NetResults ProblemTracker

User Guide Help Topics

NetResults ProblemTracker

Product Overview

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Welcome to **NetResults ProblemTracker**.

ProblemTracker is a powerful, easy-to-use Web-based collaboration tool to help companies keep track of business issues and automatically manage them to resolution. ProblemTracker is licensed for use by over 700 companies (with 25,000+ users) in over 30 countries around the world. It is used for applications including:

- **Bug tracking, defect tracking, issue tracking, and quality assurance (QA)**
- **Life cycle management in software, hardware, and product development**
- **Change management and enhancement request management**
- **Process management**
- **Self-service customer support**
- **Help desk**

Our customers are from a broad base of industries, including broadcasting, consulting, entertainment, financial, government, hardware, health care, manufacturing, pharmaceutical, retail, software, system integration, telecommunication, and transportation.

ProblemTracker is a fully Web-based system providing:

- **Tracking**
  Tracking reported bugs, defects, business issues, enhancement requests, etc.
- **Workflow**
  Automatic routing and notification to get issues resolved.
- **Process enforcement**
  Managing and enforcing your company's process of resolving issues.
- **Status**
  Up-to-the-minute project information and status, reports, charts, and graphs to team members, project leaders, and managers everywhere to foster better communication and collaboration.
- **Communication**
  Capturing discussions and sharing knowledge.
- **Accountability**
  History and audit trail.

ProblemTracker is very cost-effective. Most installations can recover the investment in a few short months through the increase in productivity, through the better products produced, through improved customer satisfaction, or simply by not forgetting to include the fix of an important bug in the next release.

ProblemTracker is highly customizable and can be tailored for virtually any workflow and environment. It comes with several pre-defined database templates, each designed for a specific product area. Those currently included are:

- Software Development
- Web Site Development
- Knowledge Base (requires purchase of Knowledge Base add-on)
- Help Desk
- Support

ProblemTracker greatly simplifies the task of setting up and using an issue tracking system. Since you access ProblemTracker using a standard web browser, there is no special client software to install or administer. In addition, users on all platforms have full access to the system without any special platform specific client software.

ProblemTracker also uses industry standard web server, web browser, and database technologies so you aren't tied to a proprietary web server, client (browser), or database.

ProblemTracker is available in two versions: ProblemTracker and ProblemTracker Enterprise Edition. ProblemTracker Enterprise Edition includes all of the features of ProblemTracker plus some additional features such as Alerts and Discussion to provide improved support for enterprise wide use.

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ProblemTracker Features

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Features

- Completely web based solution - no proprietary client software is required.
- Customizable without any consulting required - the workflow and record can be changed completely by a ProblemTracker Admin user.
- Flexible user group security model allows defining access to both operations (Add, Edit, Delete, etc.) **and** data records.
- Individual user log in and session state ensures security.
- A "Home" page presented after log-in for each user allows instant access to records each user has submitted, records assigned to them, and all functions required to process records.
- Can add, remove, and rename all fields in the record.
- Ad hoc query mechanism allows unlimited combinations of any record field to form queries on the bug database.
- Advanced query mechanism to build intricate queries using comparison and logic operators as well as nested clauses.
- Customizable report layouts can be saved by each user of the system, or shared with other members of a user group.
- Queries and Metrics (charts) can be saved by each user of the system, or shared with other members of a user group.
- Knowledge Base feature can be set up to allow end users to search for procedures, best known methods, tech notes, etc.
- Options to allow records to be added to ProblemTracker via email or an external form used to anonymously submit issues
- Unlimited number of attachments of any file type can be made for each record.
- Integrated email can be configured to notify on a change of state or assignment; triggered by other actions performed on a record such as delete, edit, or task; to alert users of deadlines or call attention to records that are overdue; and can be set to notify users about new messages posted to discussions about a record.
- Powerful "Task" feature allows users to presented with only those fields required by the defined workflow when marking their task complete. ProblemTracker automatically advances the state and reassigns the record as defined by the workflow. "Task" allows all members of the team to follow their department's process, without any specific knowledge of the process as a whole.
- Capability to create and maintain an unlimited number of workgroups (projects) from a central interface.
- Source code control integration to associate source files with problem records.
- Multinationalization available to support Unicode character set.
- Record history keeps a audit trail of activities for all incidents.
- Can add/remove/edit users of the system.
- Self registration option enables a large number of users to quickly create new accounts with minimal Admin intervention
- Can add/remove/edit values for all fields that have a set of allowed values. Examples include product, platform, release number, etc.
- Uses industry standard database technology.
- Separate Administrator functions are also accessed via a web interface. No proprietary administrator

software is required.
- No extra database software is required.

For Further Information

For further information on NetResults ProblemTracker, please browse to our web site at www.problemtracker.com. There you can find the latest product, ordering, and support information.

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User Guide Glossary

Glossary of Terms

Click on the term to read more about it within the Help section listed to the right.

- Action - Problem History
- Action By - Problem History
- Action Date - Problem History
- Add (Query Phrase) - Advanced Queries
- Add Adv - Advanced Queries
- Add Alert - Alerts
- Add New Source Code File - Source Code Control
- Add & Copy - Adding Records
- Alerts - Alerts
- Annotate - Adding Records
- Assigned To - Adding Records
- Assigned To Me - Logging In
- Auto Login - Logging In
- Breakdown calculations by - Metrics
- Calculate the ... (y-axis for line chart) - Metrics
- Date Format - Logging In
- Delete (Navigation Bar Button) - Deleting Records
- Delete (Query Phrase) - Advanced Queries
- Delete (Source Code List Entry) - Source Code Control
- Diff - Source Code Control
- Discussion - Discussion
- Discussion Subscription - Discussion
- Don't chart data for a breakdown value if it is all zeros - Metrics
- Edit Alerts - Alerts
- Edit (Navigation Bar Button) - Editing Records
- Edit (Query Phrase) - Advanced Queries
- Edit (Source Code List Entry) - Source Code Control

- Edit Report Layouts - Using Saved Queries & Reports
- Edit Saved Queries - Using Saved Queries & Reports
- Edit Source Code List - Source Code Control
- Export - Querying Records
- Fixed Version - Source Code Control
- History (Navigation Bar Button) - Problem History
- History Comment - Editing Records
- Home (Navigation Bar Button) - Logging In
- Insert (Query Phrase) - Advanced Queries
- Logoff (Navigation Bar Button) - Getting Started Tutorial
- Make Visible to these Groups - Editing Records
- Maximum Records - Logging In
- Message List - Discussion
- Metrics - Metrics
- Perform calculations ...(x-axis for line chart) - Metrics
- Personal Preferences - Logging In
- Problem was fixed in version - Source Code Control
- Problem was found in version - Source Code Control
- Problem Version - Source Code Control
- Product Summary - Summary Reports
- Query (Navigation Bar Button) - Querying Records
- Remember Password - Logging In
- Report Layout - Querying Records
- Report Layouts - Using Saved Queries & Reports
- Reported By Me - Logging In
- Reset (Query Phrase) - Advanced Queries
- Saved Chart - Metrics
- Saved Chart Layout - Metrics
- Saved Queries - Using Saved Queries & Reports
- Show Chart - Metrics
- Sort By - Querying Records
- SourceSafe Password - Logging In
- SourceSafe User ID - Logging In
- Start Discussion - Discuss

- Task (Navigation Bar Button) - Marking a Task Complete
- Thread List - Discussion
- Time Format (Personal Preferences) - Logging In
- User Summary - Metrics
- View (Navigation Bar Button) - Viewing Records
- View Differences - Source Code Control
- View History - Source Code Control

To begin using ProblemTracker, you must have a user account. This user account may have been created for you by your ProblemTracker Administrator. The Administrator will provide you with the username and password to use when you login to ProblemTracker. If you have a username and password, proceed to the next section for a Tutorial to walk you through the basics. If you don't have a username and password, proceed to the **Self Registration** section below.

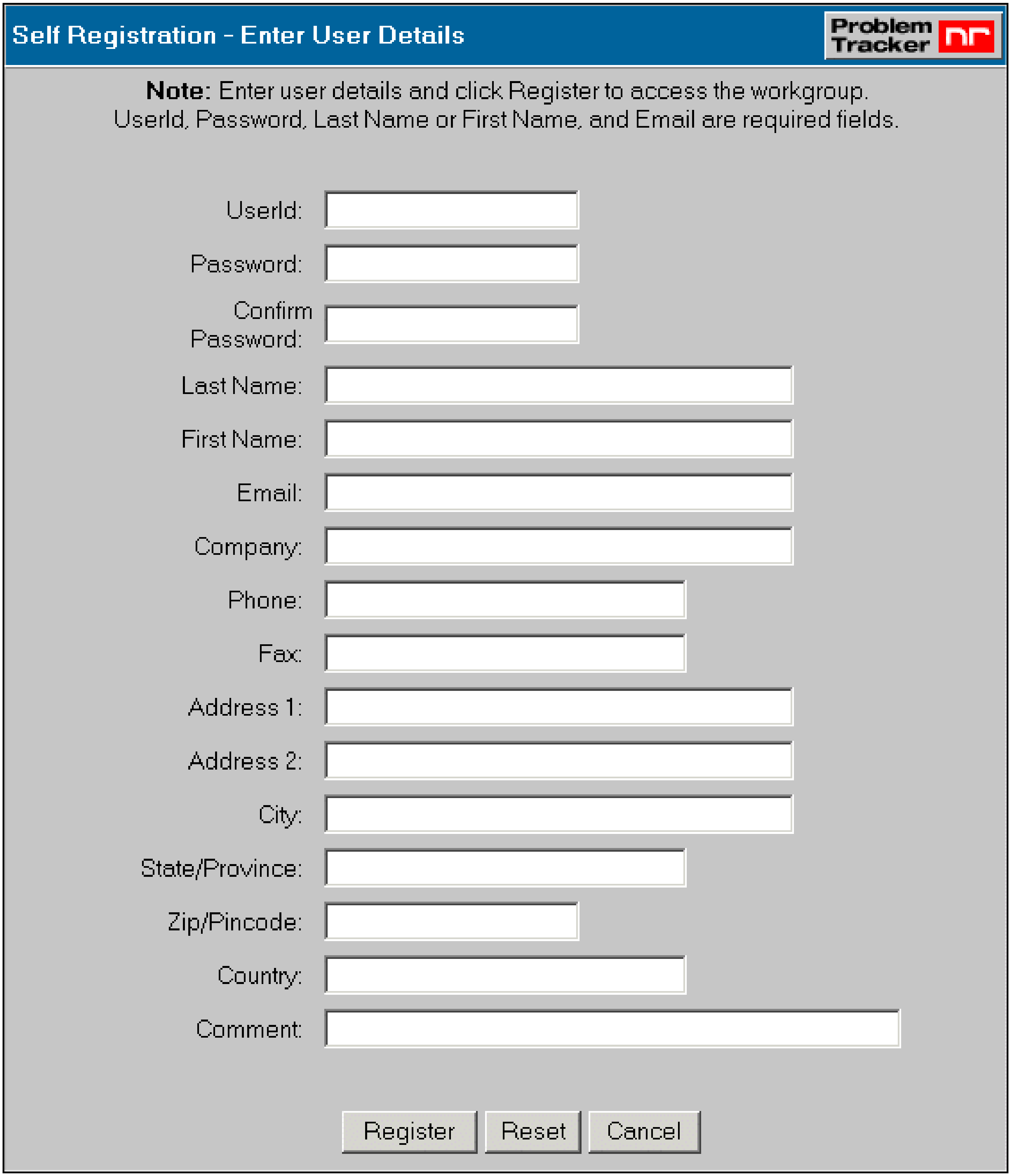
Self Registration

If the Self Registration feature has been enabled by your ProblemTracker Administrator, you can create your own user account. To do this, browse to the Login Page by going to:

http://*servername*/*workgroup*/ptlogin.asp

where ***servername*** is the TCP/IP name of the host where the ProblemTracker server software is installed, and ***workgroup*** is the name of the ProblemTracker workgroup (e.g. pteval) you wish to access. If you are not sure where ProblemTracker was installed on your network, please ask your ProblemTracker Administrator.

If Self Registration is available, you will see **New User? Register Here** below the Login button. Click on the link **Register Here** to reach the Self Registration form. An example of the form is displayed below.



Enter the details for your user account:

- **User Id**

Unique identifier for your user account. May be up to 40 characters long.

- **Password**
  Login password for your account. May be up to 10 characters long.

- **Confirm Password**
  Re-enter the password for your account to confirm what you entered above. May be up to 10 characters long.

- **Last Name**
  Your last name.

- **First Name**
  Your first name.

- **Email**
  Your email address, which is used by ProblemTracker to send you email notification messages.

- **Company**
  Your company name

- **Phone**
  Your phone number

- **Fax**
  Your fax number

- **Address 1**
  The first line of your address

- **Address 2**
  The second line of your address

- **City**
  Your city

- **State / Province**
  Your state or province

- **Zip / Pincode**
  Your zip code or pincode

- **Country**
  Your country

- **Comment**
  Any other information you wish to include in your account profile

After entering the information, click on the **Register** button to save your new user account. A confirmation will be displayed after the user is successfully added. Click on the **OK** button to return to the Login Page to login and begin using ProblemTracker.

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Getting Started Tutorial

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The goal of this chapter is to walk you through the basic operations using ProblemTracker. This tutorial assumes that the product has been installed, and you are using the default database that was installed. If your ProblemTracker Administrator has customized your installation of ProblemTracker, you may find that there are differences between the procedures described here and what you are working with. In this case, use this tutorial as more of a guideline to using the system.

In this tutorial you will:

Starting ProblemTracker

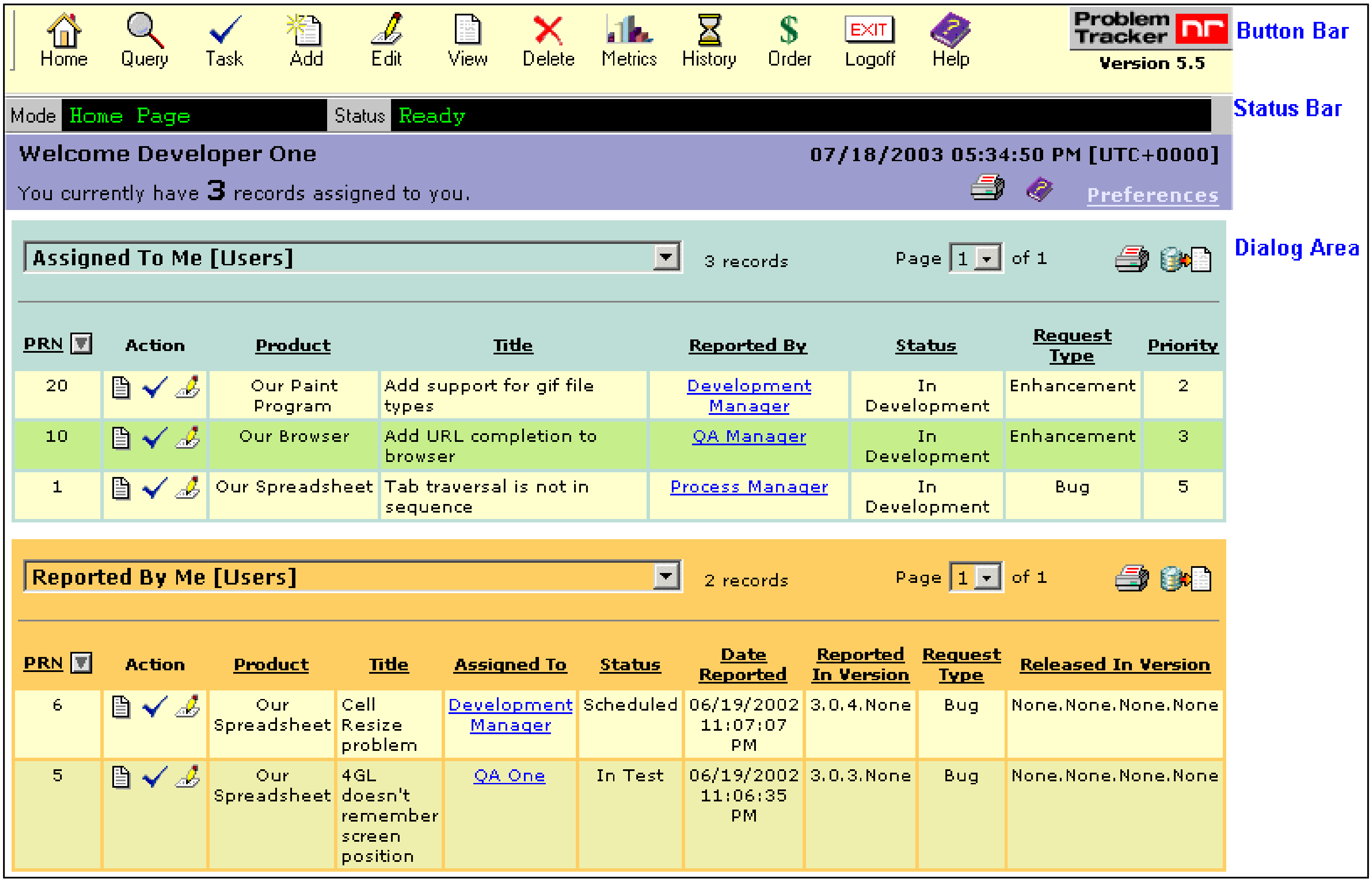
To use ProblemTracker, start your web browser and go to the following URL:

http://servername/workgroup/ptlogin.asp

where **servername** is the TCP/IP name of the host where the ProblemTracker server software is installed, and **workgroup** is the name of the ProblemTracker workgroup (e.g. "pteval") you wish to access. If you are not sure where ProblemTracker was installed on your network, please ask your ProblemTracker Administrator.

