**.

The Go To Defect Number dialog box opens.



2 Enter the defect number and click **OK**.

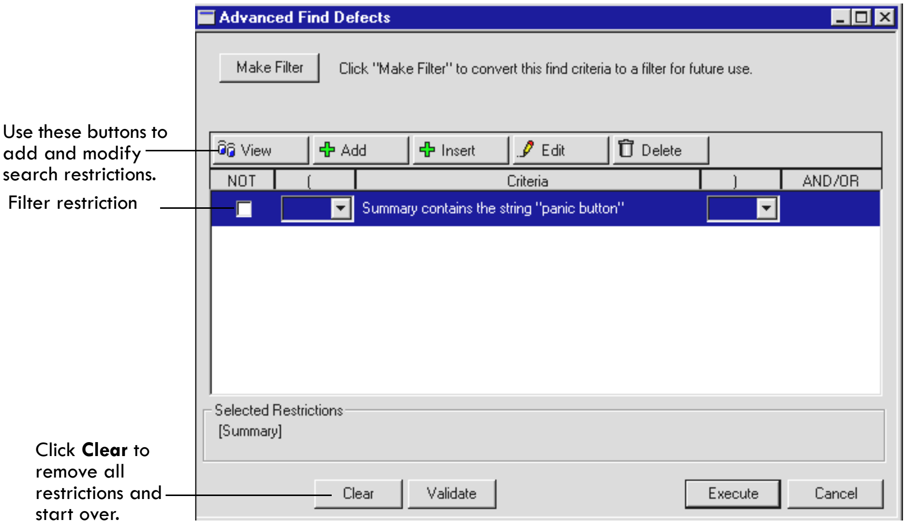
The corresponding defect is opened.

Using advanced find

Advanced find lets you perform a more powerful search using filters and Boolean logic. You can also search on multiple restrictions. For more information, see **About filters,** page 92.

1 Choose **Edit >Advanced Find Defects** or click the **Advanced Find** toolbar button.

The Advanced Find Defects dialog box opens.



2 Click **Add** to add a search restriction.

The Restriction dialog box opens.

If your defects are filtered, and you choose **Advanced Find,** the Advanced Find Defects dialog box is populated with the filter restrictions. Click **Clear** to remove the restrictions.

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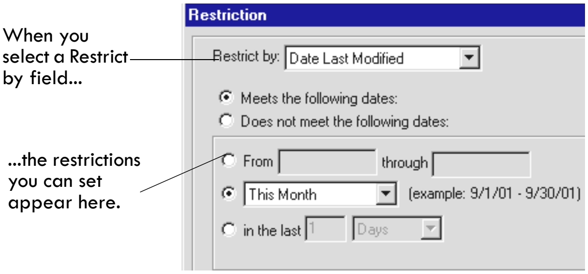
3 Select the field you want to include from the **Restrict By** menu.

When you select a field from the **Restrict By** menu, the restrictions you can set for the field appear in the Restrictions box.



4 Select the restriction options.

The restriction is added to the search.

5 Click **OK**.

You return to the Advanced Find Defects dialog box.

6 Optionally, select NOT/AND/OR operators and parentheses to build the boolean logic for the filter. For more information, see **About Boolean searches,** page 92.

7 Click **Validate** to validate the search criteria.

- If the criteria is valid, click **OK**.
- If the criteria is not valid, an error message opens. Click **OK** to return to the Advanced Find Defects dialog box and correct the error.
- Click **Clear** to clear all restrictions and start over.

8 Click **Make Filter** to save the search criteria as a filter. For more information, see **Creating filters,** page 93.

9 When you finish adding restrictions and the criteria is validated, click **Execute**.

10 If matching defects are found, the search results are displayed on the Defects list window. Notice the **Find Results** filter is applied.

11 If matching defects are not found, a warning message opens.

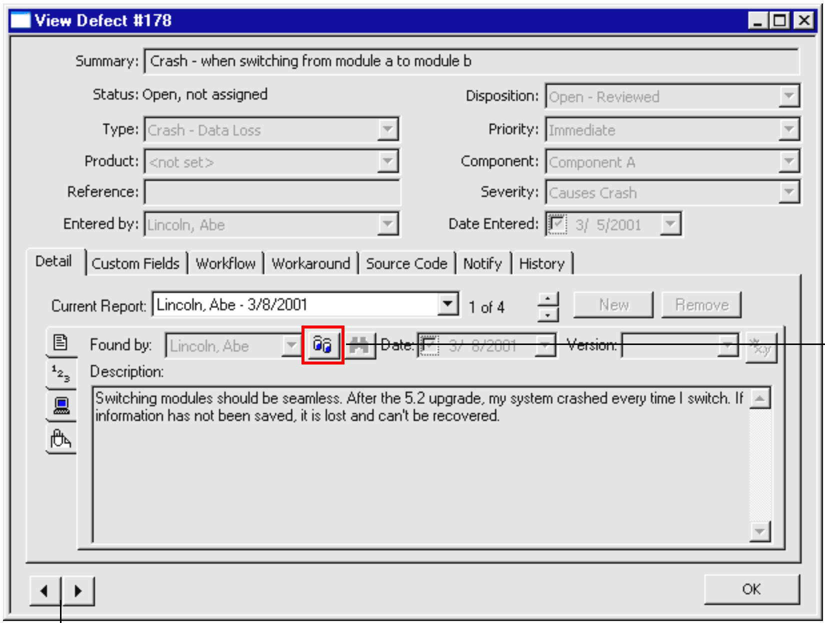
You return to the Defects list window, which is empty because matching defects were not found. Notice the **Find Results** filter is applied.

Viewing defects

1 Select the defect on the Defects list window.

2 Choose **Edit > View Defect** or click **View** on the Defect list window.

The View Defect dialog box opens. All fields are read-only.

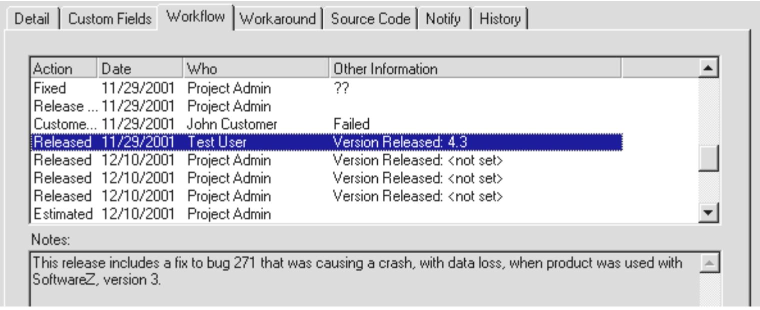


Click to view information about the customer or user who found the defect. The corresponding View dialog box opens.

Click the arrows to move to the next or previous defect record.

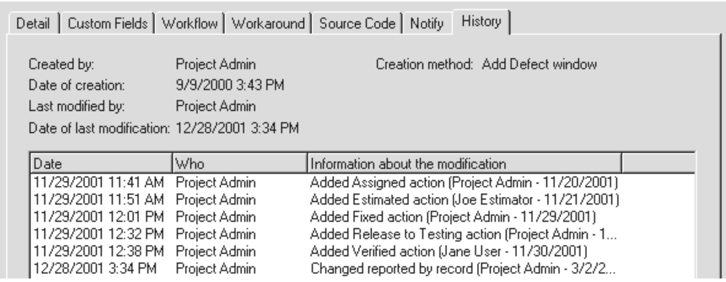
3 Click the **Workflow** tab.

This tab includes an overview of where the defect is in the workflow, what defect actions were assigned, who the actions were assigned to, and any comments or additional information a user entered.



4 Click the **History** tab.

Each time a defect action is assigned, TestTrack Pro adds this information to the defect's history. The History tab includes who created the defect, when the defect was created, the creation method, who last modified the defect, and the date of the last modification.



5 Click **OK** to close the View Defect dialog box.

Viewing attached files

You can view text files (**.txt**) and bitmaps (**.bmp**) without extracting the files.

1 Select the defect with the attached file you want to view.

2 Choose **Edit > Edit Defect.**

3 On the Detail tab, click the **Attachments** mini tab.

4 Select the attached file and click **View**.

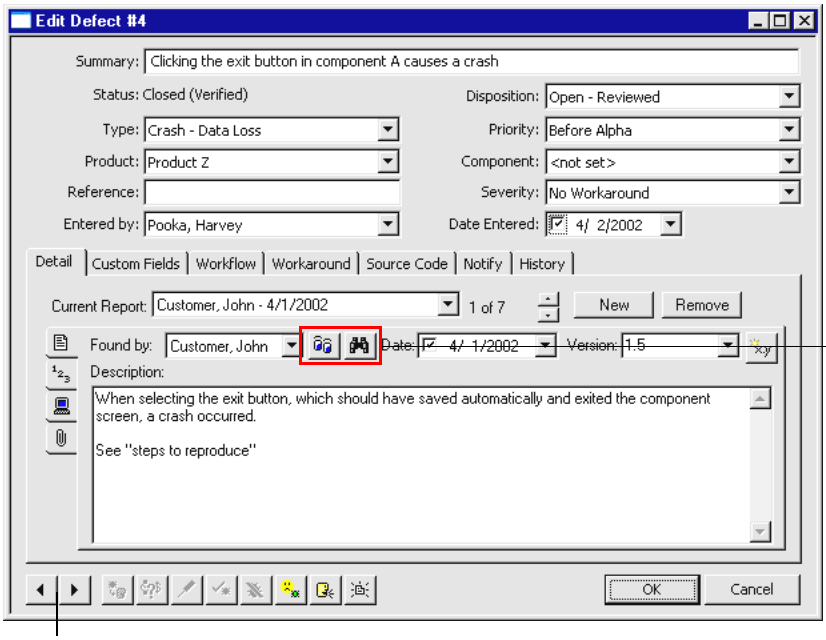
The text file or graphics file is displayed.

Editing defects

1 Select the defect on the Defects list window.

2 Choose **Edit > Edit Defect** or click **Edit** on the Defects list window.

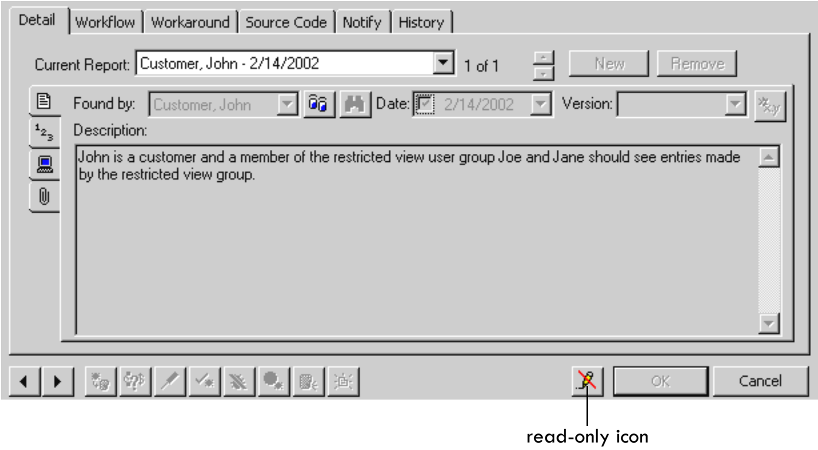
The Edit Defect dialog box opens.



These shortcut buttons are used to edit customer/user information and search for customers/users.

Click the arrows to move to the next or previous defect record.

If another user is editing a defect you open, a **read-only** icon opens next to the **OK** button. **Click** the icon to see who is editing the record. When the user finishes, the icon closes and the record is updated.



TestTrack Pro checks the database every 10 seconds for changes. Read-only records become available as soon as users finishes editing the records.

3 Make any changes and click **OK**.

Your changes are saved.

Opening attached files

Open saves a copy of an attached file and opens it with the application used to create it. For example, if a customer sends a Microsoft Word document, TestTrack Pro can open the file in Word.

1 Select the defect you want to extract an attached file from.

2 Choose **Edit > Edit Defect.**

3 On the Detail tab, click the **Attachments** mini tab.

4 Select the attached file and click **Open**.

The Save and Open Extracted File As dialog box opens.

5 Select the file location and enter a file name.

6 Click **Save**.

The file is extracted and opened.

Extracting attached files

Extract saves a copy of an attachment. For example, if a customer attaches a corrupted data file to a defect, you can extract the file to a specific folder.

1 Select the defect you want to extract an attached file from.

2 Choose **Edit > Edit Defect.**

3 On the Detail tab, click the **Attachments** mini tab.

4 Select the attached file and click **Extract**.

The Save Extracted File As dialog box opens.

5 Select the file location, enter a file name, and click **Save**.

The file is extracted to the folder you selected. You can now open the file.

Duplicating defects

Depending on your security level, you may not have access to this command.

If you are adding defects with the same basic information, you can save time by duplicating and editing a defect.

1 Select the defect on the Defects list window.

2 Choose **Edit > Duplicate Defects**.

TestTrack Pro duplicates the defect and assigns a new defect number. The duplicated defect is added to the Defects list window.

3 Edit the defect and save your changes.

Merging defects

Merging defects helps avoid confusion and keep your database organized. For example, two defects report the same issue. JoeDeveloper is assigned one defect and JaneDeveloper is assigned the other one. The developers are working on the same issue and do not realize it.

1 Select the defects on the Defects list window.

To select a range of defects, **click** the first defect in the range, then **Shift+click** the last defect. To select multiple defects not in a range, **Ctrl+click** each defect.

2 Choose **Edit > Merge Defects**.

A warning message opens, letting you know the defects will be merged and deleted from the database.

3 Click **OK**.

The defects are merged.

- The resulting defect assumes the lowest defect number and the type, priority, and severity of that defect. All defect information is retained as **multiple defect records**. For example, if you merge three defects, the Detail tab shows three defect records. Each defect record includes the original defect information.

- If one or more fields conflict, you are prompted to view the merged defect.

Editing additional defect reports

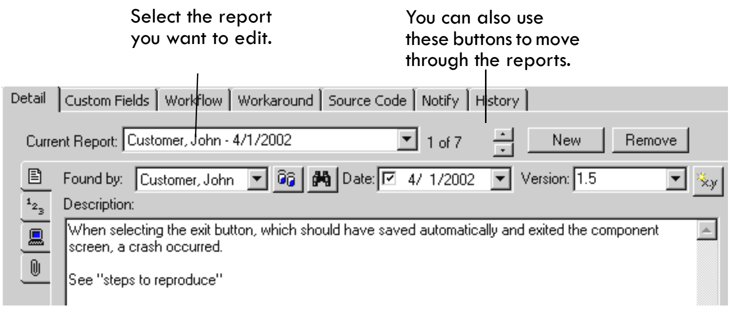
1 Select the defect with the record you want to edit on the Defects list window.

If you are on the Edit Defect dialog box, **skip** to step 3.

2 Choose **Edit > Edit Defect** or click **Edit** on the Defects list window.

The Edit Defect dialog box opens.

3 Click the **Detail** tab and select the report you want to edit.



4 Make any changes and click **OK**.

Using deferred defect numbering

You may not have access to this administrator command.

During product testing, bug reports are submitted from a variety of sources. Many are new bugs or feature requests you need to track, some are not unique or don't need tracking. You can store new defects in the database and number them after confirming they are unique defects. This feature is **deferred defect numbering**. When deferred defect numbering is active, new defects have a dash instead of a defect number. These are **unnumbered defects**. You should periodically review unnumbered defects and assign defect numbers, merge them with existing defects, or delete them.

1 Select **Edit** > **Options** > **Database Options**.

The Database Options dialog box opens.

2 Click the **Defects** tab and select the deferred numbering options.

Assigning defect numbers

1 Select the unnumbered defect on the Defects list window.

2 Choose **Activities** > **Defect Actions** > **Assign Defect Numbers**.

The defect is assigned the next defect number.

Renumbering defects

You may not have access to this administrator command.

Over the duration of your project, you may delete or merge defects that leave gaps in the defect numbers sequence. Or, at the start of a new development cycle, you may want to purge all closed defects from the project and use it as a fresh starting point for testing. In both cases, you will need to renumber defects.

1 Select the defect you want to renumber and choose **Activities** > **Defect Actions** > **Renumber Defect**.

The Renumber Defects dialog box opens. The starting number is set to the next available defect number.

2 Enter an unused defect number and click **OK**.

The Renumber Defects dialog closes and the defect is renumbered.

- If the renumbered defect uses a number that is higher than the next available defect number, the next available defect number is set to one higher than the renumbered defect. For example, if the next defect added to the database would be numbered 1011 and you renumber a defect to 1200, the next defect added will be 1201.
- If you renumber the entire defect list, you still need to set the next available defect number to one greater than the highest defect number.

Changing bulk fields

The following security options must be enabled to access this command: Edit Defect, Edit Database Options, and Import from XML.

You can quickly, and easily, update multiple records in the TestTrack Pro database. Use this command to replace values for specific fields, search for and replace strings in text fields, or add text.

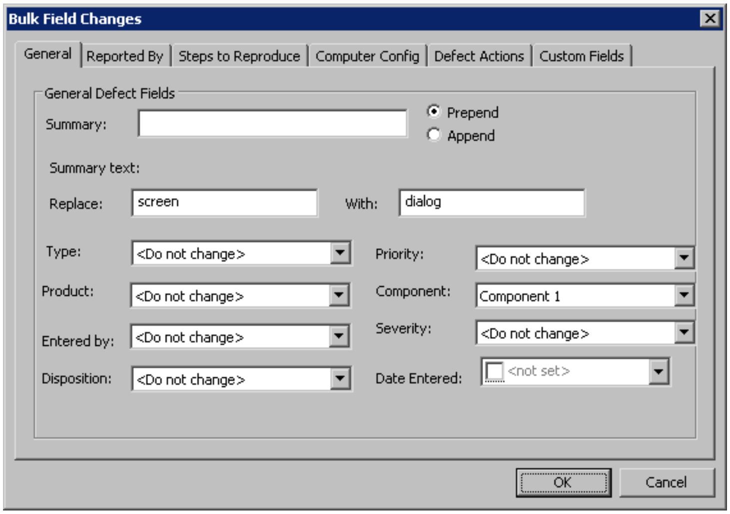
You can replace values for the following field types: General, Reported By, Steps to Reproduce, Computer Config, Defect Actions, and Custom Fields. For example, you can change the disposition for 100 records to *on hold*. Or you can change the *Found by User* for specific records.

Replacing general field values

1 Select the defects on the Defects list window.

2 Choose **Activities > Defect Actions> Bulk Field Changes**.

The Bulk Field Changes dialog box opens with the **General** tab selected.



3 Make any changes.

- To add text, enter the text in the **Summary** field and select **Prepend** or **Append**.
- To replace text, enter the string you want to search for in the **Replace** field and the string you want to replace it with in the **With** field.
- To change values, select the value from the corresponding menu.

4 Click **OK**.

You are prompted to confirm the changes.

5 Click **OK**.

The records are updated.

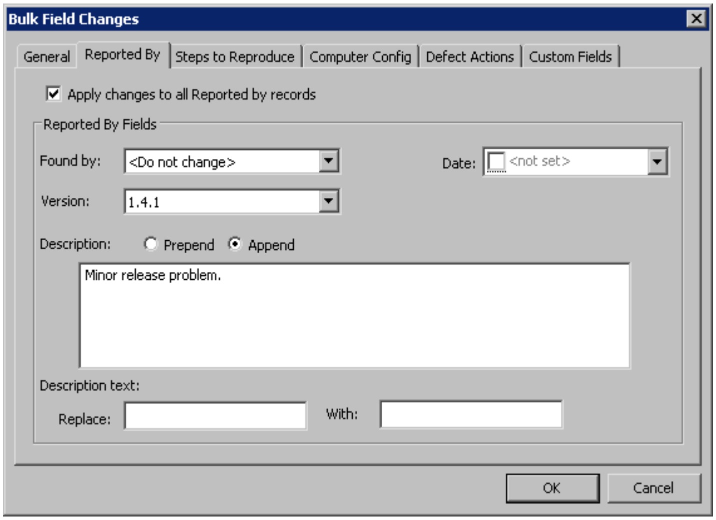
Replacing reported by field values

1 Select the defects on the Defects list window.

2 Choose **Activities > Defect Actions> Bulk Field Changes**.

The Bulk Field Changes dialog box opens.

3 Click the **Reported By** tab.



4 Make any changes.

- If defects are reported multiple times and you want to change all reported by records, select **Apply changes to all Reported by records**. If you only want to change the first reported by record, do not select this option. For example, you want to change the Found by user for 50 defects. Some of the defects were reported multiple times. Select this option to change the found by user for each reported by record. If you do not select this option, only the first reported by record is changed.
- To change values, select the value from the corresponding menu.
- To add text, enter the text in the **Description** field and select **Prepend** or **Append**.
- To replace **Description** text, enter the string you want to search for in the **Replace** field and the string you want to replace it with in the **With** field.

5 Click **OK**.

You are prompted to confirm the changes.

6 Click **OK**.

The records are updated.

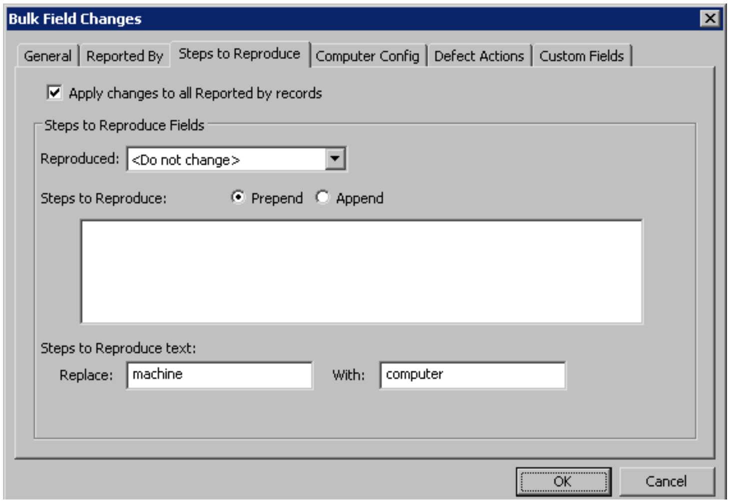
Replacing steps to reproduce field values

1 Select the defects on the Defects list window.

2 Choose **Activities > Defect Actions> Bulk Field Changes**.

The Bulk Field Changes dialog box opens.

3 Click the **Steps to Reproduce** tab.



4 Make any changes.

- If defects are reported multiple times and you want to change all reported by records, select **Apply changes to all Reported by records**. If you only want to change the first reported by record, do not select this option.
- To change values, select the value from the corresponding menu.
- To add text, enter the text in the **Steps to Reproduce** field and select **Prepend** or **Append**.
- To replace **Steps to Reproduce** text, enter the string you want to search for in the **Replace** field and the string you want to replace it with in the **With** field.

5 Click **OK**.

You are prompted to confirm the changes.

6 Click **OK**.

The records are updated.

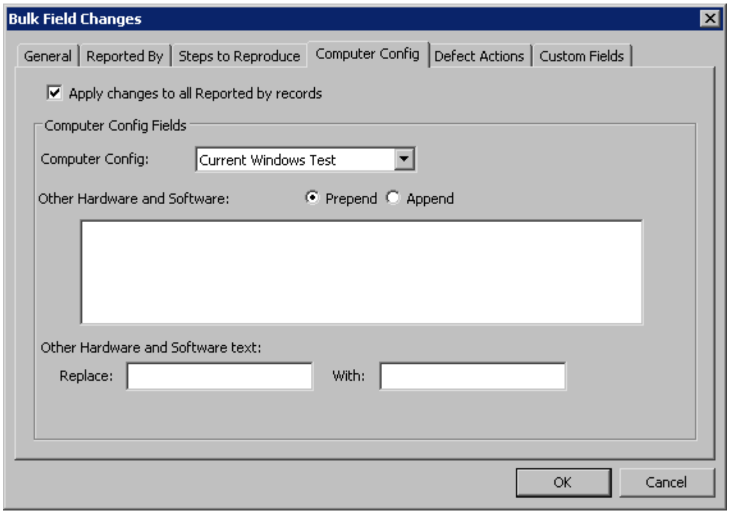
Replacing computer config field values

1 Select the defects on the Defects list window.

2 Choose **Activities > Defect Actions> Bulk Field Changes**.

The Bulk Field Changes dialog box opens.

3 Click the **Computer Config** tab.



4 Make any changes.

- If defects are reported multiple times and you want to change all reported by records, select **Apply changes to all Reported by records**. If you only want to change the first reported by record, do not select this option.
- To change values, select the value from the corresponding menu.
- To add text, enter the text in the **Other Hardware and Software** field and select **Prepend** or **Append**.
- To replace **Other Hardware and Software** text, enter the string you want to search for in the **Replace** field and the string you want to replace it with in the **With** field.

5 Click **OK**.

You are prompted to confirm the changes.

6 Click **OK**.

The records are updated.

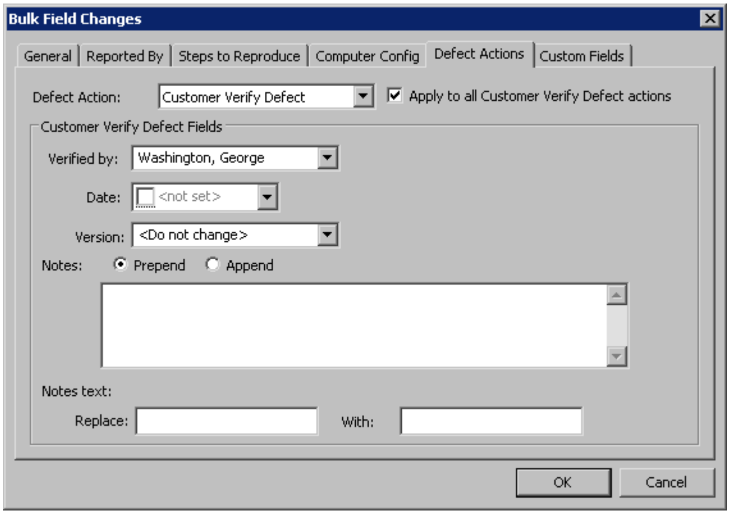
Replacing defect actions field values

1 Select the defects on the Defects list window.

2 Choose **Activities > Defect Actions> Bulk Field Changes**.

The Bulk Field Changes dialog box opens.

3 Click the **Defect Actions** tab.



4 Select a **Defect Action**.

The fields on this tab change based on the defect action you select.

5 Make any changes.

- If you want to change all defect actions select **Apply to all actions**. If you only want to change the newest defect action, do not select this option. For example, you need to change by Assign By user for 100 defects. Most of these defects have been manually assigned multiple times. Select this option to change every assign by record for all defects. If you do not select this option, only the newest assign by record is changed.
- To change values, select the value from the corresponding menu.
- To add text, enter the text in the **Notes** field and select **Prepend** or **Append**.
- To replace **Notes** text, enter the string you want to search for in the **Replace** field and the string you want to replace it with in the **With** field.

6 Click **OK**.

You are prompted to confirm the changes.

7 Click **OK**.

The records are updated.

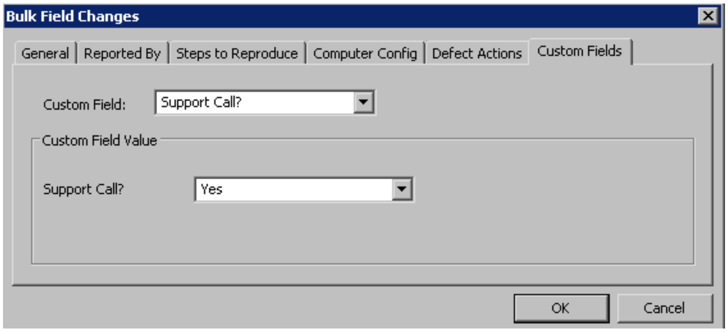
Replacing custom field values

1 Select the defects on the Defects list window.

2 Choose **Activities > Defect Actions> Bulk Field Changes**.

The Bulk Field Changes dialog box opens.

3 Click the **Custom Fields** tab.



4 Select a **Custom Field**.

The fields on this tab change based on the custom field you select.

5 Make any changes.

6 Click **OK**.

You are prompted to confirm the changes.

7 Click **OK**.

The records are updated.

Deleting additional defect reports

1 Select the defect with the record you want to delete.

2 Choose **Edit > Edit Defect** or click **Edit** on the Defects list window.

3 Click the **Detail** tab and select the report you want to delete.

4 Click **Remove**.

The additional report is deleted.

Deleting attached files

1 Select the defect you want to delete an attached file from.

Make sure you want to permanently delete the attached file. You are not prompted to confirm the deletion and the action cannot be undone.

2 Choose **Edit > Edit Defect.**

3 On the Detail tab, click the **Attachments** mini tab.

4 Select the file you want to delete and click **Remove**.

The attached file is deleted.

Deleting defects

1. Select the defect on the Defects list window.

   You can select more than one defect to delete.

2. Choose **Edit > Delete Defect** or click **Delete** on the Defects list window.

   You are prompted to confirm the deletion.

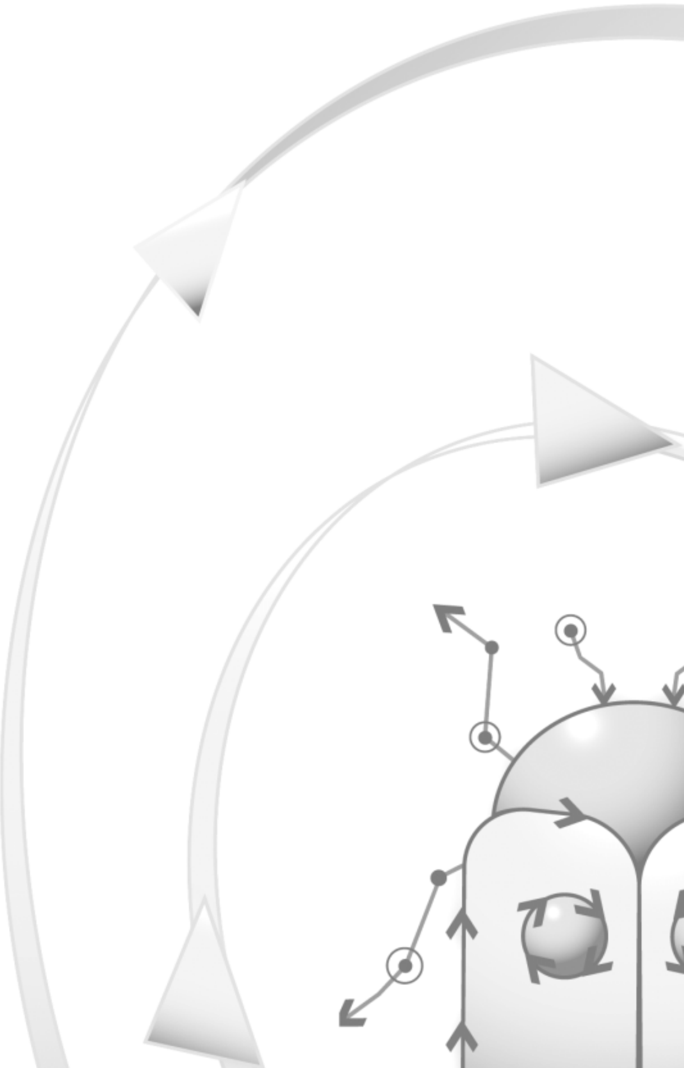
3. Click **OK**.

Chapter 5
Using SCC Integration

Integrate TestTrack Pro...

with your SCC application! This chapter includes information about integrating SCC applications with TestTrack Pro. It also includes detailed instructions for performing SCC functions.

In this section:



Using source code control with TestTrack Pro

You can integrate the following SCC applications with TestTrack Pro: CS-RCS, CVS, ClearCase, PVCS, Perforce, SourceOffSite Classic, StarTeam, Surround SCM, and Visual SourceSafe. You must configure the integration before you can access your SCC application through TestTrack Pro. SCC integration includes the following commands:

Attach file: Attaches files in the SCC application to a defect.

Detach file: Detaches files that are associated with a defect.

Get: Copies a read-only version of the selected files into your working folder.

Check in: Checks in a file after changes are made to the file. Updates the SCC project with the changes you made.

Check out: Checks out and locks an attached file so you can make changes to the file.

Undo Check out: Cancels a checked out file and undoes all changes. This action may overwrite the file on your hard drive with the current copy in the SCC application.

View: Opens and displays a copy of the selected file, using the corresponding editor.

History: Displays a file's history including version and user information, dates, and comments.

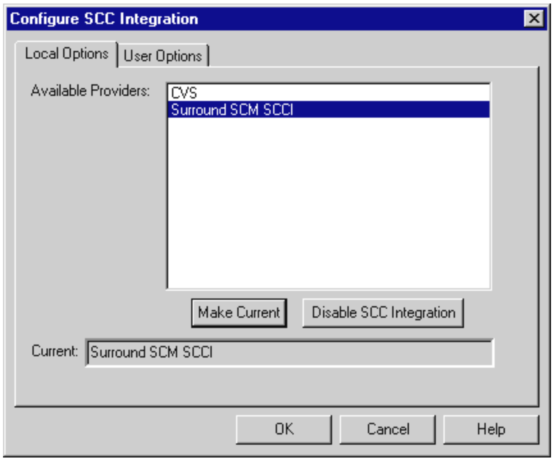
For more information about specific SCC applications and their integration with TestTrack Pro, see **Chapter 14, "Configuring SCC Integration,"** page 175.

Configuring SCC integration

Depending on your database configuration, you may not have access to the Source Code Control (SCC) functions.

1 Choose **Activities > Configure > SCC Integration**.

The Configure SCC Integration dialog box opens with the Local Options tab selected. The Local Options tab lists the installed SCC providers.



CVS is always displayed in the Available Providers list. Do not set up CVS integration unless CVS is installed on your computer.

2 Select the application you want to use from the Available Providers list and click **Make Current**.

The application you selected is listed in the Current box. The Local Options tab is the only tab available until you select an SCC application.

You probably use one source code control program. You must still select the application and click **Make Current.**

3 Click the **User Options** tab.

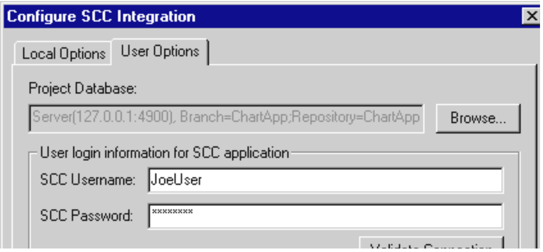
This tab is used to select the project database and enter a username and password to connect to the database.

The user options settings are stored in the TestTrack Pro database for the currently logged in user. If you log in to multiple TestTrack Pro databases, SCC user options must be configured for each database.

4 Click **Browse** to select the project database.

If you use **Visual SourceSafe** or **PVCS** you must also enter a valid username and password for the database.

5 Click **Validate Connection** to test the connection parameters. If you receive an error message, correct the error and try again.

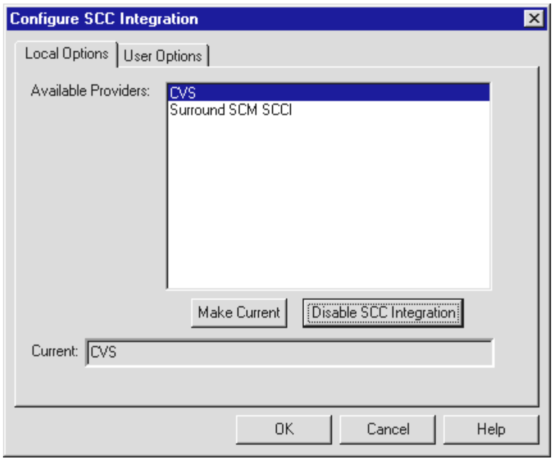


Disabling SCC integration

1 Choose **Activities > Configure > SCC Integration**.

The Configure SCC Integration dialog box opens.

2 Select the provider you want to disable and click **Disable SCC Integration**.



3 You are prompted to confirm that you want to disable the SCC integration.

4 Click **Yes** to disable the integration.

General source code tab information

How do I know if source files are attached to a defect?

Add a new column to the Defects list window and select **Has SCC files?** for the heading. **Yes** appears in the column if source files are attached to a defect.

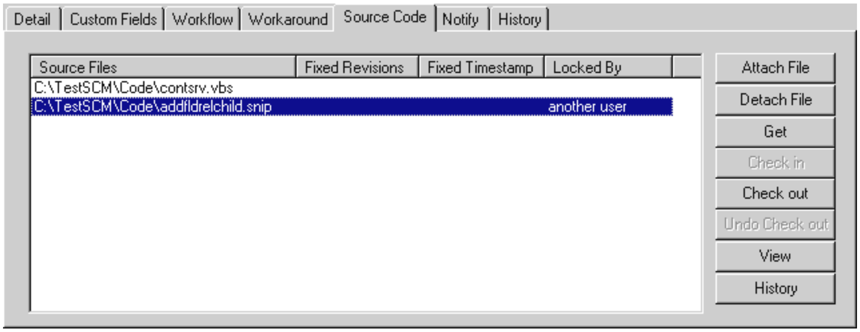
The source code tab provides the following information about the source files attached to a defect.

Source Files All files attached to the defect.

Fixed Revision Each revision number where the file was checked in from the defect. Revision numbers are obtained from the SCC application. If the file is not checked in through TestTrack Pro, the revision number is not updated.

Fixed Timestamp The timestamp of the latest fixed revision found in the Fixed revision column.

Locked By The username is displayed if it can be determined. If the username cannot be determined, “current user” or “another user” is usually displayed.



Attaching files

This command is used to attach files to a defect. You should attach any file in SCC that is related to the defect. For example, you might attach a source file that changed while fixing the defect.

You can attach a source code file when adding a defect, but you will probably attach files when editing defects. Generally, QA, support, or customers add defects. A developer, or other team member (such as a documentation team member), usually attache source code files to a defect after the bug is added.

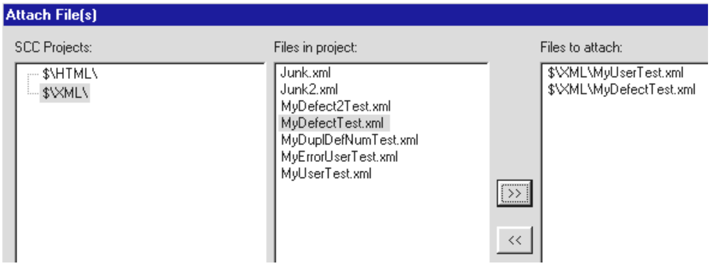
1 Select the defect you want to attach a file to on the Defects list window.

2 Choose **Edit >Edit defect** or click **Edit** on the Defects list window.

3 Click the **Source Code** tab.

4 Click **Attach File**.

The Attach File(s) dialog box opens.



5 Select the project you want to work with from the **SCC Projects** list.

A list of available files opens in the **Files in project** list.

The SCC application is not queried for data after the Attach File(s) dialog box opens for the first time. If you add files or directories to your SCC project, click **Refresh.** The TestTrack Pro client will call the PVCS or Perforce interface to obtain the list of files that are under source code control.

6 Select the files you want to attach from the **Files in project** list and click the **right arrow button (>>)**.

The files are listed in the **Files to attach** list. If you make a mistake, select the file in the Files to attach list and click the **left arrow button (<<)**.

7 Click **OK** when you are finished.

If you are using ClearCase, PVCS, or Perforce, make sure you only attach relevant files. Due to the program interfaces, attaching files can cause a small delay in performance depending on the number of files in the database. This slow down is based on the number of attached files, not the number of files in ClearCase, PVCS, or Perforce.

The first time you attach SCC files, the Attach File(s) dialog box may take a longer time than expected to open. The TestTrack Pro client must call the program to obtain a list of files that are under source code control. The next time you access the Attach function, it will be a faster process because the list of SCC files are cached by TestTrack Pro.

Detaching files

This command is used to detach files from a defect. When you detach files, it removes the association of the SCC file to the defect. This action does not make any changes in the SCC application.

1 Select the defect you want to detach a file from on the Defects list window.

2 Choose **Edit >Edit defect** or click **Edit** on the Defects list window.

3 Click the **Source Code** tab.

4 Select the source file and click **Detach File**.

You are prompted to make sure you want to detach the selected file.

5 Click **Yes**.

The file is detached.

Getting files

This command is used to view, and not edit, a file. When you get a file, a read-only file is copied to the directory you specify.

If you are using **Perforce**, the Get command syncs the local file with the depot file. If a file is checked out or locked, the Get command does not work.

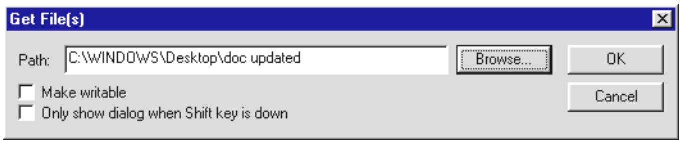
1 Select the defect you want to get SCC files from on the Defects list window.

2 Choose **Edit >Edit defect** or click **Edit** on the Defects list window.

3 Click the **Source Code** tab.

4 Select the source file(s) and click **Get**.

The Get File(s) dialog box opens.



5 Enter a directory path or click **Browse** to select a path. You can leave the path field empty to use the default location.

- If you are getting a **single file**, the value of the path field is determined by the SCC user configuration.
- If you are getting **multiple files**, the path field may be empty since each file can have a different default location.

6 Select **Make writable** if you want to be able to edit the file.

7 Select **Only show dialog when Shift key is down** if you do not want the Get File(s) dialog box to open.

If you select this option, the settings you entered are used each time you get a file. To display the dialog, hold down the **Shift** key before clicking **Get**.

8 Click **OK**.

The file is copied to the directory you specified.

Checking in files

This command updates the SCC application with the changes you made and unlocks the file. When another user accesses the file in the SCC application, the file includes all the modifications you made. If you check in files outside of TestTrack Pro, the fixed revision and fixed timestamp information is not captured in the TestTrack Pro database.

If you are using **Perforce,** you can only check in files from the **default changelist.**

1 Select the defect with the file you want to check in on the Defects list window.

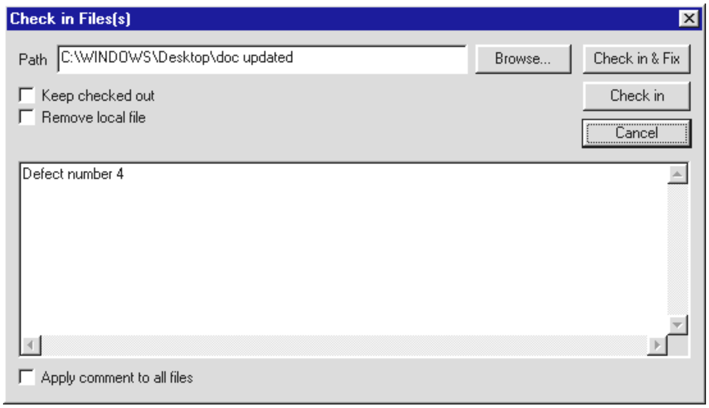
2 Choose **Edit >Edit defect** or click **Edit** on the Defects list window.

3 Click the **Source Code** tab.

4 Select the source file(s) and click **Check in**.

This option is enabled for files that are checked out by an SCC user.

The Check in File(s) dialog box opens.



5 Check the path.

This field defaults to the directory path you chose when the file was checked out. You can enter a different path or click **Browse** to select a path.

6 Select **Keep checked out** to update the master copy of a file while keeping the file checked out.

7 Select **Remove local file** to remove the copy from your working folder.

8 Enter any comments.

Your database may include a check in comments template that automatically populates the comments field. You can add comments to the field or delete the comments and add your own. Select **Apply comments to all files** to use the same comment for each source file. This only applies if you are checking in multiple files at the same time.

9 Click **Check in & Fix** to check in the selected file(s) and then fix the defect(s).

The files are checked in and the Fix Defect dialog box opens.

Check in & Fix is only available if the defect is in the Open state.

10 Click **Check in** to check in the file(s) without fixing the defect.

Checking out files

This command lets you check out one or more files for editing. A writable copy of the file is placed in the directory you specify. Any user can attempt to check out a file in TestTrack Pro. If the SCC application is not configured to allow multiple checkouts, or a user has exclusively locked the file, the user trying to check out the file will be notified of the check out failure.

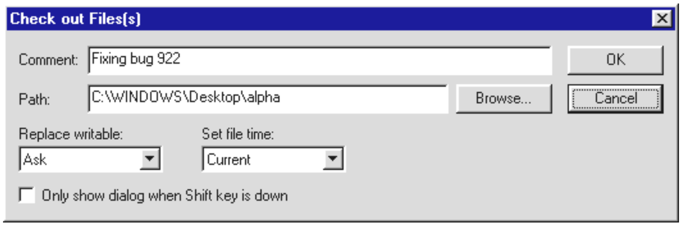
1 Select the defect you want to check out a file from on the Defects list window.

2 Choose **Edit >Edit defect** or click **Edit** on the Defects list window.

3 Click the **Source Code** tab.

4 Select the source file(s) and click **Check out**.

The Check Out File(s) dialog box opens.



5 Enter a description of the reason for the check out in the **Comment** field.

Perforce does not support the Comment field.

6 Enter a directory path or click **Browse** to select a path.

If you leave the **Path field empty**, the default location is used. The default location is determined by the SCC application, based on the SCC user configuration.

If you are checking out a **single file**, the value of the path field is determined by the SCC user configuration. If you are checking out **multiple files**, the path field may be empty because the default location can differ for each file.

7 Select a **Replace writable** option.

This option determines what happens if you try to check out a file that is already marked as writable.

- **Ask** prompts you to confirm that you want to overwrite the file.
- **Replace** automatically overwrites the writable file.
- **Skip** ignores the check out operation for the writable file.

8 Select a **Set file time** option.

- **Current** sets the current time (time of check out).
- **Check in** sets the time to the check in time.
- **Modified** sets the time to the last modification time.

This option is not available if you are using **StarTeam**.

9 Click **OK**.

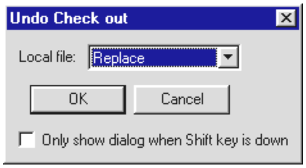
The file(s) is checked out.

Undoing check out

This command undoes a check out operation.

1 On the Source Code tab, select the source file and click **Undo Check out**.

The Undo Check out dialog box opens.



2 Select a **Local file** option.

- **Replace** the file in your local directory.
- **Leave** the file in your local directory.
- **Delete** the file from your working folder.

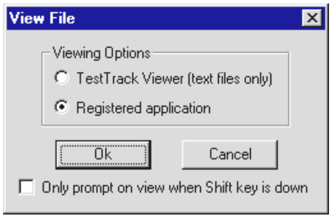
3 Click **OK**.

Viewing files

This command displays a copy of the selected file.

1 On the Source Code tab, select the source file and click **View**.

The View File dialog box opens.



2 Select a **Viewing** option and click **OK**.

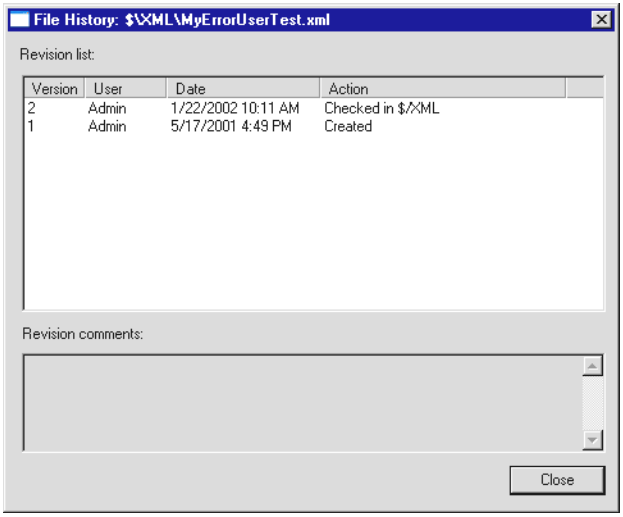
A copy of the file is opened.

Viewing file history

This command displays a file's history.

1 On the Source Code tab, select the source file and click **History**.

The File History dialog box opens.



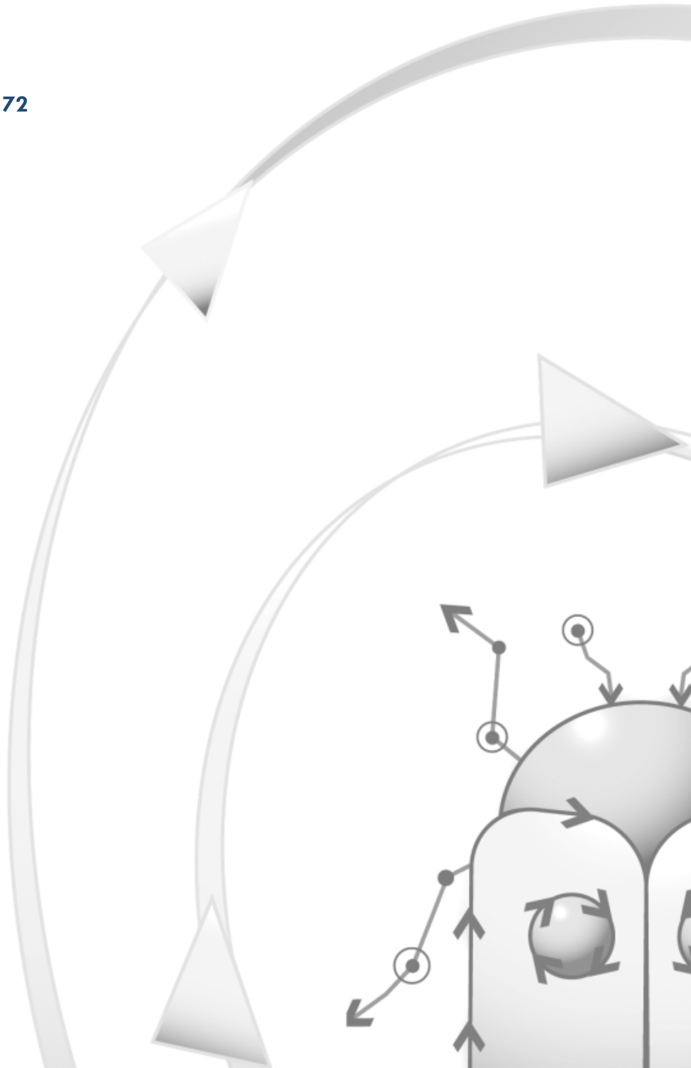
2 Click **Close** when you are finished.

Chapter 6
Managing the Workflow

Assign a defect...

...and get ready for some action! This chapter includes instructions for assigning defect actions and moving defects through the workflow.

In this section:



About the defect workflow

The worfklow defines the path a defect takes from initial reporting to a resolution and consists of **states**. To move a defect from state to state, the defect is assigned to users who perform the action assigned to them.

Defects can be assigned manually. You can also create auto-assign rules that assign defects to users based on specific criteria. For example, if a defect is added without being assigned, TestTrack Pro can automatically assign the defect to a specific user. For more information, see **Configuring auto-assignment rules,** page 155.

The status field, on the Edit Defect dialog box, corresponds to the defect state. The status field changes based on the defect action. For example, the status field changes to Fixed when the defect is moved to the Fixed state.

State	State Description
Open	The defect is added to the database.
Open (Re-opened)	The defect is re-opened.
Open (Verify Failed)	The fix failed verification.
Fixed	The defect is fixed.
Release to Testing	The defect is fixed and released to testing.
Needs Customer Verification	The fix needs to be verified by the customer. (optional)
Released to Customer Testing	The defect is fixed and ready to be tested by the customer. (optional)
Closed (Verified)	The fix is verified and the defect is closed.
Closed (Customer Verified)	The customer verified the fix and the defect is closed. (optional)
Closed (Fixed)	The defect is fixed and closed.
Closed	The defect is closed.

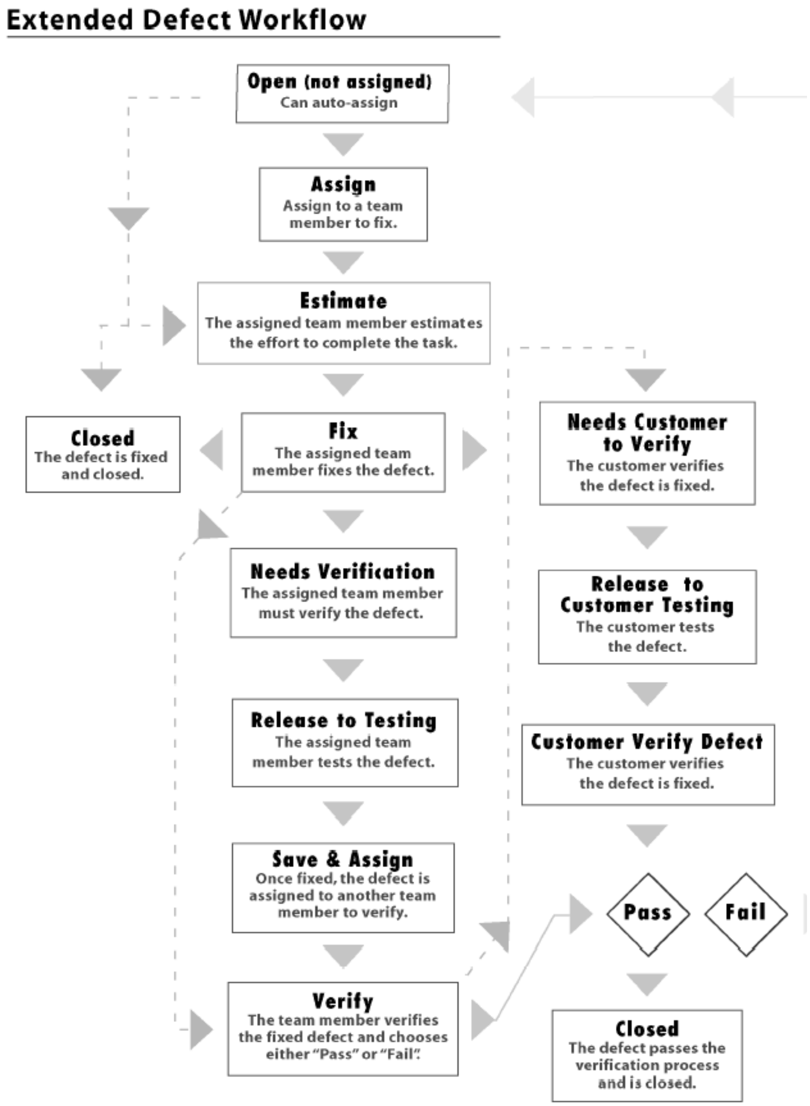
The TestTrack Pro administrator is generally responsible for setting the optional workflow states, such as Closed (Customer Verified). For more information, see **Setting workflow options,** page 147.

Defect workflow example

Following is a simple workflow example:

When a defect is added, it is in the Open state. A project manager assigns a developer to fix the defect. After fixing the defect, and entering the fix information, the defect moves to the Fixed state. The project manager then assigns the defect to QA to verify the fix. After verifying the defect is fixed, a QA team member closes the defect. The defect moves to the Closed (Verified) state.

The following graphic shows a more complex workflow process:



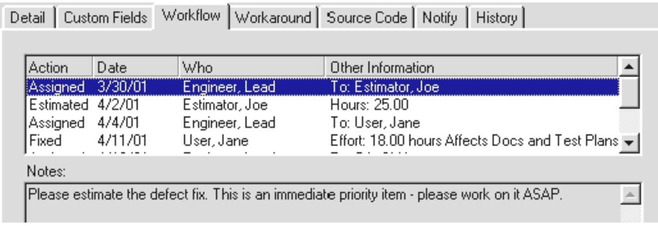
Understanding defect assignments and actions

Accountability, such as who is responsible for estimating, fixing, or verifying a fix, is an important component of defect tracking. Defects, and defect actions, are assigned to users to ensure someone is accountable and to move the defect through the workflow states. Depending on your security level and the database configuration, you may not have access to all, or some, of the defect actions.

Each company uses defect assignments and actions differently. One company might let all users assign defects. Another company might only want team leads to be responsible for assigning defects while the users are responsible for such things as estimating a fix, fixing a defect, or verifying the fix.

Following is an example of how defect actions move a defect through the lifecycle:

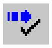
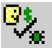
The Lead Engineer is notified when a defect is added to the database. After reviewing the defect, the Lead Engineer assigns the defect to Joe Estimator. The next day, Joe Estimator is notified of the defect assignment in two ways: the Assigned defect indicator appears next to the defect on the Defects list window and he receives an email notification. Joe Estimator opens the defect and views the Workflow tab. He can view who assigned the defect and what action he needs to perform.



He decides what needs to be done to fix the defect and enters the estimate information. The Lead Engineer is notified that the defect changed. She reviews Joe Estimator's work and assigns the fix to Jane User. When Jane User logs in, she is notified of the defect assignment. Jane User opens the defect and views the Workflow tab. She can view her current defect assignment information and also view Joe Estimator's notes – this helps her begin working on the fix. When Jane User finishes entering the Fix Defect information, the Lead Engineer is notified that the defect changed. The Lead Engineer reviews Jane User's fix and assigns the next defect action. This process continues until the defect is fixed, tested, verified, and closed.

Defect action toolbar

Each defect action has a corresponding button located in a toolbar at the bottom of the **Add Defect** and **Edit Defect** windows. If you prefer, choose the defect action from the **Activities** menu.

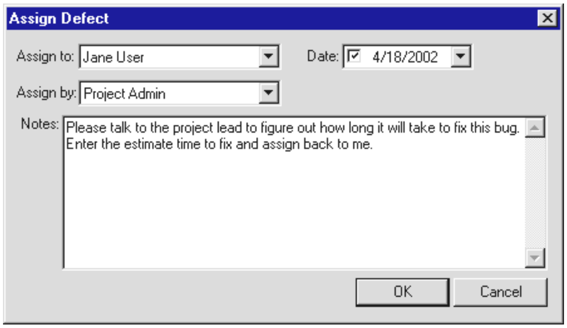
Icon	Action	Description
	Assign	Assign the defect to a user
	Estimate	Estimate the time needed to fix a defect or implement a new feature
	Fix	Describe the fix
	Release to Testing	Release the defect to testing
	Verify	Verify the defect fix
	Release to Customer Testing (optional)	Release the defect to customer testing
	Customer Verify (optional)	Customer verify the defect fix
	Close	Override the lifecycle and close the defect
	Re-open	Re-open a closed defect
	Comments	Add comments to the defect
	Release Notes	Add release notes to a defect

Assigning defects

To move a defect through its lifecycle, you need to assign the defect to a user.

1 Choose **Activities > Defect Actions > Assign** or click the **Assign Defect** toolbar button.

The Assign Defect dialog box opens.



2 Select a user from the **Assign to** menu.

3 Check the date.

This field defaults to the current date or you can enter a date.

4 Select a user from the **Assign by** menu.

This field defaults to the logged in user.

5 Enter **Notes** about the defect action you are assigning or any additional information.

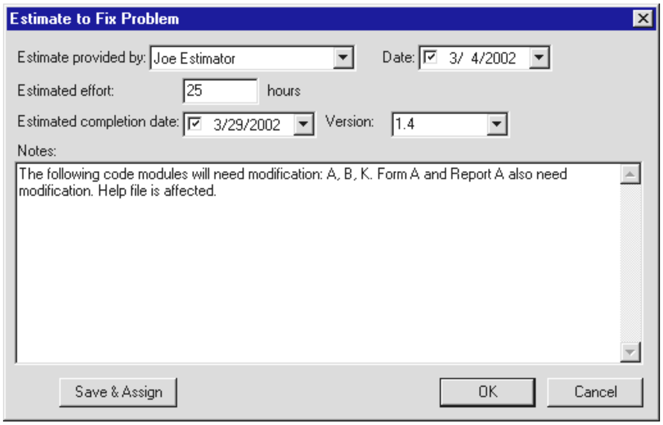
6 Click **OK**.

When you are assigned a defect, open the defect (Edit/View Defect dialog box) and click the **Workflow** tab. You can review the assignment notes. The person who assigned you the defect should let you know what defect action you are responsible for and provide any detailed information. If you need more information about the defect, select **Mail > Reply to Submitter.** The Send Mail dialog box opens. Enter your question and click **Send.**

Estimating defect fix time

1 Choose **Activities > Defect Actions > Estimate** or click the **Estimate Fix** toolbar button.

The Estimate to Fix Problem dialog box opens.



2 Select a user from the **Estimate provided by** menu.

This field defaults to the logged in user.

3 Check the date.

This field defaults to the current date or you can enter a date.

4 Enter the **Estimated effort** in hours to complete the fix.

5 Enter the **Estimated completion date**.

6 Select a **Version** from the menu.

7 In the **Notes** field, enter detailed notes about the estimate such as modules that need to be changed or the developer who should work on the fix.

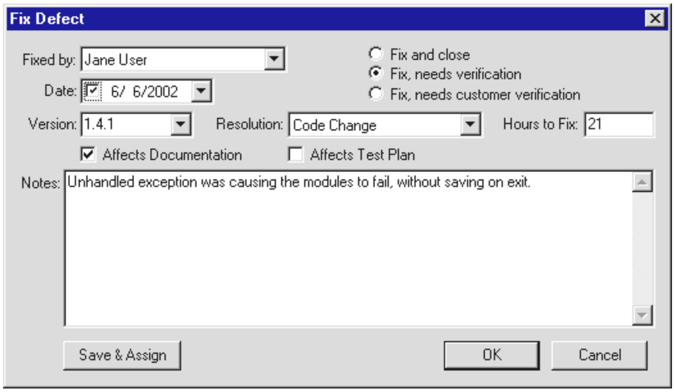
8 Click **OK**.

You can also click **Save & Assign** to save the defect action and assign the defect to a user.

Fixing a defect

1 Choose **Activities > Defect Actions > Fix** or click the **Describe Fix** toolbar button.

The Fix Defect dialog box opens.



2 Select a user from the **Fixed by** menu.

This field defaults to the logged in user.

3 Check the date.

This field defaults to the current date or you can enter a date.

4 Select the **Version** of the product in which the defect was fixed.

5 Select a **Fix** option.

6 Select a **Resolution**.

7 Enter the **Hours to Fix**.

This information is useful for future planning and estimating the time needed to fix similar defects.

8 Select the **Affects Documentation** check box or the **Affects Test Plan** check box if either applies.

9 In the **Notes** field, enter any detailed information about the fix.

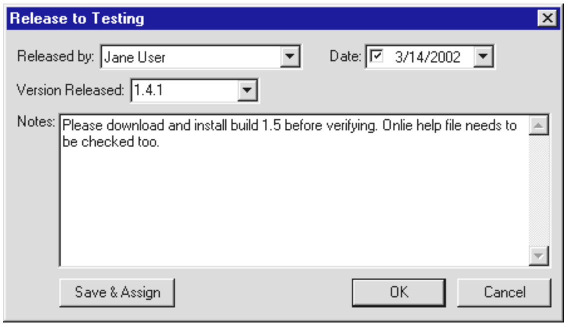
10 Click **OK**.

You can also click **Save & Assign** to save the defect action and assign the defect to a user.

Releasing a fix to testing

1 Choose **Activities > Defect Actions > Release to Testing** or click the **Release to Testing** toolbar button.

The Release to Testing dialog box opens.



2 Select a user from the **Released by** menu.

This field defaults to the logged in user.

3 Select the **Version** number of the product to be released.

4 Check the date.

This field defaults to the current date or you can enter a date.

5 In the **Notes** field, enter testing information.

6 Click **OK**.

You can also click **Save & Assign** to save the defect action and assign the defect to a user.

Verifying a defect fix

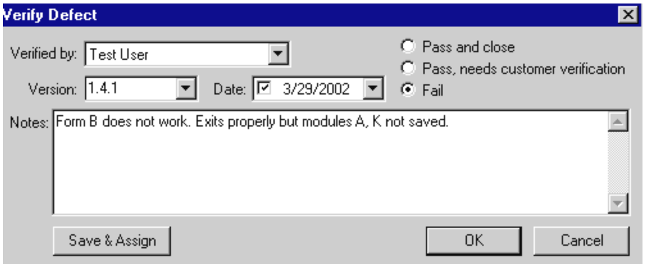
A defect must be fixed before it can be verified!

After a defect is fixed, the fix should be verified. Verification results in one of the following outcomes:

- The defect **passed** the verification and can be closed.
- The defect **passed** but needs customer verification before it can be closed. This is optional, based on the database configuration.
- The defect **failed** the verification and still needs to be fixed.

1 Choose **Activities > Defect Actions > Verify** or click the **Verify Fix** toolbar button.

The Verify Defect dialog box opens.



2 Select a user from the **Verified by** menu.

This field defaults to the logged in user.

3 Select the **Version** number.

4 Check the date.

This field defaults to the current date or you can enter a date.

5 Select a **Verification** option.

6 In the **Notes** field, enter information such as the steps to reproduce the bug.

If a fix fails, it is a good idea to record why the fix failed. It can help with future planning.

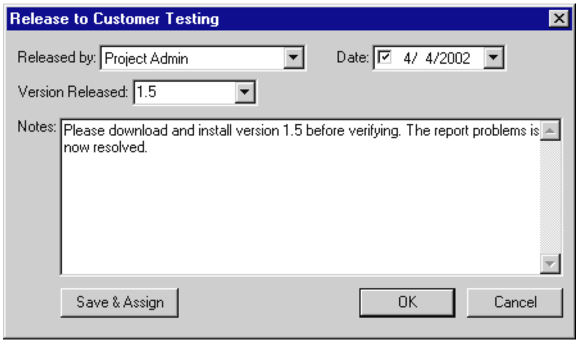
7 Click **OK**.

You can also click **Save & Assign** to save the defect action and assign the defect to a user.

Releasing a fix to customer testing

1 Choose **Activities > Defect Actions > Release to Customer Testing** or click the **Release to Customer Testing** toolbar button.

The Release to Customer Testing dialog box opens.



2 Select a user from the **Released by** menu.

This field defaults to the logged in user.

3 Select the **Version** number of the product to be released.

4 Check the date.

This field defaults to the current date or you can enter a date.

5 In the **Notes** field, enter testing information such as areas in the program that need to be tested or if the fix needs to be tested against a specific build.

6 Click **OK**.

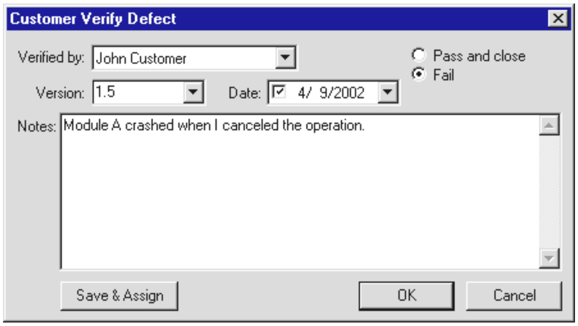
You can also click **Save & Assign** to save the defect action and assign the defect to a user.

Releasing a fix to customer verification

Customers with access to the TestTrack Pro database generally enter this information. Some companies give customers access to add and verify defects.

1 Choose **Activities > Defect Actions > Customer Verify** or click the **Customer Verify** toolbar button.

The Customer Verify Defect dialog box opens.



2 Check the **Verified by** field.

This field defaults to the logged in user.

3 Select the **Version** number.

4 Check the date.

This field defaults to the current date or you can enter a date.

5 Select a **Verification** option.

- Select **Pass and close** if the fix works and the defect can be closed.
- Select **Fail** if the fix failed.

6 In the **Notes** field, enter testing information such as areas in the program that need to be tested or if the fix needs to be tested against a specific build.

7 Click **OK**.

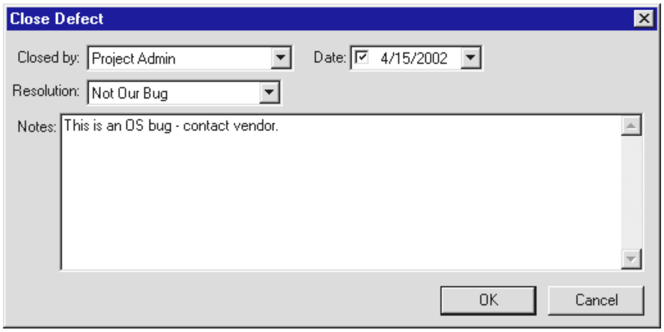
You can also click **Save & Assign** to save the defect action and assign the defect to a user.

Closing defects

The resolution of some defects does not follow the standard fix/verify model. For example, a defect might not actually be a bug. In this situation, you can close the defect immediately, without going through the other defect actions.

1 Choose **Activities > Defect Actions > Close** or click the **Close Defect** toolbar button.

The Close Defect dialog box opens.



2 Select a user from the **Closed by** menu.

This field defaults to the logged in user.

3 Check the date.

This field defaults to the current date or you can enter a date.

4 Select a **Resolution**.

5 In the **Notes** field, explain why you closed the defect.

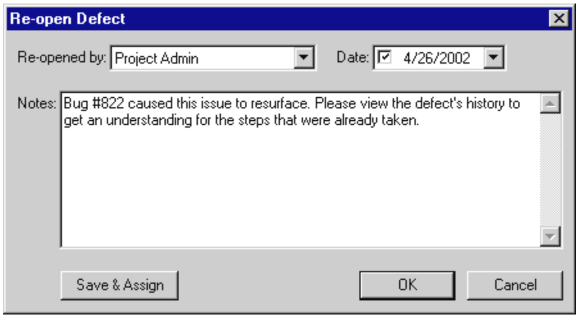
6 Click **OK**.

Re-opening defects

Occasionally, a closed or verified defect resurfaces. To return the defect to the Open state and restart its lifecycle, you need to **re-open** the defect.

1 Choose **Activities > Defect Actions > Re-open** or click the **Re-open Defect** toolbar button.

The Re-Open Defect dialog box opens.



2 Select a user from the **Re-opened by** menu.

This field defaults to the logged in user.

3 Check the date.

This field defaults to the current date or you can enter a date.

4 In the **Notes** field, explain why the defect was re-opened.

5 Click **OK**.

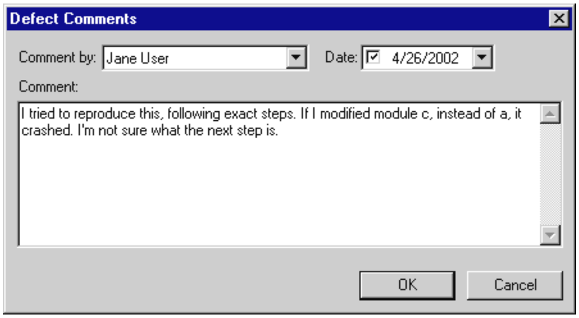
You can also click **Save & Assign** to save the defect action and assign the defect to a user.

Adding comments to a defect

You can add comments to a defect to point something out to other users, clarify an issue, or just as a reminder. Other users can view your comments on the Workflow tab.

1 Choose **Activities > Defect Actions > Comment** or click the **Add Comments** toolbar button.

The Defect Comments dialog box opens.



2 Select a user from the **Comment by** menu.

This field defaults to the logged in user.

3 Check the date.

This field defaults to the current date or you can enter a date.

4 Enter the **comments**.

The comments are recorded with the defect history.

5 Click **OK**.

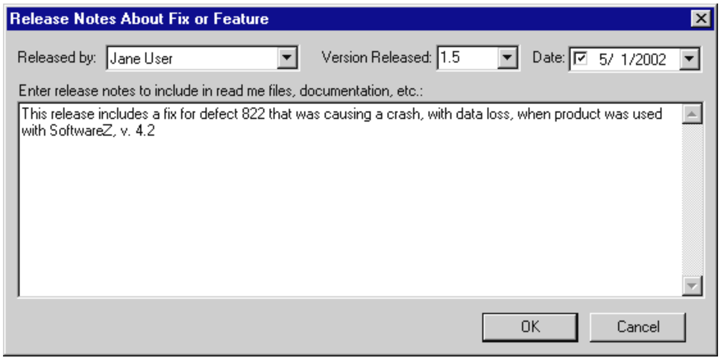
To view defect comments, select the defect, click **View** or **Edit**, and then click the **Workflow** tab. All comments are included on the Workflow tab.

Adding release notes to a defect

You can add multiple release notes to a defect.

1 Choose **Activities > Defect Actions > Release Notes** or click the **Release Notes** toolbar button.

The Release Notes About Fix or Feature dialog box opens.



2 Select a user from the **Released by** menu.

This field defaults to the logged in user.

3 Select the **Version** number the release note affects.

4 Check the date.

This field defaults to the current date or you can enter a date.

5 Enter the release notes.

The notes are recorded with the defect history.

6 Click **OK**.

After you add release notes to a defect, you need to create the release notes for distribution. For more information, see **Creating release notes,** page 85.

Creating release notes

You can create a text file containing all the release notes entered for any defect. You may want to include the text file in a Read-me file or include the Release Notes with your installer to inform users of new features and bug fixes.

The release notes file only contains the notes added to the Release Notes About Fix or Feature defect action. Release notes do not include the Defect description field. The process of generating release notes usually includes the following steps: add defect, fix defect, verify defect (pass), add release notes, generate release notes.

To generate release notes for just a **few defects,** select those defects on the Defects list window. If you do not know which defects contain release notes, add a column to the Defects list window to display the **Has Release Notes?** field.

1 Choose **Activities > Create Release Notes**.

The Create Release Notes dialog box opens.

2 Enter **Released Versions to Include** information.

- Enter the **From version** and the **Through version** you want to include in the release notes. If the release notes are **specific to one version**, enter the **same version number** in both of these fields.
- Select a filter from the **Use Filter** menu to generate release notes for defects that meet the filter criteria.
- Select a product name from the **Limit to Product** menu to generate release notes for a specific product.
- Select **Include defects selected in defect list** to generate release notes only from the defects selected on the Defects list window.

3 Select **Presentation** options.

- Select **Sort versions from newest to oldest** if you want TestTrack Pro to output the versions from newest to oldest.
- Select **Insert a blank line…** if you want a blank line between each release note.
- Enter a character in the **Begin each release note with** field if you want each release note to start with the specific character (e.g., a bullet). You can also enter ASCII characters or leave the field empty.

4 Click **Preview**.

The Release Notes preview dialog box opens. If you need to make changes, you can edit the release notes in the preview window.

5 Click **Save As**.

The Save Release Notes As dialog box opens.

6 Select the directory where you want to save the release notes and enter a file name.

7 Click **Save**.

TestTrack Pro generates the release notes and saves the text file in the directory you specified.

Viewing defect actions

Depending on your security level, you may not have access to this command.

You can view the defect action details.

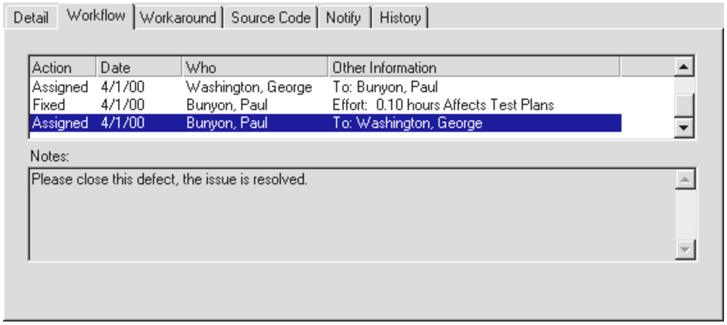
1 Select the defect on the Defects list window.

2 Choose **Edit > Defect** or click **Edit** on the Defects list window.

The Edit Defect dialog box opens.

3 Click the **Workflow** tab.

This tab includes a list of all the defect actions.



4 Select the defect action you want to view.

5 Choose **Edit > View Action**.

A read-only dialog box for the defect action you chose opens. For example, the Verify Defect dialog box opens if you view a Verified action.

6 Click **OK** when you are finished.

Editing defect actions

Depending on your security level, you may not have access to this command.

You can edit defect actions to add more information or correct mistakes. For example, a defect resolution affects documentation, but you forgot to select the Affects Documentation check box. You can edit the action to select the check box.

1 Select the defect on the Defects list window.

2 Choose **Edit > Defect** or click **Edit** on the Defects list window.

The Edit Defect dialog box opens.

3 Click the **Workflow** tab.

This tab includes a list of all the defect actions.

4 Select the defect action you want to edit.

5 Choose **Edit > Edit Action**.

A dialog box for the defect action you chose opens. For example, the Verify Defect dialog box opens if you edit a Verified action.

6 Make any changes and click **OK**.

Deleting defect actions

Depending on your security level, you may not have access to this command.

1 Select the defect on the Defects list window.

2 Choose **Edit > Defect** or click **Edit** on the Defects list window.

The Edit Defect dialog box opens.

3 Click the **Workflow** tab.

This tab includes a list of all the defect actions.

4 Select the defect action you want to delete.

5 Choose **Edit > Delete Action**.

You are prompted to confirm the deletion.

6 Click **OK**.

The defect action is deleted.

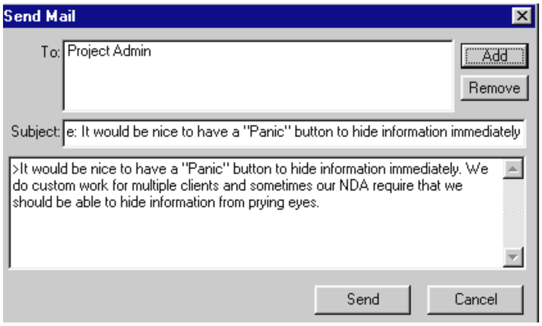
Replying to a defect submitter

If you need more information or have questions about a defect, you can send an email directly to the defect's submitter.