You are presented with the login screen. Enter your username and password to log in. If you are using the sample database, enter the username "dev_mgr" and a password of "dev_mgr".

After logging in, the first screen you will see is your ProblemTracker homepage, which is typical of all the ProblemTracker pages. Please spend a moment to become familiar with it:



Note the icons in the Button Bar. Depending upon how your ProblemTracker Administrator has set up your account, you may see fewer or perhaps more buttons. Each button allows you access to a basic ProblemTracker operation. If you are using the sample database, you should have access to all but the Administrative functions.

On any ProblemTracker page, this **Context Sensitive Help** icon will be present in the upper right corner. Click on this icon at any time to get detailed information from the Help Guide about the page displayed.

Add A Problem Record

The first thing you will do is report a bug. To do this press the **Add** icon located in the button bar. You are presented with a page where you can enter information about the problem you would like to report. In the Product field, select the a product (if you are using the sample database, just select "None"), enter the string "My first record" in the Description field and click on the **Add** button to save the new record. The new record is added to the ProblemTracker database. Note that ProblemTracker is now ready to add another record, the Status Bar shows you the record number of the last added record. Make a note of this record number as you will need it later.

Query for Problem Records

Now that we have a record in the database, let's try doing a query to find that record. To do this, press the **Query** icon located in the button bar. You are presented with a page where you can define a query. In this case, we want to find all problem records for the product "None". Just select "None" from the Product pulldown, and click on the **Run Query** button. Note that since all the other fields are using the value "*", any value in these fields will match our query.

The page that appears displays the results of the query. Note that in each row displayed, there are three icon buttons (View, Task, Edit). These icons allow you to perform an operation on the record. Press the **View** icon. The contents of the record you defined are displayed. Press the **OK** button to return to the query result page. The Edit, Task, and View icons in the button bar also allow you to perform an operation on a record, however, you must enter the record number to do so.

Now try pressing the button labeled **Format For Printing**. This causes the same query result page to be reformatted to take up less space (the buttons are removed and a smaller font is used). This format is often more convenient for printing reports. Press the button labeled Format For Editing to return to the previous query result page.

Now let's refine the query. Press the **OK** button on the query result page - you should return to the query page. Now enter the string "My first record" in the Description field and press the **Run Query** button. This time only those records that contain the specified string are matched in the result.

Assign and Schedule a Record

Once a problem record is entered into ProblemTracker, it can be tracked as moves through an organization's process. For the purpose of this tutorial we will use the development process supported by the sample database. When first entered, the state of the record is set to "Reported", meaning that someone needs to review the record and make a decision about how to process it. At some point, a decision is made to fix the problem and the state of the record is set to "Scheduled". Once scheduled, the record is advanced to the state called "In Development" and the problem is assigned to an individual to handle.

To give you a feel for how this all works, let's change the state of the record to "In Development" and assign it to you. Press the **Edit** icon in the Button Bar and enter the record number you wish to modify, in this case the record that you added earlier.

The Edit page should be displayed. Set the Status field to "In Development", and the Assigned to field to yourself. Then click on the the **Update Fields (OK)** button.

To verify that you are the assignee, press the **Home** icon in the Button Bar. You should now have at least one record assigned to you listed on your home page. You can also verify your changes by clicking on the **View** icon in the Button Bar and entering the record number.

Mark A Task Complete

Once an individual has fixed a problem, they should indicate that this is the case in ProblemTracker. To do this, click on the **Home** icon on the Button Bar and locate the task (record) you wish to complete. If you don't see it on your home page (it only displays 20 records), use the **Query** icon to locate the desired record. Once you have identified record, press the **Task** icon (a blue check mark) that is either located on your Home page, on the Query result page, or on the Button Bar (you must enter the record number if you use the Task icon on the Button Bar).

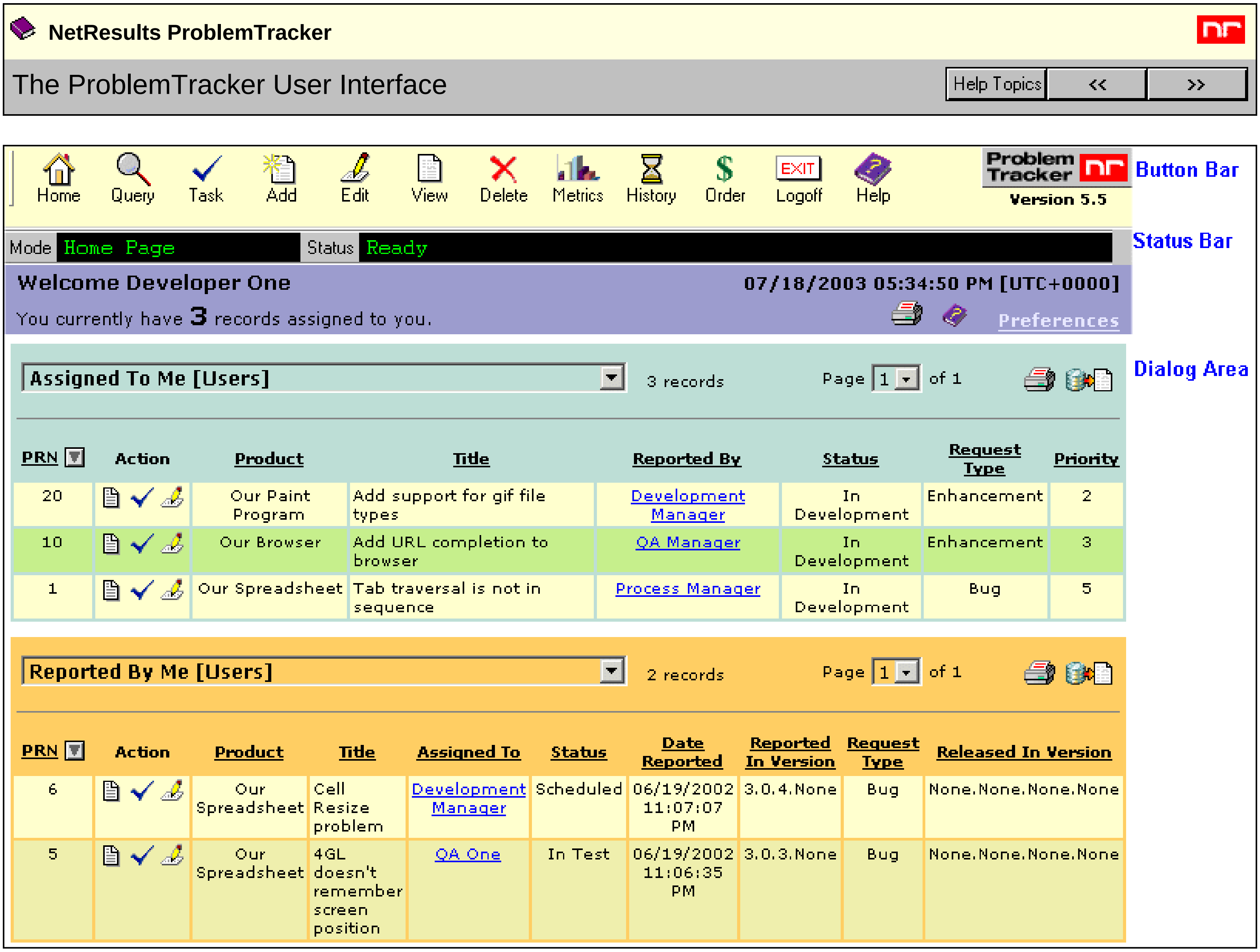
The **Task** icon presents a form that allows you to enter any information appropriate to the task you have completed, and automatically advances the record state to the next state in the process. It also automatically resets the assignment as defined by your ProblemTracker administrator, indicating that it is ready to handled by another individual for the next step of the process.

Select the transition called **Mark Fixed** and click OK. Enter a description of the fix, and then press the **OK** button. A confirmation page will be displayed and will note to what state the record was moved and to what user the record was assigned. Note that depending upon your original query, the record may or may not appear in the query summary because the state and assignee fields have changed.

Logoff the System

When you are done using ProblemTracker, you should log off the system. Logging off is a good practice as it prevents other users from mistakenly accessing ProblemTracker from your computer and performing actions under your user account.

To logoff, press the **Logoff** icon in the Button Bar.



The ProblemTracker user interface has the following main components as shown in the illustration above:

1. **Button Bar**
   This bar contains buttons that allow direct access to ProblemTracker's primary functions. For those operations that require a record, a dialog appears prompting you to enter a record number. By default this dialog will contain the record number of the last record on which an operation was performed. This bar also contains the Version of ProblemTracker being used.

2. **Status Bar**
   This area indicates the current ProblemTracker mode or operation. It also reports on the status of the last operation. The Status Area is contained in the same scrolling region as the Dialog Area, and may become hidden if the area scrolls down sufficiently.

3. **Dialog Area**
   This is the primary data entry and reporting area of ProblemTracker. In most cases action buttons that appear in this area are placed at both the top and the bottom of the form to allow easier access.

Overview

ProblemTracker helps you to track the progress of a record through a series of steps within your organization. The order in which a record can move between these steps is called the *workflow*.

At each step in the workflow, some work is done by an individual to complete the step, and then the record is advanced to the next step. This process is repeated until all of the steps are completed. For instance, in a typical software development organization, the follow series of steps might take place once a problem is reported...

1. Customer reports a problem
2. Customer Support engineer verifies the problem and creates a record in the defect tracking system.
3. Development Manager assigns the problem to a developer to fix.
4. Developer fixes the problem
5. Quality Assurance Manager assigns the problem to a QA engineer to verify the fix.
6. QA engineer verifies the fix
7. Fix is incorporated in the product

Issues to consider when designing a workflow include identifying the steps in the process, the key individuals in the process, the events that the key individuals should be notified about, the data that is required at each step in the process, and who should handle each step.

ProblemTracker Workflow Customization

ProblemTracker supports full customization of workflow for any number of individual process states. This customization includes state names, transitions, assignments, and email notification.

ProblemTracker Automatic State Advance

To aid in the process of advancing the state of a record in the process flow, ProblemTracker includes the Task feature. This feature allows the currently assigned individual to indicate that he/she has completed the task assigned to him/her and enter the information appropriate to completing the work. ProblemTracker then automatically advances the record to the next appropriate state, and changes the assignment to the next appropriate individual (as defined by the ProblemTracker Administrator).

With the Task feature, it is only necessary for each individual to log into the system, identify the task (record) that they have completed, and use the Task operation. They are prompted for all the information required and the record is sent on to the next individual automatically. All users follow the defined process without needing to know the process as a whole.

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Problem History

ProblemTracker keeps a history of all operations which modify a record. This history allows you to keep an audit trail of which individuals worked on a particular record, when they worked on it, and what type of operation was done to modify the record.

To **view** the Record History for a particular record:

1. Login to the workgroup
2. Click on the **View** icon and enter the number of the record you wish to see.
3. If you are allowed to view the history, it will be displayed at the bottom of the view page under the heading **Record History**.

You can also run specific queries over the record history to obtain statistics, such as the number of records that underwent a particular state transition within a particular time period. To run a history query, use the **History** icon located in the Button Bar.

To run a Record History query:

1. Login to the workgroup
2. Click on the **History** icon.
3. Click on the **Clear** button (if you wish to remove the Search Criteria and Report Options selections from previous History operations). Then, select the criteria for your search using the Search Criteria and Report Options sections which are described below.
4. Click on the **Run Query** button.
5. The results will be displayed. To view a record which is referenced in the results, click on the record number listed in the **PRN** (Record Number) column. This will display the View page of the record you selected.

The results of a History query can be printed by clicking on the **Print** icon on the page where the History Query results are displayed. If there are a large number of entries that match your search criteria, it may take longer to generate the results for printing.

The results of a History query can be exported to a CSV file (comma separated values format) by clicking on the **Export** button on the page where the History Query results are displayed.

Search Criteria

When running a History Query, the following options are available for defining search criteria:

Action Date
The results can be limited to actions performed within a certain date range. Use the "On or After" field with or

without the "AND Before" field to specify the date range for the entries you wish to include in the results

Action

Use the Action field to limit the results of the history query based on the activity that generated the entry in the record history. The following table lists the actions documented by the record history with a description:

Action	Description
ADD	The record was added to the database
ATTACH_ADD	An attachment file was added to the record
ATTACH_DELETE	An attachment file on this record was deleted
ATTACH_EDIT	An attachment file on this record was edited
CLONED_AS	Another record was cloned from this record
CLONED_FROM	This record was cloned from another record
DELETE	The record was marked as deleted
EDIT	The record was modified while using the Edit operation
EDIT_STATUS	The status of the record was changed while using the Edit operation
SCC_ADD	A source code file was added to this record
SCC_DELETE	A source code file on this record was deleted
SCC_EDIT	A source code file on this record was edited
TASK	The record was modified while using the Task operation
THREAD_DELETE	A discussion thread was deleted
THREAD_START	A discussion thread was started
UNKNOWN	An unknown operation was performed on this record

Action By

The history query results can be limited to actions performed by a particular user

Interface

Select an interface to limit the results to only actions performed via a particular interface. Select "WEB" to include only actions performed by users logged into ProblemTracker or via users browsing to the Inet page. Select "EMAIL" to include only actions performed through the Add via Email feature. Select "API" to include only actions performed using the ProblemTracker Software Development Kit (SDK).

Comment

Enter a key word(s) to limit the results to actions that contained this key word(s) in the history comment field.

PRN

Also known as Record Number. You can search for the history entries for a particular record by selecting = and entering the Record Number. Or, you can search for the history entries for a range of records lower or higher than a certain record number using the < or > options.

Status
Select a state (or State Group) to limit the results to actions where the status after the action completed was the selected state (or one the states in the selected State Group). Select the system defined State Group "All" if you don't wish to limit the results by state.

Assigned To
Select a user to limit the results to actions where the user the record was assigned to after the action completed was the selected user.