1 Select the defect on the Defects list window.

2 Choose **Mail > Reply to Submitter**.

The Reply to Submitter dialog box opens.



- The **To** field is populated with the name of the user or customer who submitted the defect.
- The **Subject** field contains the defect's summary text.
- The message body contains the defect description.

3 Enter your question or the information you need clarified.

4 Click **Send**.

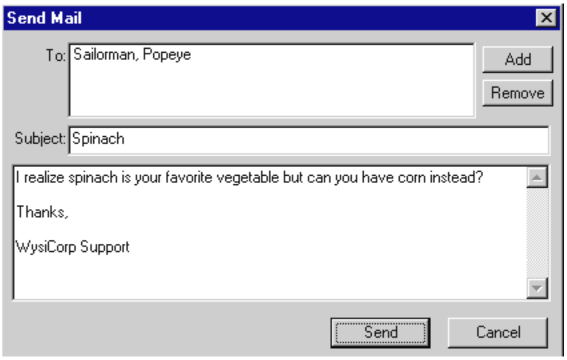
The email is sent.

Sending mail from TestTrack Pro

If the database you are using is enabled to send mail, you can send email directly from TestTrack Pro. This lets you easily communicate with other users and customers, without switching to your email program.

1 Choose **Mail > Send Mail**.

The Send Mail dialog box opens.



2 Click **Add**.

The Add Mail Recipients dialog box opens. All available users and customers are listed.

3 Highlight the users/customers you want to send mail to and click **Add**.

4 Enter a subject and message.

5 Click **Send**.

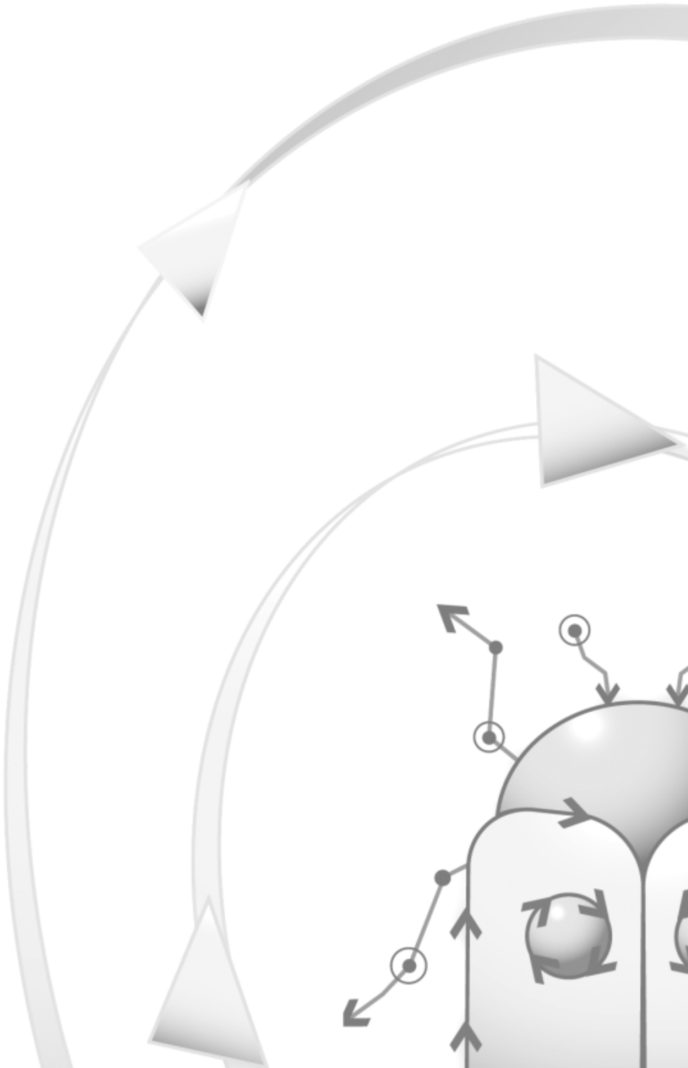
The email is sent.

Chapter 7
Using Filters

Filter Out the Noise!

This chapter includes instructions for creating and using filters to sort data. You can create as many filters as you need. The filters you create can be shared or kept private.

In this section:



About filters

TestTrack Pro provides extensive filtering capabilities. You can use filters to sort defect records and list only those defects that meet the criteria you select. You can create a simple filter, for example a filter that only shows fixed defects. Or, you can use Boolean logic to create more complex filters. Filters only apply to **defects**.

If your database has a large number of defects, or you only need to work with certain types of defects, you should create a filter and use it to keep your defects list short and manageable.

Create custom filters to quickly view defect lists. For example, you can create a filter to track bugs by priority or a filter to track opens bugs that need to be fixed by a specific release, etc.

About Boolean searches

You can use Boolean logic to create complex and highly precise filters. Boolean logic uses three connecting operators (AND, OR, NOT) to narrow or broaden a search or to exclude a term from a search.

And is a **narrowing** term. When you use the “and” operator, the filter or search returns records that match **all** of the criteria you choose. For example, if you search for Component A AND Component B, TestTrack Pro only lists defects containing both components.

Or is a **broadening** term. When you use the “or” operator, the filter or search returns records that match **any** of the criteria you choose. For example, if you search for Component A OR Component B, TestTrack Pro lists defects in which either term is found.

Not is an **excluding** term. When you use the “not” operator, the filter or search returns records that **do not** contain any of the criteria you choose. For example, if you search for NOT Component A, TestTrack Pro lists all defects—except for those containing the term Component A.

Nesting - with Boolean operators

You can combine searches in a variety of ways using the different combinations of Boolean operators. Parentheses are important because they keep the logic straight. In the grouping **(Component A OR Component B) AND (Component C OR Component D)** the parentheses around the first set tells the database to create a final set of records that may include either Component A OR Component B, but only when the records also include either Component C OR Component D.

Creating filters

Depending on your security level, you may not have access to all of the filter commands.

1 Choose **Create > Filter** or click **Add** on the Filters list window.

The Add Defect Filter dialog box opens.

2 Enter a **Name** and **Description**.

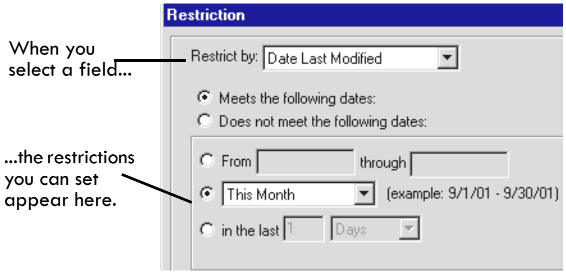
3 Select an option from the **Share** menu.

The default is private. If you share the filter, other users can edit the filter.

4 Click **Add** to add a filter restriction.

The Restriction dialog box opens.

5 Select the field you want to include in the filter from the **Restrict by** menu.



Most defect actions include Notes fields. You can select the **All Action Notes** field from the Restrict by menu to search these fields. After selecting **All Action Notes**, select an option, and enter the search text.

6 Select the restriction options.

The restrictions you can set changed based on the **Restrict by** field.

- When selecting restrictions options, **<Unknown>** represents an empty field. For example, if you select **<Unknown>** with Restrict by set to Assigned To, it is interpreted as "Show all defects not assigned to anyone."
- If you are creating or editing restrictions with fields that include a text value, you can leave the text value empty. When the filter is applied, TestTrack Pro searches for the Restrict by field with an empty text value. This is useful if you are cleaning up your defect records and want to make sure that every defect includes a summary. Select **Restrict by: Summary** and leave the text value empty. When you apply the filter, all defects with an empty Summary field are listed.

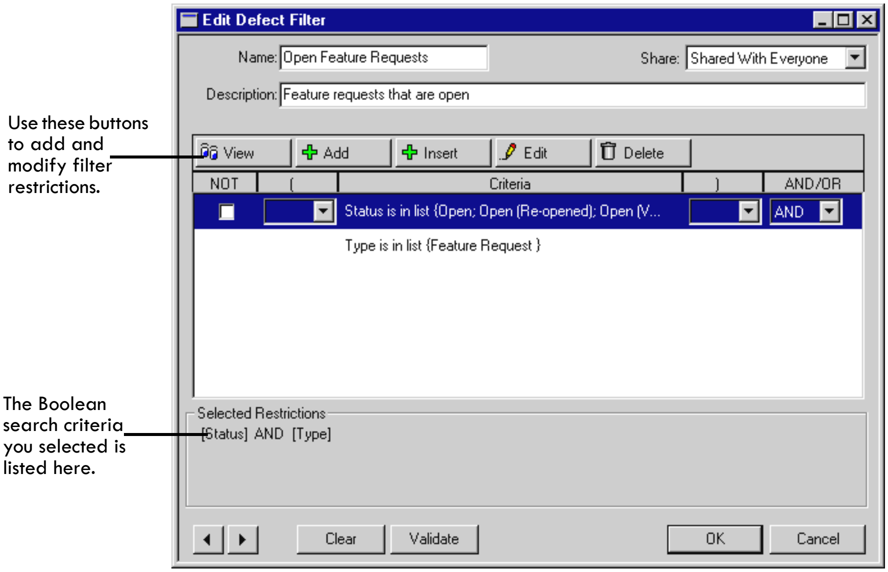
7 Click **OK**.

You return to the Add Defect Filter dialog box.

Repeat **steps 4-7** to add more restrictions to your filter.

8 Select NOT/AND/OR operators and parentheses to build the Boolean Logic for the filter (optional step).

The Boolean search criteria appear in the Selected Restrictions box at the bottom of the dialog box. For more information, see **About Boolean searches,** page 92.



9 Click **Validate**.

- If the filter criteria is valid, click **OK**.
- If the filter criteria is not valid, an error message opens. Click **OK** to return to the Defect Filter dialog box and correct the error.

Click **Clear** to clear all restrictions and start over.

---

10 Click **Add**.

The Add Defect Filter dialog box clears and you can add another filter. Click **Close** when you finish adding filters.

Adding restrictions

1 Click **Add** on the Advanced Find Defects dialog box.

The Restriction dialog box opens.

2 Select the field you want to include in the search from the **Restrict by** menu.

When you select a field from the **Restrict by** list, the restriction options for that field open. These options change based on the **Restrict by** field you choose.

3 Select any options and enter the field restrictions.

- If a **List box** opens, click the items you want in the filter. A check mark indicates an item is selected.
- If a **From/Through Number box** opens, enter the corresponding numbers.
- If a **Date Restriction box** opens, select a date.
- If **option buttons** opens, select one.

4 Click **OK**.

The restriction is added. You return to the Advanced Find Defects dialog box.

Repeat **Steps 1-4** to continue adding restrictions.

Viewing restrictions

1 Select the restriction on the Advanced Find Defects dialog box.

2 Click **View**.

The selected restriction opens in the Restriction dialog box. All fields are read-only and cannot be edited.

3 Click **OK** to close the Restriction dialog box.

Editing restrictions

1 Select the restriction on the Advanced Find Defects dialog box.

2 Click **Edit**.

3 Make any changes and click **OK**.

Your changes are saved and you return to the Advanced Find Defects dialog box.

Inserting restrictions

If your filter contains a large number of restrictions, you can insert a new restriction in a specific position.

1 Select the restriction you want to insert the new restriction above on the Advanced Find Defects dialog box.

2 Click **Insert**.

The Restriction dialog box opens.

3 Add the restriction and click **OK**.

The new restriction is inserted above the selected restriction.

Deleting restrictions

You are **not prompted** to confirm the deletion and the action cannot be undone.

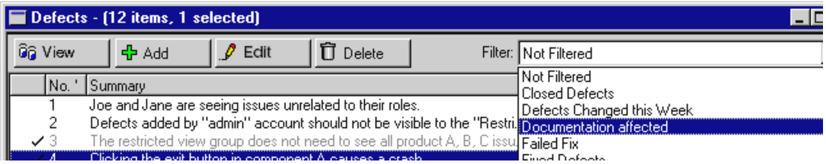
1 Select the restriction you want to delete on the Advanced Find Defects dialog box.

2 Click **Delete**.

The restriction is deleted.

Using filters

1 Select the filter from the **Filter** menu on the Defects list window.



2 The filter is applied to the defects.

- Defects that meet the filter criteria are listed on the Defects list window.
- To return to a list of all defects, select **Not Filtered** from the Filter menu.

Viewing filters

1 Select the filter on the Filters list window.

2 Choose **Edit > View Filter** or click **View** on the Filters list window.

The View Defect Filter dialog box opens. All fields are read-only.

3 Click **OK** when you are finished.

Editing filters

1 Select the filter on the Filters list window.

2 Choose **Edit > Edit Filter** or click **Edit** on the Filters list window.

The Edit Defect Filter dialog box opens.

3 Make any changes and click **OK**.

Your changes are saved and you return to the Filters list window.

Duplicating filters

1 Select the filter on the Filters list window.

2 Choose **Edit > Duplicate Filter**.

The filter is duplicated. A number is added to the end of the filter name. For example, if you duplicate Priority Filter 2 times, the duplicated filters are named Priority Filter 1and Priority Filter 2.

3 Modify the duplicated filter and save your changes.

Deleting filters

1 Select the filter on the Filters list window.

You can select more than one filter to delete.

2 Choose **Edit > Delete Filter** or click **Delete** on the Filters list window.

You are prompted to confirm the deletion.

3 Click **OK**.

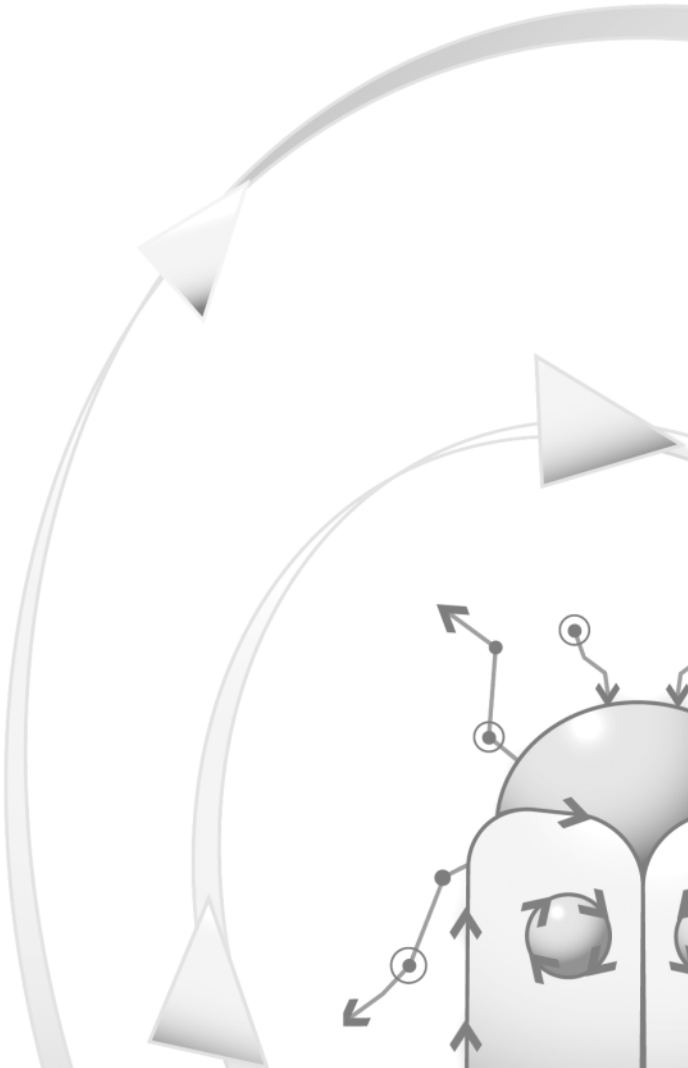
The filter is deleted.

Chapter 8
Managing Test Configs

Track the nuts and bolts!

This chapter includes test configuration instructions. It is important to pay attention to the computers defects are found on. Is it a hardware problem or a display driver bug? Track your test configurations and identify the patterns.

In this section:



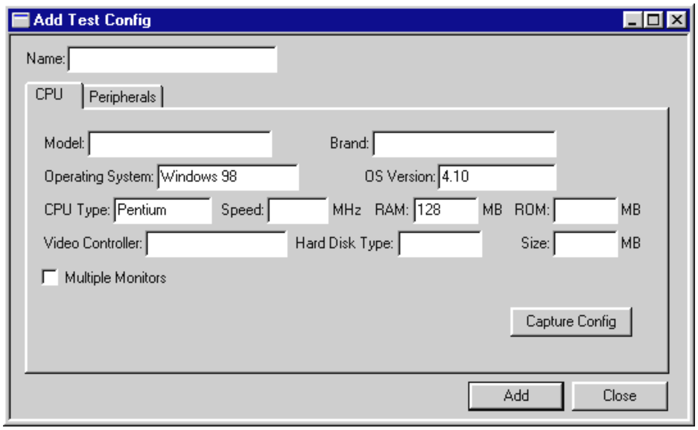
About test configs

A test configuration refers to a specific computer used for testing and the hardware and software found on this computer. You should track all your systems to see if bugs are computer-specific. Tracking test configurations helps you identify patterns in defects that may be related to specific hardware configurations or software configurations. You can verify that your application functions the same, or in an appropriately similar manner, across all supported platforms or configurations.

Adding test configs

1 Choose **Create > Test Config** or click **Add** on the Test Configs list window.

The Add Test Config dialog box opens with the **CPU** tab selected.



Click **Capture Config** to automatically capture some computer configuration information.

2 Enter a test configuration **Name**.

3 Enter the information on the CPU tab.

- Click **Capture Config**. TestTrack Pro can automatically fill in some of the fields (for example, Operating System).
- Enter information in the other CPU fields. This information is optional but you should provide as much detail as possible.

4 Click the **Peripherals** tab and enter the peripherals information.

These fields are optional but you should enter as much information as possible.

5 Click **Add**.

The Test Config is added.

Viewing test configs

1 Select the test config on the Test Configs list window.

2 Choose **Edit > View Test Config** or click **View** on the Test Configs list window.

The View Test Config dialog box opens. All fields are read-only.

3 Click **OK** when you are finished.

You return to the Test Configurations list window.

Editing test configs

1 Select the test config on the Test Configs list window.

2 Choose **Edit > Edit Test Config** or click **Edit** on the Test Configs list window.

The Edit Test Config dialog box opens.

3 Make any changes and click **OK**.

Duplicating test configs

1 Select the test config on the Test Configs list window.

2 Choose **Edit > Duplicate Test Config**.

The test configuration is duplicated. A number, incremented by 1, is added to the end of the test config name. For example, if you select and duplicate Eng-cube, the duplicated test config is named Eng-cube1.

3 Modify the duplicated test config and save your changes.

Deleting test configs

1 Select the test config on the Test Configs list window.

You can select more than one test config to delete.

2 Choose **Edit > Delete Test Config** or click **Delete** on the Test Configs list window.

You are prompted to confirm the deletion.

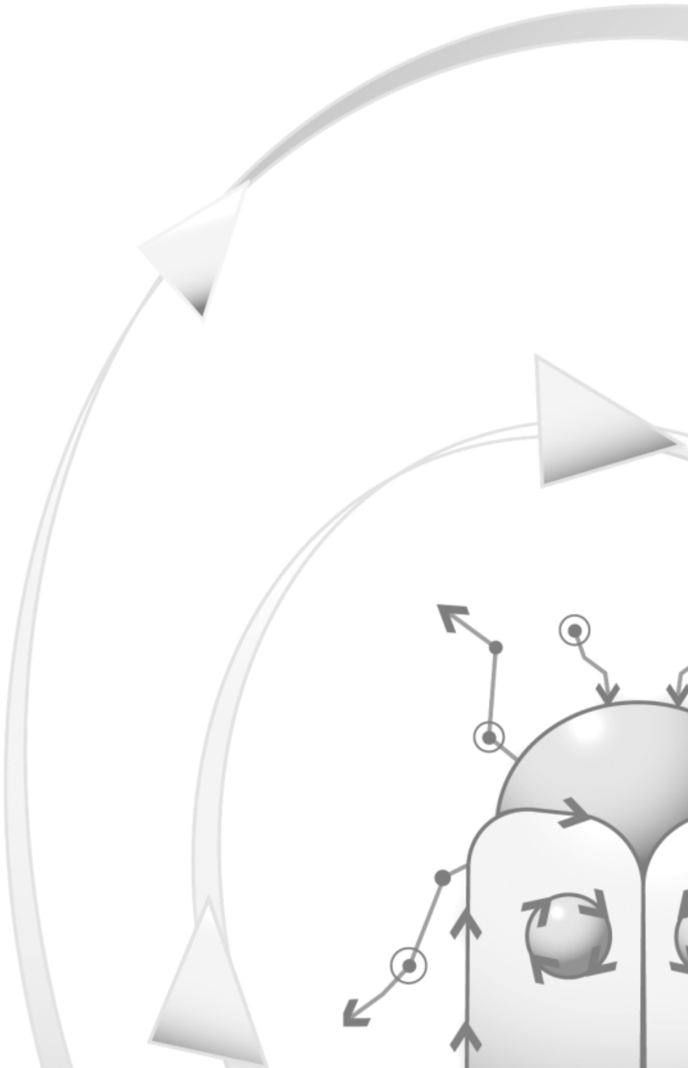
3 Click **OK**.

Chapter 9
Generating Reports

Analyze and Report!

You will be running reports in no time! TestTrack Pro makes reporting simple—point, click, print, and read. You can design and preview each report before printing. You can also share your report with other users or keep it private.

In this section:



About reports

Reports are used to analyze the data collected in your database. You can use filters to build reports that focus on the data you need. You can also share your reports with others or keep them private. You can create the following four kinds of reports:

- **Detail reports** include detailed information about defects, customers, users, user groups, or test configurations.
- **Distribution reports** include the distribution of defects. You can choose options such as defects found by user, defect status by component, etc. You can add a chart to the report for additional impact. For example, you could build a distribution report that shows the number of fixed defects for each user.
- **List reports** include summary information about defects, customers, users, user groups, or test configurations. You select the fields to include in the report.
- **Trend reports** include defect events over time. For example, how many defects have been fixed this week? You can add a chart to the report for additional impact. Use this report to determine how well you are managing defects.

Using stylesheets

Stylesheets are templates you can use to quickly generate formatted reports. Several Extensible Style Language (XSL) stylesheets are installed with TestTrack Pro to help you easily create reports with predefined layout and design options. The stylesheets are available to all TestTrack Pro users with access to the database.

Customizing stylesheets

You can customize an existing XSL stylesheet or create your own and add it to the TestTrack Pro database. Stylesheets are generally located in the **Program Files/TestTrack Pro/StyleSheets** directory or the **Program Files/ Seapine/ TestTrack Pro/ Stylesheets** directory. Each report type has a corresponding folder in the Stylesheets directory.

- To customize an existing stylesheet, open the corresponding report folder, select the stylesheet, and modify it using a third-party tool, such as Altova's XML Spy.
- To add a new stylesheet, use a third-party tool to create the stylesheet. Copy the completed stylesheet to the corresponding report folder.
- To include an image with a stylesheet, copy the image to the **Images** folder in the TestTrack Pro directory. Add the following script to the stylesheet:

```
<img>
    <xsl:attribute name=”src”>
    <xsl:value-of select=”external:get-server-image(‘imagename.gif’)” />
    </xsl:attribute>
</img>
```

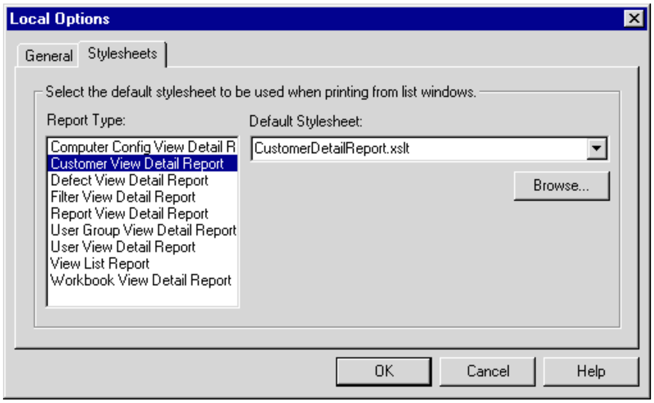
Setting default stylesheets

You can select default stylesheets to use when printing from list windows.

1 Choose **Edit > Options > Local Options**.

The Local Options dialog box opens.

2 Click the **Stylesheets** tab.



3 Select a **Report Type** from the list.

Each **Report Type** corresponds to a list window. For example, the **Filter View Detail Report** prints a detail report for all filters in the database.

4 Select a **Default Stylesheet** for the selected report or click **Browse** to use a customized stylesheet.

5 Click **OK**.

Refreshing stylesheet menus

The server periodically searches the database for new stylesheets and updates the stylesheet menu options. You can determine the frequency of this update by modifying your database options.

1 Choose **Edit > Options > Database Options**.

2 Click the **Reports** tab.

3 Select how often the server looks for new stylesheets.

4 Click **OK**.

Creating text file report templates

The best way to customize a report to meet your requirements is to create a stylesheet. See **Using stylesheets,** page 104 for more information.

You can create custom report templates using a text editor, TestTrack Pro field codes, and alphanumeric characters. You can even create a tab or comma-delimited document for use with other databases/tools.

1 Using Notepad, or another text editor, create the text document using field codes for TestTrack Pro-specific information. You can use other alphanumeric characters.

The report is formatted based on the text code layout. Field codes are replaced with the corresponding text. For example, you can set up the following report template:

```
%ASSD% - %ASST%
----------------------
%DESC%
```

This creates a report that includes the date the defect was most recently assigned, followed by a dash, followed by the user the defect is assigned to. The next line is a dashed line. On the next line is the defect description. This pattern repeats until all selected records are displayed.

For a list and description of field codes, see **Appendix A, "Field Codes Reference",** page 243.

2 Save the document.

You can now print a report based on the template you created.

Using text file report templates

1 Choose **File > Print**.

If you do not want to print every item in the list, select the items you do want to print. Make sure you select the **Only Print Selected Items** check box on the Print Options dialog box. If you apply a filter only the defects that pass the filter will be used as the basis of the ad hoc report.

2 Select **Create report file from template.**

3 Click **Save**.

The Select Report Template dialog box opens.

Select **Text Files** or **All Files** from the **Files of type** menu.

4 Select the report template you want to use and click **Open**.

The Save Report As dialog box opens.

5 Select a directory and enter a filename.

6 Click **Save**.

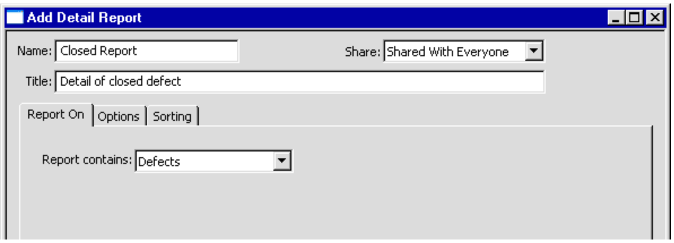
The report is saved as a text file.

Creating detail reports

1 Choose **Create > Report > Detail** or click **Add** on the Reports list window.

2 Select **Detail** and click **OK**.

The Add Detail Report dialog box opens.



3 Enter a **Name** and **Title**.

The title appears at the top of the report when it is viewed or printed.

4 Select an option from the **Share** menu.

If you share the report, users with the proper command-level security can edit the report. Select **Private** to protect your report.

5 Select the **Report On** options.

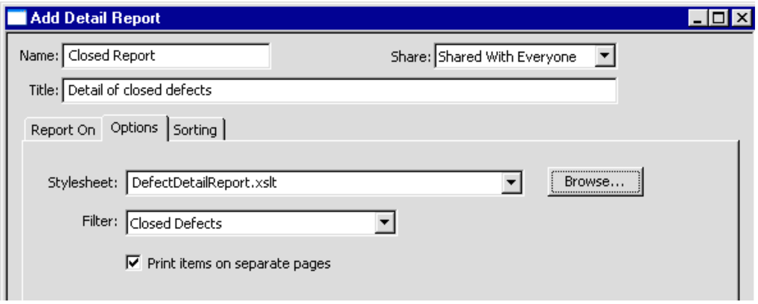
- Select the record type from the **Report contains** menu.
- If you select **Customers**, **Users**, **User Groups**, **Customers**, or **Test Configs** you can build a report on all, or selected, records.

Detail reports display the creation and modified time at the bottom of the report. Configure the report to use the server's time zone or GMT.

Choose **Edit** > **Options** > **Database Options**. Click the **Reports** tab. Select a time zone and click **OK**.

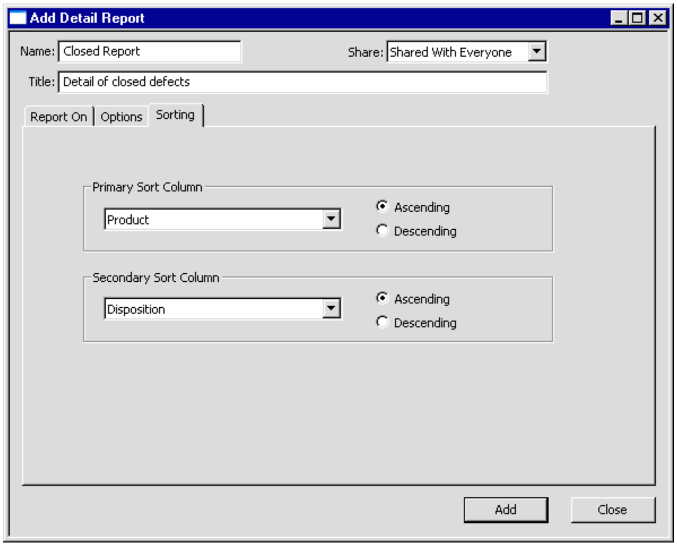
6 Click the **Options** tab.

- Select a **Stylesheet** or click **Browse** to use a customized stylesheet.
- If you select **Defects** you can also choose a filter on the **Options** tab.
- Optionally, select a **Filter** if you are reporting on defects. The report only contains defects that meet the filter criteria.
- Select **Print items on separate pages** to insert page breaks between each item in the report. Internet Explorer is the only browser that supports page breaks.



7 Click the **Sorting** tab.

Optionally, select a Primary and Secondary sort column. You can also set the column to sort ascending or descending.



8 Click **Add**.

The Add Detail Report dialog box clears. You can add another report if you want.

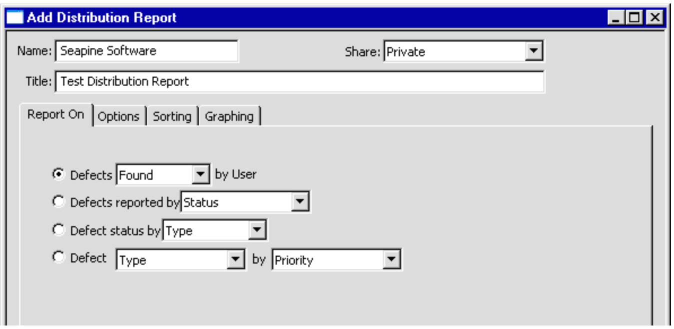
9 Click **Close** when you are done adding reports.

Creating distribution reports

1 Choose **Create > Report > Distribution** or click **Add** on the Reports list window.

2 Select **Distribution** and click **OK**.

The Add Distribution Report dialog box opens.



3 Enter a **Name** and **Title**.

The title appears at the top of the report when it is viewed or printed.

4 Select an option from the **Share** menu.

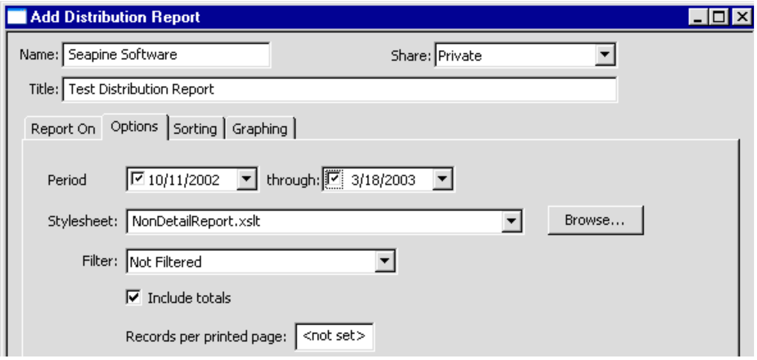
If you share the report, users with the proper command-level security can edit the report. Select **Private** to protect your report.

5 Select the **Report On** options.

- Select **Defects <field> by User** to build a report that includes action by user. For example, Defects Found by User.
- Select **Defects report by <field>** to build a report that includes the number of defects based on the chosen category. For example, Defects reported by Status.
- Select **Defect status by <field>** to build a report that includes the defect status based on the chosen category. For example, Defects status by Type.
- Select **Defect <field> By <field>** to build a report that includes the defect status using two criteria. For example, Defect Type by Priority.

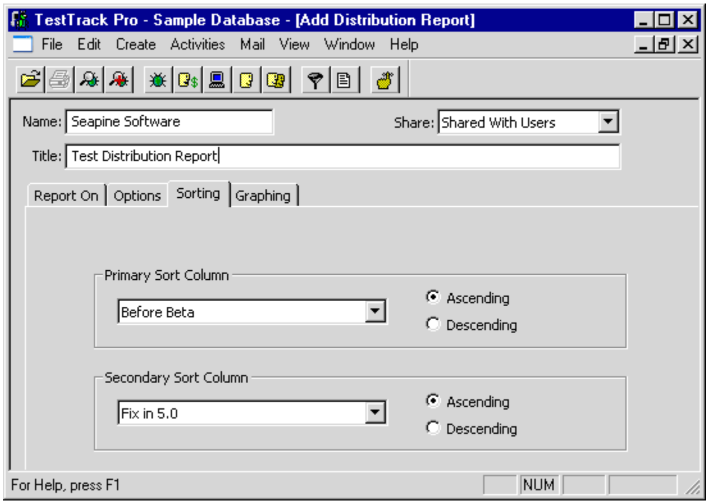
6 Click the **Options** tab.

- Select the report date parameters for your report using the **Period** and **through** menus.
- Select a **Stylesheet** or click **Browse** to use a customized stylesheet.
- Optionally, select a **Filter** if you are reporting on defects. The report only contains defects that meet the filter criteria.
- Select **Include totals** to include totals for the selected report items. If you select this option, you can add the totals to a chart using the **Data to Graph** menu on the **Graphing** tab.
- Enter a number in the **Records per printed page** field to insert page breaks between rows in the report.



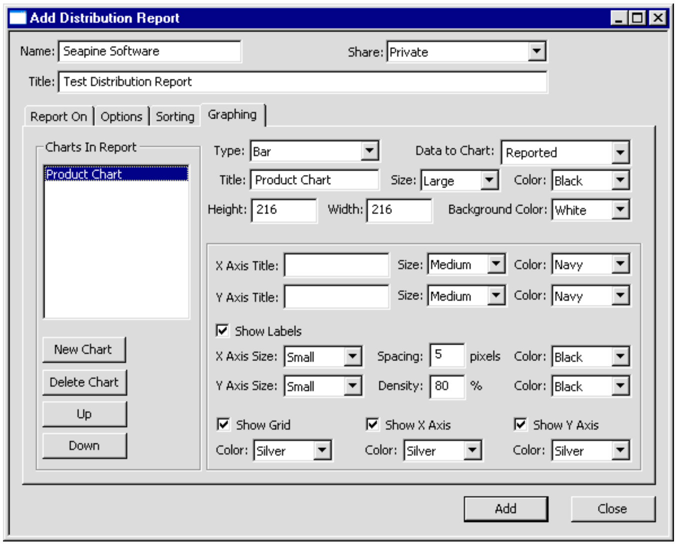
7 Click the **Sorting** tab.

Optionally, select a Primary and Secondary sort column. You can also set the column sort order to ascending or descending.



8 Click the **Graphing** tab

This tab is used to add a chart to the report. For more information, see **Charting report data,** page 119.



9 Click **Add**.

The Add Distribution Report dialog box clears. You can add another report if you want.

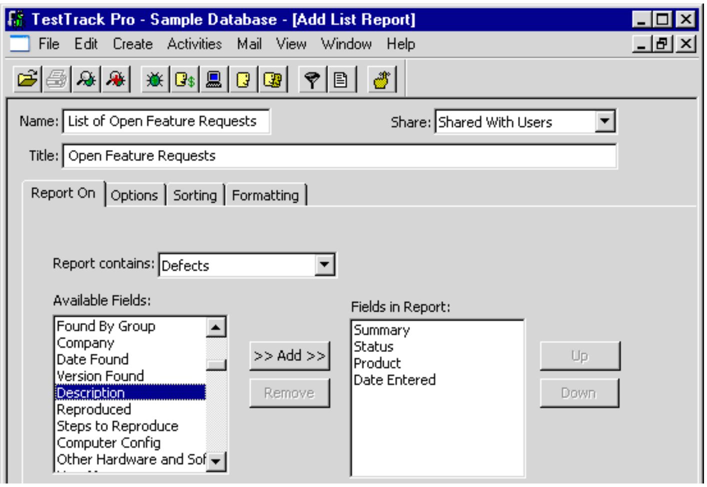
10 Click **Close** when you are done adding reports.

Creating list reports

1 Choose **Create** > **Report** > **List** or click **Add** on the Reports list window.

2 Select **List** and click **OK**.

The Add List Report dialog box opens.



3 Enter a **Name** and **Title**.

The title appears at the top of the report when it is viewed or printed.

4 Select an option from the **Share** menu.

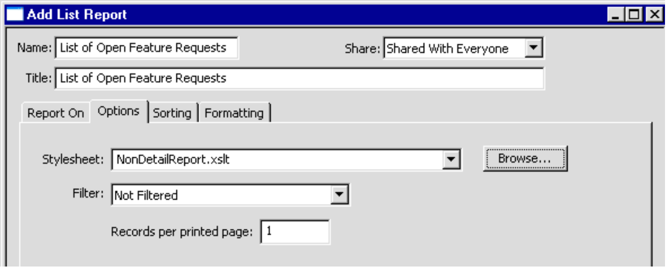
If you share the report, users with the proper command-level security can edit the report. Select **Private** to protect your report.

5 Select the **Report On** options.

- Select the record type from the **Report contains** menu.
- Select the fields from the **Available Fields** list and click **Add**.
- To change the field order, select a field from the **Fields in Report** list and click **Up** or **Down**.