Product
If you wish to limit the entries displayed in the results by Product, select an option in the Product field

Report Options

The following options are available to customize the content included in the report results:

History Columns
Select the data items from the Record History that you want to be included in the report results. Each item selected will be displayed as a column in the history report results. To select multiple items, hold down the CTRL button on your keyboard as you click on the history column items. See Search Criteria section above for a description of each item.

Record Columns
Select a report layout to display field information from the records which are referenced in the history report results. All report layouts to which you have access will be available in the pulldown. Members of the Admin user group will have access to all group report layouts irrespective of whether they are members of other user groups. Selecting **<Default>** will display the fields Status, Assignee, and Product in the columns of the history report results.

Sort By
Choose up to 4 fields by which the history report results should be sorted. For each field selected, choose whether the sorting should be ascending or descending. The fields that can be selected for sorting are Action Date, Action, Action By, Interface, PRN, Status, Assigned To, Product. See Criteria section above for a description of the fields.

Maximum Records per Page
Set the maximum number of records (any number from 5 to 100) that should be displayed on each page of the history report results.

Log In Process

To use ProblemTracker you must log into the system. Start your web browser and go to the following URL:

http://servername/workgroup/ptlogin.asp

where **servername** is the TCP/IP name of the host where the ProblemTracker server software is installed, and **workgroup** is the name of the of the ProblemTracker workgroup (e.g. "pteval") you wish to access. If you are not sure where ProblemTracker was installed on your network, please ask your ProblemTracker Administrator.

You will be presented with the login screen. Enter your username and password to log in or, if available, click on the link **New User? Register Here**. Details on creating your own account by Self Registration can be found in the User Accounts Help section.

On occasion when logging in, you may encounter the error message, "Login Failed - Your previous login session is still active." This message can come up if you were previously logged in to ProblemTracker, but did not click the Logoff icon to finish your session. Select **Yes** so that the previous session will be closed and a new session will begin and allow you to login. If you select **No**, you will not be able to login to ProblemTracker.

If you are using floating licenses, it is important that you click the **Logoff** icon to end your ProblemTracker session when you are done. Simply exiting your browser will not end your session and may prevent other users from being able to access ProblemTracker. If you do forget to click the Logoff icon, simply login in again, answer **Yes** when asked to delete your old session, and then click the **Logoff** icon on the Home page when it is displayed.

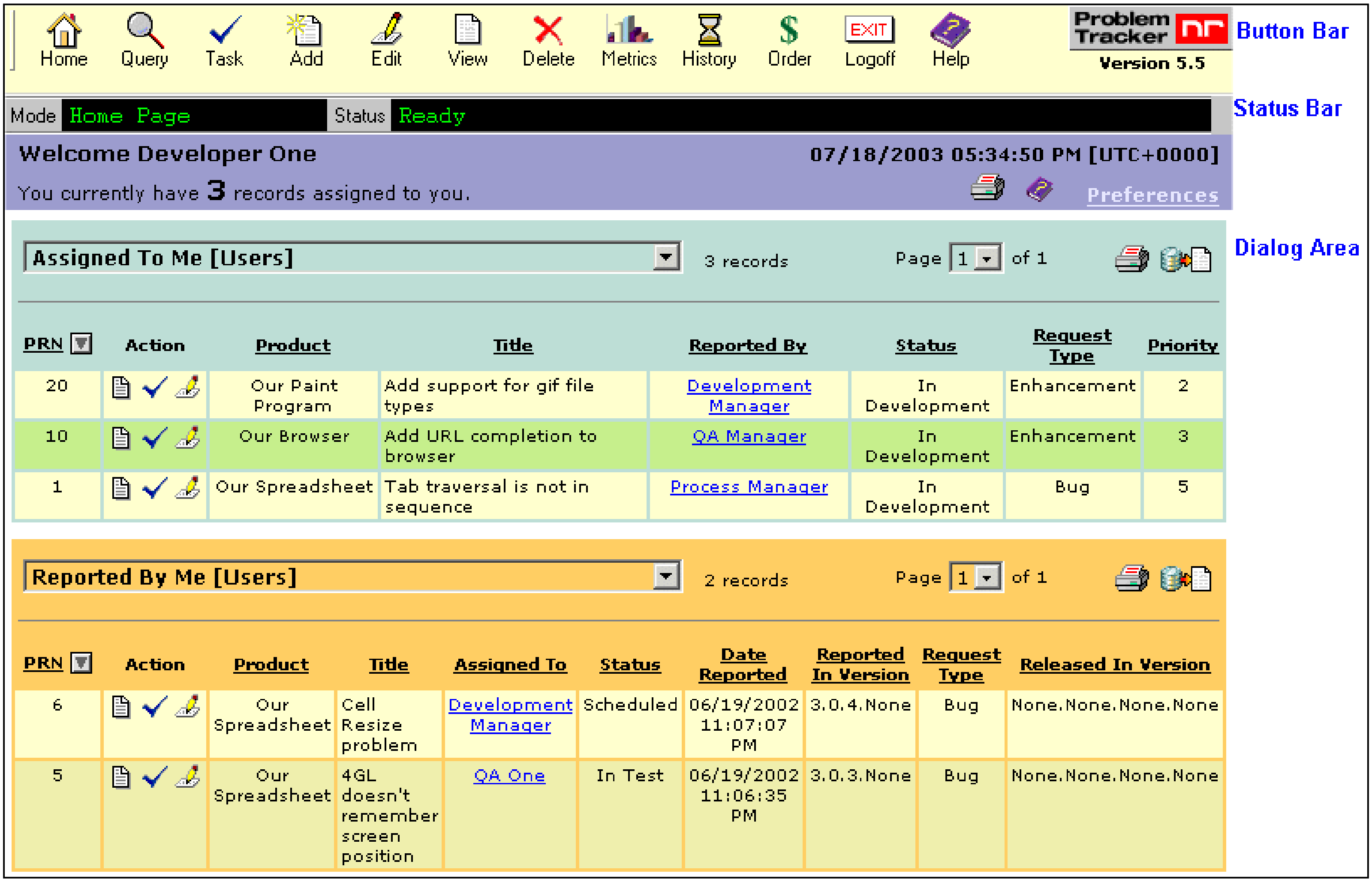
If you browse off to another site without clicking the Logoff icon to end your ProblemTracker session, you can click the **Back** button on your browser several times to return to the last ProblemTracker page you were on and then click the Logoff icon. Or, you can simply browse back to the login page, login again, then click the Logoff icon on the Home page when it is displayed. ProblemTracker does not allow more than one active session per user account (irrespective of license type), so if you login and then logoff you can always be certain that you have not left any active sessions around.

If your user account is of the floating license type, you may encounter the error message, "Login Failed - The maximum number of concurrent logins has been reached. Please try again later or contact your administrator." This message is generated because the maximum number of floating license users are already logged into the system. As soon as another floating license user logs off (or is forced off by your administrator), you will be able to login to ProblemTracker.

If it is important that you are always able to login, please ask your administrator to configure you as a static license user. Static license users have a single license permanently assigned to them.

The Home Page

After logging in, the first screen you will see is your ProblemTracker homepage.



By default, this page has two reports, which display the records assigned to you and the records reported by you. Also present on the Home Page is a link to the personal preferences section, where you can customize various user settings, such as your changing your password and selecting date and report settings. A link to edit your account information may also be displayed depending on the privileges granted to you by your system administrator

Report Layout
You can customize the columns of the reports displayed on your home page either by creating your own saved report layout or selecting an existing saved report layout. Please refer to the section Using Saved Queries & Reports for details.

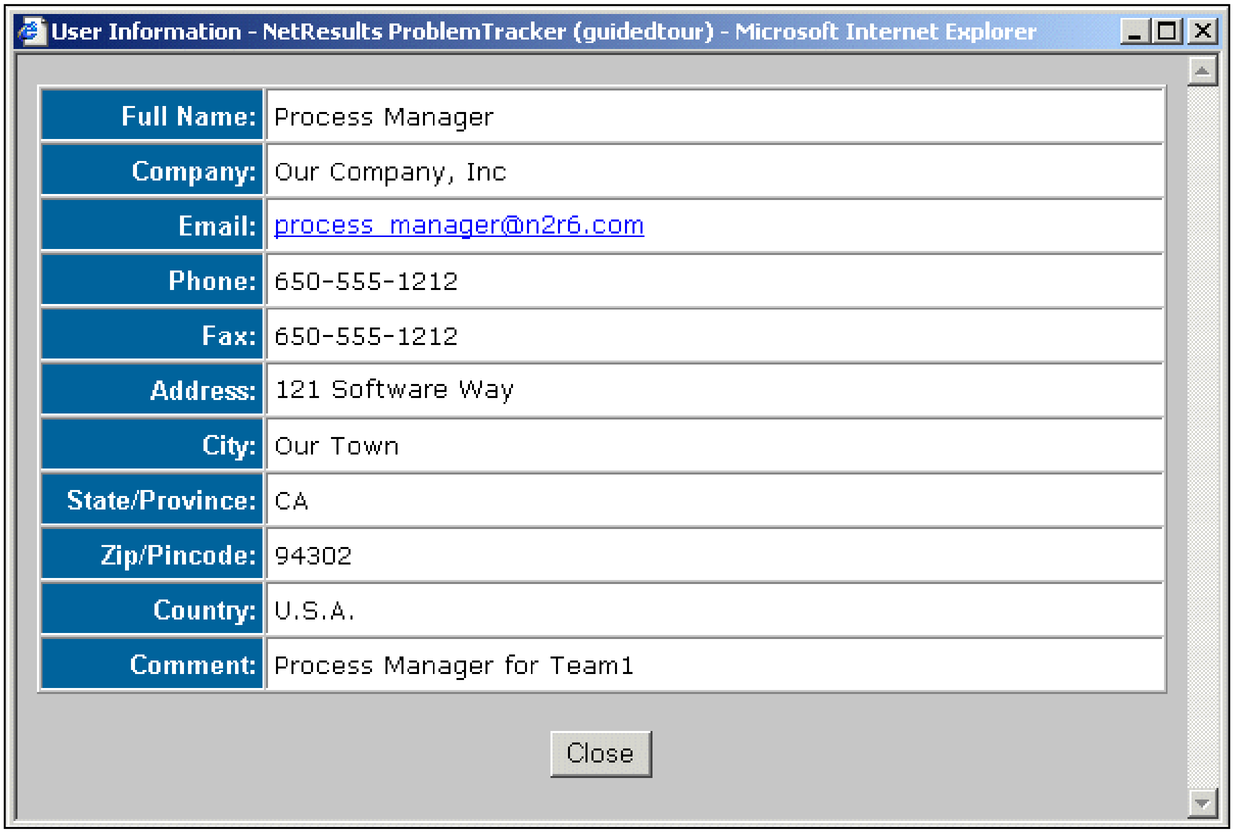
Report Query
You can customize the query "Assigned To Me" with a query of your choice by defining your own personal saved or advanced query and selecting it for the First Home Page Report field in the Personal Preferences page. Alternatively, you can select an existing saved or advanced query for this first home page report as well. You can customize the query "Reported By Me" using the Second Home Page Report field in the Personal Preferences page. Information on selecting the queries for the Home Page reports via the Personal Preferences page is described in the section below. Please refer to the section Using Saved Queries & Reports for details on how to create your own saved query or refer to the section Advanced Queries for information on creating advanced queries.

Dynamic Report Selection
You can view different saved queries or charts on the Home page at any time by clicking on the pulldown menu above each report. Any saved query or chart to which you have access will be displayed in the pulldown for selection. To permanently change the reports displayed on the Home Page when you first log into ProblemTracker, you will need to select the desired reports in the Preferences section.

Dynamic Sorting of the Results
You can change the way the reports on the Home page are sorted at any time by clicking on the field name. The field that is being used as the primary sort field will have an arrow to the right of the field name. If the arrow is pointing down, the results are sorted by that field in a descending order. If the arrow is pointing up, the results are sorted by that field in an ascending order. Clicking once on the field with the arrow will reverse the sort order. Clicking once on any field that does not have the arrow will sort the results in ascending order by that field. Any field except large text fields can be clicked to sort the results by that field.

Other Features of the Home Page
When the Assigned To or Reported By fields are displayed as columns on a Home Page report, the user's name will appear as a clickable link if you

have the appropriate privilege. Click on the user's name to display the user's profile information as shown below.



There is one export icon for each report displayed on the Home Page. The records displayed in each of the Home Page reports can be exported to a CSV file (comma separated values format) by clicking on the export icon in the upper right corner of the report. You can then open this file with another tool such as Microsoft Excel or Crystal Reports.

If you have exported Metric (chart) data, you can create a chart in Microsoft Excel from the exported data by doing the following. Open the file in Excel and "rubber band" (left-click mouse and drag a rectangle around) the data plus column and row titles (exclude rows 1 through 3, but include the individual row/column titles in row 4 and column A along with the data in your selection) and click the Chart Wizard icon (or select Insert->Chart...). Click the Finish button in the Chart Wizard to accept the Microsoft Excel default settings for the chart; or make selections, click Next button, then click Finish to create a chart with custom settings. Please review the Microsoft Excel Help for further information on Excel charts.

Multiple print icons may be displayed on the Home Page. The print icon below the date and time information in the upper right corner of the Home Page will print the Home Page as it appears in your browser window (excluding the top button bar that has the action icons such as "Home", "Add", "Help", etc.). Printing with this icon will include the "Welcome <User>" message, the date and time, and the records or chart displayed in each report. When reports are displayed on the Home Page, using this print icon to print the Home Page will only display the records that appear in your browser window, but will not print all records in the query results for each report.

To print the results of a report or chart displayed on the Home Page, click on the print icon in the upper right corner of each Home Page Report. When a report is displayed on the Home Page, clicking on the print icon in the upper right corner of the report will print all of the records that match the Saved Query (including those records not shown on the Home Page when the number of records in the query results exceeds the maximum number of records displayed per page).

Account Info

If you have been granted access to edit your own user account information, a link labeled **Account Info** will be present in the upper right corner of the Home Page. Click on this link to edit your user account information.

The Edit User Account page allows you to update the contact information stored in ProblemTracker including your email address, phone number, address, etc.

To update your account information, enter information in the fields displayed, then click OK to save your changes.

The contact information that you can update in the Edit User Account page includes:

New Password
To change your password, enter the password you wish to use in this field.

Confirm New Password
Re-enter the password you typed into the New Password field above. You must enter the same password into both of these fields in order to successfully change your password.

Last Name
Depending on the way your ProblemTracker has configured the system, your last name may be displayed in reports on the Home and / or Query pages when you are listed as the Assignee or Reporter of a record.

First Name
Depending on the way your ProblemTracker has configured the system, your first name may be displayed in reports on the Home and / or Query pages when you are listed as the Assignee or Reporter of a record.

Company
The name of the company or organization you represent

Email
Your email address. This address will be used to send you email notification, alerts, or discussion messages about records in ProblemTracker.

Phone Number

Fax

Address 1

Address 2

City

State / Province

Zip / Pincode

Country

Comment
Any comment you wish to include in your user account information

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Personal Preferences

From the ProblemTracker home page, click on the link labeled "Preferences".

You can customize the following features:

User Password Settings

- **New Password**
  To change your password, enter the password you wish to use in this field.
- **New Password Confirm**
  Re-enter the password you typed into the New Password field above. You must enter the same password into both of these fields in order to successfully change your password.

Report Settings

- **Maximum Records**
  You can select the maximum number of records that are displayed per page for reports on the Home and Query Pages. The upper limit for this maximum value is 100 records.
- **First Home Page Report**
  You can select a saved query, advanced query, or saved chart to be displayed as the first report on your home page.

- **Second Home Page Report**
  You can select a saved query, advanced query, or saved chart to be displayed as the second report on your home page. If you do not want a second report displayed on your home page, select the option "No Report" for this field.
- **Third Home Page Report**
  You can select a saved query, advanced query, or saved chart to be displayed as the third report on your home page. If you do not want a third report displayed on your home page, select the option "No Report" for this field.
- **Chart Width X Height**
  Enter the dimensions that should be used when a saved chart is selected for one of the Home Page reports. The setting that works best in most environments is 700 X 300. This preference is not available for Restricted Users.