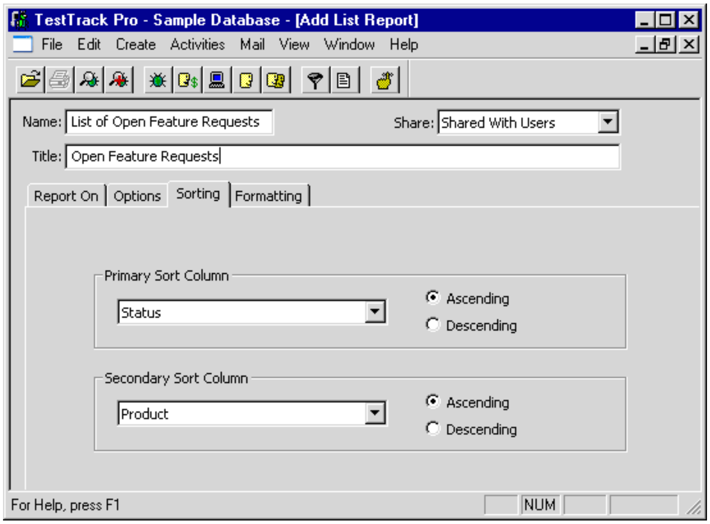
6 Click the **Options** tab.

- Select a **Stylesheet** or click **Browse** to use a customized stylesheet.
- Optionally, select a **Filter** if you are reporting on defects. The report only contains defects that meet the filter criteria.
- Enter a number in the **Records per printed page** field to include page breaks between detail rows.



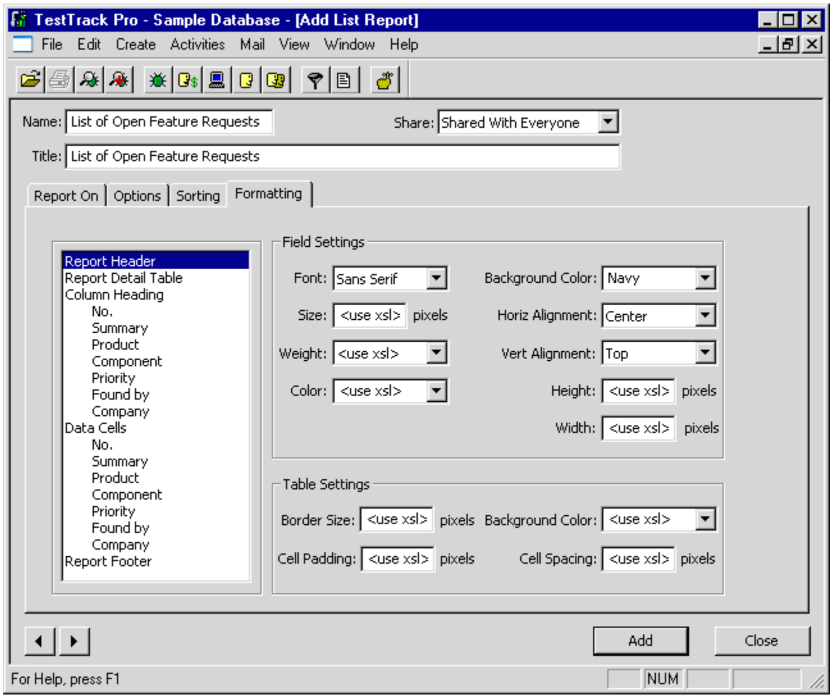
7 Click the **Sorting** tab.

Optionally, select a Primary and Secondary sort column. You can also set the column to sort ascending or descending.



8 Click the **Formatting** tab.

Field and table settings are defined by the default stylesheet. This tab lets you override the stylesheet settings for a list report. For example, you can change the report header font style, size, color, or alignment. Select **Report Header** from the list and use the field settings to make any changes.



9 Click **Add**.

The Add List Report dialog box clears. You can add another report if you want.

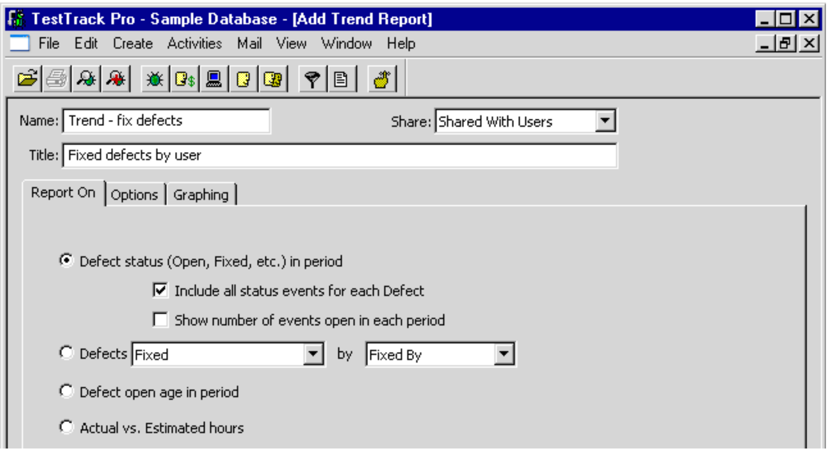
10 Click **Close** when you are done adding reports.

Creating trend reports

1 Choose **Create > Report > Trend** or click **Add** on the Reports list window.

2 Select **Trend** and click **OK**.

The Add Trend Report dialog box opens.



3 Enter a **Name** and **Title**.

The title appears at the top of the report when it is viewed or printed.

4 Select an option from the **Share** menu.

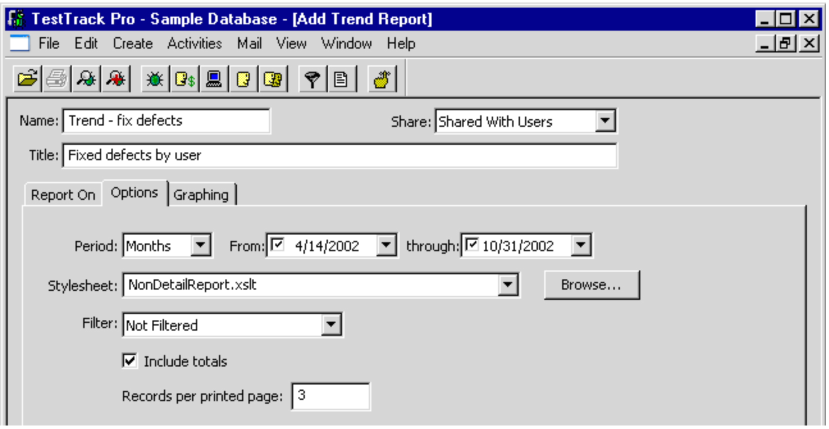
If you share the report, users with the proper command-level security can edit the report. Select **Private** to protect your report.

5 Select the **Report On** options.

- Select **Defect status in period** to report on the number of defects in each state (Open, Fixed, etc.) over the specified reporting period.
- Select **Defects <field> by <field>** to report on the number of defects that are Open, Fixed, Closed, etc. by Type, Priority, or Resolution.
- Select **Defect open age in period** to report on the number of defects open over the specified reporting period.
- Select **Actual vs. Estimated hours** to report on the difference between the actual and estimated time for fixing defects.

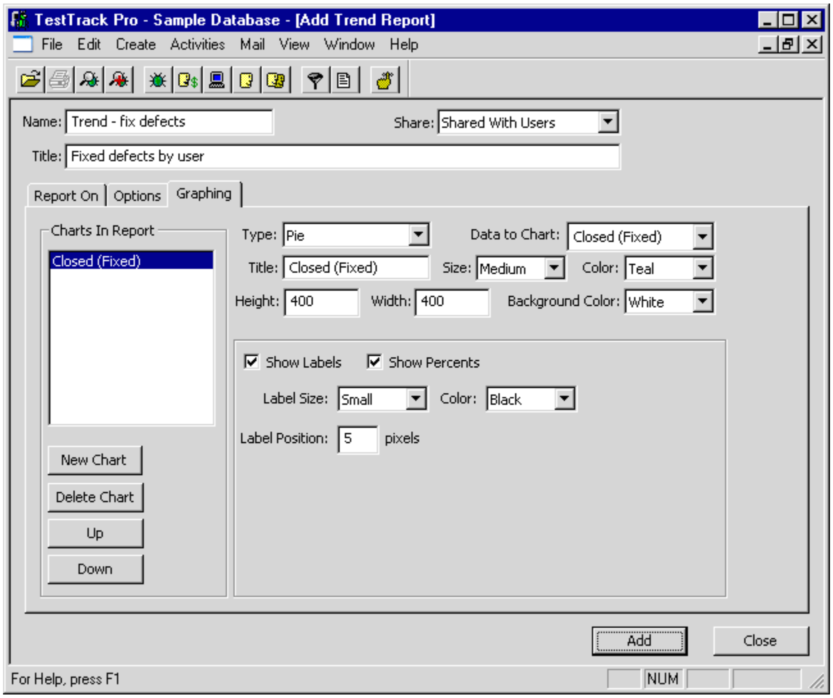
6 Click the **Options** tab.

- Select the date parameters for the report using the **Period, From,** and **through** menus.
- Select a **Stylesheet** or click **Browse** to use a customized stylesheet.
- Optionally, select a **Filter** if you are reporting on defects. The report only contains defects that meet the filter criteria.
- Select **Include totals** to include totals for the selected report items. If you select this option, you can add the totals to a chart using the **Data to Graph** menu on the **Graphing** tab.
- Enter a number in the **Records per printed page** field to insert page breaks between detail rows.



7 Click the **Graphing** tab.

This tab is used to add charts to the report. For more information, see **Charting report data**, page 119.



8 Click **Add**.

The Add Trend Report dialog box clears. You can add another report if you want.

9 Click **Close** when you are done adding reports.

Charting report data

You can add charts to distribution and trend reports. The available charts include pie, 3D pie, bar, 3D bar, area, 3D area, line, and 3D line.

Bar, area, and line charts

You can design a bar, area, or line chart using the available graphing fields.

Graphing field:	Use to:
Type	Select the type of report
Data to Chart	Select report data
Title	Enter a chart title
Size	Select the chart title size
Color	Select the chart title font color
Height	Select the chart height
Width	Select the chart width
Background Color	Select the chart background color
X Axis Title	Enter an X axis title
Y Axis Title	Enter a Y axis title
Size	Select the X and Y axis title size
Color	Select the X and Y axis title font colors
Show Labels	Show chart component labels
X Axis Size	Select the X axis label size
Y Axis Size	Select the Y axis label size
Spacing	Enter the amount of space between labels
Color	Select the X and Y axis label color
Density	Enter a density percentage. 80% displays all labels, 40% displays half, etc.
Show Grid	Select to show the chart grid pattern
Show X Axis	Select to show the X axis
Show Y Axis	Select to show the Y axis
Color	Select the color for the grid lines and the X and Y axis lines

Pie charts

Use the graphing fields to add and design pie charts.

Graphing field:	Use to:
Type	Select the report type
Data to Chart	Select report data
Title	Enter a chart title
Size	Select the chart title size
Color	Select the chart title font color
Height	Select the chart height
Width	Select the chart width
Background Color	Select the chart background color
Show Labels	Show chart data labels
Show Percents	Show chart data in percents
Label Size	Select the chart label size
Color	Select the label font colors
Label Position	Set the spacing of the chart labels

Pie charts are scaled based on a number of factors, including image size, label size, and number of labels. You may need to change the image height and width dimensions for the pie chart to display correctly.

Viewing report settings

1 Select the report on the Reports list window.

2 Choose **Edit > View Report** or click **View** on the Reports list window.

The View Report dialog box opens. All fields are read-only.

3 Click **OK** when you are finished.

Editing reports

1 Select the report on the Reports list window.

2 Choose **Edit > Edit Report** or click **Edit** on the Reports list window.

The Edit Report dialog box opens.

3 Make any changes and click **OK**.

Previewing reports

1 Select the report on the Reports list window and click **Preview**.

The report opens in preview mode.

2 Click the Next and Previous arrows, or use the scroll bar, to move through the report.

3 Click **Page Setup** to change the page options or click **Print** to print the report.

You can also click **Save As** to save the report as a text file.

Printing reports

1 Select the report on the Reports list window and click **Print**.

The print dialog box opens.

2 Make your selections and click **Print**.

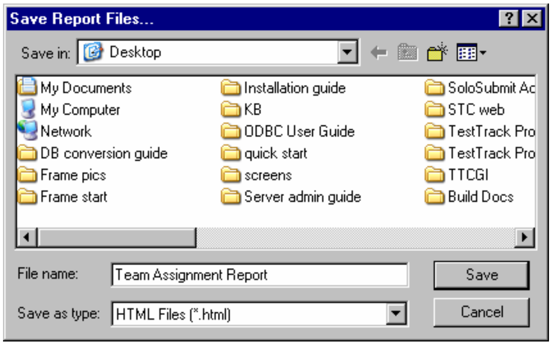
Saving a copy of a report

You can save a copy of a report as an HTML file and open it later to modify the data.

1 Select the report on the Reports list window and click **Preview**.

2 Choose **File > Save As**.

The Save Report Files dialog box opens.



3 Select a location from the **Save in** menu.

4 Enter a report name in the **File name** field.

5 HTML Files is automatically selected from the **Save as type** menu.

6 Click **Save**.

The report file is saved in the location you specified.

Deleting reports

1 Select the report on the Reports list window.

   You can select more than one report to delete.

2 Choose **Edit > Delete Report** or click **Delete** on the Reports list window.

   You are prompted to confirm the deletion.

3 Click **OK**.

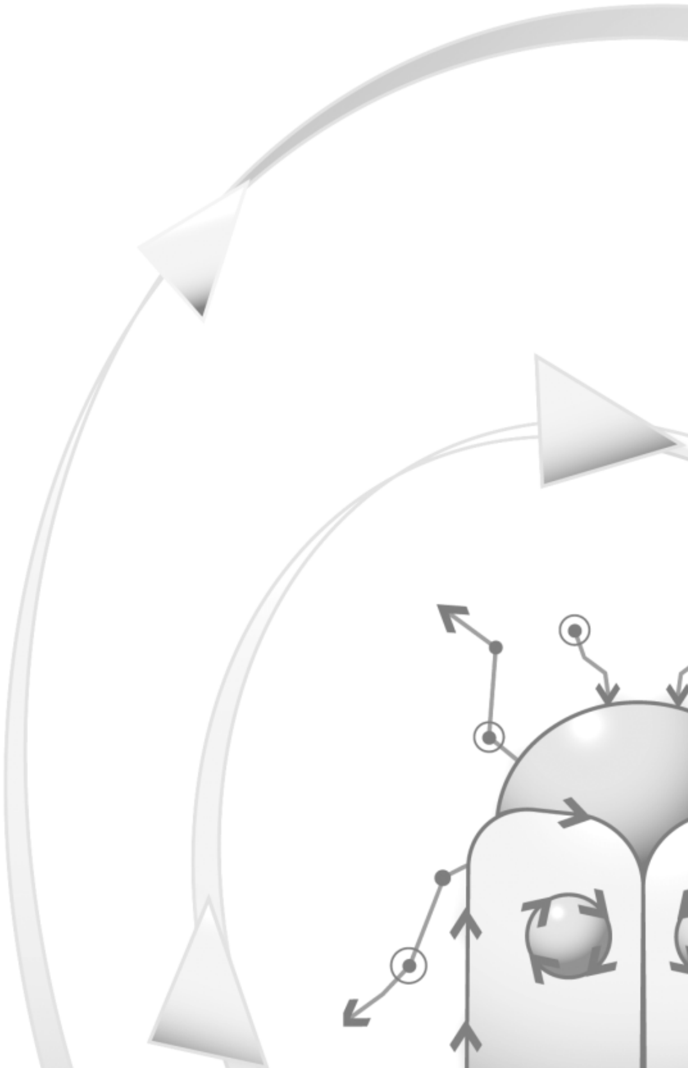
   The report is deleted.

Chapter 10
Using the Workbook

So much to do!

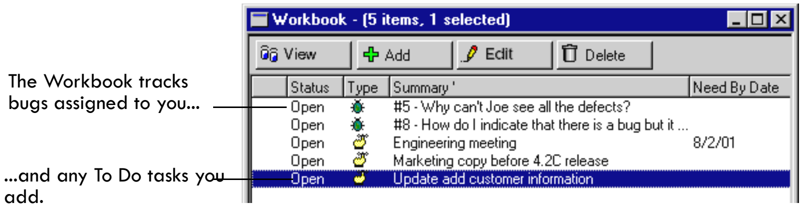
So little time to do it? This chapter includes instructions for using the Workbook to view defects and track other tasks. TestTrack Pro, and the Workbook, can help you stay organized!

In this section:



About the workbook

Use the Workbook to keep track of defects, loose ends, and various other tasks. For example, you can add To Do tasks to remind you about upcoming deadlines.



Understanding Workbook tasks

You can track defect tasks and To Do tasks in the Workbook. **Task indicators** in the type column of the Workbook list point out your assigned defects and the To Do tasks you added to the Workbook.

Icon	Name	Indicates
	**Defect tasks**	Defects assigned to you. **TestTrack Pro adds** these tasks to the Workbook.
	**To Do tasks**	Defects that changed since you last logged in

Adding to do tasks

1 Choose **Create > To Do** or click **Add** on the Workbook list window.

The Add To Do dialog box opens.

2 Enter a task name in the **To Do** field.

3 Select the task priority from the **Priority** menu.

4 Check the date.

5 Select a **Need by date** or **Version**.

6 Enter a **description**.

7 Click **Add**.

The task is added to TestTrack Pro.

Viewing to do tasks

1 Select the task or defect on the Workbook list window.

2 Choose **Edit > View Task** or click **View** on the Workbook list window.

The View To Do or View Defect dialog box opens. All fields are read-only.

3 Click **OK** when you are finished.

Editing to do tasks

1 Select the task or defect on the Workbook list window.

2 Choose **Edit > Edit Task** or click **Edit** on the Workbook list window.

The Edit To Do or Edit Defect dialog box opens.

3 Make any changes.

If the task is complete, select **Done**.

4 Click **OK**.

Your changes are saved and you return to the Workbook list window.

Duplicating to do tasks

1 Select the task on the Workbook list window. You can only duplicate **tasks**, you cannot duplicate defects.

2 Choose **Edit > Duplicate Task.**

The task is duplicated.

3 Modify the duplicated task and save your changes.

Deleting to do tasks

1 Select the task on the Workbook list window. You can only delete **tasks.** You cannot delete defects.

2 Choose **Edit > Delete Task** or click **Delete** on the Workbook list window.

You are prompted to confirm the deletion.

3 Click **OK**.

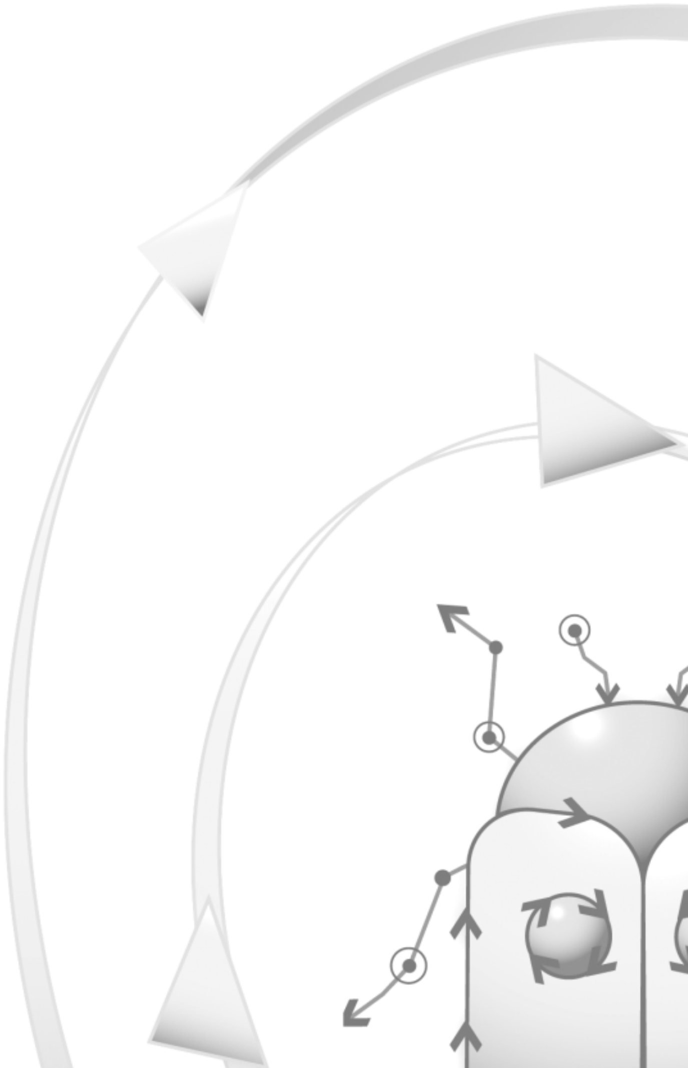
The task is deleted.

Chapter 11
Integrating with Developer Tools

Use the TestTrack Pro Add-In...

and never leave your development environment! This chapter includes instructions for programmers who are using the add-in to access TestTrack Pro functions, from within Visual Basic, Visual C++, and Visual Studio .NET.

In this section:



About the TestTrack Pro Add-In

The TestTrack Pro Add-In can be used with Visual Basic 6.0, Visual C++ 6.0, and Visual Studio .NET. The Add-In lets you stay in your development environment while accessing TestTrack Pro functions. A dockable TestTrack Pro toolbar is added to the IDE.

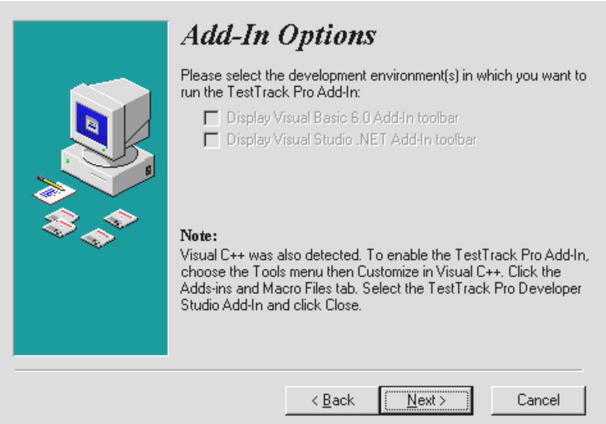
The TestTrack Pro Add-In functions the same regardless of your development environment. There are a few exceptions:

- Visual Basic has no concept of a workspace. If you are working in the Visual Basic development environment, there is no provision for connecting to a database. Also, you cannot set TestTrack Pro Add-In options in Visual Basic.
- Visual C++ refers to workspaces. Visual Studio .NET refers to solutions.

Installing the Add-In

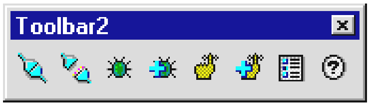
During TestTrack Pro client installation, the Add-In Options dialog box opens if Visual Basic 6.0, Visual C++6.0, or Visual Studio .NET are installed on your computer. The TestTrack Pro Add-In is automatically installed.

- If Visual C++ 6.0 is installed on your computer, make sure you read the Note information. It include instructions for enabling the Add-In.
- If Visual Basic 6.0 or Visual Studio .NET is installed on your computer, select the corresponding development environment check box. You do not need to manually enable the Add-In.



Add-In toolbar

The TestTrack Pro toolbar contains buttons that give you access to TestTrack Pro functions and list windows—just a click away!



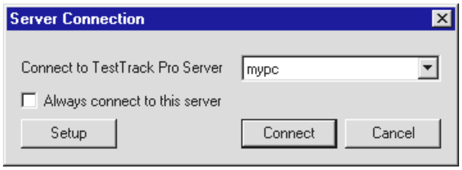
Button	Name	Action
	**Connect**	Connects you to the server
	**Disconnect**	Disconnects your server connection
	**Defect List**	Opens the Defects list window
	**Add Defect**	Opens the Add Defect dialog box
	**Task List**	Opens the Workbook/Task list window
	**Add Task**	Opens the Add To Do dialog box
	**Options**	Opens the Options dialog box
	**About**	Opens the About dialog box

The **Options** button is not available with Visual Basic.

Connecting to a database

1 Click the **Connect** toolbar button.

The Server Connection dialog box opens.



2 Select a server from the **Connect to TestTrack Pro Server** menu and click **Connect**.

The Login dialog box opens.

3 Enter your username and password.

4 Select a database from the **Database** menu and click **OK**.

You are connected to the TestTrack Pro server and database.

Where to go next...

If you are the **Lead Engineer**, start with the Defects list. Use a filter to display all defects created, fixed, or verified in the last week **and** that are not currently assigned and not in the closed state. Then, assign the defects to the appropriate person.

If you are an **Engineer/Developer**, start with the Task list. The Workbook Task list displays all the defects assigned to you and any to do tasks you added. You can also start with the Defects list and choose a filter that displays the defects you need to work with.

Setting options

You can set Open Workspace and Login options that are specific to Visual C++ and Visual Studio .NET.

Remember, Visual Studio .NET refers to solutions and Visual C++ refers to workspaces. The following examples and screenshots use Visual C++. If you are working in a Visual Studio .NET development environment, the dialog boxes and text may be different.

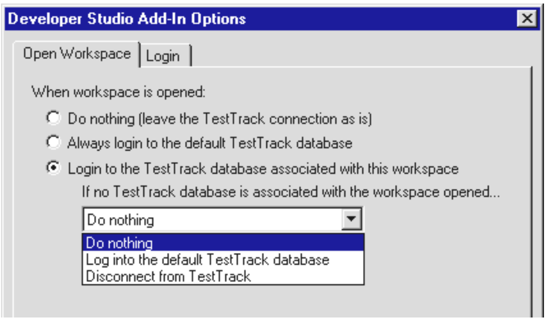
Each workspace/solution can be associated with a single TestTrack Pro database. Multiple workspaces/solutions can also be associated with one TestTrack Pro database. The TestTrack Pro database does not have a direct link to a workspace/solution.

When a workspace/solution is opened, and a TestTrack Pro database is associated with the workspace/solution, the TestTrack Pro Add-In receives a message. A connection with the TestTrack Pro server is established and you are logged into the database. When a workspace/solution is closed, you are logged out of the current database.

Open Workspace tab

1 Click the **Options** toolbar button.

The Developer Studio Add-In Options dialog box opens with the **Open Workspace** tab selected.



2 Select **Do nothing (leave the TestTrack connection as is)** if you do not want to connect to the TestTrack Pro Server and log in to a TestTrack Pro database.

3 Select **Always login to the default TestTrack database** to automatically log in to your default database. You can specify the default database on the **Login** tab.

4 Select **Login to the TestTrack database associated with this workspace** to automatically log in to a database. After selecting this option, you need to choose an option from the dropdown list. The dropdown list determines what happens when a TestTrack Pro database is not associated with the workspace.

Setting default login information

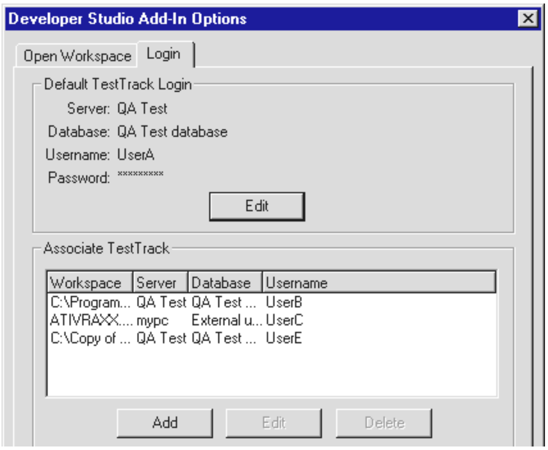
The Login tab lets you set the default login information and associate Visual Studio workspaces with TestTrack Pro databases. When you open a workspace, you can automatically login and connect to a specific TestTrack Pro database.

1 Click the **Options** toolbar button.

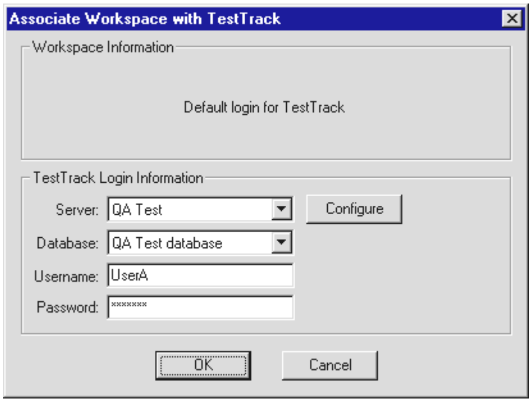
The Developer Studio Add-In Options dialog box opens.

2 Click the **Login** tab.

3 Click **Edit** in the Default TestTrack Login area.



4 The Associate Workspace with TestTrack dialog box opens.



5 Select a **server**.

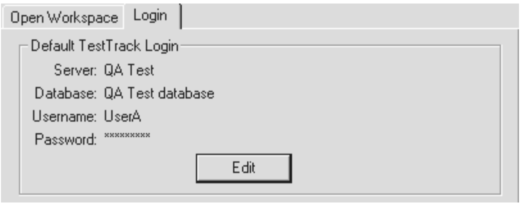
Click **Configure** to add a server. For more information, see **Adding server connections,** page 9.

6 Select a **database**.

7 Enter your **Username** and **Password**.

8 Click **OK**.

The Default TestTrack Login area is populated with the information you entered. Click **Edit** to change any information.



Associating a workspace with TestTrack Pro

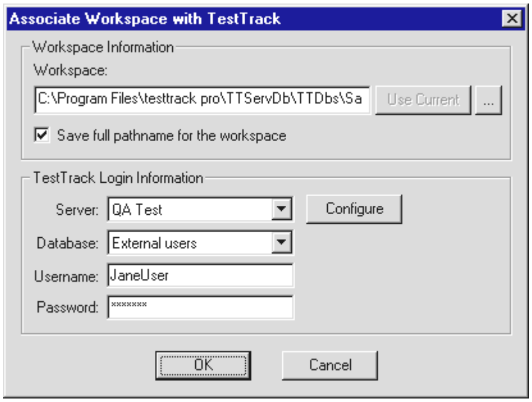
1 Click the **Options** toolbar button.

The Developer Studio Add-In Options dialog box opens.

2 Click the **Login** tab.

3 click **Add** in the Associate TestTrack area.

The Associate Workspace with TestTrack dialog box opens.



4 Click **Use Current** or the **Browse** button to select the workspace you want to associate with the database.

Selecting **Save full pathname for the workspace** gives you greater control of the workspace association. For example, you have two workspace files with the same filename. This option lets you associate each workspace with a different TestTrack Pro database.

5 Select a **server**.

Click **Configure** to add a server. For more information, see **Adding server connections,** page 9.

6 Select a **database**.

7 Enter your **Username** and **Password**.

8 Click **OK**.

The Associate TestTrack area is populated with the information you entered.

> Select a row and click **Edit** to make changes. If you want to delete an association, select a row and click **Delete.** Make sure you want to delete the association - you are not prompted to confirm the deletion and this action cannot be undone!

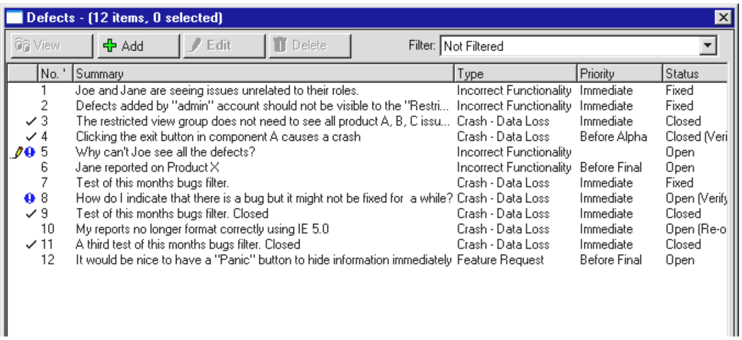
Working with defects

The defect list tracks all defects entered in a database. For more information, see **About defects,** page 30.

Opening the defect list

1 Click the **Defect List** toolbar button.

The Defects list window opens.



Adding defects

1 Click the **Add Defect** toolbar button or click **Add** on the Defect list window.

The Add Defect dialog box opens.

2 Enter the defect information.

For more information, see **Adding defects,** page 30.

3 Click **Add** to save the defect information and add the defect.

Click **Close** to close the Add Defect dialog box.

Viewing defects

1 Select the defect on the Defects list window.

2 Click **View**.

The View Defect dialog box opens. All fields are read-only.

Editing defects

1 Select the defect on the Defects list window.

2 Click **Edit**.

The Edit Defect dialog box opens.

3 Make any changes and click **OK**.

Deleting defects

1 Select the defect on the Defects list window.

2 Click **Delete**.

You are prompted to confirm the deletion.

3 Click **OK**.

Using the workbook

The workbook tracks your defects, loose ends, and other tasks. For example, you can add tasks to remind you about meetings or upcoming deadlines.

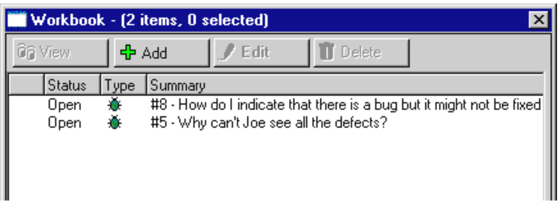
Task indicators appear in the type column of the Workbook list window. These indicators point out your assigned defects and tasks you added.

Icon	Name	Indicates
	**Defect tasks**	Defects assigned to you. **TestTrack Pro adds** these tasks to the workbook.
	**To Do tasks**	Project-related tasks you add to the workbook.

Opening the Workbook task list

1 Click the **Task List** toolbar button.

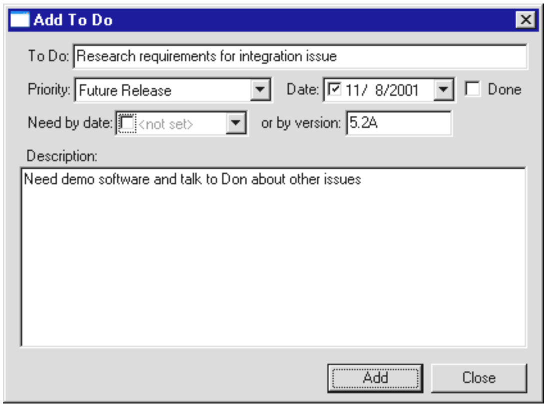
The Workbook list window opens.



Adding tasks

1 Click the **Add Task** toolbar button or click **Add** on the Workbook list window.

The Add To Do dialog box opens.



2 Enter the task information.

For more information, see **Adding to do tasks,** page 126.

3 Click **Add**.

The dialog box clears and you can add another task. Click **Close** when you finish.

Editing tasks

1 Select the task or defect on the Workbook list window.

2 Click **Edit**.

The Edit To Do or Edit Defect dialog box opens.

3 Make any changes and click **OK**.

If the To Do task is completed, select **Done**. The task appears greyed-out and a check mark is displayed in the first column of the Workbook list window.

Viewing tasks

1 Select the task or defect on the Workbook list window.

2 Click **View**.

The View To Do or View Defect dialog box opens. All fields are read-only.

Deleting tasks

1 Select the task on the Workbook list window.

You can only delete **To Do tasks.** You cannot delete defects.

2 Click **Delete**.

You are prompted to confirm the deletion.

3 Click **OK**.

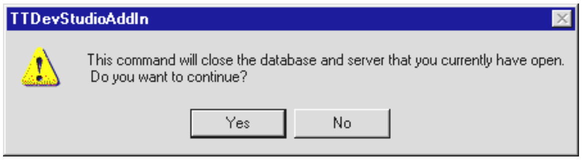
The To Do task is deleted.

Disconnecting

When you finish working with your defects, make sure you disconnect from the database and server.

1 Click the **Disconnect** toolbar button.

A warning message opens, stating the open database and server connection will be closed.



2 Click **Yes**.

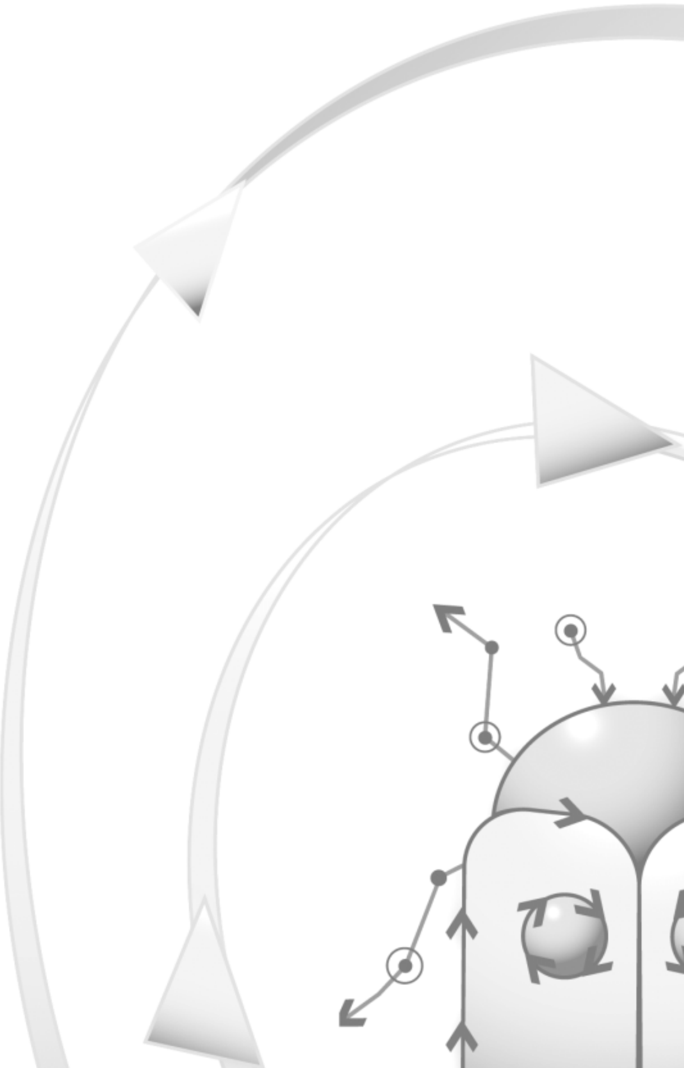
The database is closed and you are disconnected from the server.

Chapter 12
Configuring Databases

Lay the foundation!

Databases are one of the most important components of TestTrack Pro - take the time to configure your databases and keep your users productive! This chapter includes detailed information about setting database options.

In this section:

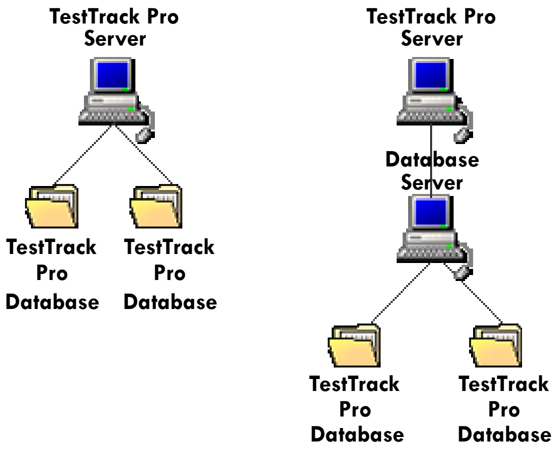


About databases

A TestTrack Pro database contains all the information you track, including defects, user groups, users, customers, filters, test configurations, and workbook tasks.