Help Settings

- **Display Field Help**
  Check the box to display the Field Help icon, a yellow question mark next to the name of the fields displayed on the Add, Task, and Edit pages. When the Field Help icon is displayed, you can move your cursor over this icon to get an explanation about the field.

Date Settings

- **Date Format**
  Select a format for the Date from the pulldown menu. The format that you choose will be used to display fields that contain date information within ProblemTracker.
- **Time Format**
  Select a format for the time from the pulldown menu. The format that you choose will be used to display all fields that contain time information within ProblemTracker. Choosing 12 hour for the time format will display times followed by AM or PM to denote the appropriate 12 hour period, such as 02:05:38 PM. Choosing 24 hour as the time format will display times without the AM or PM designation, such as 14:05:38.
- **Time Zone**
  Select a time zone from the pulldown menu. The time zone that you choose will be used to display all fields that contain time information within ProblemTracker. For a list of available time zones in your operating system, please refer to one of the following sections:
  Windows 2000 and Windows XP Time Zones
  Windows NT 4.0 Time Zones
- **Adjust To Daylight Saving Time (DST)**
  Check this box if you wish to have ProblemTracker adjust time information to account for daylight saving time. If you selected a time zone in which daylight saving time is observed, we recommend that you enable this option.

Export Settings

The following preferences are used when report data is exported from the ProblemTracker Home, Query, and Metrics pages. Data is exported as a CSV (comma separated values) file. However, because there is no firm definition of a CSV standard, you may need to modify some export parameters to allow use of the exported data by other applications (spreadsheet, database, etc.). ProblemTracker and your ProblemTracker Administrator have set these values to defaults that should work in most environments. So in most cases, you should not need to change these settings. If you have an application that is not importing the data correctly, review the information below. If that does not help, please contact your ProblemTracker Administrator.

- **Field Separator**
  Choose one of the options to be used as the separator between the fields (values) of a report that is being exported. The available options are Comma, Semicolon, and Tab. If you are exporting English language (or Latin1) data in the United States, you should use Comma. If you are exporting English language (or Latin1) data in a country that uses a Comma in floating point numbers to separate the whole number from the fractional part (e.g. 45,125 for 45 and one eighth), you may need to set this to Semicolon. If your ProblemTracker Administrator configured your system to use the Unicode (UTF-8) character set for multi-language support, Tab will generally work best in most applications.
- **Row Separator**
  Choose one of the options to be used as the separator between the rows (lines) of a report that is being exported. The options are Carriage Return & Line Feed (Windows), Carriage Return (Mac OS), and Line Feed (Unix). Choose the appropriate option for the operating system you are using on your desktop (the one running the web browser you are using).
- **File Extension**
  Choose one of the options to be used as the file extension when saving the file containing the exported data. The options are csv, txt, and No Extension. For English language (or Latin1) data, this should be set to csv. For Unicode (UTF-8, multi-language) data this should be set to txt. However, you can also choose No Extension if you wish to create a file without a file extension (without .csv or .txt at the end).

Note: When exporting data from a UTF-8 workgroup using the recommended settings listed above, misalignment of the data can occur when viewing the exported data in Excel if the file is not first saved to disk and then opened in one of the two ways listed below. Unfortunately, the default file open in Excel does not properly store multiple line text (as there may be in ProblemTracker BigText fields) in a single cell. Instead, it puts each line in its own cell which results in misalignment of the fields in the spreadsheet.

For UTF-8 data exported with Field Separator set to Tab, Row Separator set to Carriage Return & Line Feed, and File Extension set to txt, you can get Excel to properly place multiple line data in a single cell using one of the two operations below.

1. From Windows Explorer, select the file to be opened.

2. Right-click on the file and select Open With->Microsoft Excel.

OR

1. From Excel, select File->Open.
2. Locate and select the file that you want from the list (the file you created when you exported the data from ProblemTracker).
3. Hold down the SHIFT key on your keyboard, and then click the Open button (if you do not hold down the SHIFT key, the file may not be processed correctly).

Dependent Pulldowns

- **Enforce Dependency in Query Page**
  Select Yes or No to determine whether the dependent relationships between pulldown fields should be enforced when using Query operations. This preference is not available for Restricted Users.

Multi-Line Field Settings

- **Display Window**
  Select the number of lines that should be displayed when editing (Edit or Task operation) or viewing (View operation) the text in a large text field. By default, this will be set to 5 lines. If the contents of a large field extend beyond the number of lines set in this preference, you will have the ability to scroll to see the complete contents of the field. On the View page if you are using Internet Explorer as your browser, you will have the option to dynamically expand the window to see the complete contents without scrolling by clicking on the "+" icon to the left of the text. On the View page, empty (blank) fields are always displayed as a single line.

Visual SourceSafe Login Settings

- **SourceSafe Login Settings**
  Enter your Microsoft Visual Source Safe user name and password to be able to use the Source Code Control Interface within ProblemTracker. This preference is not available for Restricted Users.

Discussion Settings
Note: These options will not be displayed unless you are using ProblemTracker Enterprise Edition. These preferences are not available for Restricted Users.

- **New Post Notification**
  This option determines when a user will be notified about discussions via email. Selecting "No Email" indicates that a user should not receive any email notification messages related to discussions. Selecting "Receive Email for each New Post" indicates that a user will receive one email notification for each new post in any discussion thread to which he/she is subscribed. Selecting "Receive Email for the first New Post to each Thread" indicates that the user will only receive email for the first post made to each discussion thread since the user last viewed the message list for the thread. With this setting the user can tell which threads have had postings since the last time they were read, but will not have a separate email for each posting (just one per thread with new posts). After viewing the message list for a thread, a notification email will be sent the next time a message is posted.
- **Invitation Notification by Email**
  This option determines whether a user should receive an email notification message when he / she has been invited to participate in a discussion thread initiated for a particular record. Selecting "Yes" indicates that the user should receive an email invitation for each new discussion thread.
- **Message Display Window**
  Enter the number of lines of text you wish to see when displaying a message within a discussion. The default setting is 5 lines of text.

Login Options

- **Remember Password**
  You can set whether or not your browser should remember your password by checking the box labeled Remember Password and entering the password in the box provided. When enabled, the password field is automatically filled in when you log in.
- **Auto Login**
  If your password is currently remembered by your browser, you can enable Auto Login. This feature automatically logs you in, bypassing the log in screen and taking you directly to your home page. To enable this feature, check the box labeled Auto Login.

User Privileges

When you log in, you are given access to data and operations as assigned by your ProblemTracker administrator. These rights are assigned to you via User Groups. Each group defines a set of privileges, and you are assigned to groups. The total set of privileges you have is the sum of all the rights of all the User Groups that you are a member of.

Please contact your ProblemTracker administrator if you wish to receive additional privileges.

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Adding Records

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Adding A Record

To add a record, click on the **Add** icon located in the Button Bar. The Add form will appear in the Dialog Area, allowing you to enter information about the problem you are reporting.

ProblemTracker allows your administrator to customize the fields that appear in the bug record. Other requirements such as required fields may also apply.

The field help icon will be displayed if you have checked the box for the "Enable Field Help" personal preference and your ProblemTracker Administrator has entered information to described this field. Move your cursor over this icon to see a description of the field.

As an example of a typical record, the Software Development template (a sample database) included with ProblemTracker has the following fields:

- **Title**
  A brief description of the problem
- **Product**
  The product for which the problem is being reported. The values of this pulldown menu can be customized.
- **Platform**
  The platform for which the problem is being reported. This is often used to indicate a hardware of software platform, such as Apple Macintosh or Microsoft Windows NT. The values of this pulldown menu can be customized.
- **Reported In Version**
  Used to indicate the version number of the software where the problem was found.
- **Request Type**
  This is the nature of the request, generally either a bug, an enhancement, or a contractual obligation. The values of this pulldown menu can be customized.
- **Severity**
  Severity is a general indicator of how serious the problem is. The values of this pulldown menu can be customized.
- **Description**
  A description of the problem.
- **Workaround**
  A description of how a customer can work around this reported problem.
- **Status**
  The current status of the record. Initially this status is set to TBD.
- **Substatus**
  An indicator of how much progress has been made on the record in the current status
- **Assigned To**
  Name of the individual to whom this record is currently assigned for resolution. This value is chosen from a list of ProblemTracker users.

The Difference between the Add Operation and the Add & Copy Operation

Depending on the configuration set by your ProblemTracker Administrator, you may or may not see the "Add & Copy" button.

After entering the information for a new record on the Add page, you have the option to click "Add" or "Add & Copy" to save the new record. Clicking on the **Add** button will save the new record, then will return to a "blank" Add form so another new record can be added.

Clicking on the **Add & Copy** button will save the new record, but when returning to the Add form, the contents of some fields will be saved so that another similar record can be added without having to re-enter information into the fields. The fields which are copied to the Add form for the next record are selected by your ProblemTracker Administrator.

Email Notifications

After clicking on the **Add** button or the **Add & Copy** button, if your ProblemTracker workgroup is set up to send email notification messages when records are added, you will see a message "Sending Email Notifications...Please wait". This message indicates that the new record has been added to the system and ProblemTracker is sending the email notification messages.

Relationship between the Product, Status, and Assigned To fields

When the Status and / or Assigned To fields are present on the Add page, the values of these fields are automatically selected based on what you have selected for the Product field (when the Product field is also displayed on the Add page). Even though the Status and / or Assigned To fields are set dynamically based on the selection made for the Product field, you can still choose other available values for these fields.

The option "State Manager" may be present in the Assigned To field. This indicates that the record you are adding will be assigned to a user based on what values you have selected in the Product and Status fields. Your ProblemTracker Administrator configures these State Managers when setting up the workflow.

Dependent Pulldowns

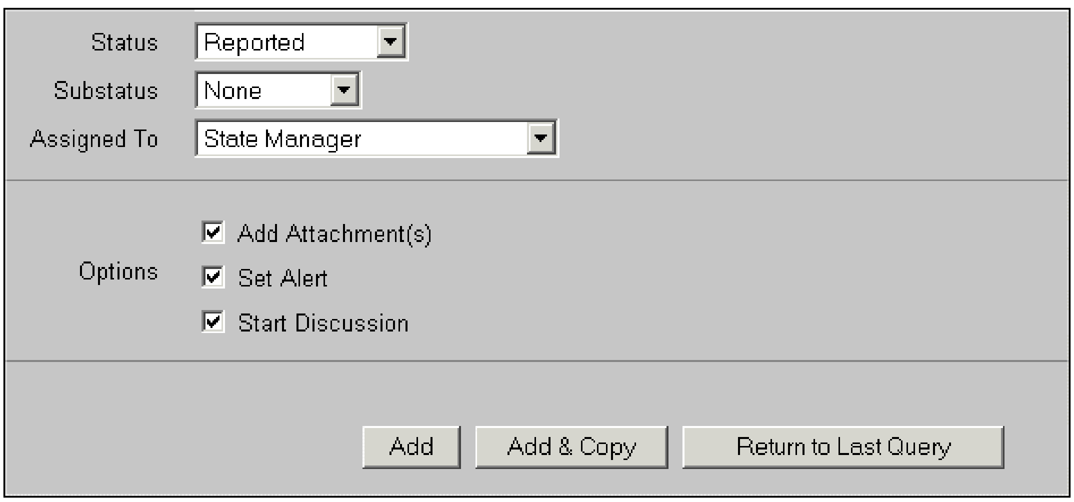
In some cases, your ProblemTracker Administrator may have set up dependent pulldowns. Dependent pulldowns allow the value selected for one pulldown (the parent pulldown) to determine the values displayed in another pulldown (the child pulldown). When dependent pulldowns appear on the Add page, the menu option selected in the parent pulldown will limit the menu options available in the child pulldown.

Specifying Record Visibility

If record visibility has been enabled, and you are a member of a user group that is allowed to modify the visibility of a record to user groups, a selection list called **Make Visible to These User Groups** will appear at the bottom of the page. This list allows you to select which user groups can see this record in the various pages like View, Edit, and Query. To select more than one user group, hold down the shift or control key while clicking.

Additional Options on the Add Page

Depending on the privileges you have been assigned, you may see additional options at the bottom of the Add page such as "Add Attachment", "Set Alert", and "Start Discussion". These options are discussed in detail below.



Adding an Attachment

If you are a member of a User Group that has the Add Attachment privilege, then you may add an attachment along with the record. To add an attachment along with the record, please follow the steps below.

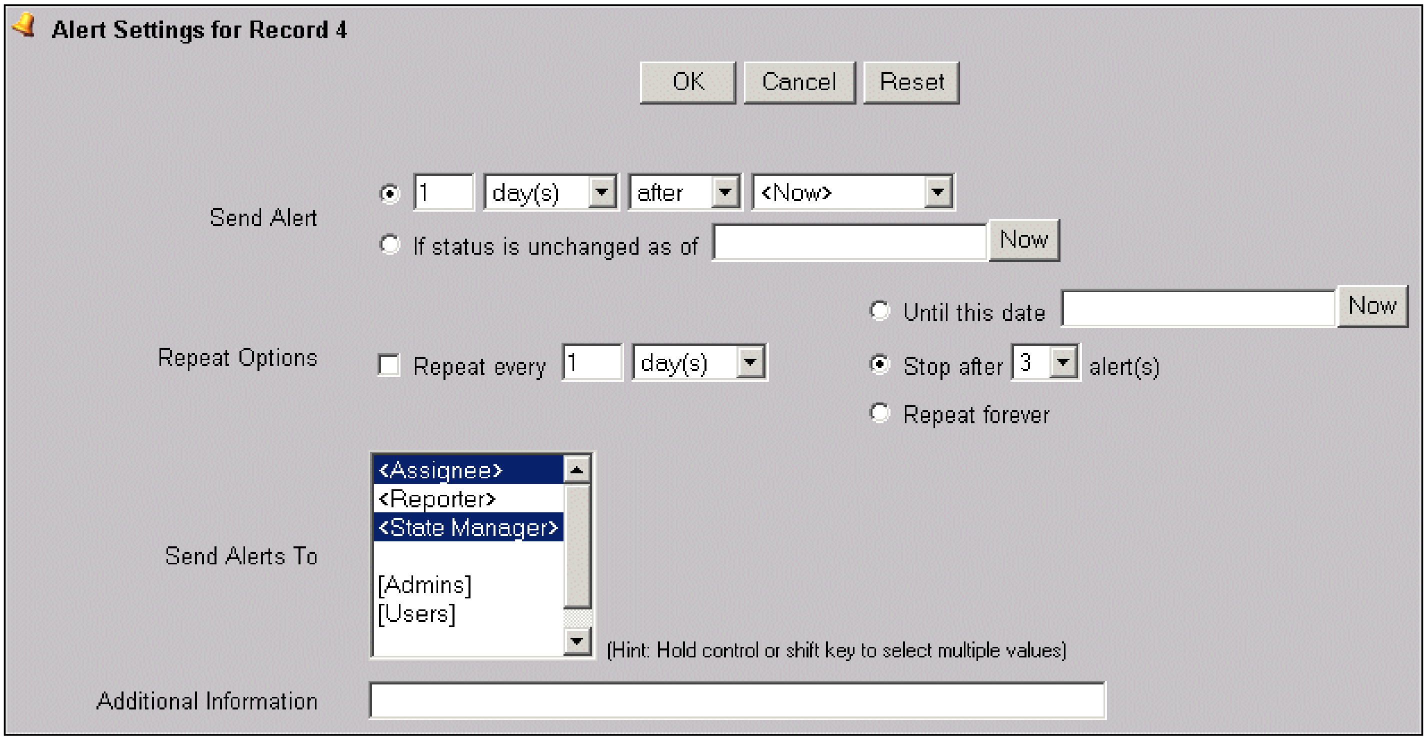
1. Check the **Add Attachment** box at the bottom of the Add page
2. Click on the **Add** or **Add & Copy** button to add the new record
3. Enter a meaningful description for the Attachment (this will be displayed when someone subsequently views the record) in the **Attachment Description** field.
4. Click the **Browse** button (to the right) to select the file from your local machine.
5. If you wish to add another attachment, check the **Add Another Attachment** box at the bottom. You will be prompted to enter the attachment description and browse to the file for the second attachment file. If you do not wish to add another attachment, simply click on the **OK** button to complete the operation.