Databases are initially created and stored on the computer where the TestTrack Pro Server is installed. Databases can be also be moved to another computer, separate from the computer where the TestTrack Pro Server is installed. For more information, see the **Server Admin Utility Guide**.

Sample server/database configurations



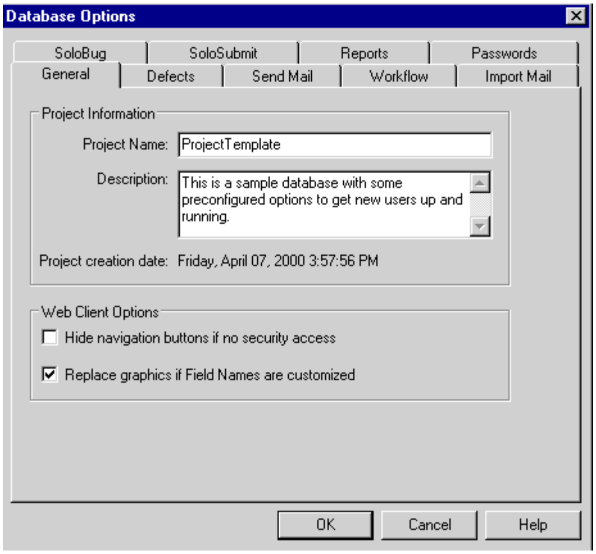
Creating databases

The TestTrack Pro administrator, or another user with high level security, **creates all the databases** using the **Server Admin Utility**. If you need a new database, see your administrator. If you are the TestTrack Pro administrator, see **Creating a database** in the **Server Admin Utility Guide**.

Setting general options

1 Chose **Edit > Options > Database Options**.

The Database Options dialog box opens, with the **General** tab selected.



2 Enter a **Project Name** and **Description**.

The project name does not change the database name.

3 Select **Hide navigation buttons if no security access** to hide the Web navigation buttons.

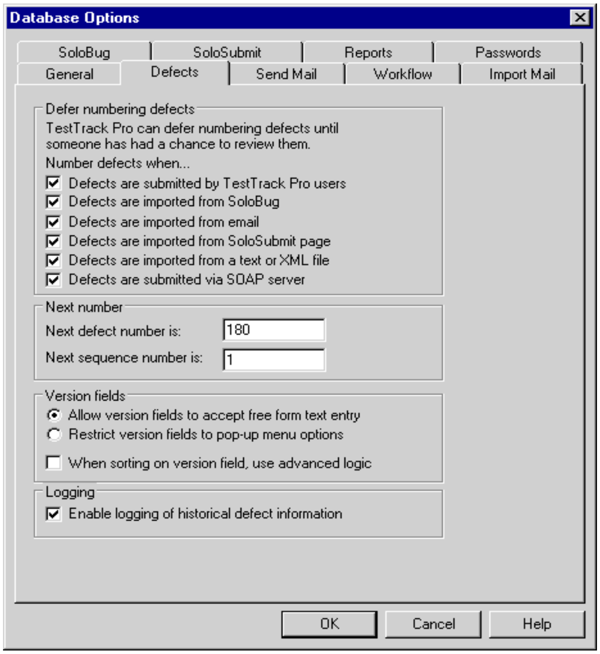
If you do not select this option, and the user does not have security access, the buttons appear on the web page but are disabled. This option only affects the web client.

4 Click **OK** or click another tab to continue setting options.

Setting defect options

1 Chose **Edit > Options > Database Options**.

2 Click the **Defects** tab.



3 Select the **Defer numbering defects** options.

For each of the options, select the check box to automatically assign a defect number.

4 Select the **Next number** options.

- The **Next defect number** can be set to any value greater than the largest defect number.
- The **Next sequence number** can be set to any value greater than the largest sequence number.

5 Select the **Version fields** options.

You can configure version field menus to accept text entries or restrict version fields to pop-up menus.

Version fields options affect the following fields: version found, version fixed, version verified, version released, and estimated completion.

6 Select **Enable logging of historical defect information** to log historical information.

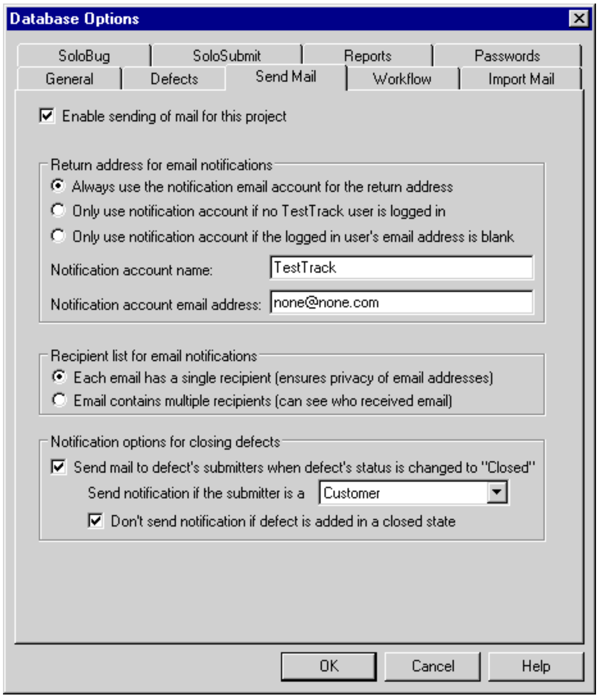
For more information, see **Logging historical defect information,** page 159.

7 Click **OK** or click another tab to continue setting options.

Setting send mail options

1 Chose **Edit > Options > Database Options**.

2 Click the **Send Mail** tab.



3 Select **Enable sending of mail for this project** to enable mail.

If you do not select this option, users cannot use the Send Mail command or receive email notifications.

4 Select the **Return address for email notifications** options.

- **Always use the notification email account for the return address** is the default option.
- **Only use notification account if no TestTrack user is logged in** uses the notification account information. For example, a user might not be logged in during email import or while using SoloSubmit. In either case, the notification account information is used.

- **Only use notification account if the logged in user's email address is blank** ensures that an email address is available if the logged in user did not provide his or her email information.

- Enter a **notification account name**. The notification account name defaults to "TestTrack." You will probably want to customize the account name for your company

- Enter an **email address**. If you do not enter an email address, your email may be rejected. Some Internet providers will not accept email without a return address.

5 Select the **Recipient list for email notifications** options.

If privacy is an issue, select **Each email has a single recipient**. If you select **Email contains multiple recipients**, each person who receives an email can view the list of recipients and their email addresses.

6 Select the **Notification options for closing defects**.

- The notification can be limited to submitters (same as **Found By** person) who are **users, customers, or both**. If a defect is submitted by more than one person, each submitter is sent an email.

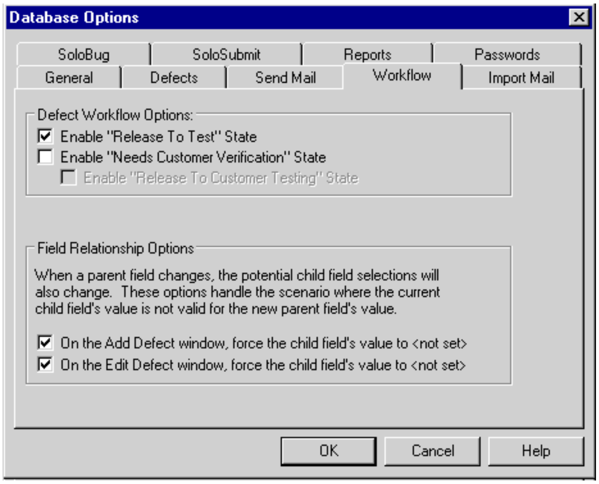
7 Select **Don't send notification if defect is added in a closed state** if you do not want a notification sent when a defect is added in a closed state. For example, you add a defect, enter defect information, add a fixed event, and add a verify & close event. You probably do not want to send a notification since the defect was added in the closed state.

8 Click **OK** or click another tab to continue setting options.

Setting workflow options

1 Chose **Edit > Options > Database Options**.

2 Click the **Workflow** tab.



3 Select the **Defect Workflow Options**.

You can add optional states to the defect workflow.

- **Enable "Release to Test" State** adds the testing state to the workflow, indicating the defect fix needs to be tested.
- **Enable "Needs Customer Verification" State** adds the customer verification state to the workflow, indicating the defect is fixed and needs customer verification.
- **Enable "Release to Customer Testing" State** adds the customer testing state to the workflow, indicating the defect is fixed and needs to be tested by the customer.

4 Select the **Field Relationship Options**.

These options force a child field's value to **<not set>** if a parent field changes and the child field value is no longer valid.

- When a defect is added, you want to enforce the field relationship and prevent data that does not make sense from being entered. Select the option to force the child field's value to **<not set>** on the Add Defect window.

- When a defect is edited, you need to preserver the original information so historical defect information is not lost. Do not force the child field’s value to **<not set>** on the Edit Defect window.

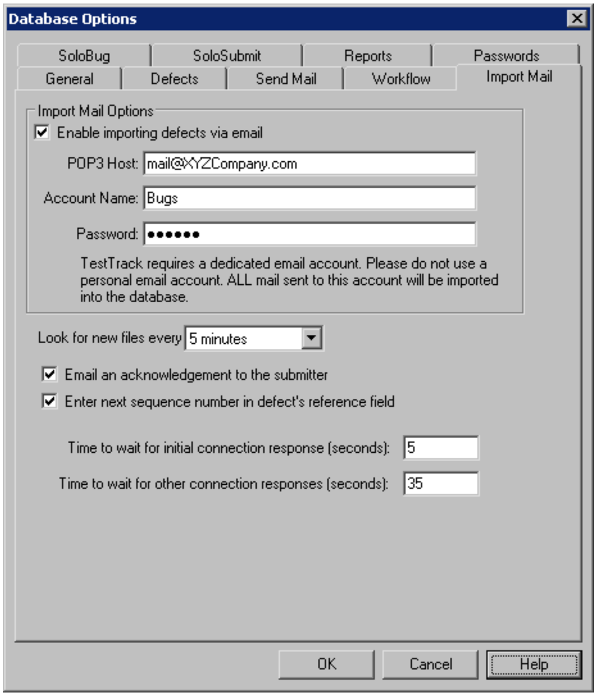
If **Version Found** is a child field, and users can add text entries, the value cannot be forced to **<not set>** because field relationship rules cannot be enforced. Text entries in version fields decreases the power of the field relationship feature.

5 Click **OK** or click another tab to continue setting options.

Setting import mail options

1 Chose **Edit > Options > Database Options**.

2 Click the **Import Mail** tab.



3 Select **Enable importing defects via email** to enable email import.

4 Enter the **POP3 host** IP address or domain name.

Do not use a personal email address as the import mail account. TestTrack Pro imports everything, including personal email like jokes, into the database.

5 Enter the **Account Name** and **Password**.

If a password is not required, leave the password field empty.

Why does TestTrack Pro require a dedicated email address?

All email from the specified account is imported. TestTrack Pro cannot determine which database an email should be imported into. In addition, TestTrack Pro cannot differentiate between personal and business emails.

In addition, make sure the import email account is not the same as the return email account configured on the Send Mail tab. TestTrack Pro can get stuck in a loop if an email account uses an auto-reply and you configure TestTrack Pro to send an acknowledgment after importing mail.

6 Select a time interval from the **Look for new files every** menu.

You can override the selected interval at any time. Choose **File > Import > Perform Server Import**.

7 Select **Email an acknowledgement to the submitter** to automatically acknowledge the email.

8 Select **Enter next sequence number in defect's reference field** to automatically enter the next defect sequence number.

9 Enter the **Time to wait for initial connection response**.

This is the time the TestTrack Pro server waits for an initial response from the email server.

10 Enter the **Time to wait for other connection responses**.

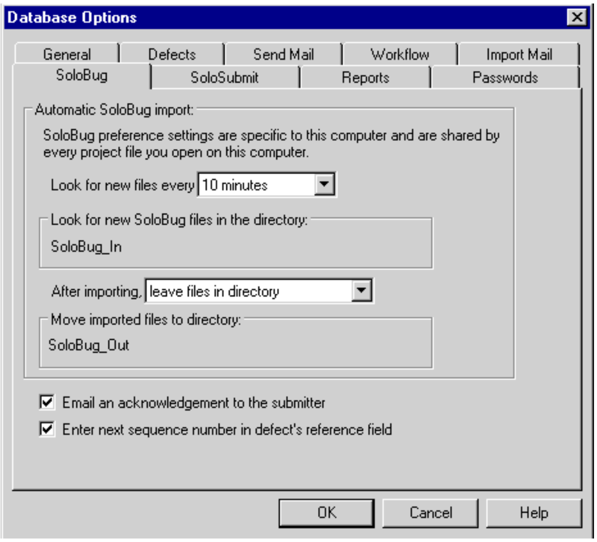
This is the time the TestTrack Pro server waits for other connection responses from the email server.

11 Click **OK** or click another tab to continue setting options.

Setting SoloBug options

1 Chose **Edit > Options > Database Options**.

2 Click the **SoloBug** tab.



3 Select a time interval from the **Look for new files every** menu.

To manually import files, choose **File > Import > Perform Server Import**.

4 Select an **After importing** option.

5 Select **Email an acknowledgement to the submitted** to automatically send an acknowledgement.

6 Select **Enter next sequence number in defect's reference field** to automatically enter the next sequence number in the reference field.

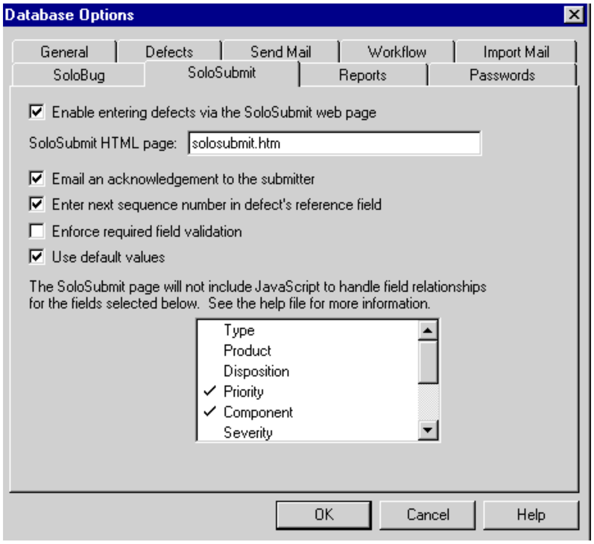
7 Click **OK** or click another tab to continue setting options.

Setting SoloSubmit options

The **TestTrack Pro SoloSubmit Admin Guide** includes detailed information about configuring and customizing SoloSubmit.

1 Chose **Edit > Options > Database Options**.

2 Click the **SoloSubmit** tab.



3 Select **Enable entering defects via the SoloSubmit web page** to enable SoloSubmit.

Remember, this option is database-specific. SoloSubmit must be enabled for each database.

4 The SoloSubmit HTML page field defaults to **solosubmit.htm**.

If you use a customized SoloSubmit HTML page, enter the file name. Make sure the HTML file is in the correct TestTrack Pro directory on your web server.

5 Select **Email an acknowledgement to the submitter** to automatically send an email acknowledging the submission.

This lets users and customers know their defect was received.

6 Select **Enter next sequence number in defect's reference field** to automatically enter the next defect number.

7 Select **Enforce required field validation** to ensure that values are entered for all required fields.

The required field validation is not enforced for the **Entered By** field. If **Entered By** is a required field, defects entered via SoloSubmit cannot pass the required field validation check.

8 Select **Use default values** to initially populate the SoloSubmit web page with default values.

SoloSubmit **cannot** determine which time zone to use as **default values** for **date/time custom fields**. When a defect is submitted via SoloSubmit, there is no associated user in the database. Consequently, there are no user options to check to determine which time zone to use. The current time of the computer the SoloSubmit CGI is running on, when the SoloSubmit page is loaded, is used as the default value for date/time custom fields. In addition, the date is assumed to be in the server's time zone. The date/time is converted to GMT.

9 Select fields you do not want JavaScript to handle field relationships for on the SoloSubmit web page.

You would choose **not** to include the JavaScript for one of the following reasons:

- The SoloSubmit web page includes hidden fields. For example, you comment out a field you do not want the customer to see. You can delete the HTML, but the field, and its values, will still show up in the JavaScript. If the customer chooses View Source on the SoloSubmit web page, the field and its values will be shown. Choosing not to include the JavaScript resolves this issue.

- The SoloSubmit web page is customized and you do not want to overwrite the customization. For example, you only want a customer to be able to choose 3 out of 6 values for a field. You hard code a list of field values in the HTML. If you include the JavaScript, your customization is overwritten. By ignoring JavaScript for the field, the hard coded list values are used

If neither reason applies, and you select a field from the list, it could result in unexpected behavior. For example, you ignore JavaScript for **Component**, which is a child of **Product**. When SoloSubmit is accessed, **Product** and **Component** are populated with the initial values. If the user chooses a different **Product**, the **Component** values are not changed.

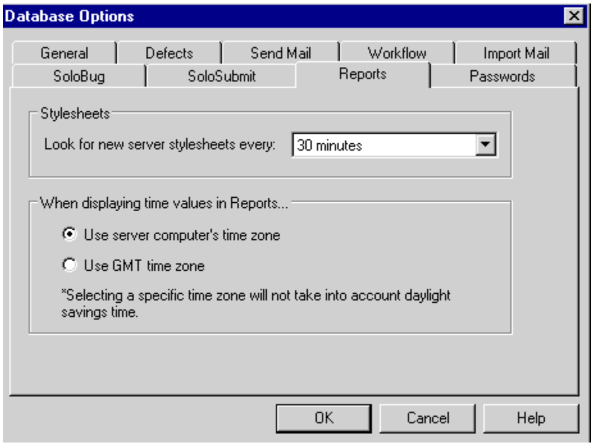
10 Click **OK** or click another tab to continue setting options.

Remember to give users and customers the SoloSubmit URL. To submit bug reports or feature requests, they simply open a browser and enter the SoloSubmit URL (e.g., http://WysiCorp.com/ttweb/loginSoloSubmit.htm).

Setting report options

1 Chose **Edit > Options > Database Options**.

2 Click the **Reports** tab.



3 Select a time interval from the **Look for new stylesheets every** menu.

The server periodically searches the database for new stylesheets and updates the stylesheet menus.

4 Select a **time zone** option.

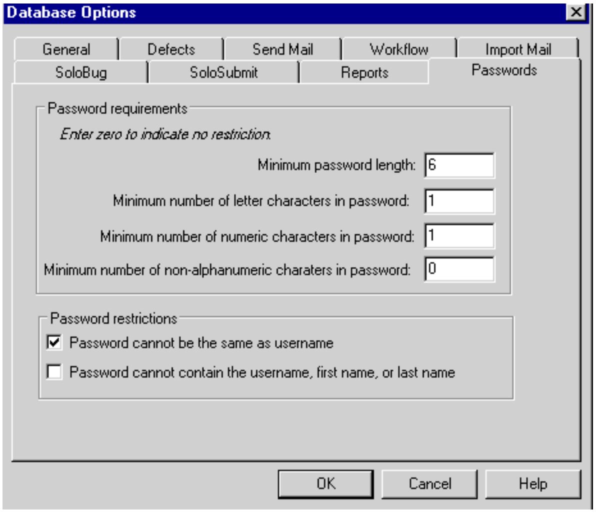
Detail reports display the creation and modified time at the bottom of the report. Configure the report to use the server's time zone or GMT.

5 Click **OK** or click another tab to continue setting options.

Setting password options

1 Chose **Edit > Options > Database Options**.

2 Click the **Passwords** tab.



3 Enter the **Password requirements**.

The sum of the minimum number of letter characters, numeric characters, and non-alphanumeric characters should be less than or equal to the minimum password length value.

4 Select the **Password restrictions**.

5 Click **OK** or click another tab to continue setting options.

Configuring auto-assignment rules

Auto-assignment rules ensure a defect is efficiently moved through the workflow by automatically assigning a user to defect action.

You can create and administrate rules that are checked when each of the eight main defect actions occur.

- Defect is created
- Defect is fixed
- Defect is released to testing
- Defect fails verification
- Defect passes verification, but needs customer verification
- Defect is released to customer testing
- Defect fails customer verification
- Defect is re-opened

For example, JoeDeveloper and ShirleyQA are working on a specific project. When a defect is created, it is automatically assigned to JoeDeveloper, who is responsible for fixing all defects for the project. When a defect is fixed, it is automatically assigned to ShirleyQA. She verifies the fix and makes sure it moves through the rest of the workflow.

Rule processing

When a defect action occurs, TestTrack Pro checks the auto-assignment rules in top-down order. If the defect passes a filter, the assignment action is applied. If the defect does not pass the filter, the next rule is checked until the defect passes a filter. If the defect does not pass any of the filters, the default action is applied.

For example, if your team is in Beta testing, you want to make sure that defects failing verification get immediate attention. If the **Defect fails verification**, two auto-assignment rules are checked.

- If the defect's filter is **Failed Fix**, the defect is automatically assigned to the last Fixed by User. This user can review why the fix failed and make the necessary adjustments so the defect can pass. If the filter is not **Failed Fix**, the second rule is checked.
- If the defect's filter is **On hold**, the defect is automatically assigned to the project administrator. The project administrator can determine whether the issue needs to be resolved in Beta or at a later time.

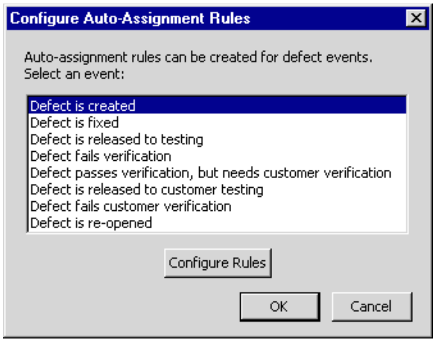
Auto-assignment rule exceptions

Auto-assignment processing is skipped when a defect is created using XML import, text import, or by duplication. For example, if you duplicate a defect that is unassigned, the new defect is also unassigned. If you duplicate a defect that is assigned to Barry, the new defect is also assigned to Barry.

Adding auto-assignment rules

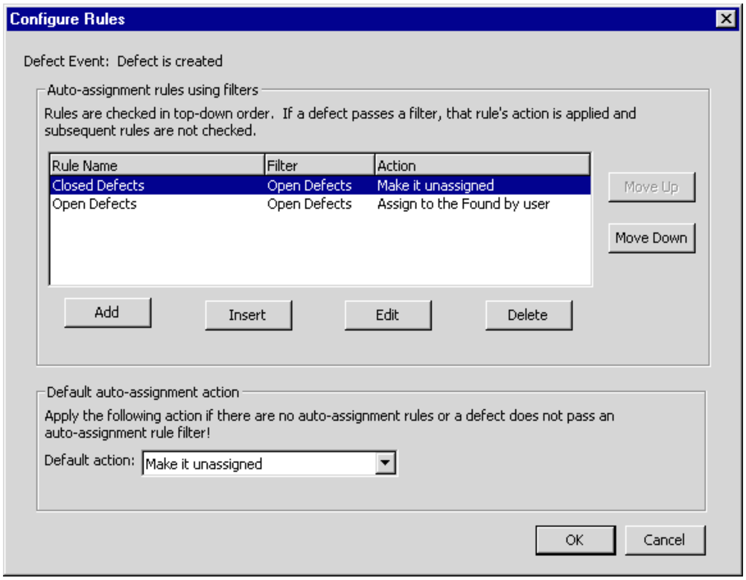
1 Choose **Activities > Configure > Auto-Assignment Rules**.

The Configure Auto-Assignment Rules dialog box opens.



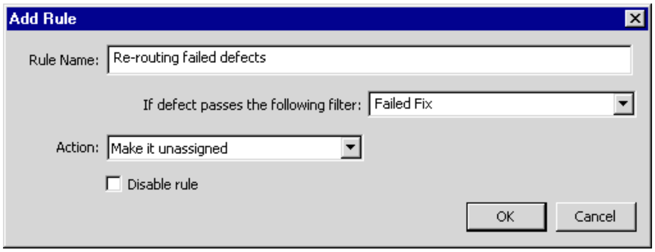
2 Select a defect action and click **Configure Rules**.

The Configure Rules dialog box opens.



3 Click **Add**.

The Add Rule dialog box opens.



4 Enter a **Rule Name**.

5 Select a filter from the **If defect passes the following filter** menu.

The filter menu displays the public and private filters have access to.

6 Select an **Action** for the defect event.

The assignment actions change based on the defect action you are creating the rule for.

7 Select **Disable rule** to disable the rule you are creating.

If two or more rules use the same filter, only one rule is valid. To avoid conflicts, disable rules that use the same filter.

8 Click **OK**.

Setting default actions

You can set a default action for each defect action if you do not want to configure auto-assignment rules.

1 Choose **Activities > Configure > Auto-Assignment Rules**.

The Configure Auto-Assignment Rules dialog box opens.

2 Select a defect action and click **Configure Rules**.

The Configure Rules dialog box opens.

3 Select a **Default action** and click **OK**.

You should set a default action for each defect event.

Inserting auto-assignment rules

1 Choose **Activities > Configure > Auto-Assignment Rules**.

The Configure Auto-Assignment Rules dialog box opens.

2 Select a defect action and click **Configure Rules**.

3 Select a rule and click **Insert**. The rule is inserted above the selected rule.

4 Enter a **Rule Name**.

5 Select a filter from the **If defect passes the following filter** menu.

6 Select an **Action** for the defect event.

7 Select **Disable rule** to disable the rule you are inserting.

Select this option if you are inserting a rule that conflicts with another rule.

8 Click **OK**.

Editing auto-assignment rules

1 Choose **Activities > Configure > Auto-Assignment Rules**.

The Configure Auto-Assignment Rules dialog box opens.

2 Select a defect action and click **Configure Rules**.

3 Select a rule and click **Edit.**

You can change the rule's name, filter, or action.

4 Select **Disable Rule** to disable the selected rule.

This option lets you disable a rule instead of deleting it. Disabled rules are greyed-out in the rules list.

5 Click **OK**.

Deleting auto-assignment rules

1 Choose **Activities > Configure > Auto-Assignment Rules**.

2 Select a defect action and click **Configure Rules**.

3 Select a rule and click **Delete.**

The rule is deleted.

Logging historical defect information

Historical defect logging is an optional feature used to record the changes made to a specific defect. Users can view what has changed in a particular defect record, who made the change, and when the change was made on the History tab. Following are some of the functions that generate a historical defect log message: Adding or editing a defect or adding, editing, or deleting a defect action; Adding, editing, or deleting a found by record; Merging defects; or Assigning a defect number or renumbering defects.

Enabling historical defect logging

1 Choose **Edit > Options > Database Options.**

2 Click the **Defects** tab.

3 Select **Enable logging of historical defect information**.

Disabling this option does not affect any information already logged in the database.

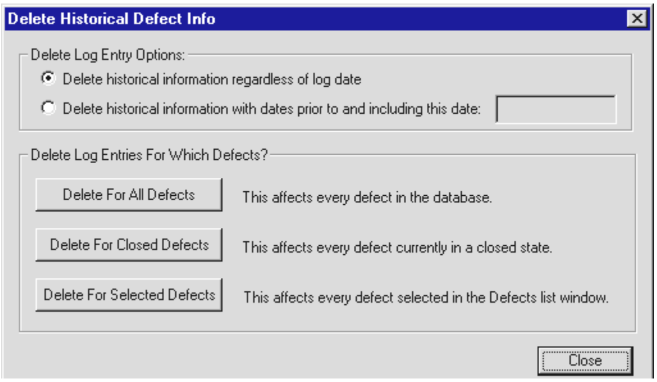
Deleting historical defect log information

If the database becomes too large because of historical log entries, you can delete entries. Deleting historical defect log entries does not reduce the amount of disk space used until the database is compressed. For more information, see **Understanding database settings** in the **Server Admin Utility Guide**.

To delete log entries for specific defects, select the defects before proceeding.

1 Choose **Activities > Configure > Delete Historical Defect Info.**

The Delete Historical Defect Info dialog box opens.



2 Select the **Delete Log Entry** options.

- **Delete historical information regardless of log date** deletes all log entries.
- **Delete historical information with dates prior to and including this date:** deletes log entries prior to and including the date you enter.

3 Click a **Delete Log Entries For Which Defects?** button.

You are prompted to confirm the deletion.

4 Click **Yes**.

The defect historical log information entries are deleted.

Chapter 13
Customizing Fields

Customize fields...

to collect the data you need. The data you collect is one of the most important parts of the defect tracking process. TestTrack Pro lets you customize fields to meet your company’s requirements and make sure users are providing the information you need. You can also rename field labels and change existing field data.

In this section:

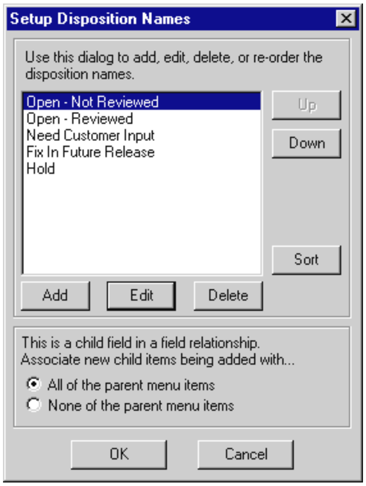
Configuring field names

You configure menu field names to customize TestTrack Pro with your company's terminology. The field names you configure are database-specific. You can configure type names, priority names, severity names, product names, component names, disposition names, reproduced names, fixed resolutions, closed resolutions, and version names.

Adding field names

1 Choose **Activities > Configure**, then select the group you want to add the field to. This example uses disposition, which is a child field.

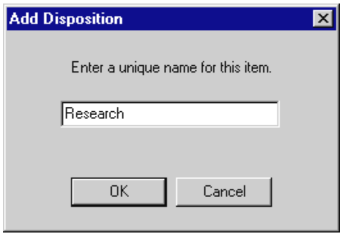
The Setup Disposition Names dialog box opens.



The setup dialog box changes based on the field type. For example, if you add a value to a parent field, you are reminded to configure field relationships for the new value.

2 Click **Add**.

The Add Disposition dialog box opens.



3 Enter a disposition field name and click **OK**.

You return to the Setup Disposition Names dialog box.

4 Select the association for the field. Remember, in this example, disposition is a child field.

You can associate the new child field with all of the parent menu items or none of the parent menu items.

You can also manually configure the parent-child field relationship. Go to **Activities > Configure > Field Relationships.** For more information, see **Defining required fields and default values,** page 167.

5 Click **OK** when you finish adding field values.

Editing field names

1 Choose **Activities > Configure**, then select the group containing the field value you want to edit.

2 Select the name and click **Edit**.

The Edit Defect Type dialog box opens.

3 Enter a new name and click **OK**.

The list is updated with the new name. To reorder field names, select the name and click the **Up** or **Down** button. You can also sort all field names in ascending or descending order.

Deleting field names

1 Choose **Activities > Configure**, then select the group containing the field name you want to delete.

2 Select the name and click **Delete**.

If the field name is used by a defect, you are prompted to reassign the field name to one of the existing field values. The field value cannot be deleted until it is reassigned.

If your database uses field relationships and you delete an item from a menu, you may cause a child field's value to no longer follow field relationship rules. If you try to delete a field that is used in a field relationship, you will receive a warning indicating the action may result in defects that do not follow the field relationship rules.

Configuring custom fields

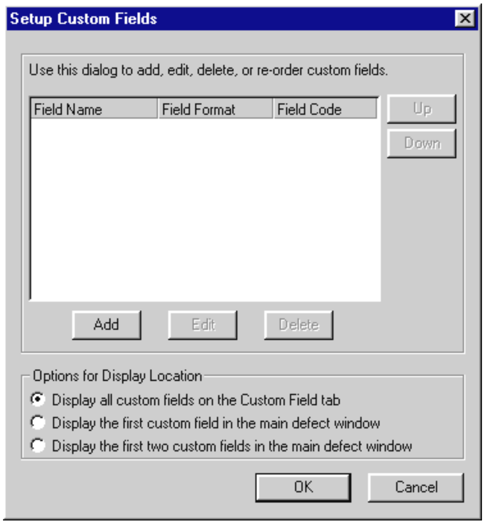
You can add up to ten custom fields to a database. All custom fields can be displayed on the Custom Fields tab or up to two custom fields can be displayed in the main area of the Add Defect, Edit Defect, and View Defect dialog boxes.

Adding custom fields

Make sure all users are logged out of TestTrack Pro. You cannot add custom fields if other users are logged in.

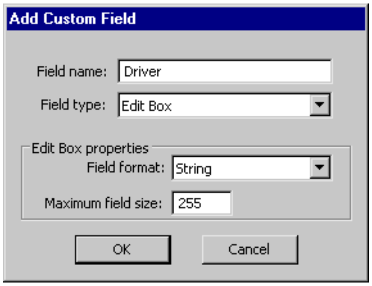
1 Choose **Activities > Configure > Custom Fields**.

The Set Up Custom Fields dialog box opens.



2 Click **Add**.

The Add Custom Fields dialog box opens.



3 Enter a **Field name**.

The name can be up to 20 characters long.

4 Select a **Field type**.

- **Edit box** lets users enter a value. After choosing this field type, select string, integer, or decimal number as the **Field format** and enter the **Maximum field size**.
- **Date/Time** creates a date/time field. When users select this type of custom field, the current date and time is set. Users can change the date and time
- **Check box** creates a check box field. The check box custom field works the same as other check boxes; users select or clear the check box.
- **Pop-up menu** lets you define the menu values. After choosing this field type, click **Setup Pop-Up Menu Items** to add values to the pop-up menu.

If you add a field that will be used in a field relationship, select **Pop-Up Menu.** This field type lets you restrict the information users can enter.

5 Click **OK**.

You return to the Setup Custom Fields dialog box.

6 Select the **Display Location** options.

You can display all custom fields on the Custom Fields tab or display up to two custom fields on the Add, Edit, and View Defect dialog boxes.

7 Click **OK**.

TestTrack Pro assigns a field code to the custom field. The field code lets you use the custom field in an email template or in a report template.

Editing custom fields

1 Choose **Activities > Configure > Custom Fields**.

2 Select the custom field and click **Edit**.

The Edit Custom Fields dialog box opens.

3 Make any changes and click **OK**.

You cannot change the Display Location option if other users are logged in to TestTrack Pro. To edit this option, all users **must** be logged out!

4 Click **OK**.

Deleting custom fields

1 Choose **Activities** > **Configure** > **Custom Fields**.

2 Select the custom field and click **Delete**.

You are prompted to confirm the deletion.

3 Click **Yes**.

The custom field is deleted.

4 Click **OK**.

Defining required fields and default values

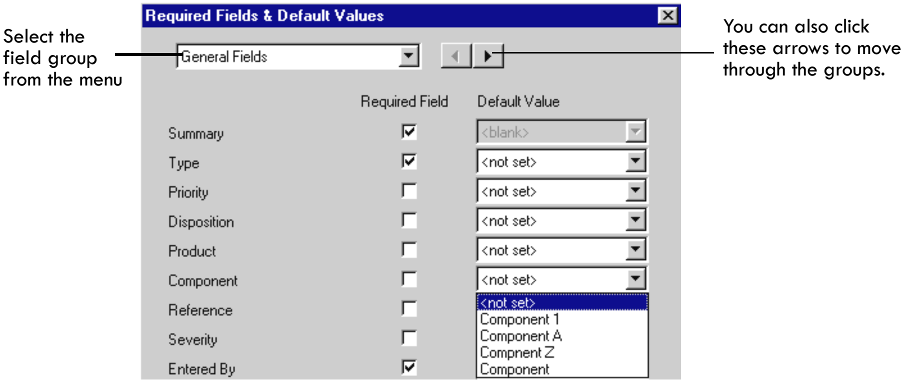
TestTrack Pro lets you select any defect or defect action input field, including custom fields, and make it a **required field**. When a field is required, it means a user **must** enter data in that field before TestTrack Pro will add the defect or defect action to the database or save any edit changes. You can also define **default values** for most fields on the Add Defect or Defect Action dialog box. Required fields and default field values are database-specific.

Required fields are set for all users. Field level security is set for Customer and User Groups. For example, the Priority field is required but does not have a default value. A Customer Group is created, with permissions to add defects. The Priority field is hidden for both Add and Edit privileges. Customers find out they are not able to add defects. Why? The Priority field is required but the Customer Group does not have access to the field. An easy workaround is to grant access to the Priority field when adding defects and hide the Priority field when editing defects.

The required field must be populated for all instances of actions. For example, the Found By field is required and does not have a default value. When multiple detail records are created for a single defect, the Found By field must be populated for all of the detail records.

1 Choose **Activities > Required Fields & Default Values**.

The Required Fields & Default Values dialog box opens.



2 Select the field group from the menu.

Field types are grouped together for easy reference.

3 To set a required field, select the corresponding check box.

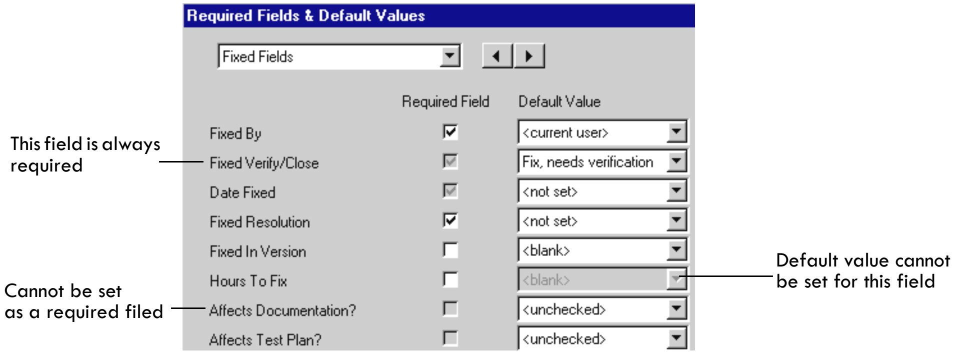
A field that is set using check boxes and/or radio buttons cannot be set as a required field.

4 To set a default value, select a value from the corresponding menu.

5 **Repeat steps 2 - 4** until required fields and default values are set for each group.

6 Click **OK**.

If a field is **always required**, the check box is selected and inactive. If a field **cannot be set** as a **required field**, the check box is not selected and it is inactive. If a **default value cannot be set** for a field, the menu value is labeled **<blank>** and it is inactive.



Editing required fields and default values

1 Choose **Activities > Required Fields & Default Values**.

The Required Fields & Default Values dialog box opens.

2 Select the field group you want to edit from the menu.

3 To clear a required field, click the corresponding check box.

The field is no longer required.

4 To change a default value, select a different value from the corresponding menu.

5 Click **OK** to save your changes.

How do default values affect field relationships?
A child field's default value may be invalid, depending on the parent field's default value. If a default value is selected, and it does not follow the defined field relationships, the default value can still be used but the child field's value will no longer follow field relationship rules.