After you have added a record (and if you have been given the appropriate privileges by your Administrator), you can add more file attachments and/or edit or delete existing attachments by following the directions in the Record Attachments section of the Help.

Setting an Alert (Enterprise Edition Only)

Alerts are email notification messages that can be configured for a record. You can set an alert to remind you about a particular record at a later date and time. You can also set an alert to be sent to other users and groups in your organization.

Depending on the product you selected, you may have the option to set an alert for the record you are creating. If you are allowed to set an alert for the record, the box **Set Alert** will appear at the bottom of the Add form. Check the box if you wish to set an alert for the record. After clicking the **Add** or **Add & Copy** button, the Alert settings will be displayed as shown below.

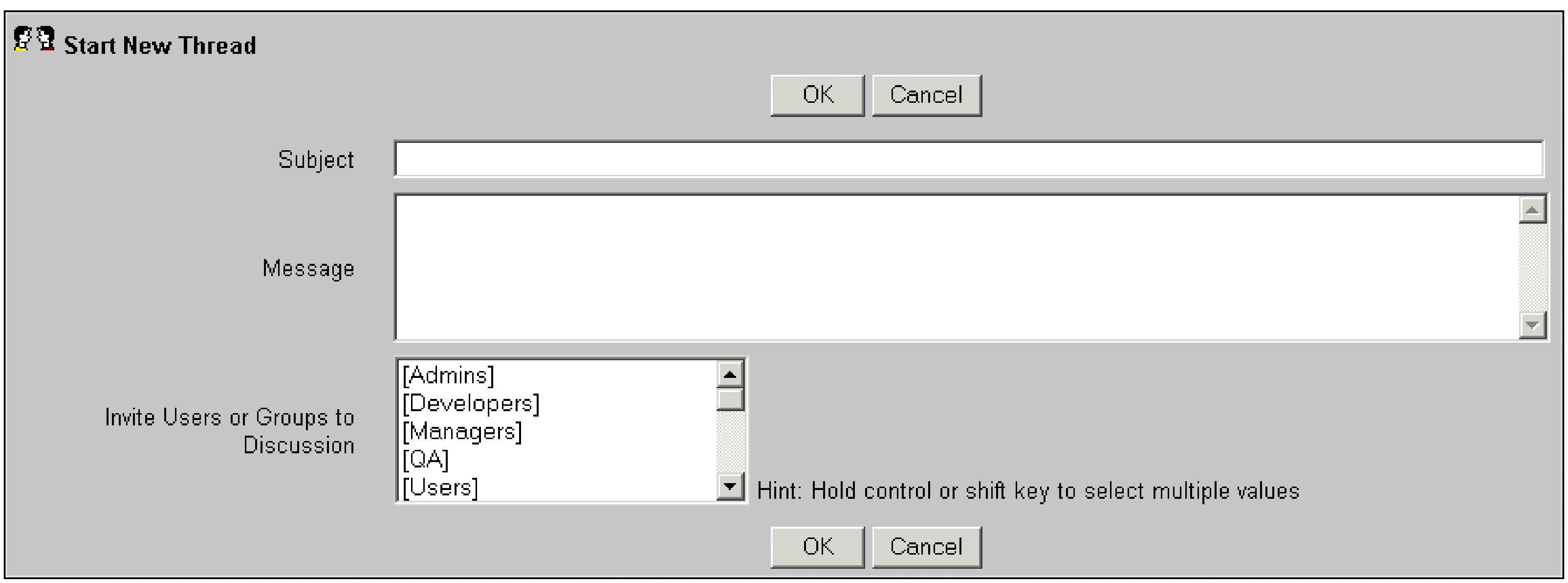


Details on configuring Alert settings during the Add operation can be found in the Alerts section.

Start a Discussion (Enterprise Edition Only)

A discussion can be initiated for a record using the **Start Discussion** check box at the bottom of the Add page. The Discussion feature allows users to discuss topics related to a record in parallel to a record's progress through the workflow. When starting a discussion for a record, you can invite other users and groups to participate in the discussion.

If you have the user group privileges required to initiate a discussion, check the box for **Start Discussion**. After clicking on the **Add** or **Add & Copy** button to save the new record, you will be prompted with the Discussion settings as shown below:



Details on starting a Discussion during the Add operation can be found in the Discussion section.

NetResults ProblemTracker

Viewing Records

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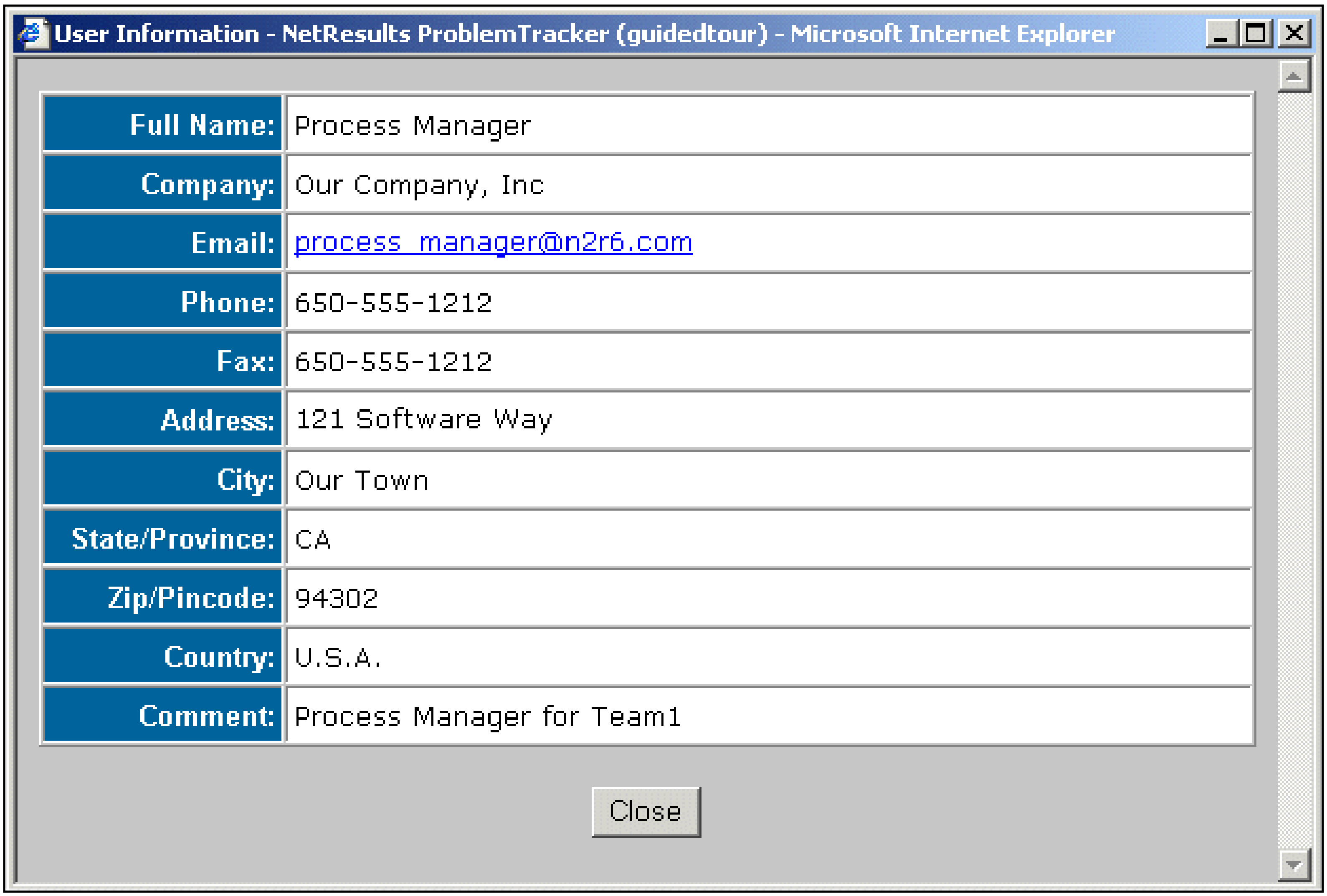
To view a record, you can either perform a query and press the **View** icon located in the Action column of the report next to the desired problem record, or you can press the View icon located in the Button bar and enter the record number you would like to see.

Viewing User Information

If you have been assigned permission to view user information and either the "Assigned To" or "Reported By" fields are displayed on the View page, you can click on the user's name to display the user's profile information such as phone, email, and address as shown below.



Expanding BigText fields

To see the full contents of the BigText fields, use the scroll bar to the right of the field. If you are using Internet

Explorer, click on the "+" to the left of the field to expand the BigText field to see the full contents. To collapse the field back the default size, click on the "-" to the left of the field. To change the default number of lines displayed for a BigText field, change the "BigText Field Settings" value on your Personal Preferences page.

Source Code List

If you have been assigned permission to view the source code list, it will be displayed. Any source code file(s) associated with the problem record will be included on the source code list.

Each file on the source code list can be compared with other versions of the file. To compare the difference between two versions of a source code, click on the Differences icon to the left of the source code file name. Enter a version number for the **Problem Version**. If you wish to compare the oldest version of the file, leave the Problem Version field blank. Enter a version number for the **Fixed Version**. If you wish to compare with the latest version of the file, leave the Fixed Version field blank. Click **OK** to see the differences.

A history is kept for each file on the source code list. To view the history of a file between two versions, click on the **History** icon to the left of the source code file name. Enter a version number for the **Problem Version**. If you wish to see the history since the oldest version of the file, leave the Problem Version field blank. Enter a version number for the **Fixed Version**. If you wish to see the history through the latest version of the file, leave the Fixed Version field blank. Click **OK** to see the history. More information on this feature, can be found in the Source Code Control section of this Help Guide.

Record Attachments

To view a file attachment or go to the location of a URL attachment, click on the attachment description. More information can be found in the Record Attachments section.

Clone Info

If you have been assigned permissions to view clone information, this section will display information about and links to the "parent" record (one that the record being viewed was copied from) as well as the "children" (copies created from the record being viewed) of this record, if any. The information about parent and/or child records includes the record number, current status, and current assignee (owner). Additionally, if the record you are viewing is a clone (has a parent record), a **parent** link will be displayed in each section (Attachments, Record History, etc.) to allow you to quickly view the equivalent information in the parent record. For example, clicking on the **parent** link in the Attachments section will bring you to the View page for the parent with the page scrolled down to the Attachments section.

Alerts - Enterprise Edition Only

If Alert settings (available only in ProblemTracker Enterprise Edition) have been configured for a record and you have been assigned permissions to view the alert settings, these will be displayed. Examples of the information shown in the alert settings section are whether alerts are set for the record, the date and time an alert will be sent, and whether the alert will be repeated. The Alerts section of this guide provides more details about using this feature.

Discussion - Enterprise Edition Only

If a Discussion(s) (available only in ProblemTracker Enterprise Edition) has been initiated for a record and you have been assigned permissions to view discussion messages, this will be displayed. The following discussion thread Information is displayed: the name of each thread, status (whether a thread has had new messages posted since you last viewed the thread), user who initiated the thread, number of messages, date and time of last update, and whether you are subscribed to the thread. The Discussion section of this guide provides more details about using this feature.

Record History

If you have been assigned permission to view the record history, it will also be displayed. More information about the information displayed in this section can be found in the Problem History section.

Printing a Record

A problem record can be formatted for printing from the View page by clicking on the **Format for Printing** button.

On the Format For Printing page, either click on the print icon use your browser's print function to print the problem record. To return to the View page, click on the **Format for Viewing** button at the top of the page.

Cloning a Record

If you have been assigned permission to Clone (create a copy of) a record, there will be a button labeled **Clone** at the top of the View page. When you click **Clone** (and click **OK** to confirm that you wish to clone this record) a new record will be added with the same values for all fields as the record you are currently viewing. After the clone operation completes, the record number of the new record will be displayed in the Status bar and you will be viewing the clone ("child" record). You can then use the Edit or Task function to modify some of the fields in the child record. You can also search for clones by setting the "Clone:" criteria on the Query page to "Yes" (or including "<Clone> is True" as a Query Phrase in an Advanced Query). And, you can include information about clones in a Report Layout by selecting "(Clone)" (this will add a column that displays Yes or No based on whether or not the record is a clone of another record) and/or "(Parent PRN)" (this will add a column that displays the record number of the parent record if it has a parent or -1 if not) as a column.

Your ProblemTracker administrator can also configure some Task operations (Transitions) to combine the Clone and Task function into a single operation (a Task operation that will clone a record and then modify the clone). Cloning from the Task operation allows much greater control over when a record may be cloned (based on the current Status of the record) and which fields (in the child record) must (or, optionally, may be) changed when a copy (clone) of a record is created. If your administrator has configured such Task operations, you may find that cloning from the View page has been disabled.

When the clone operation is performed, a Record History entry will be added to the parent record to note that a clone was created. Likewise, the child Record History will include an entry noting that it was created as a clone of another record. Information about "related" records is also available in the Clone Info section of the View page.

Note: When you use the Clone operation, only the fields will be copied from the original record. Associated information such as Attachments, Record History, Source Code File Associations, Discussion Threads, and Alert Settings will not be copied from the parent record. However, if you have been given permission to view clone info, you can easily view these items in the parent record by clicking on the **parent** link in the appropriate section of the child record (e.g. click the **parent** link in the Attachments section of the child to view the Attachments section in the parent). And, if you use the Task operation to perform cloning, your administrator can configure (on a per Transition basis) whether or not to copy Attachments or Source Code File Associations to the clone (child record) during the Task operation.

Add Similar

If you don't wish to create an exact copy of the record you are viewing, but instead would like to add a new record that is similar to the existing record (or if you don't have permission to use the Clone operation), you can click the **Add Similar** button at the top of the page. This will bring you to the Add page and fill in all fields (that are displayed on the Add page) with values from the record you were viewing. You can then modify any field values and click the Add button to add a record similar to the one you were previously viewing.

Note: Unlike the Clone operation, no fields that are not visible on the Add page will be copied when you use Add Similar. Add Similar just sets the initial values for fields displayed on the Add page (it's as if you clicked the Add button and then set all the fields you see to exactly match those of the record you were viewing). In the case of the Status and Assigned To fields, it may not be possible to set these fields exactly as they are set in the record you were viewing because certain values may not be allowed on the Add page. If that occurs for either the Status or Assigned To fields, the Add page will be set with the default values for the Status and/or Assigned To field.

Clone vs. Add Similar

In general, Add Similar should be used when you want to create a new issue that starts at the first step in your workflow (business process). Clone should be used if you wish to have several issues share a common workflow (parent record) up to a certain point (step where the child records were created) or you wish to create (child) records to represent "subtasks" of the parent record (so, for instance, you could delegate parts of a larger task to other individuals and keep track of the status of the subtasks independently).

NetResults ProblemTracker

Marking A Task Complete

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To indicate that the work necessary for a particular process state has been completed you should use the Task operation. You can find the **Task** icon on your ProblemTracker home page, on the query result page, or on the Button Bar.

Depending upon the current state, there may be one or more choices displayed in order to mark a task complete. The choices, called Transitions, can be displayed as clickable buttons, radio buttons, or a pulldown menu. Once you select a choice, the next screen will show the appropriate fields required to be filled out for completing a task.

Fields and / or a history comment may be displayed after selecting a transition. The fields presented are called task fields. Some of these fields may be for your information only (read-only task fields) and cannot be modified. Other fields including the history comment may require a modification before you can click **OK** to proceed.

The field help icon will be displayed if you have checked the box for the **Enable Field Help** personal preference and your ProblemTracker Administrator has entered information to described this field. Move your cursor over this icon to see a description of the field.

When large text fields are present, an **Annotate** button will be displayed to the left of the field. Clicking on the Annotate button will add a date and time stamp with your user name to the field. This makes it easy to distinguish which information within the field has been added by you or another user.

To view the full contents of the large text fields, use the scroll bar on the right of the field. Alternatively, the number of lines displayed for these large text fields can be customized by setting the value of **Multi-line Field Settings** on your Personal Preferences page.

Note that once submitted, ProblemTracker automatically advances the problem record to the next process state, and assigns the record to the next appropriate user.

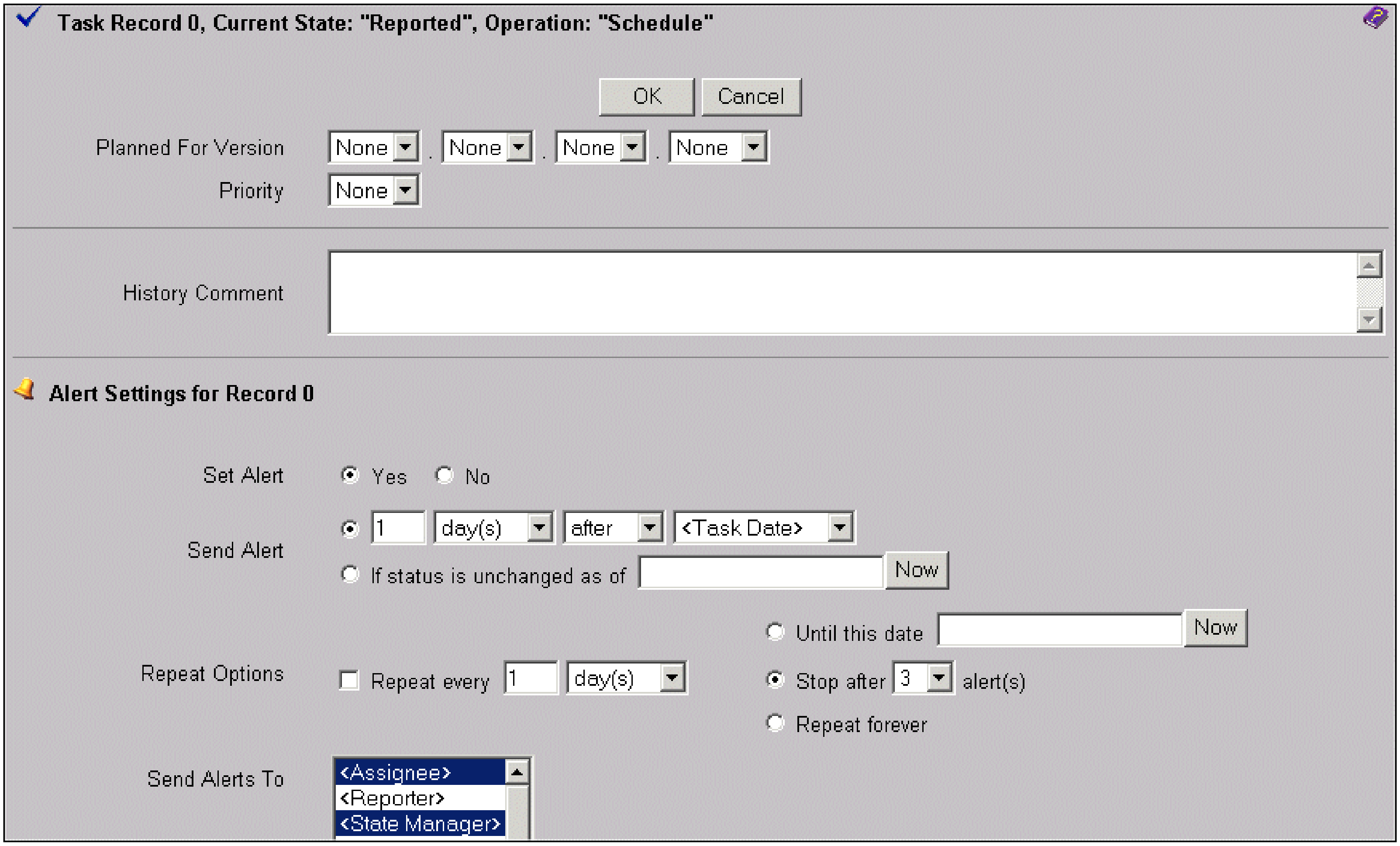
If your ProblemTracker Administrator has configured the Transition you selected to "clone" (create a copy of) the record you originally selected, the Task operation will first create a copy of the original record, then the Task operation will be performed on the clone (child record). All of the fields you update (Task Fields) and other changes (such as assignment and status changes) that are made by the Task operation will be made to the clone. When a Task operation that clones a record completes, the record number that is displayed will be the record number of the (newly created) clone, not the (parent) record you originally selected. Typically, the Transition name will also reflect the fact that a clone operation will be done (e.g. "Copy Record", "Add Subtask", etc.). Review the Cloning a Record, section of the View page Help for further information on record cloning.

After clicking on the **OK** button, if your ProblemTracker workgroup is set up to send email notification messages when a record has been processed using the Task operation, you will see a message "Sending Email Notifications...Please wait". This message indicates that the changes to the record have been saved and ProblemTracker is sending the email notification messages.

Alerts (Enterprise Edition Only)

Alerts are email notification messages that can be configured for a record. You can set an alert to remind you about a particular record at a later date and time. You can also set an alert to be sent to other users and groups in your organization.

If you have been given the appropriate privileges, you may be given the option to set an alert during the Task operation as shown below.



Details on how to configure Alert settings during the Task operation can be found in the Alerts section.

Editing A Record

To edit a record, you can either perform a query and click on the **Edit** icon located in the Action column of the report next to the desired problem record, or you can click on the Edit icon located in the Button bar and enter the record number you would like to edit.

The edit form allows you to directly modify any field of the record. This can be useful if you wish to update a description, or force a record to a particular process state (for instance, mark a record as "Released" before it has been tested). After making changes to the fields on the Edit page, click on the **Update Fields (OK)** button to save your changes.

After clicking on the **Update Fields (OK)** button, if your ProblemTracker workgroup is set up to send email notification messages when records are edited, you will see a message "Sending Email Notifications...Please wait". This message indicates that the changes have been made to the record and ProblemTracker is sending the email notification messages.

If you have made changes to the fields on the Edit page, but do not wish to save the changes, you can click on the **Cancel** button to abort your changes and immediately return to the previous page you were viewing. Or, if you have made changes, but wish to reset the fields to their previous values (the values the fields had before you made changes), you can click on the **Reset** button to restore the original values of the fields.

When you edit the record you can also enter a comment that will be entered into the history for the record. This can be useful in the future to help determine why the record was edited. Up to 2000 characters can be entered into the **history comment** field.

The field help icon will be displayed if you have checked the box for the **Enable Field Help** personal preference and your ProblemTracker Administrator has entered information to described this field. Move your cursor over this icon to see a description of the field.

When large text fields (BigText) are present, an **Annotate** button will be displayed to the left of the field. Clicking on the **Annotate** button will add a date and time stamp with your user name to the field. This makes it easy to distinguish which information within the field has been added by you or another user.

To view the full contents of the large text fields, use the scroll bar on the right of the field. Alternatively, the number of lines displayed for these large text fields can be customized by setting the value of **Multi-line Field Settings** on your Personal Preferences page.

Your ProblemTracker may have been configured to have dependent pulldown fields. Dependent pulldowns are pulldown fields where the option menu values displayed in one pulldown are determined by the value selected in the pulldown it is dependent on. If you change the value selected in a parent pulldown field, it may change the value selected in the child pulldown menu based on the relationship set up between the two fields.

Record Attachments

The edit page also allows you to add, edit, or remove an attachment for the record. The Record Attachments section contains more details.

Source Code Control

If you have been assigned permission to edit the source code list, you will be able to add, edit or remove source code files for the record. The Source Code Control section has more details about this feature.

Alerts - Enterprise Edition Only

If you have been assigned permission to edit the alert settings for a record, you will be able to set up an alert for the problem record. Refer to the Alerts section of this Help Guide for more information on setting an Alert for a record.

Modifying Record Visibility

If Record Visibility has been enabled, and you are a member of a user group that is allowed to modify the visibility of a record to user groups, the field **Make Visible to These User Groups** will appear. This field is a selection list at the bottom of the page which allows you to select to which user groups this record should be visible. To select more than one user group, hold down the shift or control key while clicking. If you wish to make a record visible only to the Admins user group, click on the blank space at the bottom of the list.

NetResults ProblemTracker

Record Attachments

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Overview

ProblemTracker allows you to associate as many files as you wish with a record. These "attachments" can be anything from an image file, to a customer email or a website URL.

Attachments are presented as a list of standard HTML hyperlinks when the record is viewed by the user, and are presented to the user in a new browser window when clicked.

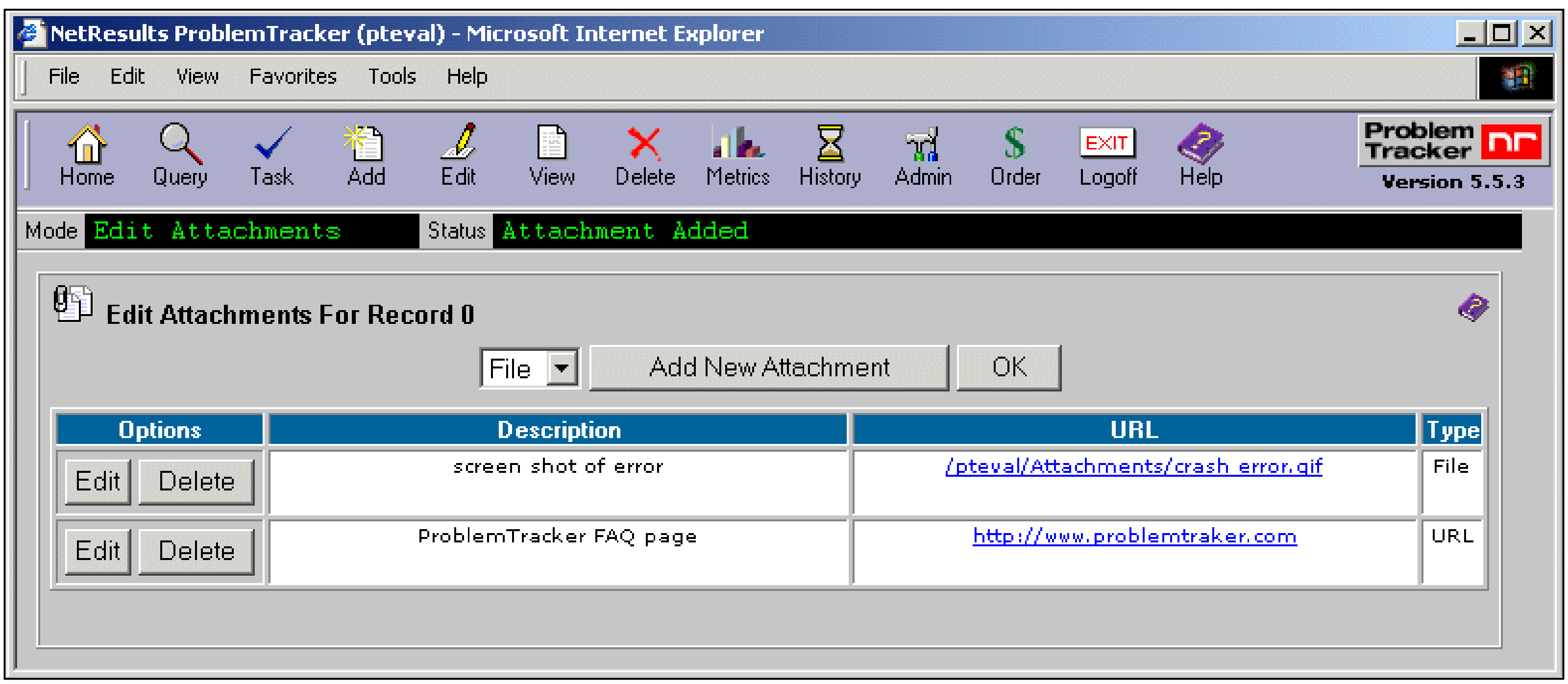
Adding an Attachment

An attachment file can be included with a record when the record is first created (see Adding Records) or it can be added to a record by following these steps:

1. Edit the desired record, either by navigating to it via a query result, or via the **Edit** icon.
2. Press the **Edit Attachments** button. A form appears that displays the current attachments associated with the record.
3. Select the type of attachment you are adding. **File** is a file which will be uploaded to your server. **URL** is a URL specification (which is not uploaded to the server). The URL attachment type may be useful when tracking problems on websites.
4. Press the **Add New Attachment** button.
5. In the form displayed, enter a meaningful description of this attachment in the **Attachment Description:** field
6. If you have selected a File attachment, use the **Browse** button to select the file from your local machine. If you have selected a URL attachment, type in the URL you wish to add as an attachment. Please include the protocol portion of the URL (e.g. http: for URL attachments. Without the protocol portion entered in the URL, you won't be able to use the link you have saved.
7. Click on the **OK** button.

If you should encounter any errors when uploading files to the server, a list of the files which encountered problems and the associated error messages will be displayed at the top of the next page.

Editing an Attachment



To edit an existing attachment, follow these steps:

1. Edit the desired record, either by navigating to it via a query result, or via the **Edit** icon.
2. Press the **Edit Attachments** button. A form appears that displays the current attachments associated with the record.

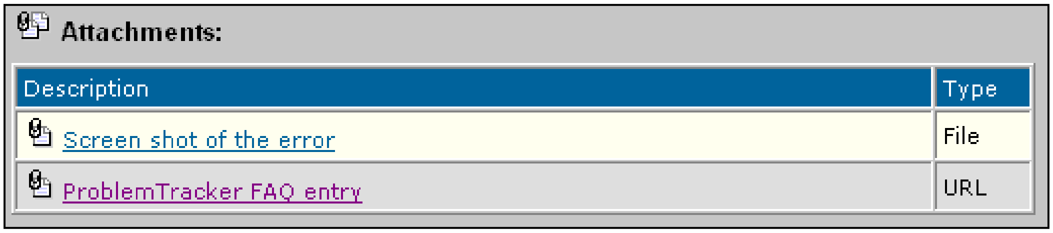
3. Located the desired attachment in the table and press the **Edit** button that appears in the same row.
4. In the form displayed, edit the attachment URL or description. If the attachment is a **File** attachment, you will not be presented with the option to edit the URL.
5. Click on the **OK** button.

Removing an Attachment

To delete an existing attachment, follow these steps:

1. Edit the desired record, either by navigating to it via a query result, or via the Edit button.
2. Press the **Edit Attachments** button. A form appears that displays the current attachments associated with the record.
3. Located the desired attachment in the table and press the **Delete** button that appears in the same row.
4. Click on the **OK** button.

Viewing Attachments



Attachments to records appear as a list of descriptions and clickable links when the record is viewed. The action that occurs when the link is clicked depends upon the actions defined for each file type in the user's browser and on the file extension to file type mapping used by your web server. Please refer to your web browser's documentation for details on how to set up actions to handle various file types. Please contact your web site administrator if a file is not being mapped to the appropriate file type by your web server.

Overview

ProblemTracker allows you to associate any source code file from your Source Code Control system to a record.

The source code files are presented as a list when the record is viewed. The entries displayed on the source code list within each can be edited to add or remove source code file associations.

In addition, a history of older versions of each source code file can be viewed. The older versions can be compared to display the differences within the source code file.

Source Code Control Login Settings

Each user must supply their SourceSafe Login Settings in order to edit the source code list.