How do hidden fields affect field relationships?
A child field that is hidden can cause unintended changes. If you change a parent field, you may cause a child field's value to no longer follow field relationship rules. Additionally, if the child field is required, any changes that are made cannot be saved.

Configuring field relationships

You can define parent-child field relationships that create dependent items in the database. This lets you configure the menus so users can only select values based on the parent-child field relationship. This helps users input better data and make more logical choices. Before you begin configuring field relationships, you should think about how to best use this powerful feature.

- The following fields can be set as **parent fields**: type, product, disposition, priority, component, severity, custom fields.
- The following fields can be set as **child fields**: type, product, disposition, priority, component, severity, version found, reproduced, computer config, custom fields.
- The following fields cannot be set as parent or child fields: entered by, found by, fixed by.

When a field is chosen from a menu, and there is a parent-child relationship, the child field is populated with values based on the parent field.

For example, Product is the parent field of Component and Version. Component is the parent field of Routine, which is a custom field. When a user adds a defect, the Component and Version fields are populated based on the selected Product field value. The Routine field is populated with values based on the selected Component field value.

Adding field relationships

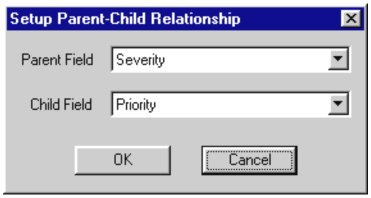
1 Choose **Activities** > **Configure** > **Field Relationships**.

The Field Relationship Selection dialog box opens.

If you are use a custom field in a field relationship, it must be configured as a pop-up menu field. For more information, see **Adding custom fields,** page 164.

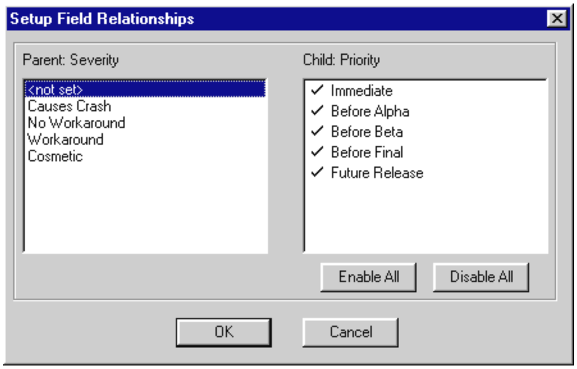
2 Click **Add**.

The Setup Parent-Child Relationship dialog box opens.



3 Select the parent field from the menu then select the child field and click **OK**.

The Setup Field Relationships dialog box opens.



4 For each field in the parent list, enable or disable the child list fields.

The child list displays each of the child field values with the default state for each value selected. If you add additional field values to the child list, the values automatically appear unless they are disabled.

A **parent field** can have **one or more** child field relationships. A **child field** can only have **one** parent. A child field can also be the parent of another field.

When a field is set as a child field, it is excluded from the child field list. For example, Priority is the child field of Severity. When you add a field relationship, you cannot select Priority as a child field.

To prevent a circular reference, fields that are a parent or grandparent of the selected parent field are excluded from the parent list. For example, Product is the parent field of Component. Component is the parent field of Version. You cannot set Version as the parent field of Product because a circular reference is created.

5 Click **OK** when you finish setting up the field relationship.

You return to the Field Relationship Selection dialog box.

6 Click **OK** to close the dialog box or click **Add** to add another field relationship.

What if a database uses default values?
The child field's default value may be invalid, depending on the parent field's default value. If a default value is selected, and it does not follow the defined field relationships, the default value can still be used.

What if a database uses hidden fields?
Hidden fields can cause unintended changes. If a parent field is changed, causing the child field value to be, the child field may be changed to **<not set>**, depending on database options. Additionally, if the child field is required, any changes that are made cannot be saved.

Editing field relationships

1 Choose **Activities > Configure > Field Relationships**.

The Field Relationship Selection dialog box opens.

2 Select the field relationship and click **Edit**.

The Setup Field Relationships dialog box opens.

3 Make any changes and click **OK**.

Deleting field relationships

1 Choose **Activities > Configure > Field Relationships**.

The Field Relationship Selection dialog box opens.

2 Select the field relationship and click **Delete**.

You are prompted to confirm the deletion.

3 Click **Yes**.

The field relationship is deleted.

Renaming field labels

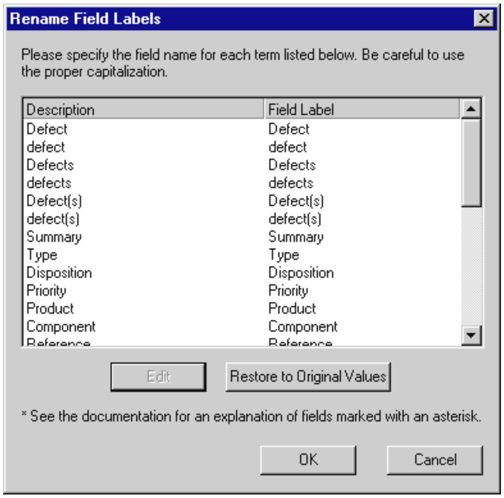
You can rename defect field labels to match your company's terminology. This helps you customize your tracking system and decrease user confusion. Renaming a field label does not change the functionality or format of the field, it only changes the label displayed in TestTrack Pro.

For example, your company uses case numbers. Rename reference to case numbers so users know where to enter the case number information. Or, your your company refers to issues instead of defects. Rename all instances of defect (Defect, defects, defect(s), etc.) to issue. If you are a service-oriented organization, and use the Custom Fields tab to track service issues, you can rename the tab to Service.

- The following field labels can be renamed: Summary, Type, Disposition, Priority, Product, Component, Reference, Severity, Entered By, Date Entered, Status, Found By, Date Found, Date, Version Found, Version, Description, Reproduced, Steps to Reproduce, Computer Config, Other Hardware and Software, and the Custom Fields tab label.
- The following words can be renamed: Defect / defect, Defects / defects, Defect(s) / defect(s).

1 Choose **Activities > Configure > Rename Field Labels**.

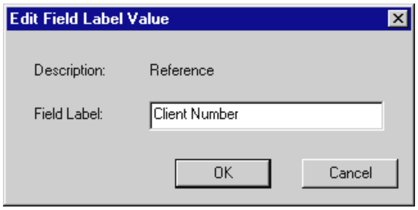
The Rename Field Labels dialog box opens.



Date is the short form of Date Found. Version is the short form of Version Found. If you rename these field labels, use the same terminology. The short and long field names are both used. The short name is used to allow fields to fit in the user interface.

2 Select the field you want to rename and click **Edit**.

The Edit Field Label Value dialog box opens.



3 Enter the **Field Label** and click **OK**.

Field labels cannot be resized in the user interface and should not be longer than 32 characters. Field labels that do not fit in the allotted space are truncated.

4 Repeat **steps 2 and 3** for each field label you want to rename.

5 When you finish, click **OK** on the Rename Field Labels dialog box.

Your changes are saved and the database is updated with the new field labels.

Field renaming does not affect image files. In the Web interface, the tabs are image files (.gif). For example, if you rename the Custom Fields tab to Services, it will only affect the Windows client. To change the tab name in the Web interface, you can manually modify the graphic. Image files are generally stored in: **Inetpub/wwwroot/ttweb/images**. Most graphics include two images: one for a selected tab and one for a non-selected tab.

Restoring original labels

You can restore the field labels to their original values at any time.

1 Choose **Activities > Rename Field Labels**.

The Rename Field Labels dialog box opens.

2 Click **Restore to Original Values**.

The field labels revert to the original values.

3 Click **OK** to save the changes. If you do not want to save the changes, click **Cancel** then click **No**.

Changes you make to field labels do not show up in SoloBug. As a stand-alone product, SoloBug is not necessarily associated with one database. Field names can be changed when you customize the SoloBug executable.

Field codes do not change. For example, Disposition (%DISP) is renamed to Substatus. You want to include the Substatus field data in an email template. You would use %DISP% to return the field data. There are field codes that can be used to return the label name. For more information, see **Appendix A, "Field Codes Reference"** , page 243.

Database columns are not renamed. When you use the ODBC driver, you need to use the original field name in your queries.

Chapter 14
Configuring SCC Integration

Integrate your SCC solution...

with TestTrack Pro! This chapter includes information about configuring SCC integration. Application-specific notes are also provided to help you resolve most simple integration issues.

In this section:

About SCC applications and TestTrack Pro

SCC integration enhances your ability to associate specific defects logged in TestTrack Pro with your source code. Among other SCC functions, users can attach and detach source files to and from defects. Users can also check out the code to fix a defect, while viewing the defect. When checking in code, users can apply the same comment to all components.You will know when and why code changed and what new changes need to be included in your next build.

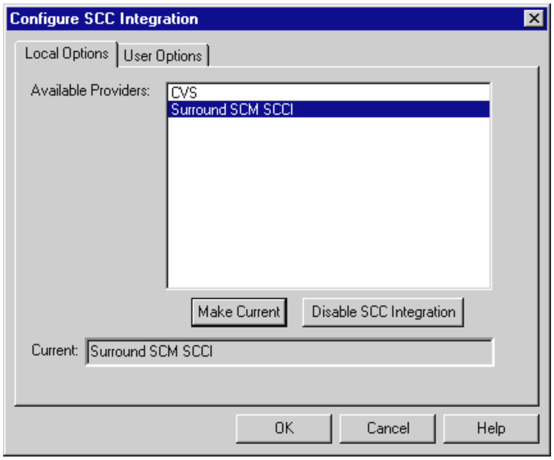
The following SCC applications can be integrated with TestTrack Pro:

- CS-RCS
- CVS
- ClearCase
- PVCS
- Perforce
- SourceOffSite Classic
- StarTeam
- Surround SCM
- Visual SourceSafe

Configuring SCC integration

1 Choose **Activities** > **Configure** > **SCC Integration**.

The Configure SCC Integration dialog box opens with the Local Options tab selected. The Local Options tab lists the installed SCC providers.



CVS is always displayed in the Available Providers list. Do not set up CVS integration unless CVS is installed on your computer.

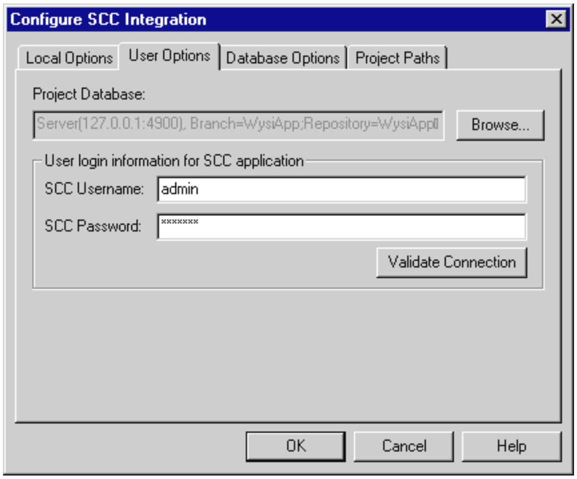
2 Select the application you want to use from the Available Providers list and click **Make Current**.

The application you selected is listed in the Current box. The Local Options tab is the only tab available until you select an SCC application.

You probably use one source code control program. You must still select the application and click **Make Current.**

3 Click the **User Options** tab.

This tab is used to select the project database and enter a username and password to connect to the database.



The user options settings are stored in the TestTrack Pro database for the currently logged in user. If you log in to multiple TestTrack Pro databases, SCC user options must be configured for each database.

4 Click **Browse** to select the project database.

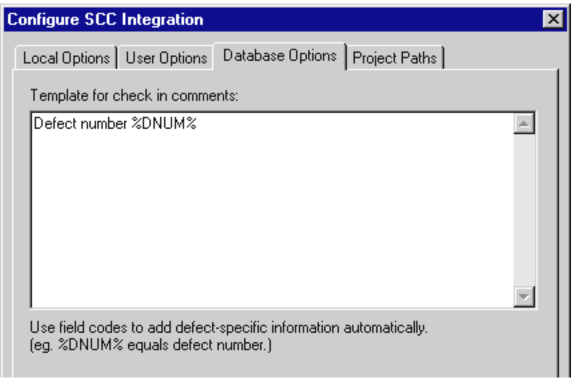
If you use **Visual SourceSafe** or **PVCS** you must also enter a valid username and password for the database.

5 Click **Validate Connection** to test the connection parameters.

If the connection fails, make sure you selected the right project database and entered the correct username and password information.

6 Click the **Database Options** tab.

You can customize check in comments, using field codes. When users check in files, the comments field is populated automatically. For more information, see **Appendix A, "Field Codes Reference"**, page 243.



7 Click the **Project Paths** tab.

Select the project paths you want users to have access to. Expand the root directory, select a path, and click **Add**.

If you select the root directory, users can access everything in the database. To limit the files users can access, select specific directories.

8 Click **OK** when you finish configuring the SCC integration.

For more information, see **Using source code control with TestTrack Pro**, page 56.

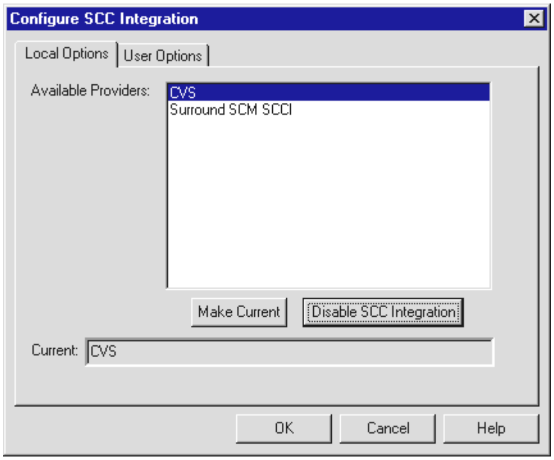
Make sure you create a user group that can access source code control commands, including the SCC tab. Remember, all users must configure their local and user options.

Disabling SCC integration

1 Choose **Activities > Configure > SCC Integration**.

The Configure SCC Integration dialog box opens.

2 Select the provider you want to disable and click **Disable SCC Integration**.



3 You are prompted to confirm that you want to disable the SCC integration.

4 Click **Yes**.

SCC application notes

The following application-specific information is provided to help you easily integrate SCC applications with TestTrack Pro.

CS-RCS

If you configure CS-RCS to work in CVS mode, the Check out, Check in, and Undo Check out buttons are still shown on the SCC tab, which can be confusing. The buttons may also be enabled/disabled for certain files, depending on the state of the file. Generally, these buttons are always enabled when CS-RCS is running in CVS mode.

CVS

Valid CVS working directories must be setup before you try to use the integration. The integration cannot be used to get the first copy of a your working files. This includes any local directories, which must exist before you can use the integration. To set up the integration:

1 Enter the local working path in the **Project working path** field.

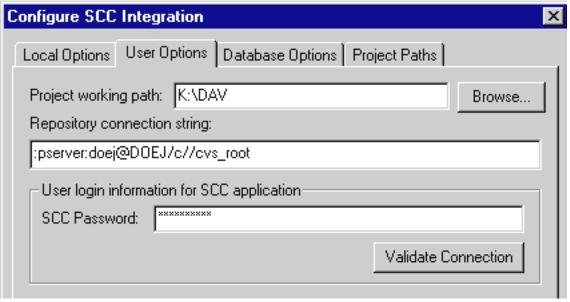
The Project Paths settings are based on the information you enter. After you enter a working directory, go to the Project Paths tab and add specific paths to use in the Attach dialog.

2 Enter the connection string in the **Repository connection string** field.

This string should be what you use for the **-d** option on the CVS command line

3 If you use a password, enter it in the **SCC Password** field.

You can also enter the password as part of the connection string. If you enter the password in the connection string, it can be viewed by anyone looking at your computer. If security is an issue, enter it in the password field.



4 If a merge is required when checking in a file, you must manually perform the merge. When you try to check in the file, you will receive a message letting you know a merge is needed. You have to manually perform the merge and then check in the file.

ClearCase

- The Get command is only valid for snapshot views. It is not valid for dynamic views.

- Files from different views are displayed on the Source Code tab. If you configure TestTrack Pro to connect to a dynamic view, and you have also attached files that are part of a snapshot view, all files are displayed. In this case, the Get command is invalid for any files that were attached in the dynamic view.

PVCS

- PVCS uses its own dialogs to handle opening the project and authenticating the user. PVCS prompts you for login data each time you open the project database.

- Two different TestTrack Pro users cannot configure PCVS integration, to separate PVCS projects, under one Windows user account.

Perforce

- The Browse button is disabled on the User Options tab. The client name is used for the project database. The login for the Perforce depot comes from the Perforce registry keys. The **P4USER** and **P4PASSWD** keys must be set correctly before the TestTrack Pro integration will work.

- Only the first 31 characters of a file's check in comments can be displayed when viewing file history (SCC tab, History button).

SourceOffSite Classic

- You must have the SourceOffSite GUI client installed on each computer you are using SourceOffSite integration with in TestTrack Pro. You also need to install the command line version and place it in the same directory as the SourceOffSite client.

- You should not run the SourceOffSite client and the TestTrack Pro integration at the same time. This is a SourceGear recommendation.

- SourceOffSite does not provide an easy way for TestTrack Pro to get the local path for a VSS file. TestTrack Pro looks at the *databasex.sos* cache file to get the directory information. If that does not work, the calls rely on the SourceOffSite GUI client to access the cache and provide the information.

- The Get, Check out, and Undo check out commands overwrite files without prompting you for permission.

- The SourceOffSite command line API has a bug in it and cannot copy files to root drives correctly. If TestTrack Pro does not get the local path information from the cache, the Get and Check out commands will not work with files that use a root drive for the working path. The View command will not work because TestTrack Pro does not know the file location.

- A valid cache file **must** exist for each user's server/database configuration.

- Logging into a server with two different names (e.g., 127.0.0.1 and localhost) results in two separate cache files. If you set up the SourceOffSite client to log in to 127.0.0.1 and configure TestTrack Pro to login to localhost, the integration will not work as expected. The localhost cache file will not have any working paths setup. This problem also occurs if you do not set up working paths in your SourceOffSite client. SourceOffSite will put the files in the current directory (e.g., c:\Program) instead of returning an error.

- The Login area of the User Options tab includes Server and Port fields that let you enter the server's connection data. After entering this data, click Browse. A list of available databases available on the server opens.

- The SourceOffSite command line application does not create directories when retrieving files. If you attempt to Get or Check out a file to a directory that does not exist, the call fails. You can create the directory path then perform the Get or Check out command.

- If the SourceOffSite server or the command line application crash, you need to close the TestTrack Pro client, restart the SourceOffSite server, then restart the TestTrack Pro client. TestTrack Pro is still usable if SourceOffSite crashes. The SourceOffSite integration will not work until you restart TestTrack Pro.

StarTeam

- Make sure your files are set up before configuring the SCC integration. If files are not set up in the project working path, and you configure the SCC integration, you will receive an error message in the Project Tree.

- StarTeam uses its own dialogs to handle opening the project and authenticating the user. StarTeam prompts you for login data each time you open the project database.

- Two different TestTrack Pro users cannot configure StarTeam integration, to separate StarTeam projects, under one Windows user account.

Surround SCM

none

Visual SourceSafe

none

Chapter 15
Managing User Groups

Safe and Secure!

This chapter describes user groups and includes information about security and assigning security to each group. Protect your data integrity, and security, by creating user groups for all security levels.

In this section:

About security

TestTrack Pro's security options let you configure your database to provide as much, or as little, access as needed. TestTrack Pro includes the following security options:

- Password security, which users set, limits access to databases.
- Command security limits which commands a group of users can execute.
- Field security limits who can enter data into, or alter the contents of, each defect field.
- Defect security limits the defects that are visible to each user group.
- Advanced defect logging can track who changed defect fields and states and when the change was made.
- Server logging records unusual activity, critical, and non-critical system issues.

About user groups

A user group is a collection of users who share responsibilities and perform similar tasks. Users must be assigned to a user group before they can work with TestTrack Pro databases. Access to TestTrack Pro functions, such as adding a defect or using SCC integration, is controlled by the group security.

When you set up a database, create the user groups **first**. This lets you create a **security structure** for the users. You can create an unlimited number of security groups and levels. Security determines what databases users can access, what their view and edit rights are for authorized projects (on a per-field level), and what they can do at each stage of the workflow process. For example, deleting defects, or attaching files are all privileges that can be assigned to a user group. You can create many kinds of security structures. For example, create the following structure and name user groups according to security level:

Group Name	Clearance Level	Commands Granted
Level 1	Low	View
Level 2	Medium	View, Add
Level 3	High	View, Add, Edit
Level 4	Highest	View, Add, Edit, Delete

Or, using the same structure, name the user groups according to job description:

Group Name	Clearance Level	Commands Granted
Tech Writer	Low	View
Engineer	Medium	View, Add

QA Tester	High	View, Add, Edit
Manager	Highest	View, Add, Edit, Delete

Before you start creating user groups, you may find it helpful to list the types of users you will be adding to the database and what their needs are. You can add as many or as few user groups as you need, and make their security levels as general or as command-specific as you need.

If you want **all** users to have access to **all** commands, you do not need to create user groups. TestTrack Pro adds an Administration user group when a database is created. This user group has access to every command. Simply add the users to this default user group.

User groups and security

TestTrack Pro security is assigned at the user group level. Each user group can be assigned different levels of security. You can set command, field, and defect security in TestTrack Pro.

For a list of the categories and commands available for command security and the groups and fields available for field security, see **Appendix C, "Security Reference"**, page 259.

Command-level security

Command security limits the commands a group of users can execute. This type of security is set by category. For example, Can a user fix a defect?

Command security includes the following categories: General, Administration, Defects, Customers, Users, User Groups, Test Configurations, Filters, Reports, and Workbook.

For example, you created a SOAP user group for developers using the TestTrack SOAP SDK. To give the user group access to the SOAP SDK, enable **Allow log-in via SOAP** in the General category.

Defect-level security

Defect security restricts limits which defects are visible to the user group based on an existing filter and/or whether the user reported the defect. Defects that do not pass the filter are not displayed in the defect list or included in reports.

For example, you have a group of managers who only need information about feature requests. Select the **Open Feature Requests** filter for this group. The managers can only view defects that meet the filter criteria.

Field-level security

Field security affects defects and defect actions and restricts a user's ability to enter, or edit, field data. For example, can a user enter a resolution in the fix defect action field?

Three types of field security can be assigned: **Read/Write**, **Read Only**, and **Hidden**. In addition, **Add** and **Edit** privileges are set separately. For example, assign a restricted user group read/write add privileges for the Type field. Assign the same user group read only edit privileges for the Type field. When adding a new defect, users can enter information for the type field. When editing a defect, users can view the Type field but will not be able to make any changes.

Security can be assigned to the following fields: General, Found By, Assigned, Estimated, Fixed, Release to Test, Verified, Release to Customer Test, Customer Verified, Closed, Reopen, Release Notes, Comment, and Custom fields.

Field security **cannot** be applied to the following areas: email templates, SoloSubmit, SoloBug, and import/export.

System-generated fields **cannot** be assigned field security. This includes the following fields: defect number, defect status, has attachments?, has workaround?, date created, created by, creation method, date last modified, last modified by, found by group, found by company, how many?, and has release notes?

This example shows how to use Add privileges to set up field security:

Assign the Department Manager group Read/Write access to the Priority field. Users in the Department Manager group can set the priority level.

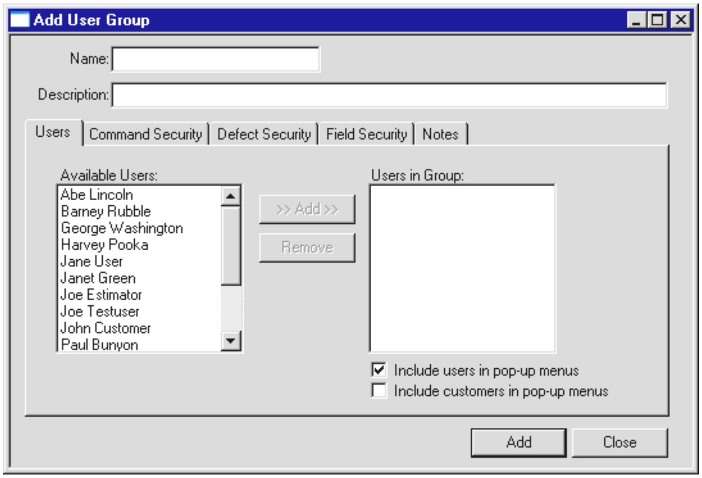
Assign the Programmer group Read Only access to the Priority field. Users in the Programmer group can view, and not edit, the priority level.

Assign the Customer group Hidden access to the Priority field. Users in the Customer group cannot view the priority level assigned to defects.

Adding user groups

1 Choose **Create > User Group** or click **Add** on the User Group list window.

The Add User Group dialog box opens.



2 Enter a **Name** and **Description**.

These fields are required.

3 Select **Include users in pop-up menus** to list users in pop-up menus.

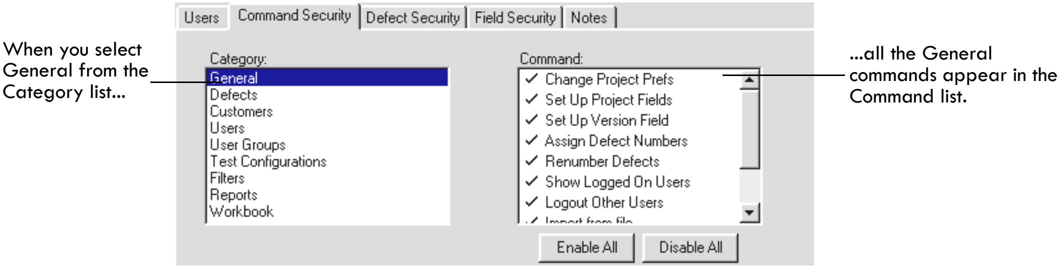
Clear the check box if the user group is intended for users who only report defects and do not need to be assigned any defect actions.

4 Select **Include customers in pop-up menus** to list the customers in pop-up menus.

Clear the check box if the user group is intended for customers who only report defects and do not need to be assigned any defect actions.

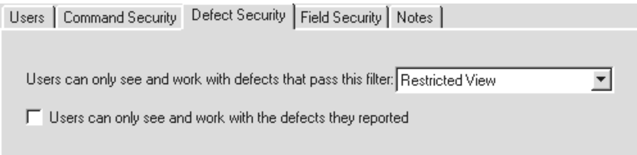
5 Click the **Command Security** tab and set the security for each category.

When you select a **Category**, all the corresponding commands appear in the **Command** list. A **check mark** next to a command means the user group has access to that command. Click the check mark to disable access to a command.



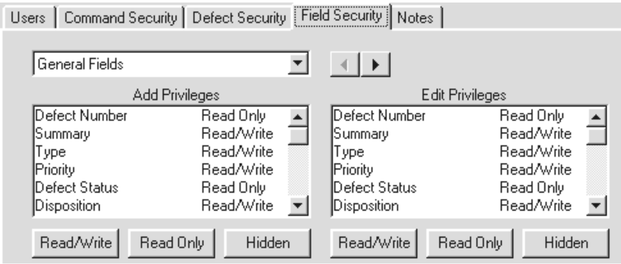
Be sure to set the commands for **each** category in the Category list box. TestTrack Pro defaults to **Enable All** commands in each category.

6 Click the **Defect Security** tab and set the defect security for the group.



7 Click the **Field Security** tab and set field security for this group.

When a new user group or database is created, field security defaults to full security. Users in this group can view and edit every defect field. Be sure to set **Add** and **Edit** privileges for all field groups.



A field can be represented by an edit box, check box, radio button, or a list box. Remember, setting field security affects **all** field types.

8 Click the **Notes** tab and enter any information about the user group.

9 Click **Add**.

The Add User Group dialog box clears and you can add another user group. Click **Close** when you finish adding user groups.

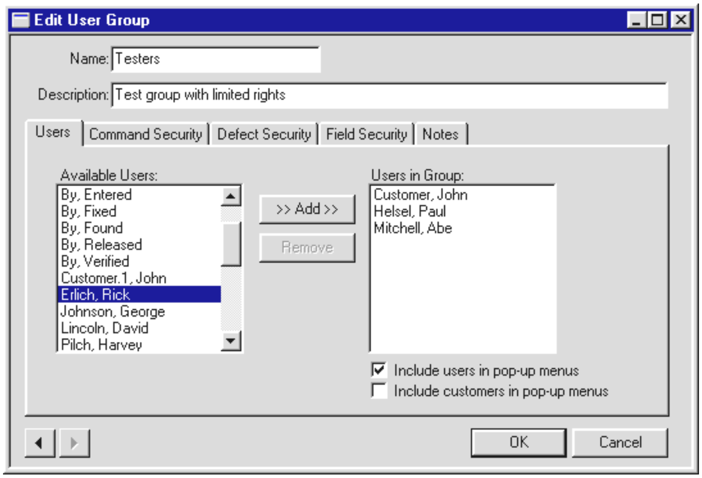
Adding users to a user group

A user can only belong to one user group.

1 Select the user group on the User Groups list window.

2 Choose **Edit > Edit User Group** or click **Edit** on the User Group list window.

The Edit User Group dialog box opens.



3 Select a user from the **Available Users** list and click **Add**.

The user is added to the **Users in Group** list. To add multiple users, **Ctrl+click** each user.

4 Click **OK** when you finish adding users.

Viewing user groups

1 Select the user group on the User Groups list window.

2 Choose **Edit >View User Group** or click **View** on the User Group list window.

The View User Group dialog box opens. All fields are read-only and cannot be edited.

3 Click **OK** when you are finished.

Editing user groups

1 Select the user group on the User Groups list window.

2 Choose **Edit > Edit User Group** or click **Edit** on the User Group list window.

The Edit User Group dialog box opens.

3 Make any changes and click **OK**.

Your changes are saved.

Deleting user groups

1 Select the user group on the User Groups list window.

You can select more than one user group to delete.

2 Choose **Edit >Delete User Group** or click **Delete** on the User Group list window.

You are prompted to confirm the deletion.

3 Click **OK**.

The user group is deleted.

Chapter 16
Managing Users

Defect, defect, who has the defect?

Users, the people who find, fix and verify defects—who found it, who fixed it, who should be verifying it? By tracking users, TestTrack Pro improves communications and accountability in your software development process.

In this section:

About users

TestTrack Pro users can only access commands granted to the **user group** they belong to. The TestTrack Pro administrator is generally responsible for creating, and managing, users.

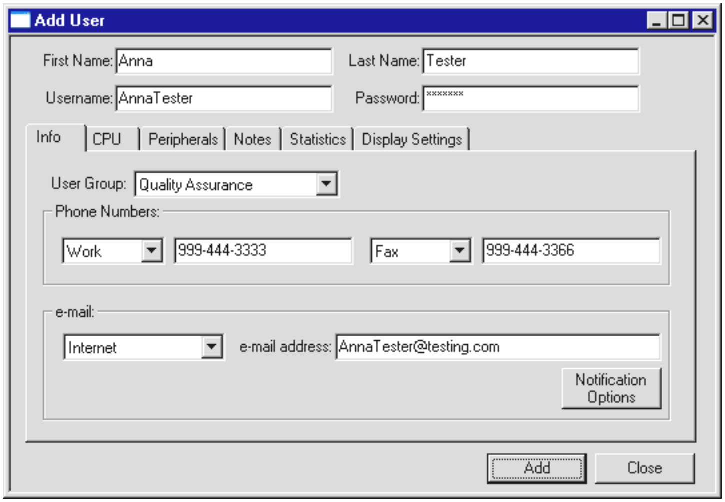
What is the difference between users and customers?
One company might consider users to be internal employees who use TestTrack Pro and set up each department of the company as a customer. Another company might set up all internal employees as users and set up all external companies as customers.

User and customer information is tracked on the Info, CPU, Peripherals, Notes, and Statistics tabs. Customer information includes two additional tabs. The Address tab is used to enter the customer's contact information. The History tab lets you quickly view information about defects a customer reports (e.g., Open, assigned to Jane Tester).

Adding users

1 Choose **Create > User** or click the **Add** button on the User list window.

The Add User dialog box opens with the Info tab selected.



2 Enter the user information.

You must enter a **First Name**, **Last Name**, and **Username**. You may want to assign the user a password. Users can set their own password the next time they log in.

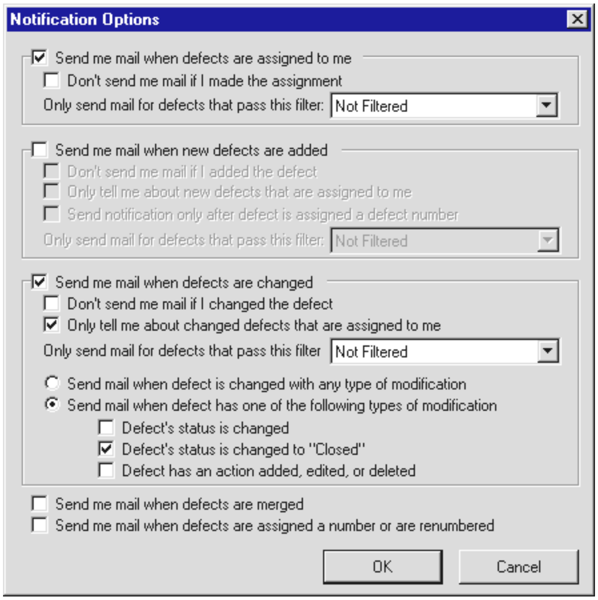
3 Enter the information on the **Info** tab.

You **must** select a user group. All other information is optional.

Make sure you accurately enter the user's email information. Email notifications are sent to this email address.

4 Click **Notification Options** to set email notification options.

The Notification Options dialog box opens.

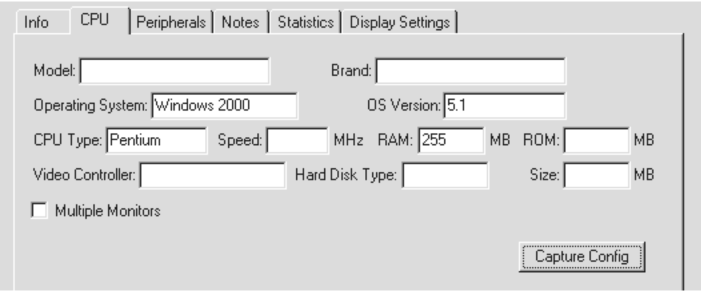


5 Select notification options for the user.

You can set options to notify a user of a defect assignment, when a defect is added to the database, or when a defect is modified, among other options. Users can also set notification options. Refer the user to **Setting email options,** page 17.

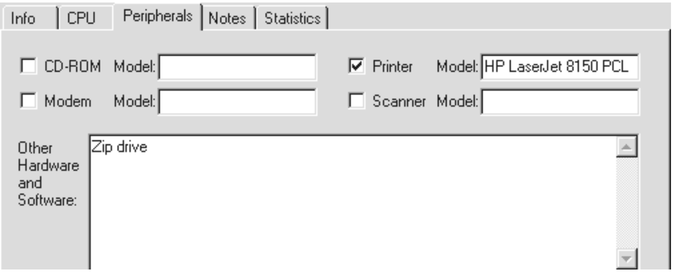
6 Click the **CPU** tab and enter the CPU information.

These fields are optional but you should enter as much information as possible. Click **Capture Config** to automatically capture some of the fields, such as operating system and CPU type.

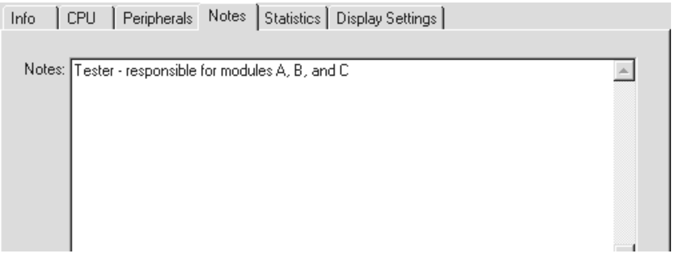


7 Click the **Peripherals** tab and enter the peripherals information.

These fields are optional but you should enter as much information as possible.



8 Click the **Notes** tab and enter any notes.



9 Skip the **Statistics** tab.

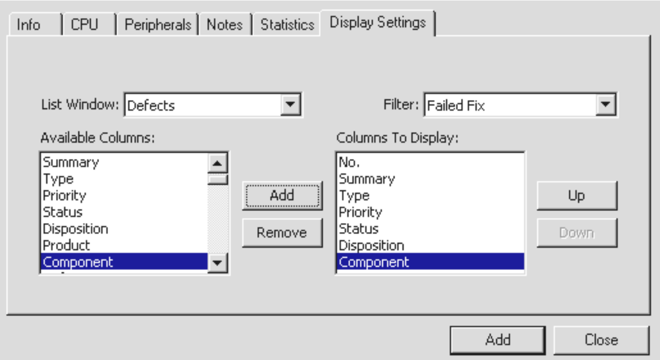
This read-only tab contains user statistical information.

10 Click the **Display Settings** tab.

The Display Settings tab is used to specify a filter for the Defects list window and select which columns to display on each of the eight list windows. Users cannot change the settings you select.

TestTrack Pro performance can be negatively affected when databases contain a large number of records. It can take an excessively long time for TestTrack Pro to populate the Defects list window. You can also control the amount of data being displayed by limiting the columns on some, or all, of the list windows.

- To filter the Defects list window, select a filter from the **Filter** menu.
- To limit which columns to display, select a list window from the **List Window** menu. Select the columns you want to include and click **Add**. To reorder the columns, select the column and click **Up** or **Down**.



11 Click **Add**.

The user is added to TestTrack Pro.

Viewing users

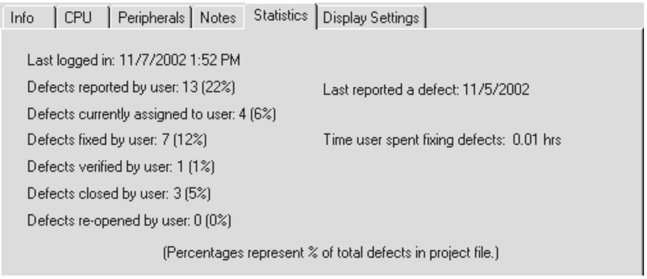
1 Select the user on the Users list window.

2 Choose **Edit >View Users** or click the **View** button.

The read-only View User dialog box opens.

3 Click the **Statistics** tab.

This tab includes user stats that are gathered and calculated for you.



You can also view the read-only information on the other tabs.

4 Click **OK** to close the View User dialog box.

Editing users

1 Select the user on the Users list window.

2 Choose **Edit > Edit Users** or click the **Edit** button.

The Edit User dialog box opens.

3 Make any changes and click **OK**.

Duplicating users

If you are adding multiple users with similar information you can save time by duplicating users.