To enter the login information, each user should:

1. Login to the workgroup
2. Click on the **Preferences** link
3. In the **SourceSafe Login Settings** section, enter the **User ID** and **Password** he or she uses to access the Microsoft Visual SourceSafe database
4. Click **OK** to save these settings

Adding a Source Code File to a Record

To add a source code file to a record:

1. Edit the desired record, either by navigating to it via a query result, or via the **Edit** icon.
2. Click on the **Edit Source Code List** button. A form appears that displays the current source code files associated with the record.
3. Click on the button labeled **Add New Source Code File**.
4. A new form will appear. The left column will show a directory listing the projects in your Source Code Control database. "$" denotes the root of the database. Double click on a project folder to expand it one level. Navigate to find the file you wish to associate to the problem record. The list of files will appear on the right column. Select a file in the right column by clicking on it.
5. If desired, enter a version number in the field **The problem was found in version**.
6. If desired, enter a version number in the field **The problem was fixed in version**.
7. Click **OK** to associate the file to the problem record. A confirmation message will be displayed, click **OK** to proceed.

Editing the List of Source Code Files

For each source code file that has been associated with a record, you can edit the version information in the fields **The problem was found in version** and **The problem was fixed in version**. You can also replace the file with a new version from your Source Code Control database or select a new file to add in its place.

To edit an entry on the Source Code List:

1. Edit the desired record, either by navigating to it via a query result, or via the **Edit** icon.
2. Click on the **Edit Source Code List** button. A form appears that displays the current source code files associated with the record.
3. Click on the **Edit** button to the right of the entry you wish to modify.
4. To replace a file, navigate to the appropriate project folder in the left column, then double click on the file name in the column on the right.
5. If desired, modify the fields **The problem was found in version** and **The problem was fixed in version**.
6. When modifications are complete, click **OK**, then **OK** again to confirm.

Removing a Source Code File Association from a Record

To remove a file from the Source Code List:

1. Edit the desired record, either by navigating to it via a query result, or via the **Edit** icon.
2. Click on the **Edit Source Code List** button. A form appears that displays the current source code files associated with the record.
3. Click on the **Delete** button to the right of the entry you wish to delete, then click **OK** to confirm.

Viewing the History of a Source Code File

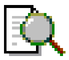
The history of each source code file can be accessed via the source code list within a record. The history has an entry for each version of the file that has been checked into the source code control database. The history information collected for each version includes file type, date of action (check-in, check-out, etc.), user who performed action, and any comments entered about the action. From this list of history entries, you can generate a comparison between two versions of the source code file.

To view the history for a source code file:

1. View the desired record, either by navigating to it via a query result, or via the **View** icon.
2. Scroll down to the list of Source Code files associated with the record.
3. Click on the **History** button to the left of the source code file you wish to see.
4. If desired, enter a version number in the fields **Problem Version** and **Fixed Version**. Leaving these fields blank will generate history information for all versions.
5. To see the details of a version listed in the history, click on the version you wish to see. The history details of the version will be displayed.
6. Additionally, a difference between versions can be generated from the history listing of a source code file. The two columns in the File History, called Base and Against, contain radio buttons where you can

select 2 versions to compare for a list of differences. In the **Base** column, click on the radio button for the oldest version you wish to compare. In the **Against** column, click on the radio button for the latest version you wish to compare. Click on the **Diff** button at the top to generate the differences between the versions selected.

Comparing Versions of a Source Code File


The history contains an archive of each version of a source code file. Any two versions can be compared to display the differences. This is especially useful to be able to see the specific changes that were made in a source code file to fix a particular problem or introduce an enhancement.

There are 2 ways to generate a list of differences between 2 versions:

Method 1

1. View the desired record, either by navigating to it via a query result, or via the **View** icon.
2. Scroll down to the list of Source Code files associated with the record.
3. Click on the **Differences** button to the left of the source code file you wish to see.
4. If desired, enter a version number in the fields **Problem Version** and **Fixed Version**. Leaving these fields blank will compare the oldest and latest versions. Then, click **OK** to generate the list of differences.

Method 2

1. View the desired record, either by navigating to it via a query result, or via the **View** icon.
2. Scroll down to the list of Source Code files associated with the record.
3. Click on the **History** button to the left of the source code file you wish to see.
4. If desired, enter a version number in the fields **Problem Version** and **Fixed Version**. Leaving these fields blank will generate history information for all versions.
5. The two columns in the File History, called Base and Against, contain radio buttons where you can select the versions to compare. In the **Base** column, click on the radio button for the oldest version you wish to compare. In the **Against** column, click on the radio button for the latest version you wish to compare. Click on the **Diff** button at the top to generate the differences between the versions selected.

Querying Records for Source Code Information

Users that are members of user groups with the "View Source Code Files" privilege enabled are able to include Source Code related field in the criteria of a standard or advanced query. The fields "Source Code File", "Problem Version" , and "Fixed Version" are displayed in the standard and advanced query pages. You can enter text into these fields to be used as search criteria in the query. For details on running queries, please refer to the Querying Records or Advanced Queries Help sections.

NetResults ProblemTracker

Alerts (Enterprise Edition Only)

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Overview

Note: This feature is only available in ProblemTracker Enterprise Edition.

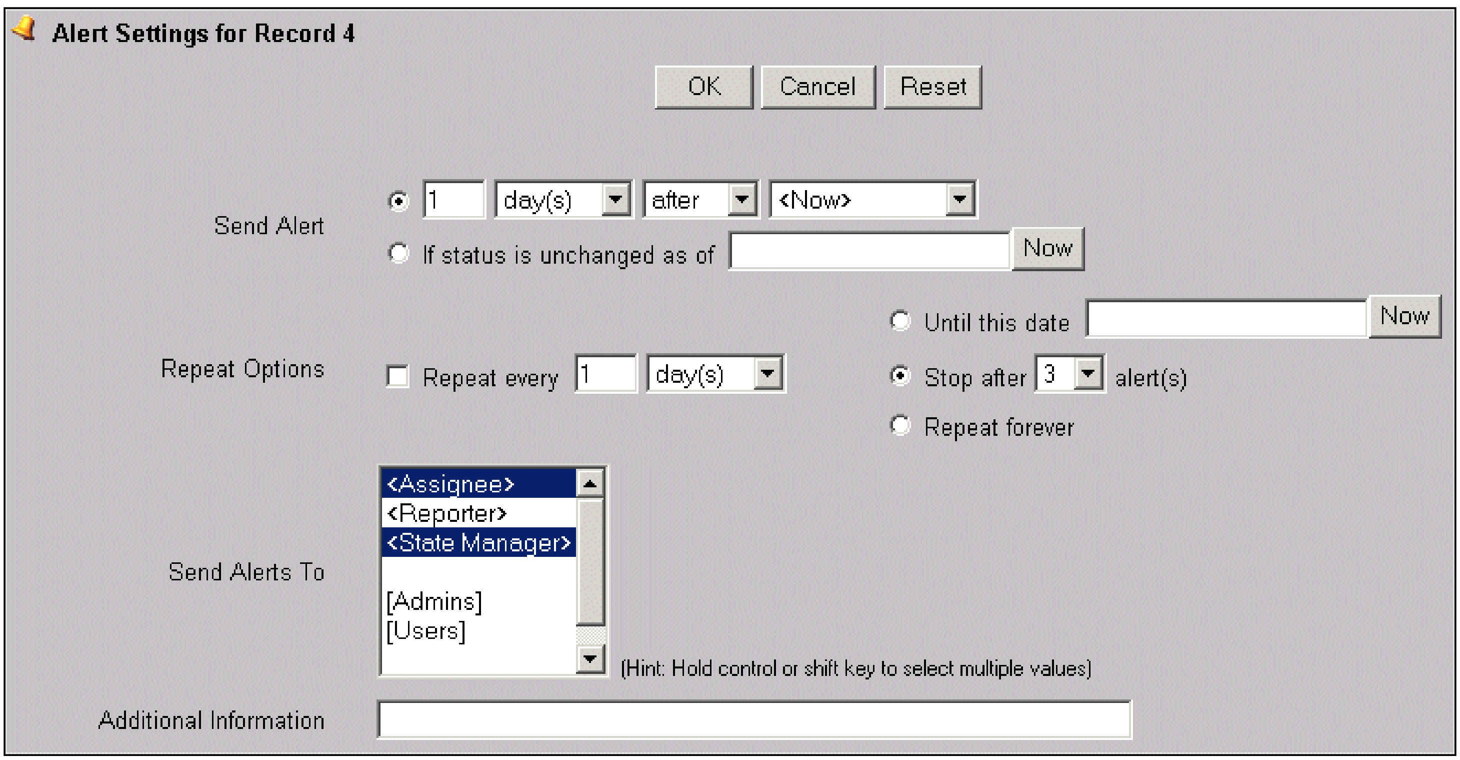
Alerts are a form of email notification messages that can be triggered by a lack of change in a record's state within a certain time period. For example, a record should not stay within a particular state for longer than 2 days. An alert can be sent if the record is still within the same state after a period of 2 days has passed. Alerts can also be used to remind a user about a record at a later date and time.

Alerts can be configured per record. Each record can have different alert settings including when, how, how often, and to whom the alerts should be sent.

When specifying when to send an alert either for a given record or a transition, a fixed date and time can be entered or a date and time based on a date field within the record can be used. In addition, alerts can be sent once or configured to repeat periodically. Any combination of users and / or user groups can receive alerts for a particular record.

Setting Alerts during the Add Operation

Depending on the product you selected, you may have the option to set an alert for the record you are creating. If you are allowed to set an alert for the record, the box **Set Alert** will appear at the bottom of the Add form. Check the box if you wish to set an alert for the record. After clicking the **Add** or **Add & Copy** button, the Alert settings will be displayed as shown below.



- **Send Alert**
  The user can select when the alert should be sent. A relative or absolute time can be specified. A relative time can be selected by choosing the radio button to the left of the option **X <Interval> <before or after> <Date>** where X can be any number from 1 to 99, <interval> can be hours, days, weeks, or months, and <Date> can be <Now> or another date field in the record. Example 1: If "5 days after <Now>" is selected, the alert will be sent 5 days after the record is added. Example 2: If "10 hours before <Due Date>" is selected, the alert will be sent 10 hours before the date and time entered in the field called "Due Date" in the record.

  If a date field is selected as the date to generate an alert and this date field has no value in a record, an alert will not be generated. If a date field is selected as the date to generate an alert and this date field is later removed from the record, then <Now> will be set as the date to generate an alert (to replace the date field that was removed).

  An absolute time can be selected by choosing the radio button to the left of the option **If state is unchanged after <Date and Time>** where <Date and Time> is any date and time you choose. The <Date and Time> entered should comply with the date and time formats in the user's personal preferences. For example, if the user has "mm/dd/yyyy" selected as the date format and "12 hour" as the time format, the information entered for <Date and Time> in the alert settings must be of the form "mm/dd/yyyy hh:mm:ss PM".

- **Repeat Options**
The user can select whether an alert should be repeated after the first alert is sent. Checking the box to the left of **Repeat every X <interval>** will enable an alert to be sent multiple times. The user can enter any number from 1 to 99 and select hour, day, week, or month as the <interval>. An alert can be repeated until a particular date (select the radio button for **Until this date <Date>** and enter a date), or after the alert has been sent a particular number of times (select the option **Stop after X alert(s)** where X is a number from 1 to 10), or forever (select the option **Repeat forever**).

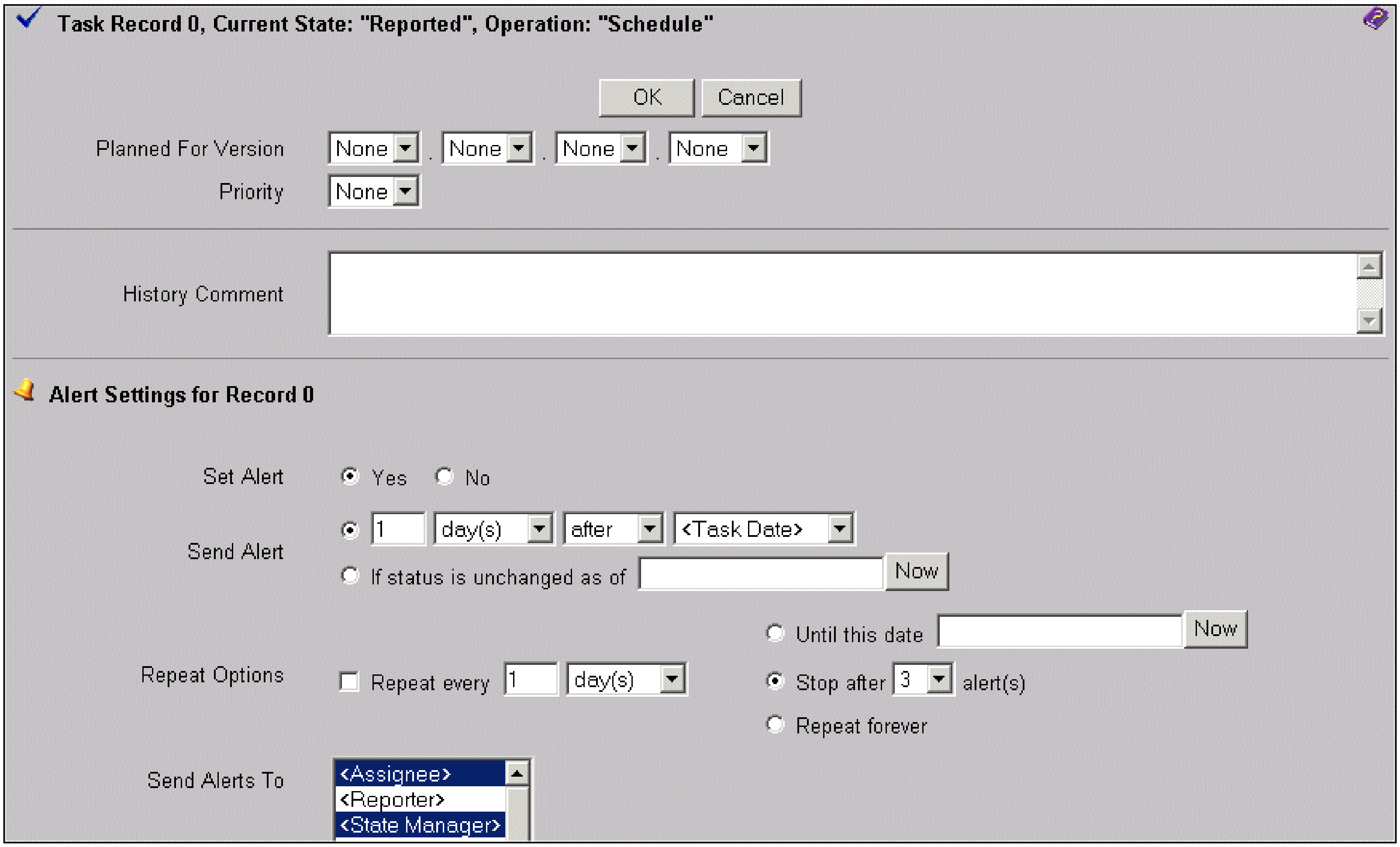
- **Send Alerts To**
The user can choose which users or user groups will receive the alert. To select multiple users and / or groups, hold down the **CTRL** button on your keyboard while clicking on the users / groups. Depending on the configuration selected by your ProblemTracker Administrator, the user groups displayed may only be those groups of which you are a member.

- **Additional information**
Up to 80 characters can be entered. This information will be included in the alert notification email.

These alert settings will be in effect for the newly added record until the state is changed either via the Task or Edit operations or if the alert settings are changed in the Edit Alerts section.

Configuring Alert Settings during Task Operation

When the task operation is performed on a record, the user may be prompted to configure alert settings as shown below.



- **Set Alert**
Selecting **Yes** indicates an alert should be generated using the alerts settings below. Selecting **No** indicates that no alert should be sent.