1 Select the user on the Users list window.

2 Choose **Edit > Duplicate User**.

TestTrack Pro duplicates the user, and a number, incrementing by one, appears after the user’s last name. For example, if you duplicate Jane User, a user named Jane User1 is added to the User list window.

3 Modify the duplicated user and save your changes.

Making a customer a user

Use this command if you made a mistake and entered a user as a customer.

1 Select the customer on the Customers list window.

2 Choose **Edit >Make Customer a User**.

The customer is transferred to the users list. Assign a username and password add the user to a user group.

Inactivating users

Inactivate a user to save the historic information. Inactive users cannot login to TestTrack Pro, receive email via TestTrack Pro, or be assigned defects.

1 Select the user on the Users list window.

2 Choose **Edit > Inactivate User**.

A confirmation message appears warning you that an inactive user cannot log in to TestTrack Pro, receive email, or be assigned defects.

3 Click **Yes**.

The user becomes inactive.

Activating users

1 Select the user on the Users list window.

2 Choose **Edit >Activate User**.

The user becomes active.

Deleting users

To save the historic information, do not delete the user, make the user **inactive**. Historic information, such as Reported By or Defect Action records, are deleted with the user.

1 Select the user on the Users list window.

2 Choose **Edit >Delete User** or click **Delete**.

You are prompted to confirm the deletion.

3 Click **Yes**.

The user is deleted.

Viewing logged in users

To view the users who are currently logged in to the database you are using:

1 Choose **Activities > Show Logged In Users**.

The Logged In Users dialog box opens.

Logging out users

A user requires a license to run TestTrack Pro. If a user does not exit TestTrack Pro correctly, the license is not released. When this happens, you can free the license by logging out the user.

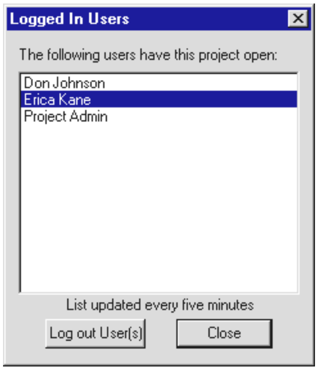
You can also log out users if you need to perform maintenance or make changes that require all users to be logged out.

1 Choose **Activities > Show Logged In Users**.

The Logged In Users dialog box opens.

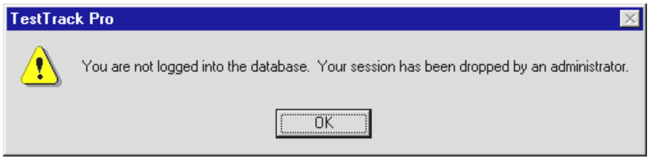
2 Select the user(s) you want to log out.

To select more than one user, **Ctrl+click** each user.



3 Click **Log out User(s)**.

The user(s) is logged out and the dialog box closes. When you log out users, they are notified their session was dropped by an administrator.

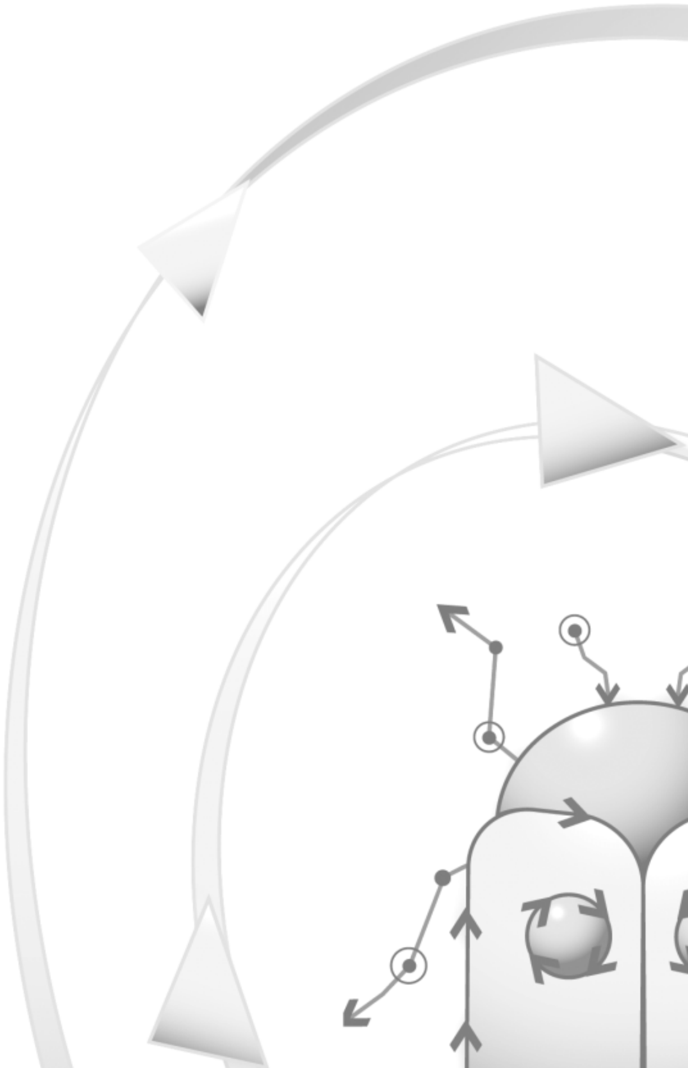


Chapter 17
Managing Customers

Customers—your most valuable asset!

This chapter includes information for creating, and maintaining, customers. TestTrack Pro makes it easy to track customers and the issues they report.

In this section:



About customers

Customers provide valuable feedback in the form of bug reports, feature requests, and questions. Typically, customers are the end users of your products or services. Unlike users, customers usually do not have access to the database.

What is the difference between users and customers?

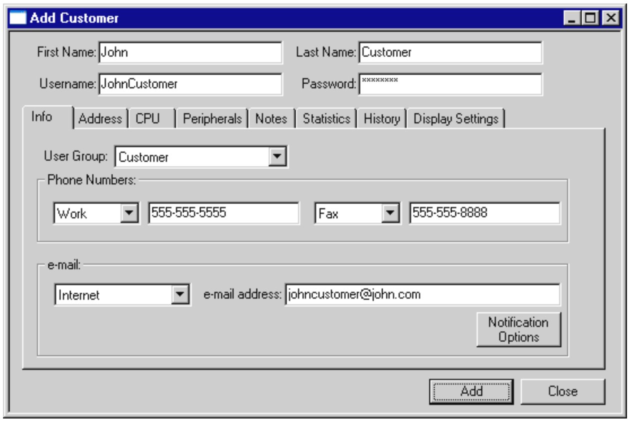
Each company uses TestTrack Pro differently, including setting up users and customers. One company might consider users to be internal employees who use TestTrack Pro and set up each department of the company as a customer. Another company might set up all internal employees as users and set up all external companies as customers.

Information for users and customers is tracked using the Info, CPU, Peripherals, Notes, and Statistics tabs. Customer information includes two additional tabs. The address tab is used to maintain address information for the company. The history tab gives an overview of the defects a customer has reported. If a customer calls and wants more information, you can quickly let the customer know the status of a defect (e.g., Open, assigned to Jane Tester).

Adding customers

1 Choose **Create > Customer** or click **Add** on the Customers list window.

The Add Customer dialog box opens.



2 Enter the customer information.

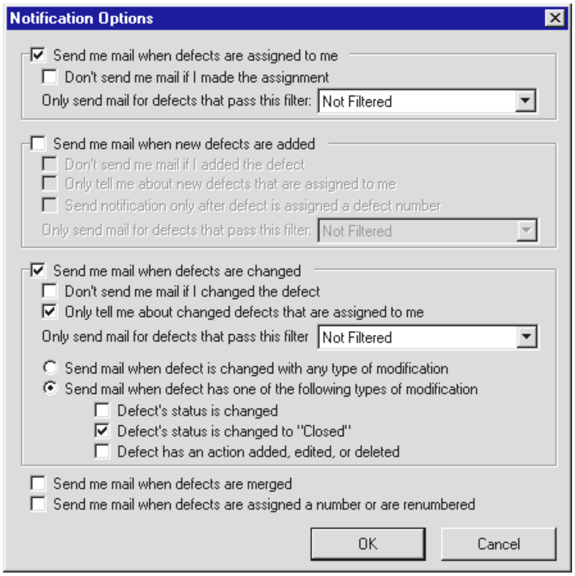
You must enter a **First Name** and **Last Name**. To enable database access for this customer, enter a **Username** and **Password**.

3 Enter the information on the **Info** tab.

You must select a user group if you enabled database access for this customer. All other information is optional.

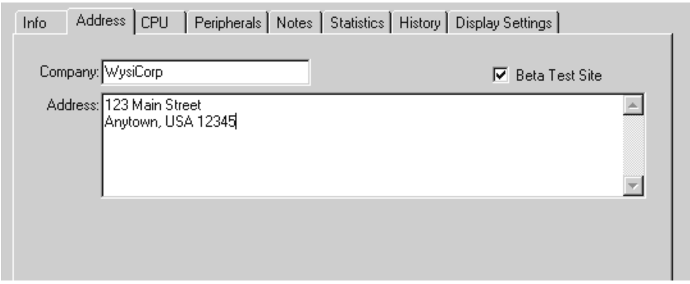
4 Click **Notification Options** to set email notification options.

The Notification Options dialog box opens.



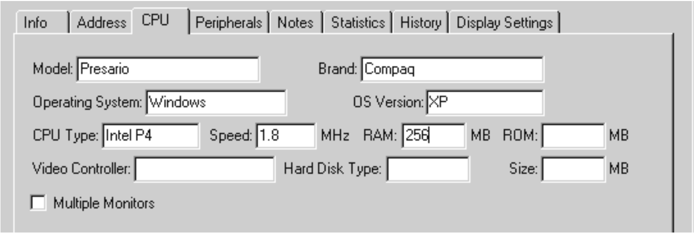
5 Select the notification options for the customer. Click **OK** when you finish selecting the options.

6 Click the **Address** tab and enter the address information.



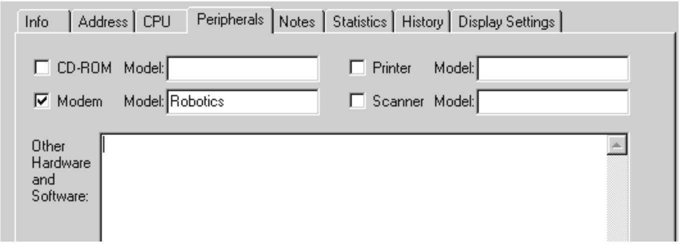
7 Click the **CPU** tab and enter the CPU information.

These fields are optional but you should enter as much information as possible.

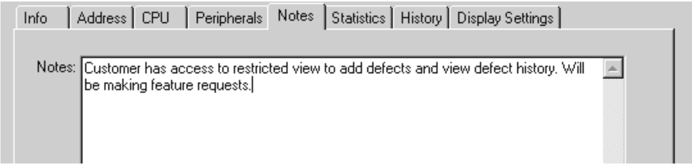


8 Click the **Peripherals** tab and enter the peripherals information.

These fields are optional but you should enter as much information as possible.



9 Click the **Notes** tab and enter any notes.



10 Skip the **Statistics** tab.

This read-only tab contains customer statistical information.

11 Skip the **History** Tab.

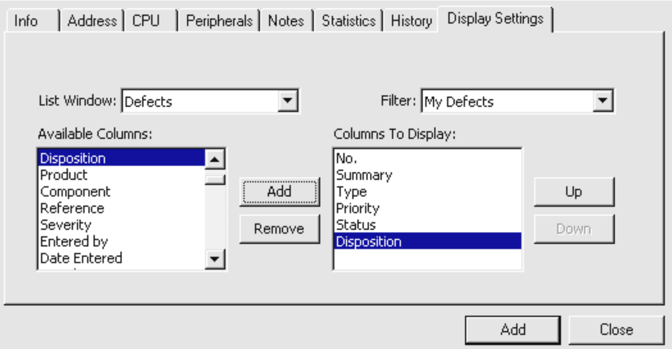
This read-only tab contains information about defects the customer reported.

12 Click the **Display Settings** tab.

The Display Settings tab is used to specify a filter for the Defects list window and select which columns to display on each of the eight list windows. Customers cannot change the settings you select.

TestTrack Pro performance can be negatively affected when databases contain a large number of records. It can take an excessively long time for TestTrack Pro to populate the Defects list window. You can also control the amount of data being displayed by limiting the columns on some, or all, of the list windows.

- To filter the Defects list window, select a filter from the **Filter** menu.
- To limit which columns to display, select a list window from the **List Window** menu. Select the columns you want to include and click **Add**. To reorder the columns, select the column and click **Up** or **Down**.



13 Click **Add**.

The customer is added to the database.

Viewing customers

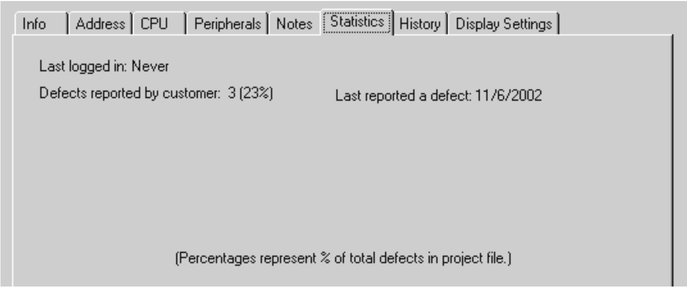
1 Select the customer on the Customers list window.

2 Choose **Edit >View Customer** or click **View** on the Customers list window.

The View Customer dialog box opens. All fields are read-only.

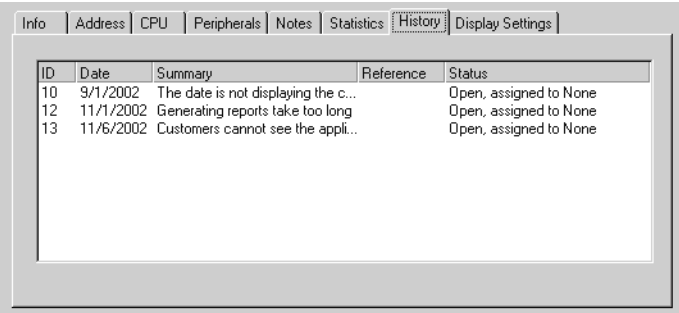
3 Click the **Statistics** tab.

The Statistics tab includes customer stats that are automatically generated.



4 Click the **History** tab.

The History tab shows all defects reported by the customer. Double-click a defect to view more detailed information.



You can also view the read-only information on the other tabs.

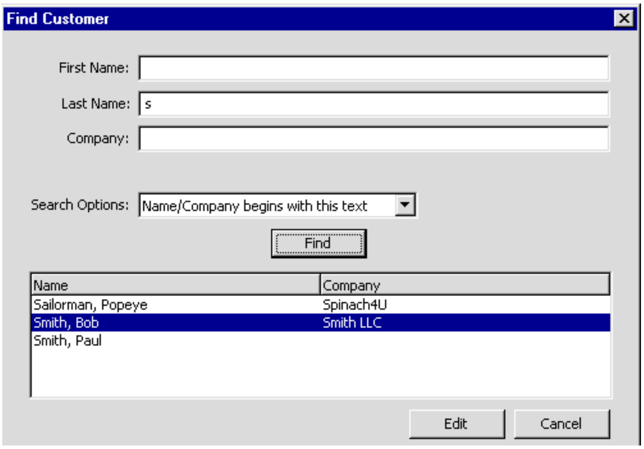
5 Click **OK** to close the View Customer dialog box.

Searching for customers

Most databases include a large number of customers. Searching provides an easy way to find a customer and edit their information.

1 Click the **Search** command button on the Customers list window.

The Find Customer dialog box opens.



2 Enter the search criteria.

- Enter full, or partial, first name, last name, and company information.
- Leave a field blank if you do not want to include it in the search.

3 Select an option from the **Search Options** menu.

- **Name/Company begins with this text** looks for values beginning with the entered text.
- **Name/Company contains this text** looks for values containing the entered text.

4 Click **Find**.

Customers that meet the search criteria are displayed in alphabetical order.

5 Select a customer and click **Edit** to modify their information.

For more information, see **Editing customers,** page 210.

Editing customers

1 Select the customer on the Customers list window.

2 Choose **Edit > Edit Customer** or click **Edit** on the Customers list window.

The Edit Customer dialog box opens.

3 Make any changes and click **OK**.

Your changes are saved and you return to the Customers list window.

Duplicating customers

If you are adding multiple customers with similar information, you can save time by duplicating customers.

1 Select the customer on the Customers list window.

2 Choose **Edit > Duplicate Customer**.

TestTrack Pro duplicates the customer, and a number, incrementing by one, appears after the customer's last name. For example, if you duplicate Joe Customer, a customer named Joe Customer1 is added to the Customers list window.

3 Modify the duplicated customer and save your changes.

Making a user a customer

Use this command if you made a mistake and entered a customer as a user.

1 Select the user you want to convert to a customer on the Users list window.

You can select more than one user at a time.

2 Choose **Edit > Make User a Customer**.

The user is transferred to the customer list.

Inactivating customers

Inactivate a customer to save the historic information. Inactive customers cannot log in to TestTrack Pro, receive email, or be assigned defects.

1. Select the customer on the Customers list window.

2. Choose **Edit > Inactivate Customer**.

   You are prompted to confirm that you want to inactivate the customer(s).

3. Click **Yes**.

   The customer becomes inactive.

Activating customers

1. Select the customer on the Customers list window.

2. Choose **Edit > Activate Customer**.

   The customer becomes active again.

Deleting customers

Deleting a customer results in the loss of historic information, such as Reported By or Defect Action records. To save historic information, **inactivate** the customer.

1. Select the customer on the Customers list window.

2. Choose **Edit >Delete Customer** or click **Delete** on the Customers list window.

   You are prompted to confirm the deletion.

3. Click **Yes**.

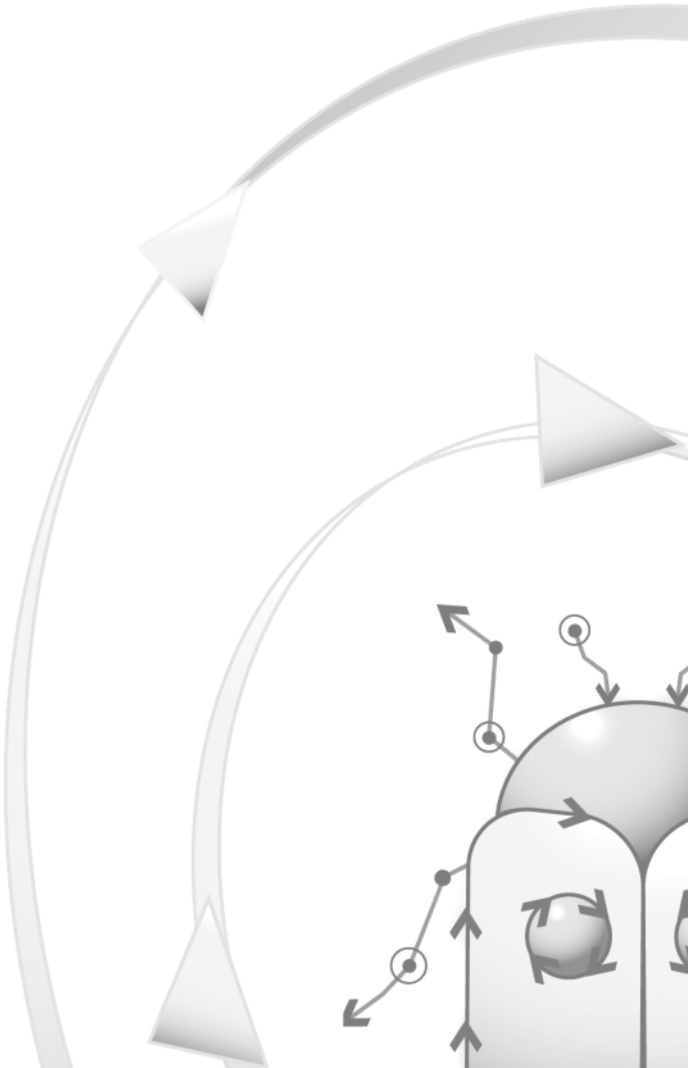
   The customer is deleted.

Chapter 18
Importing and Exporting Files

Save time...

...when you learn how to import or export record information. This chapter includes instructions for importing and exporting data using XML or text files.

In this section:



XML import and export

XML import/export is the recommended method for importing and exporting files. This method includes the following advantages over text file import/export:

- You do not need to match fields when importing or exporting records.
- You can import and/or export multiple **Reported By** records.
- You can import and/or export multiples of the same defect actions.
- You can import and/or export more than one record type. For example, you can import/export defects and users in a single file.

Importing XML files

Import security access should be limited to administrative user groups. The misuse of this feature can result in a significant number of unwanted records in your database. The administrator grants access to import/export commands.

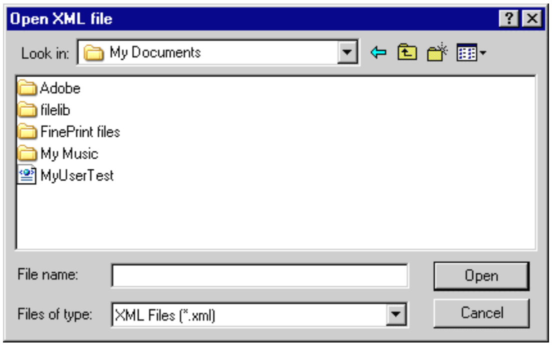
With XML, you can quickly import a large amount of data. Email notifications are not sent when you import files; the volume of email messages generated could cause some email servers to crash.

1 Choose **File > Import > XML Import**.

The XML Import dialog box opens.

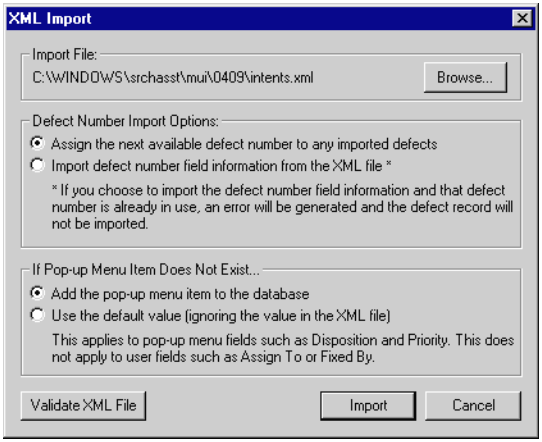
2 Click **Browse** to select an XML file to import.

The Open XML File dialog box opens.



3 Select the file and click **Open**.

The file you selected is listed in the Import File area on the XML Import dialog box.



4 Select the **Defect Number Import** options.

- **Assign the next available defect number** automatically assigns the next available defect number for each defect being imported.
- **Import defect number field information** imports defect number information from the XML file. If the defect number already exists, an error will be generated and the defect record will not be imported.

The Defect Number Import options may be disabled depending on your database options.

5 Select the **Pop-up Menu Item** options.

These options apply to pop-up menu fields such as **Disposition** and **Priority** and do not apply to user fields.

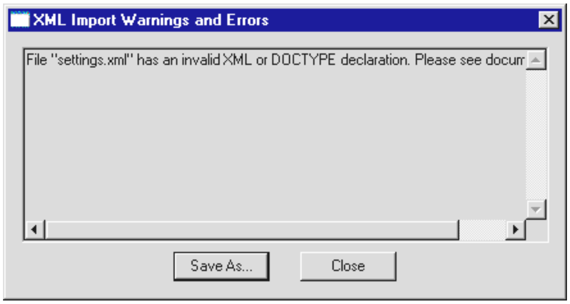
- **Add the pop-up menu item to the database** automatically adds the pop-up menu item to the database.
- **Use the default value** uses the default value and ignores any value in the imported XML file.

6 Click **Validate XML File** to validate the file.

Validate the XML file before importing the file. Resolving problem(s) before importing is easier than cleaning up data in the TestTrack Pro database.

7 The XML Import Warnings and Errors dialog box opens, showing the results of the validation testing.

If the XML format is **invalid** an error will be reported and data will not be imported. Click **Save As** to save the contents of the Warnings and Errors dialog box as a text file.



8 If the XML format is valid, click **Import**.

The XML Import dialog box closes and you return to the list window.

- When a user field (such *as* **Found By** or **Fixed By**) is imported, TestTrack Pro tries to match the first name and last name with an existing user or customer. If an exact match is not found, the user/customer is created.
- A defect's historical data is not imported. The historical data fields are system-generated. The **created by** and **modified by** fields are populated with the currently logged in user's name. The **date created** and **date last modified** fields are populated with the current date and time. The **creation method** field is populated with "XML Import."
- When importing, the password field can be either encrypted or in plain text. If TestTrack Pro generated the XML file, the password is encrypted. If a third-party XML file is imported, the password is in plain text.
- File attachments cannot be imported and/or exported.

Exporting to XML

You can export defects, users, customers, and test configurations to an XML file.

If you only want to **export specific defects**, you **must** select the defects before continuing. You can select records from the following list windows: Defects, Users, Customers, and Test Configurations.

1 Choose **File > XML Export**.

The XML Export dialog box opens.

2 Select the type of information you want to export.

To export more than defects, **Ctrl+click** each record type. For example, **Ctrl+click** Users and Test Configurations to export this type of information.

If you are exporting defect information, you can also export historical log information. This information contains an historical account of changes made to a defect.

3 Click **Export**.

The Export XML File dialog box opens.

4 Select the file location, enter a file name, and click **Save**.

A progress indicator opens and lets you know the file is being exported.

5 The Export XML dialog box closes and you return to the list window.

All calculated fields for a defect will be exported, but they will not be imported. Calculated fields are exported in case you want to import the XML file into a third-party application. Calculated fields that will be exported for a defect include **status** and **assigned to.**

User statistical data will be exported, but it will not be imported. User statistical data includes the following information: **defects found** and **defects assigned.**

Usernames and passwords are both exported. Usernames are exported in plain text; passwords are always exported as encrypted text.

XML import/export notes

- If you manually generate XML files or use a third-party application, you can import these XML files into TestTrack Pro. Refer to the **TestTrackData.dtd** file for proper formatting of your XML file.
- Do not modify the TestTrackData.dtd file. Modifying this file may result in validation errors or errors importing XML data.
- TestTrack Pro does not support namespaces in XML files that are being imported.
- Leave elements that you need to set to **<“not set”>** empty.
- Control characters cannot be imported into TestTrack Pro and will be removed when exporting text fields. This includes the following:

Hex Value	**Explanation**
0x01	Start of Heading
0x02	Start of Text
0x03	End of Text
0x04	End of Transmission
0x05	Enquiry
0x06	Acknowledge
0x07	Bell
0x08	Backspace

Hex Value	Explanation
0x0B	Vertical Tabulation
0x0C	Form Feed
0x0E	Shift Out
0x0F	Shift In
0x10	Data Link Escape
0x11	Device Control One
0x12	Device Control Two
0x13	Device Control Three
0x14	Device Control Four
0x15	Negative Acknowledge
0x16	Synchronous Idle
0x17	End of Transmission Block
0x18	Cancel
0x19	End of Medium

Due to XML specifications, you cannot export an item with a string field containing control characters. There is no way to escape this type of character data.

XML import/export warnings and errors

A **warning** means the record can be imported but some of the information could not be imported. Following are some of the **warning** messages that might be displayed as a result of the XML file validation:

- Could not find match for custom field (applies only to defects).
- Could not find match for pop-up menu item value.
- Could not generate custom field value.
- A default value will be used instead of the specified value.

An **error** means the record cannot be imported. Following are some of the **error** messages that might be displayed as a result of the XML file validation:

- Defect number already exists (applies only to defects and only if using the import defect number field information option).
- Name already exists (applies only to users, customers, or test configs).
- Username already exists (applies only to users or customers).
- Two defects with same defect number in XML file (applies only to defects and only if using the import defect number field information).
- Two entries with same name in XML file (applies only to users, customers, or test configs).
- Two entries with same username in XML file (applies only to users or customers).

Sample XML

The first three lines of every file TestTrack Pro generates when exporting to XML is the same. If you are generating your own XML files to import into TestTrack Pro, the first three lines must be the same, with the following exception; the value for the encoding attribute does not need to be specified.

Following is a sample from a TestTrack Pro XML document:

```
<?xml version="1.0" encoding="iso-8859-1" 8 standalone="no"?>
<!DOCTYPE TestTrackData SYSTEM 8 "TestTrackData.dtd">
<TestTrackData>
<! - -elements - - >
</TestTrackData>
```

The document begins with a processing instruction: `<?xml ...?>`. This is the **XML declaration**. It identifies the document as an XML document and indicates the version of XML to which it was authored. This declaration indicates that this document conforms to Version 1.0 of the XML standard. The `encoding="iso-8859-1"` indicates the character set used in encoding the XML document. The `standalone="no"` attribute informs the program that an outside DTD (document type definition) is needed to correctly interpret the document. The DTD will reside in a separate file called **TestTrackData.dtd**.

The second line points out the root element of the document, as well as the DTD that validates each of the document elements that appear inside the root element. The root element is the outermost element in the document that the DTD applies to. It typically denotes the document's starting and ending points. In this example, the `<TestTrackData>` element serves as the root element of the document. The system keyword indicates that the DTD of the document resides in a separate local file named **TestTrackData.dtd**.

Text file import and export

You can use TestTrack Pro to import and export records as comma- and tab-delimited text files. You can also import/export files created in other database programs such as FileMaker Pro.

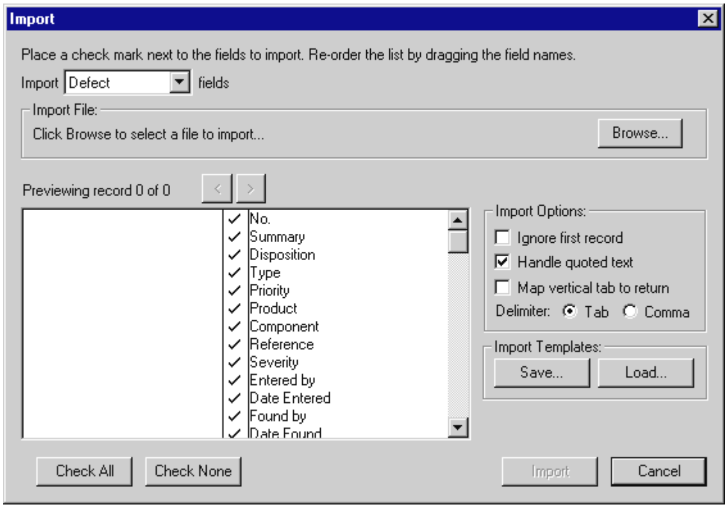
Seapine Software recommends you use XML import/export record information. For more information, see **XML import and export,** page 214.

Importing text files

Import security access should be limited to administrative user groups. The misuse of this feature can result in a significant number of unwanted records in your database. The system administrator grants access to import/export commands.

1 Choose **File > Import > Text File Import**.

The Import dialog box opens.



2 Select the field type you want to import from the **Import fields** menu.

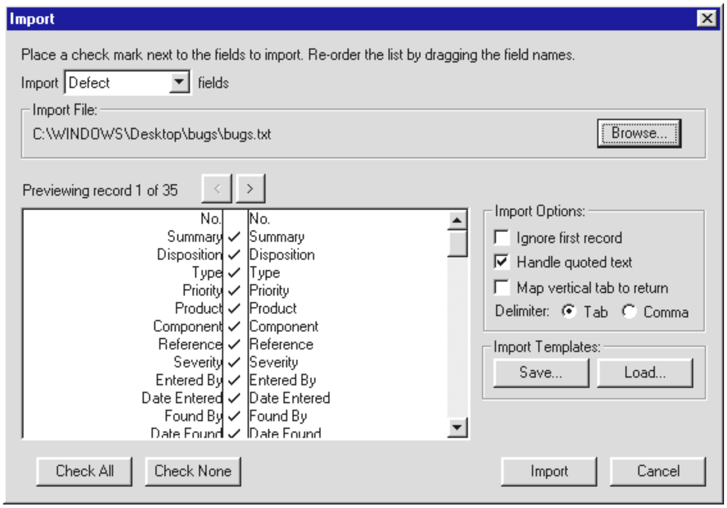
You can import defect, user, and customer information.

3 Click **Browse** to select a file to import.

The Open dialog box opens.

4 Select the file you want to import and click **Open**.

The file information appears in the Import dialog box. The column on the left previews the fields as they appear in the file. Click the **Previous** and **Next** arrows to move from record to record.



5 Select the **Import** options.

- Select **Ignore first record** to ignore the first record, which often contains field names.
- Select **Handle quoted text** if the program you used to export the records supports quoting fields. When you export a file from a database, quotes are often inserted around comma- and tab-delimited records; otherwise, a comma or tab appearing in a block of text (e.g., a description) would be interpreted as a new record.
- Select **Map vertical tab to return** to restore the formatting of multi-line fields. Some applications map carriage returns in multi-line fields to vertical tab characters.
- Select **Tab** or **Comma Delimiter** if either character is used to separate fields.

6 Match the TestTrack Pro fields in the right column to the fields in the left column.

Click and drag the fields in the right column up or down to the proper position. If you cannot find an exact match, use the closest equivalent.

7 Select the fields to import.

To select a field, click in the middle column next to the field. A check mark appears next to selected fields. Click again to deselect the field.

8 Click **Import**.

A progress indicator opens. Email notifications are not sent when you import files. The volume of email messages generated could cause some email servers to crash.

Create a text file import template if you are going to import a file using this layout again.

Creating text file import templates

If you import text files with the same field layout often, save the format as a Text File Import Template.

1 Map the fields as described in **Importing text files,** page 221.

2 Click **Save** in the Import Templates area on the Import dialog box.

The Save Import Template dialog box opens.

3 Select the file location, enter a file name, and click **Save**.

The Import Template is saved. You return to the Import dialog box.

Using text file import templates

1 Choose **File > Text File Import**.

The Import dialog box opens.

2 Click the **Load** button in the Import Templates area on the Import dialog box.

The Load Import Template dialog box opens.

3 Select the Import Template and click **Open**.

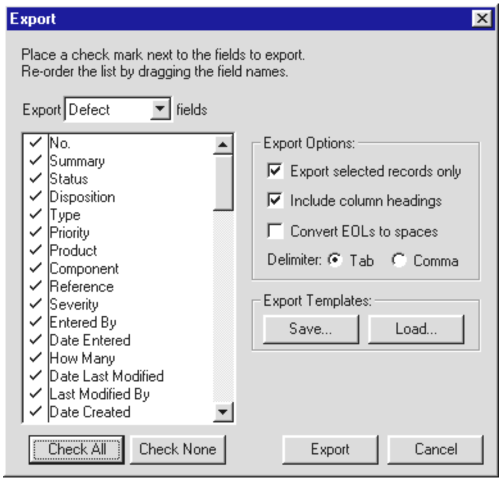
The template is loaded. You return to the Import dialog box.

Exporting to text files

To export just a **few records,** select the records on the list window now. You can select records from any list window.

1 Choose **File > Text File Export**.

The Export dialog box opens.



2 Select the field type you want to export from the **Export fields** menu.

If you have a **Text File Export Template** that matches the file format, load it now and skip the following steps.

3 Select the fields to export.

If you want to export all fields, click **Check All**. If you want to deselect all fields, click **Check None.**

4 **Repeat steps 2 and 3** for all record types.

5 Select the Export options.

- Select **Export selected records only** to only export records selected in the list window.
- Select **Include column headings** to export the column headings.

- Select **Convert EOLs to spaces** to convert carriage returns/line feeds to spaces. This simplifies importing multi-line fields (e.g., defect description) into programs that do not handle fields with embedded carriage returns correctly such as Microsoft Excel.

- Select **Tab** or **Comma Delimiter** to insert the character between fields.

If you are going to export a file using this layout again, save this format as a Text File Export Template.

6 Click **Export**.

The Export file dialog box opens.

7 Select the file location, enter a file name, and click **Save**.

A progress indicator opens and lets you know the file is being exported.

Creating text file export templates

If you export text files with the same field layout often, save the format as a Text File Export Template.

1 Set up the fields as described in **Exporting to text files,** page 224.

2 Click the **Save** button in the Export Templates area on the Export dialog box.

The Save Export Template dialog box opens.

3 Select the file location, enter a file name, and click **Save**.

You return to the Export dialog box.

Using text file export templates

1 Choose **File > Text File Export**.

The Export dialog box opens.

2 Click the **Load** button in the Export Templates area on the Export dialog box.

The Load Export Template dialog box opens.

3 Select the Export Template and click **Open**.

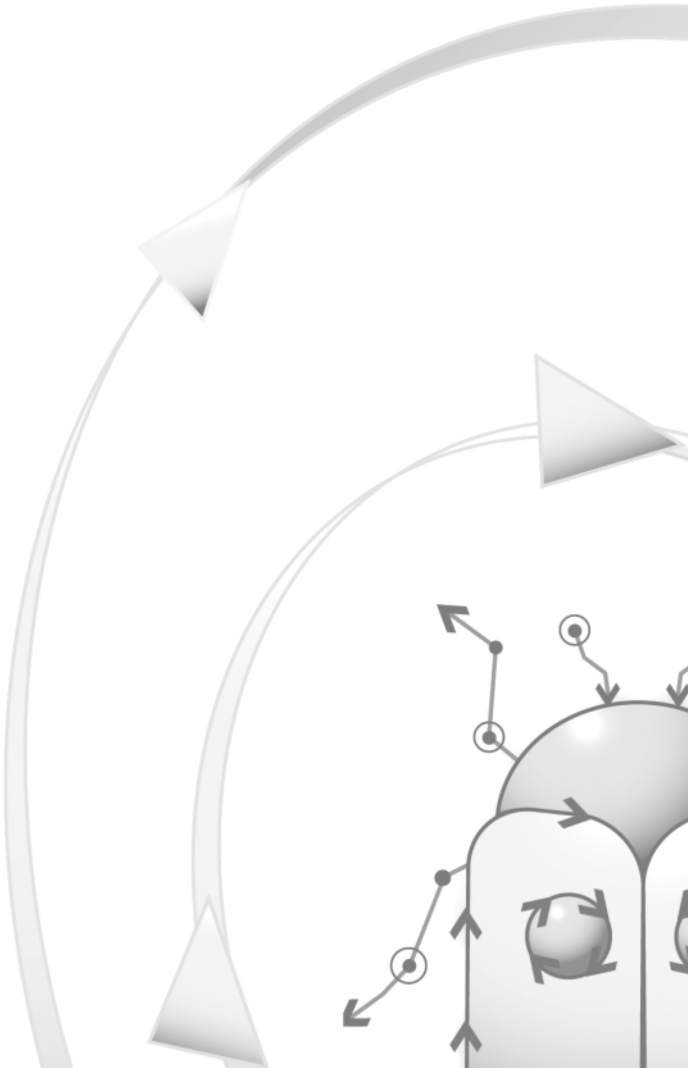
The template is loaded and you return to the Export dialog box.

Chapter 19
Customizing Email Templates

Give your users the information they need!

This chapter includes detailed information for customizing email templates to keep your users and customers up-to-date! Email templates affect email messages sent with notifications and email submissions.

In this section:



About email templates

Email templates are used to standardize email messages sent to users and customers who request email notifications and for sending confirmations to users/customers who submit items via email.

TestTrack Pro email templates can be used as provided or the template contents can be customized. You can customize the templates by using field codes, entering text, or a little of both!

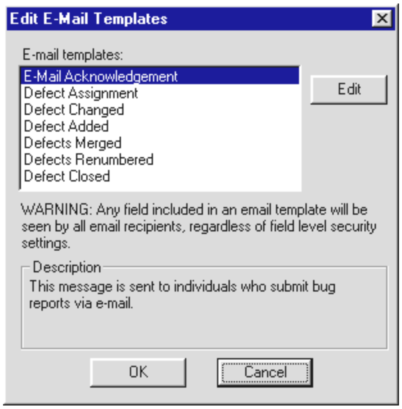
Email templates support **field codes**, sequences of characters and letters that TestTrack Pro replaces with corresponding data from the database. For example, **%CREL%** is replaced with the method used to create the defect (e.g., SoloBug import).

Appendix A, "Field Codes Reference", page 243 includes a complete list of field codes supported by TestTrack Pro.

Configuring email templates

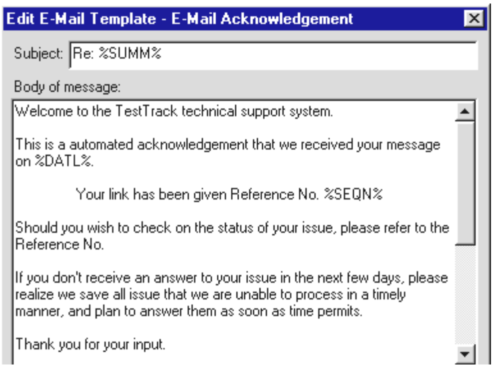
1 Choose **Activities > Configure > Email Message Templates**.

The Edit Email Templates dialog box opens.



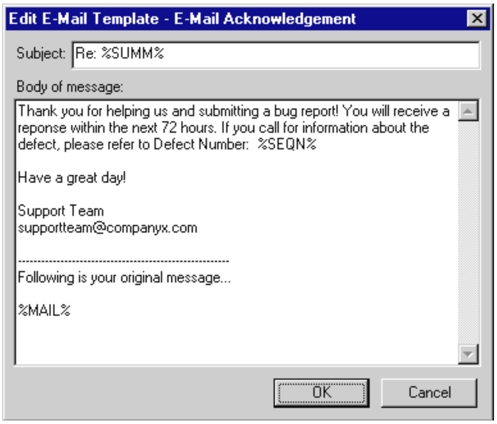
2 Select an email template and click **Edit**.

The Edit Email Template dialog box opens.



3 Make any changes.

You can edit both the subject and body of message fields. The following email template includes customized text and field codes:



4 Click **OK**.

The email template is saved and the dialog box closes. You return to the list of email templates.

When you customize a template, any spaces and lines that you add are saved with the template. As you type, text is automatically wrapped to the next line. When an email message notification is sent, all field codes are automatically replaced with the corresponding data from the TestTrack Pro database.

Chapter 20
Working with SoloBug

Simplified customer bug reporting!

This chapter includes information about customizing and distributing SoloBug to customers and importing SoloBug files into TestTrack Pro.

In this section:

About SoloBug

SoloBug is a stand-alone bug reporting application that works with TestTrack Pro to simplify the way you receive bug reports and feature requests from customers and users. SoloBug includes the following benefits:

- Eliminates data entry of bug reports and feature requests by automatically importing bug reports into TestTrack Pro. When TestTrack Pro receives an email with a SoloBug file, it is automatically added to your database.
- Limits customers to your bug reporting terminology, saving data entry time.
- Captures customers' computer information, making it easier to track configuration-specific issues.
- Lets your customers and users include file attachments with bug reports and feature requests.

What are SoloBug files?

A SoloBug file contains a single bug report, or feature request, created by customers and users. The SoloBug file is emailed to an address you specify. You can import the file into any TestTrack Pro database. A SoloBug file contains:

- The customer's or user's personal information and computer setup.
- A description of the problem or feature request.
- Any additional data or files attached to the SoloBug file.

Customizing SoloBug for Windows

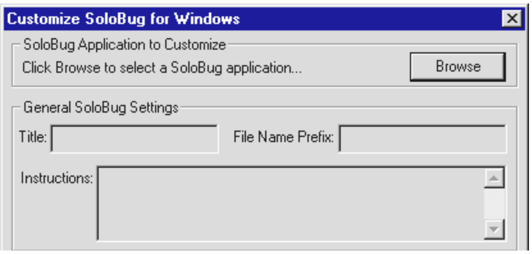
Before distributing SoloBug, customize the executable to make sure your customers and users provide you with all the information you need. You can customize such things as the title, instructions, or field names. You can also rename fields, add field values, and make fields required.

To make sure the correct SoloBug executable is distributed for each database, copy and rename the executable to match the database name.

1 Start TestTrack Pro and login to the database you want to customize SoloBug for.

2 Choose **Activities** > **Configure** > **Customize SoloBug** > **Windows**.

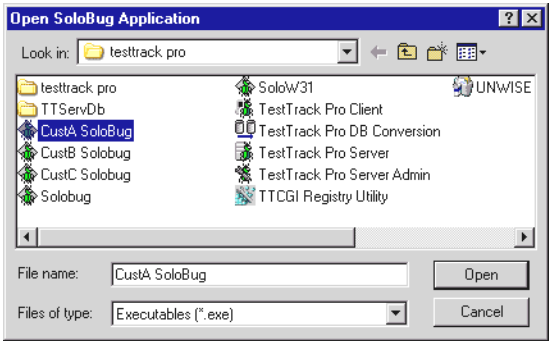
The Customize SoloBug for Windows dialog box opens.



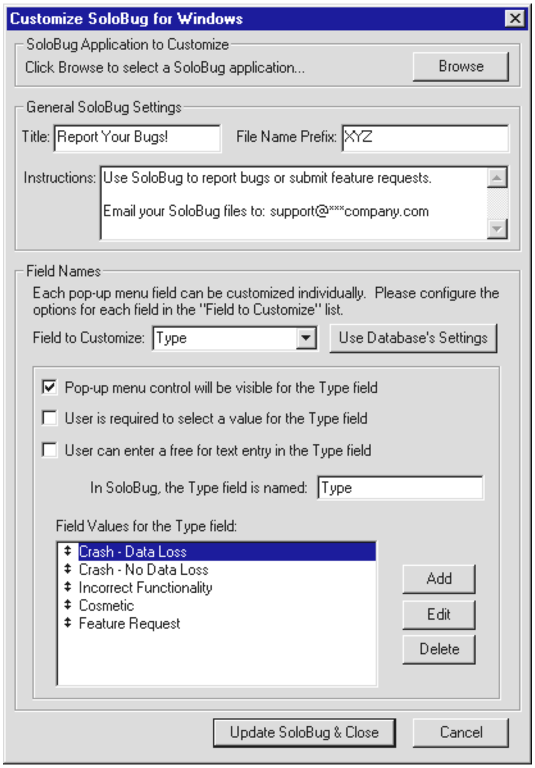
3 Click **Browse** to select the SoloBug executable you want to customize.

The Open SoloBug Application dialog box opens.

4 Select a SoloBug executable and click **Open**.



5 You return to the Customize SoloBug for Windows dialog box, with all fields populated.



6 Enter the **General SoloBug Settings**.

- **Title** appears in the title bar of the SoloBug application, preceding the name of the open bug report file.
- **File Name Prefix** becomes the first part of the SoloBug file name. The remaining portion of the bug report file name is a sequence number SoloBug generates to distinguish one file from another. This field can help you visually organize SoloBug files. For example, if you customize SoloBug for three different products, you can enter the product name in the File Name Prefix field.
- **Instructions** provide users with information specific to your use of SoloBug, such as the email address you want the files sent to. Instructions are not displayed if this field is empty.

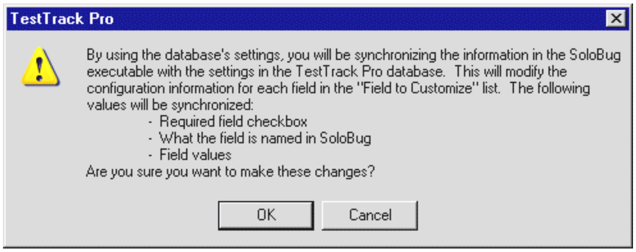
7 Customize the pop-up menu fields and select field options.

The following fields can be customized: type, severity, product, version, reproduced, and component.

If you customize field names, the customized name is listed. For example, Element is displayed if you rename Component to Element.

8 Click **Use Database's Settings** to synchronize the information in the SoloBug executable with the TestTrack Pro database settings.

Selecting this option customizes all fields in the **Field to Customize** list.



If you use the database settings, required fields, field names, and field values are synchronized with the TestTrack Pro database.

9 To customize a field, select the field from the **Field to Customize** list.

This example uses the Severity field. The field name changes based on the selected field.

10 **Pop-up menu control will be visible for the Severity field** is selected by default.

Clear the check box to make the field and its label invisible.

11 Select **User is required to select a value for the Severity field** to make this field required.

The SoloBug file cannot be saved until values are entered for all required fields.

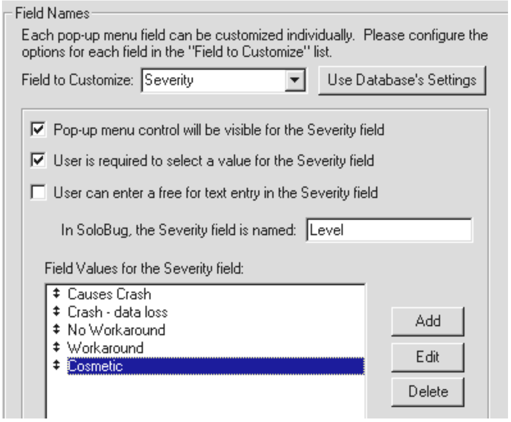
12 Select **User can enter a free form text entry in the Severity field** to let users enter a value for this field.

13 To rename the field, enter the new name in the text box. In this example, Severity is named Level.

The values in the **Field to Customize** list are populated from the TestTrack Pro database. The **In SoloBug, the...field is named** value is populated from the SoloBug executable and might not match the **Field to Customize** selection.

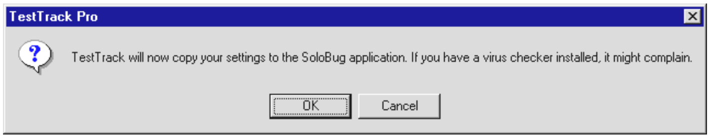
14 The default field values appear in the **Field Values** list.

You can add, edit, or delete any field value. To reorder the values, click the arrow next to the field and drag it up or down to a new position.



15 When you finish configuring field names and values, click **Update SoloBug & Close**.

TestTrack Pro modifies the SoloBug executable. The following message opens:



16 Click **OK**.

The customized SoloBug executable is ready for distribution.

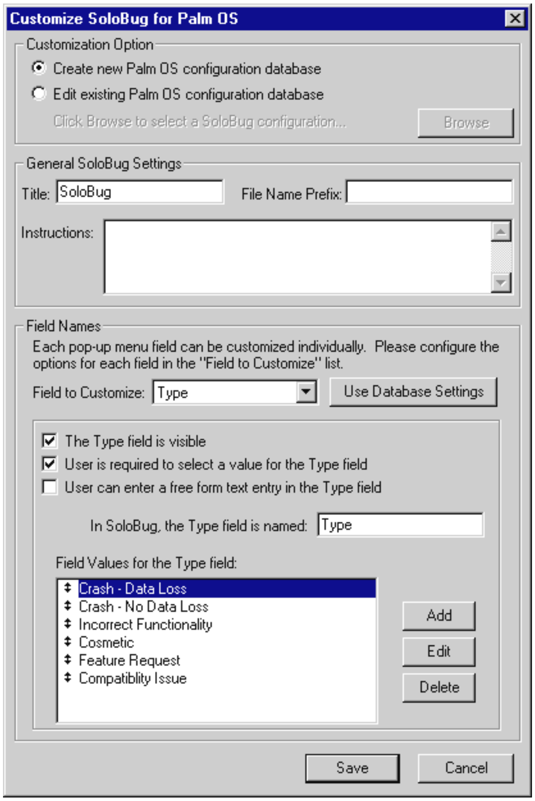
Customizing SoloBug for Palm OS

SoloBug for Palm OS lets your users and customers easily submit bug reports and feature requests. You can customize such things as the title, instructions, and field names. In addition, you can rename fields, add field values, and make fields required. You can also provide a customized SoloBug database for each customer!

1 Start TestTrack Pro and login to the database you want to customize SoloBug for.

2 Choose **Activities > Configure > Customize SoloBug > Palm OS**.

The Customize SoloBug for Palm OS dialog box opens.

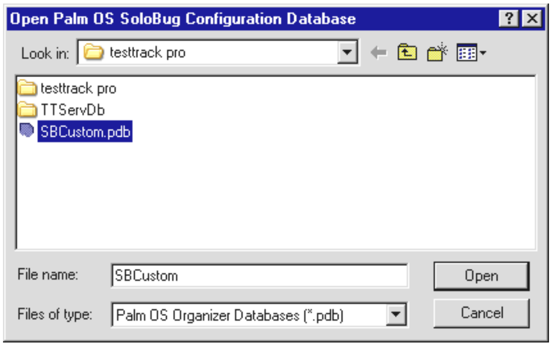


3 Select **Create new Palm OS configuration database** to create a new configuration database. Skip to **step 5** to continue customizing the configuration database.

4 Select **Edit existing Palm OS configuration** to edit a configuration database.

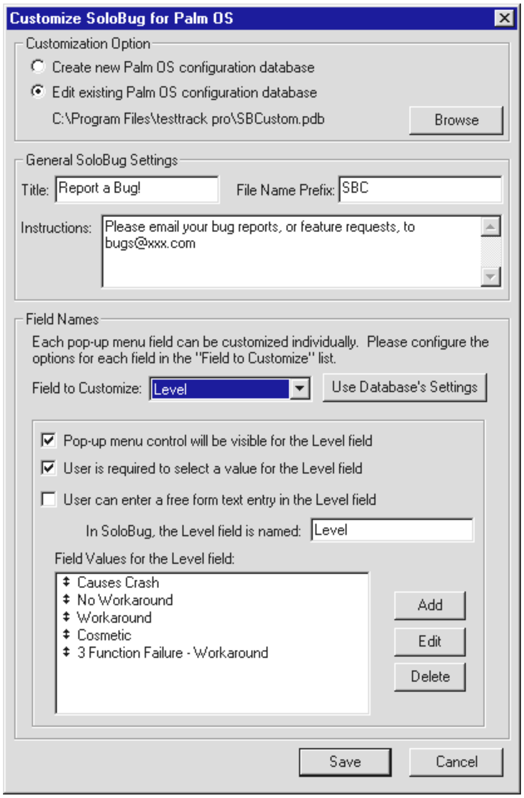
5 Click **Browse** to select a Palm configuration database.

The Open Palm OS SoloBug Configuration Database dialog box opens.



6 Select the database you want to edit and click **Open**.

You return to the Customize SoloBug for Palm OS dialog box, with all fields populated.



7 Enter the **General SoloBug Settings**.

- **Title** appears in the title bar of the SoloBug application, preceding the name of the open bug report file.
- **File Name Prefix** becomes the first part of the SoloBug file name. The remaining portion of the bug report file name is a sequence number SoloBug generates to distinguish one file from another. This field can help you visually organize SoloBug files. For example, if you customize SoloBug for three different products, you can enter the product name in the File Name Prefix field.
- **Instructions** provide users with information specific to your use of SoloBug, such as the email address you want the files sent to. Instructions are not displayed if this field is empty.

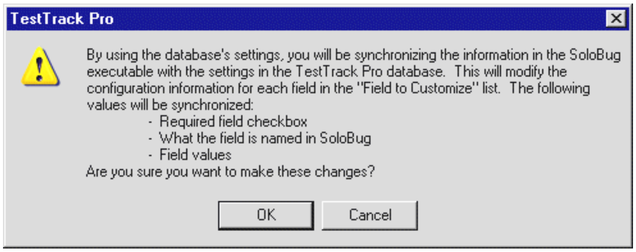
8 Customize the pop-up menu fields and select field options.

The type, severity, product, version, reproduced, and component fields can be customized.

> If the TestTrack Pro database uses customized field names, that name is listed. For example, Component is renamed to Element. Element is displayed in the list.

9 Click **Use Database's Settings** to synchronize the information in the SoloBug executable with the TestTrack Pro database settings.

Selecting this option customizes all fields in the **Field to Customize** list.



> If you use the database settings, required fields, field names, and field values are synchronized with the TestTrack Pro database.

10 To customize a field, select the field from the **Field to Customize** list.

This example uses the Severity field. The field name changes based on the field selected in the list.

11 **Pop-up menu control will be visible for the Severity field** is selected by default. Clear the check box to make the field, and its label, invisible.

12 Select **User is required to select a value for the Severity field** to make this field required. Users will not be able to save the SoloBug file if a value is not selected.

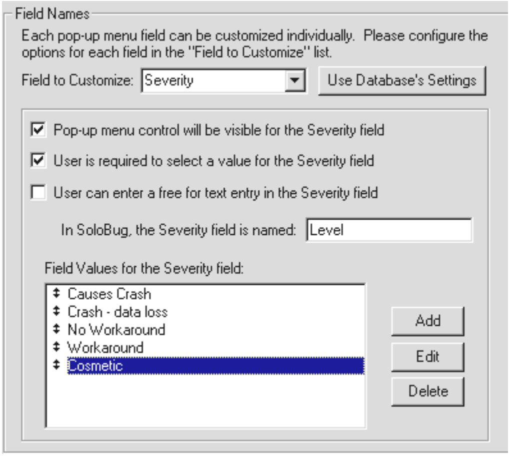
13 Select **User can enter a free form text entry in the Severity field** to let users enter a value for this field.

14 To rename the field, enter the new name in the text box. In this example, Severity is named Level.

The values in the **Field to Customize** list are populated from the TestTrack Pro database. The **In SoloBug, the ...field is named** value is populated from the SoloBug executable and might not match the **Field to Customize** selection.

15 The default field values appear in the **Field Values** list.

You can add, edit, or delete any field value. To reorder the values, click the arrow next to the field and drag it up or down to a new position.



16 Click **Save** when you finish customizing the configuration database.

- If you are creating a new database, the Save Palm OS SoloBug Configuration Database dialog box opens. Enter a file name and click **Save**.
- If you are editing an existing database, your changes are automatically saved.

17 The customized SoloBug executable is ready for distribution.

Distributing SoloBug

You can freely distribute SoloBug to customers, users, beta sites, etc. Refer to the SoloBug license included with TestTrack Pro for rules governing distribution of SoloBug applications. SoloBug is available for Windows, Macintosh, and the Palm OS.

SoloBug comes with a user guide you can edit and distribute. **Every topic** in the guide is included in the **online Help**, so you do not need to distribute the hard copy with SoloBug. You may want to customize the guide to include your company's name, email addresses, URLs, etc.

Customizing the SoloBug user guide

SoloBug comes with a user guide you can edit, print, copy, and distribute. **Every topic** in the guide appears in the **online Help**, so you do not need to distribute the hard copy with SoloBug. You may want to customize the guide with your company's name, email, URLs, etc.

Make a backup copy of the SoloBug user's guide before you customize it!

The following SoloBug user files are located in the TestTrack Pro folder:

- **Solobug.doc** the SoloBug user guide in Microsoft Word format.
- **Solobug.pdf** the SoloBug user guide in Adobe Acrobat Reader format.
- **Solobug.hlp** the SoloBug Help file. The Help file cannot be customized.

Automatically importing SoloBug files

1 Choose **Edit > Options > Database Options**.

The Database Options dialog box opens.

2 Click the **SoloBug** tab and select the import options.

Overriding SoloBug automatic import settings

When you set the automatic import options, you select the interval you want TestTrack Pro to look for new SoloBug files; you can override this update interval at any time.

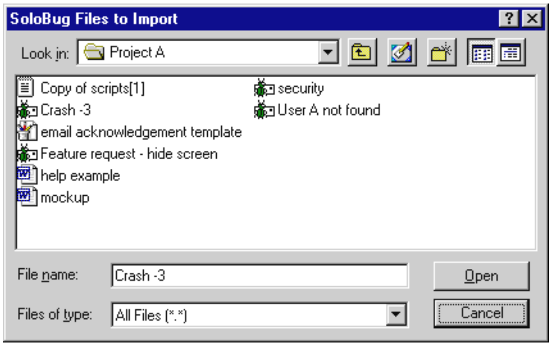
1 Choose **File > Import > Perform Server Import**.

The server checks for, and imports, new SoloBug files.

Manually importing SoloBug files

1 Choose **File > Import > Load SoloBug Files**.

The SoloBug Files to Import dialog box opens.



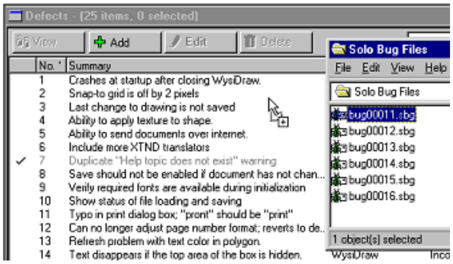
2 Select the SoloBug file(s) you want to import.

Remember, SoloBug files are saved with the **.sbg** extension.

3 Click **Open**.

The imported file(s) appears in the Defects list window at the end of the list. Notice the new defect icon appears next to it.

You can also **drag and drop** the SoloBug file onto the Defects list window. Notice the cursor becomes a plus sign when you drag a file onto the Defects list window.



Appendix A
Field Codes Reference

Use field codes to automatically generate data!

This appendix includes a list of all field codes that can be used with email notification templates, ad hoc reporting, and SoloSubmit.

Field codes return the corresponding information from the database. For example, the sequence **%DATS%** is replaced with the current date format. The sequence **%DNUM%** is replaced with the defect number.

In this section:

About field codes

Field codes are used to build customized email messages that provide information specific to the defect that triggered the notification or, in the case of an email acknowledgment, was imported via email. If you are creating an ad hoc report, you can use field codes to include specific database information for the report. You can also use field codes to build personalized SoloSubmit Web pages that provide information specific to your company and your customers' use of SoloSubmit.

Field codes

Field Code	Description
%ASSB%	The user who made the defect assignment.
%ASSD%	The date the defect was most recently assigned.
%ASST%	The user to which the defect is assigned.
%ASSN%	The most recent defect assignment notes.
%CF01% - %CF10%	Custom fields 1-10.
%CLSB%	The user who closed the defect.
%CLSD%	The date the defect was closed.
%CLSN%	The notes about closing the defect.
%CLSR%	The close resolution.
%CHNG%	The changes to the defect (only applies to **Defect Changed** notification).
%CMTA%	All of the defect's comments.
%CMTL%	The most recent defect comment.
%COMP%	The component containing the defect.
%CREB%	The user who was logged in when the defect was created.
%CRED%	The date the defect was created.
%CREL%	The method used to create the defect (e.g., SoloBug import).
%CUEM%	The currently logged in user's email address (does not apply to **Email Acknowledgement** notification).
%CUSR%	The currently logged in user's first and last name (does not apply to **Email Acknowledgement** notification).
%DATL%	The current date in long date format (mmmm, dd yyyy).
%DATS%	The current date in short date format (mm/dd/yy).
%DESC%	The first defect description.
%DISP%	The defect's disposition.
%DNUM%	The defect’s number.
%DOCA%	Whether the most recent defect fix affects documentation.

Field Code	Description
%ENTB%	The user who entered the defect.
%ENTD%	The date the defect was entered.
%ESTB%	The user who most recently estimated the defect fix.
%ESTD%	The date of the most recent defect estimate.
%ESTE%	The most recent estimated effort to fix the defect.
%ESTN%	The notes of the most recent defect estimate.
%ESTV%	The defect's most recent estimated fix version.
%ESTW%	The defect’s most recent estimated fix date.
%FILE%	The database’s file name.
%FIXB%	The user who most recently fixed the defect.
%FIXD%	The date the defect was most recently fixed.
%FIXN%	The most recent notes about fixing the defect.
%FIXS%	The Fix Verify/Close value from the most recent fixed action.
%FIXT%	The total time required to fix the defect.
%FIXV%	The version in which the defect was fixed.
%FNDB%	The person who found the defect.
%FNDD%	The date the defect was found.
%FNDV%	The version in which the defect was found.
%MODB%	The user who last modified the defect.
%MODD%	The date the defect was last modified.
%NUMR%	The number of users and customers reporting the defect.
%PRIO%	The defect’s priority.
%PRNM%	The Project Name field in the Project Info dialog.
%PROD%	The product containing the defect.
%REFR%	The defect’s reference field.
%RELB%	The person who created the release notes.

Field Code	Description
%RELD%	The date the release notes were created.
%RELH%	Whether the defect has release notes.
%RELN%	The defect's most recent release notes.
%RELV%	The version in which the defect fix was released.
%REPR%	The defect's reproducible status.
%RESO%	The defect's fix resolution.
%SEQN%	The sequence number associated with the defect (applies only to **Email Acknowledgment** notification).
%SEVR%	The defect's severity.
%STAT%	The defect's status.
%STEP%	The steps to reproduce the defect.
%SUMM%	The defect's summary.
%TCFG%	The defect's test configuration name.
%TPLA%	Whether the most recent defect fix affects the test plan.
%TYPE%	The defect's type.
%VERB%	The user who most recently verified the defect.
%VERD%	The date the defect was most recently verified.
%VERN%	The most recent notes about verifying the defect.
%VERV%	The version in which the defect was verified.
%VPAS%	The Verify Pass/Close value from the most recent verify action.
%WORK%	The defect's workaround.
%WRKH%	Whether the defect has a workaround.

The **Defects Renumbered** email notification template can only use the following field codes:

%**CHNG**% Changes that were made (information about renumbered defects).

%**CUSR**% Currently logged in user's first/last name.

%**CUEM**% Currently logged in user's email address.

%**PRNM**% The project name field in the Project Info dialog.

%**FILE**% The database's file name.

This template cannot use field codes that refer to an individual defect's information.

Label field codes

TestTrack Pro lets you rename defect field labels. The renamed field labels have corresponding field codes. These field codes return the field label, not the field data.

Field Code	Field Name
%DFUS_L%	Defect - upper case, singular
%DFUP_L%	Defects - upper case, plural
%DFUM_L%	Defect(s) - upper case, singular/plural
%DFLS_L%	defect - lower case, singular
%DFLP_L%	defects - lower case, plural
%DFLM_L%	defect(s) - lower case, singular/plural
%SUMM_L%	Summary Type
%TYPE_L%	Type
%DISP_L%	Disposition
%PRIO_L%	Priority
%PROD_L%	Product
%COMP_L%	Component

Field Code	Field Name
%REFR_L%	Reference
%SEVR_L%	Severity
%ENTB_L%	Entered by
%ENTD_L%	Date Entered
%STAT_L%	Status
%FNDB_L%	Found by
%FNDD_L%	Date Found
%DATE_L%	Date
%FNDV_L%	Version Found
%VERS_L%	Version
%DESC_L%	Description
%REPR_L%	Reproduced
%STEP_L%	Steps to Reproduce
%TCFG_L%	Computer Config
%HWSW_L%	Other Hardware and Software
%CFTB_L%	Custom Field tab

Remember, renamed label field codes only return the label name and not the field data. For example, you rename Reference to Case Number. You customize an email template to notify managers of a problem, including the case number in the subject line. In the subject line of the template, enter **%REFR_L%**: **%REFR%**. When a manager is sent an email, the subject line includes: Case Number (label): case number (data).

Field code notes

- All dates use system-defined date formats. TestTrack Pro uses the short-date style of the Regional Settings Properties defined in the Windows Operating System.
- To include a percent sign (%) in the body of a message, include two percent signs in a row (e.g., “%%”).
- Email notifications support field codes in the email subject line. Therefore, you can include personalized subjects such as “Re:%SUMM%” which expand to include the defect’s summary field in the email’s subject.

Appendix B
Defect Fields Reference

About Defect Fields

This appendix includes tables that define every defect field and lists whether they can have **default values** or if they can be set as **required fields**. For more information, see **Defining required fields and default values,** page 167.

In this section:

Defect record

The following table lists the fields that are part of the **defect record**.

Field name	Set default value?	Initial default value	Configure as required?	Initially configured as required?
Summary	no	NA	yes	yes
Status	no	NA	no	NA
Type	yes	<not set>	yes	yes
Product	yes	<not set>	yes	no
Reference	no	NA	yes	no
Entered by	yes	<current user>	yes	yes
Disposition	yes	<not set>	yes	no
Priority	yes	<not set>	yes	no
Component	yes	<not set>	yes	no
Severity	yes	<not set>	yes	no
Date Entered	yes	<current date>	yes	no
Custom fields (pop-up menu)	yes	<not set>	yes	no
Custom fields (edit box)	no	NA	yes	no
History	no	NA	yes	no
Workaround	no	NA	yes	no
Notify	no	NA	no	NA

Found by record in a defect

The following table lists the fields that are part of the **found by record in a defect**. The default values are used every time a new found by record is created in the defect. The fields marked as required must be filled in for every found by record in the defect.

Field name	Set default value?	Initial default value	Configure as required?	Initially configured as required?
Found by	yes	<current user>	yes	yes
Date Found	yes	<current date>	yes	no
Version Found	yes	<not set>	yes	no
Description	no	NA	yes	no
Reproduced	yes	<not set>	yes	no
Steps to Reproduce	no	NA	yes	no
Computer Config	yes	"User Config"	yes	no
Other HW & SW	no	NA	yes	no
Attachments	no	NA	no	NA

Defect assignment record

The following table lists the fields that are part of the **defect assignment record**.

Field name	Set default value?	Initial default value selection	Configure as required	Initially configured as required?
Assign to	yes	<blank>	yes	yes
Assigned by	yes	<current user>	yes	yes
Date	yes	<current date>	always	NA
Notes	no	NA	yes	no

Estimate to fix record

The following table lists the fields that are part of the **estimate to fix record**.

Field name	Set default value?	Initial default value selection	Configure as required	Initially configured as required?
Estimated by	yes	<current user>	yes	yes
Date	yes	<current date>	always	NA
Estimated effort	no	NA	yes	no
Completion date	yes	<not set>	yes	no
Completion version	yes	<not set>	yes	no
Assumption	no	NA	yes	no

Fix defect record

The following table lists the fields that are part of the **fix defect record**.

Field name	Set default value?	Initial default value selection	Configure as required	Initially configured as required?
Fixed by	yes	<current user>	yes	yes
Date	yes	<current date>	always	NA
Version	no	NA	yes	no
Resolution	yes	<not set>	yes	yes
Hours to fix	no	NA	yes	no
Affect documentation	yes	not checked	no	NA
Affect test plan	yes	not checked	no	NA
Notes	no	NA	yes	no

Release to testing record

The following table lists the fields that are part of the **release to testing record**.

Field name	Set default value?	Initial default value selection	Configure as required	Initially configured as required?
Released by	yes	<current user>	yes	yes
Date	yes	<current date>	always	NA
Notes	no	NA	yes	no

Verify defect record

The following table lists the fields that are part of the **verify defect record**.

Field name	Set default value?	Initial default value selection	Configure as required	Initially configured as required?
Verified by	yes	<current user>	yes	yes
Date	yes	<current date>	always	NA
Version	yes	<not set>	yes	no
Pass or fail	yes	Pass and close	no	NA
Notes	no	NA	yes	no

Release to customer testing record

The following table lists the fields that are part of the **release to customer testing record.**

Field name	Set default value?	Initial default value selection	Configure as required	Initially configured as required?
Released by	yes	<current user>	yes	yes
Date	yes	<current date>	always	NA
Notes	no	NA	yes	no

Customer verify defect record

The following table lists the fields that are part of the **customer verify defect record**.

Field name	Set default value?	Initial default value selection	Configure as required	Initially configured as required?
Verified by	yes	<current user>	yes	yes
Date	yes	<current date>	always	NA
Version	yes	<not set>	yes	no
Pass or fail	yes	Pass and close	no	NA
Notes	no	NA	yes	no

Re-open defect record

The following table lists the fields that are part of the **re-open defect record**.

Field name	Set default value?	Initial default value selection	Configure as required	Initially configured as required?
Re-opened by	yes	<current user>	yes	yes
Date	yes	<current date>	always	NA
Notes	no	NA	yes	no

Close defect record

The following table lists the fields that are part of the **close defect record**.

Field name	Set default value?	Initial default value selection	Configure as required	Initially configured as required?
Closed by	yes	<current user>	yes	yes
Date	yes	<current date>	always	NA
Notes	no	NA	yes	no

Defect comments record

The following table lists the fields that are part of the **defect comments record**.

Field name	Set default value?	Initial default value selection	Configure as required	Initially configured as required?
Commented by	yes	<current user>	yes	yes
Date	yes	<current date>	always	NA
Notes	no	NA	yes	no

Release notes record

The following table lists the fields that are part of the **release notes record**.

Field name	Set default value?	Initial default value selection	Configure as required	Initially configured as required?
Released by	yes	<current user>	yes	yes
Date	yes	<current date>	always	NA
Notes	no	NA	yes	no

Appendix C
Security Reference

User Groups and Security…

protect your data. This appendix includes a list of the categories and commands available for command security and the groups and fields available for field security. For information about creating user groups and setting up security, see **User groups and security,** page 187.

In this section:

Command security

Command security restricts access to a command and is set by category. For example, Can a user fix a defect?

Command security includes the following categories: General commands, Administration commands, Defect commands, Customer commands, User commands, User Group commands, Test Configuration commands, Filter commands, Report commands, and Workbook commands.

General commands

Assign Defect Numbers

Renumber Defects

Edit Own Notifications

Modify own password

Modify own general user settings

Allow login via Windows client

Allow login via Web client

Allow login via add-in DLL

Allow login via SOAP

Change Own List Columns

Administration commands

Edit Database Options

Setup Project Fields

Setup Version Field

Configure Field Relationships

Configure Required Fields & Default Values

Rename Field Labels

Configure Auto-Assign Rules

Configure Email Templates

Configure SCC DB Options

Delete Historical Defect Info

Show Logged In Users

Logout Other Users

Import From Text File

Export To Text File

Import From XML File

Export to XML File

Create Release Notes Output

Defect commands

Add Defects

View Defects

Edit Defects

Delete Defects

Duplicate Defects

Assign Defects

Estimate Resolution

Fix Defects

Release to Testing

Verify Defects

Release to Customer Testing

Customer Verify Defects

Close Defects

Re-open Defects

Edit Closed Defects

Edit Defects Assigned to Anyone

Add a Comment

Add/Edit Release Notes

Merge Defects

Edit Own Historical Actions

Edit Other's Historical Actions

Delete HIstorical Actions

See Notify Tab

See Workflow Tab

See SCC Tab

See History Tab

Add Attachments

Remove Attachments

View/Extract Attachments

Add Notify User

Remove Notify User

Add Reported by Record

Remove Reported by Record

Perform SCC Actions

Customer commands

Add Customers

View Customers

Edit Customers

Delete Customers

Duplicate Customers

Make Customer a User

Activate/Inactive Customer

User commands

Add Users

View Users

Edit Users

Delete Users

Duplicate Users

Edit User Login

Edit User Group Setting

Make User a Customer

Activate/Inactive User

User Group commands

Add User Groups

View User Groups

Edit User Groups

Delete User Groups

Duplicate User Group

See Security Tabs

Test Configuration commands

Add Test Configs

View Test Configs

Edit Test Configs

Delete Test Configs

Duplicate Test Configs

Filter commands

Add Filters

Mark Own Filters As Shared

Mark Shared Filters As Shared

View Own Filters

View Shared Filters

Edit Own Filters

Edit Shared Filters

Delete Own Filters

Delete Shared Filters

Duplicate Own Filters

Duplicate Shared Filters

Report commands

Add Reports

Mark Reports As Shared

View Own Reports

View Shared Reports

Edit Own Reports

Edit Shared Reports

Delete Own Reports

Delete Shared Reports

Duplicate Own Reports

Duplicate Shared Reports

Run Own Reports

Run Shared Reports

Workbook commands

Add Tasks

View Tasks

Edit Tasks

Delete Tasks

Field security

Field security affects defects and defect actions and restricts a user’s ability to enter, or edit, field data. For example, can a user enter a resolution in the fix defect action field?

Security can be assigned to the following fields: General fields, Found By fields, Assigned fields, Estimated fields, Fixed fields, Release To Test fields, Verified fields, Release To Customer Test fields, Customer Verified fields, Closed fields, Reopen fields, Release Notes fields, Comment fields, and Custom fields.

General fields

Defect Number

Summary

Type

Priority

Status

Disposition

Product

Component

Reference

Severity

Entered by

Date Entered

Has Attachments?

Has Workaround?

Has SCC files?

Workaround

Date Created

Created By

Creation Method

Date Last Modified

Last Modified By

All Action Notes

Found By fields

Found by

Found By Group

Found By Company

Date Found

Version Found

Description

Reproduced

Steps to Reproduce

Computer Config

Other Hardware and Software

How Many?

User or Customer

Assigned fields

Assigned To

Assigned By

Date Assigned

Assigned Notes

Estimated fields

Estimated By

Date Estimated

Estimated Effort

Completion Date

Estimated Version

Estimated Notes

Fixed fields

Fixed By

Fixed Verify/Close

Date Fixed

Fixed Resolution

Fixed In Version

Hours to Fix

Affects Documentation?

Affects Test Plan?

Fix Notes

Release To Test fields

Release To Test By

Date Released To Test

Version Released To Test

Released To Test Notes

Verified fields

Verified By

Verify Pass/Failed

Date Verified

Version Verified

Verified Notes

Release To Customer Test fields

Released To Customer Test By

Date Released To Customer Test

Version Released To Test

Released To Customer Test Notes

Customer Verified fields

Customer Verified By

Customer Verified Pass/Failed

Date Customer Verified

Customer Version Verified

Customer Verified Notes

Closed fields

Closed By

Date Closed

Closed Resolution

Closed Notes

Reopen fields

Reopened By

Date Reopened

Reopened Notes

Release Notes fields

Has Release Notes?

Release Notes By

Date Released

Version Released

Release Notes

Comment fields

Comment By

Date Commented

Comment

Custom fields

Security can be set for custom fields. The names of these fields depend on the custom fields you set up.

Index

D

E

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

S

U

V

W

X