- **Send Alert**
The user can select when the alert should be sent. A relative or absolute time can be specified. A relative time can be selected by choosing the radio button to the left of the option **X <Interval> <before or after> <Date>** where X can be any number from 1 to 99, <interval> can be hours, days, weeks, or months, and <Date> can be <Task Date> or another date field in the record. Example 1: If "5 days after <Task Date>" is selected, the alert will be sent 5 days after this task operation is complete. Example 2: If "10 hours before <Due Date>" is selected, the alert will be sent 10 hours before the date and time entered in the field called "Due Date" in the record.

If a date field is selected as the date to generate an alert and this date field has no value in a record, an alert will not be generated. If a date field is selected as the date to generate an alert and this date field is later removed from the record, then <Task Date> will be set as the date to generate an alert (to replace the date field that was removed).

An absolute time can be selected by choosing the radio button to the left of the option **If state is unchanged after <Date and Time>** where <Date and Time> is any date and time you choose. The <Date and Time> entered should comply with the date and time formats in the user's personal preferences. For example, if the user has "mm/dd/yyyy" selected as the date format and "12 hour" as the time format, the information entered for <Date and Time> in the alert settings must be of the form "mm/dd/yyyy hh:mm:ss PM".

- **Repeat Options**
  The user can select whether an alert should be repeated after the first alert is sent. Checking the box to the left of **Repeat every X <interval>** will enable an alert to be sent multiple times. The user can enter any number from 1 to 99 and select hour, day, week, or month as the <interval>. An alert can be repeated until a particular date (select the radio button for **Until this date <Date>** and enter a date), or after the alert has been sent a particular number of times (select the option **Stop after X alert(s)** where X is a number from 1 to 10), or forever (select the option **Repeat forever**).

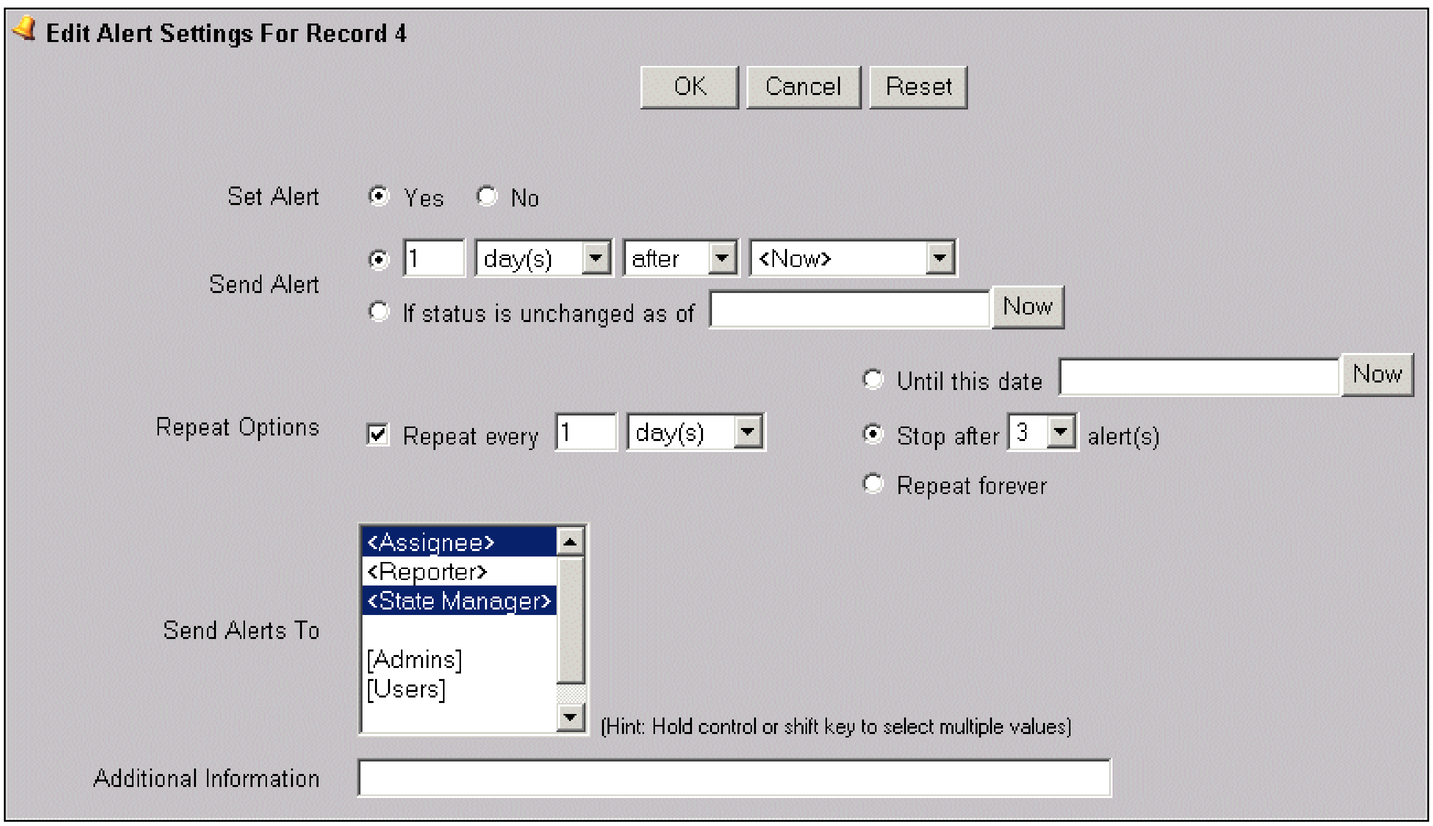
- **Send Alerts To**
  The user can choose which users or user groups will receive the alert. To select multiple users and / or groups, hold down the **CTRL** button on the keyboard while clicking on the users / groups. Depending on the configuration selected by your ProblemTracker Administrator, the user groups displayed may only be those groups of which you are a member.

- **Additional information**
  Up to 80 characters can be entered. This information will be included in the alert notification email.

These alert settings will be in effect for the record until the state is changed either via the Task or Edit operations or if the alert settings are changed in the Edit Alerts section.

Editing Alert Settings

A user can edit the alert settings for a record if they have the required privileges. A user can edit the alert settings for a record by clicking on the **Edit** icon in the top button bar and entering a record number or by clicking on the Edit icon next to a record number in a report on the Query or Home page. Clicking on the **Edit Alerts** icon will display the following alert settings for the record:



- **Set Alert**
  Selecting **Yes** will send an alert based on the values below

- **Send Alert**
  The user can select when the alert should be sent. A relative or absolute time can be specified. A relative time can be selected by choosing the radio button to the left of the option **X <Interval> <before or after> <Date>** where X can be any number from 1 to 99, <interval> can be hours, days, weeks, or months,

and <Date> can be <Now> or another date field in the record. Example 1: If "5 days after <Now>" is selected, the alert will be sent 5 days after the alert settings are saved by clicking OK. Example 2: If "10 hours before <Due Date>" is selected, the alert will be sent 10 hours before the date and time entered in the field called "Due Date" in the record.

An absolute time can be selected by choosing the radio button to the left of the option **If state is unchanged after <Date and Time>** where <Date and Time> is any date and time you choose. The <Date and Time> entered should comply with the date and time formats in the user's personal preferences. For example, if the user has "mm/dd/yyyy" selected as the date format and "12 hour" as the time format, the information entered for <Date and Time> in the alert settings must be of the form "mm/dd/yyyy hh:mm:ss PM".

- **Repeat Options**
The user can select whether an alert should be repeated after the first alert is sent. Checking the box to the left of **Repeat every X <interval>** will enable an alert to be sent multiple times. The user can enter any number from 1 to 99 and select hour, day, week, or month as the <interval>. An alert can be repeated until a particular date (select the radio button for **Until this date <Date>** and enter a date), or after the alert has been sent a particular number of times (select the option **Stop after X alert(s)** where X is a number from 1 to 10), or forever (select the option **Repeat forever**).

- **Send Alerts To**
The user can choose which users or user groups will receive the alert. To select multiple users and / or groups, hold down the **CTRL** button on the keyboard while clicking on the users / groups. Depending on the configuration selected by your ProblemTracker Administrator, the user groups displayed may only be those groups of which you are a member.

- **Additional information**
Up to 80 characters can be entered. This information will be included in the alert notification email.

Overview

Note: This feature is only available in ProblemTracker Enterprise Edition.

Discuss The Discussions feature is a means of allowing users to discuss various topics pertaining to a record. This allows users to collaborate without having to coordinate a meeting for everyone to contribute to the discussion. For example, a record may be assigned to a particular developer, but several developers are needed to provide input for an enhancement's design or the resolution of a bug. These discussions can continue in parallel to the record's progression through the workflow.

Discussions are also useful for archiving information for later use. For example, information on how to reproduce, workaround, or fix a bug can be addressed in a discussion thread. In a customer support organization, the discussion information would be useful to help the support team provide information to the customers as quickly as possible. Another example lies in integrating a new user into a project. The user can review the information present in the discussion to become familiar with the project's progress to date.

A discussion can be started for any record. The user initiating the discussion can invite other users or user groups to participate in the discussion. Within the discussion for each record, multiple threads can be started to discuss multiple topics. Users can post and reply to messages within a particular thread. Users can also choose to receive email messages to notify them about a new discussion or new posts to a discussion.

Preparation for using the Discussion feature

In order to use the Discussion feature, you must have the **Discuss** icon displayed in the top button bar. Please contact your ProblemTracker Administrator if you do not have this icon displayed. When using the Discussion feature, you have the ability to set preferences that determine whether you should receive discussion invitations and new post notification messages by email. You can also choose how many lines of text you would like to display in the message window in the Discussion section. Review the Personal Preferences section for details on how to customize these settings.

Access a Discussion

To access the Discussion for a record, click on the **Discuss** icon in the button bar and enter the appropriate record number. You can also reach the Discussion by clicking on one of the Discuss icons that may be present on the Home or Query page reports.

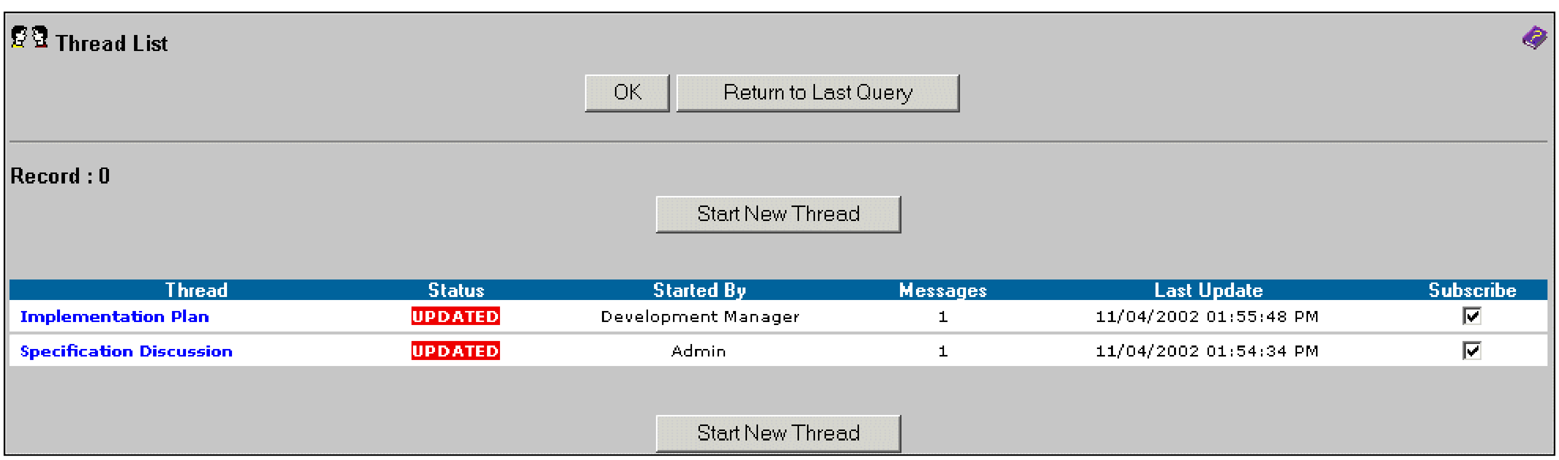
If your Personal Preferences are set such that you receive a discussion invitation or new post notification by email, you can also reach the discussion by clicking on the URL listed in the email message.

Invitations and Subscriptions

Another user can invite you (or a user group in which you are a member) to participate in a discussion when he or she starts a new discussion thread for a record. This invitation automatically subscribes you to a discussion thread. When you are subscribed to a discussion thread, this indicates you will receive notifications related to the discussion thread based on your Personal Preference settings.

If you are not invited to participate in a discussion thread, you can **subscribe** to the thread by performing the following steps:

1. Click on the **Discuss** icon in the top button bar and enter the appropriate record number
2. Check the box in the **Subscribe** column for the thread to which you want to subscribe
3. Click **OK** to save this change



To **unsubscribe** from a discussion thread:

1. Click on the **Discuss** icon in the top button bar and enter the appropriate record number
2. Uncheck the box in the **Subscribe** column for the thread from which you want to unsubscribe
3. Click **OK** to save this change

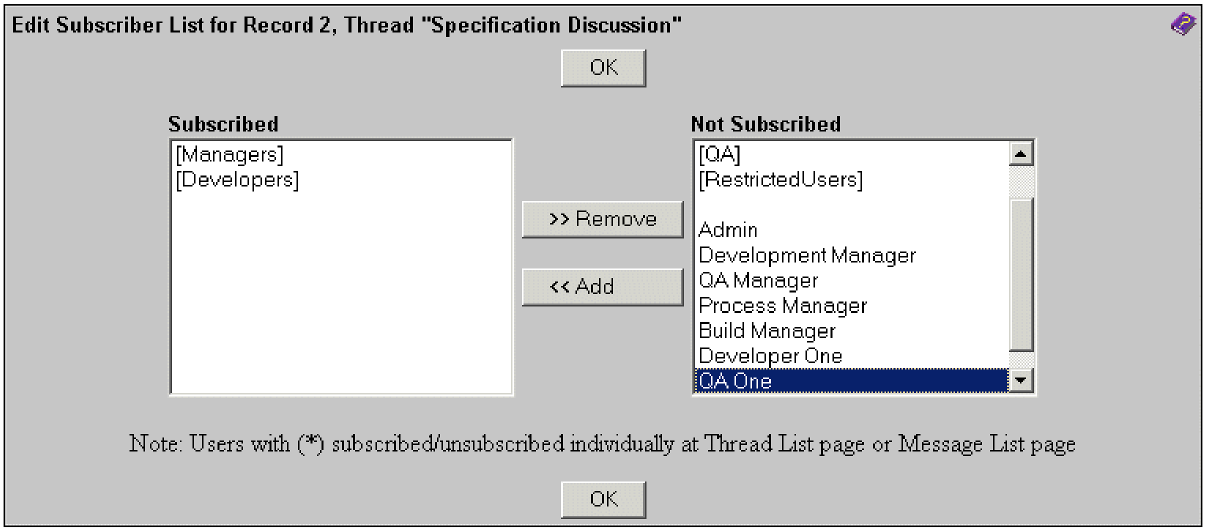
After unsubscribing from a discussion thread, you will no longer receive notification messages related to that thread. You can still access the discussion thread if you are not subscribed to it.

Editing a Subscriber List

You can modify the list of users and user groups subscribed to a discussion thread. To do this:

1. Go to the Discussion section of a record by clicking on **Discuss** icon in the top button bar and entering the record number or by clicking on the Discuss icon for a record on the Query or Home page.
2. Click on a thread to view its contents
3. Click on the **Edit Subscriber List** button at the top of the page
4. To add a user or group to the **Subscribed** list, click on the user or group in the right column **Not Subscribed**, then click on the **Add** button.
5. To remove a user or group from the **Subscribed** list, click on the user or group in the left column **Subscribed**, then click on the **Remove** button.
6. Click **OK** to return to the thread's message list.

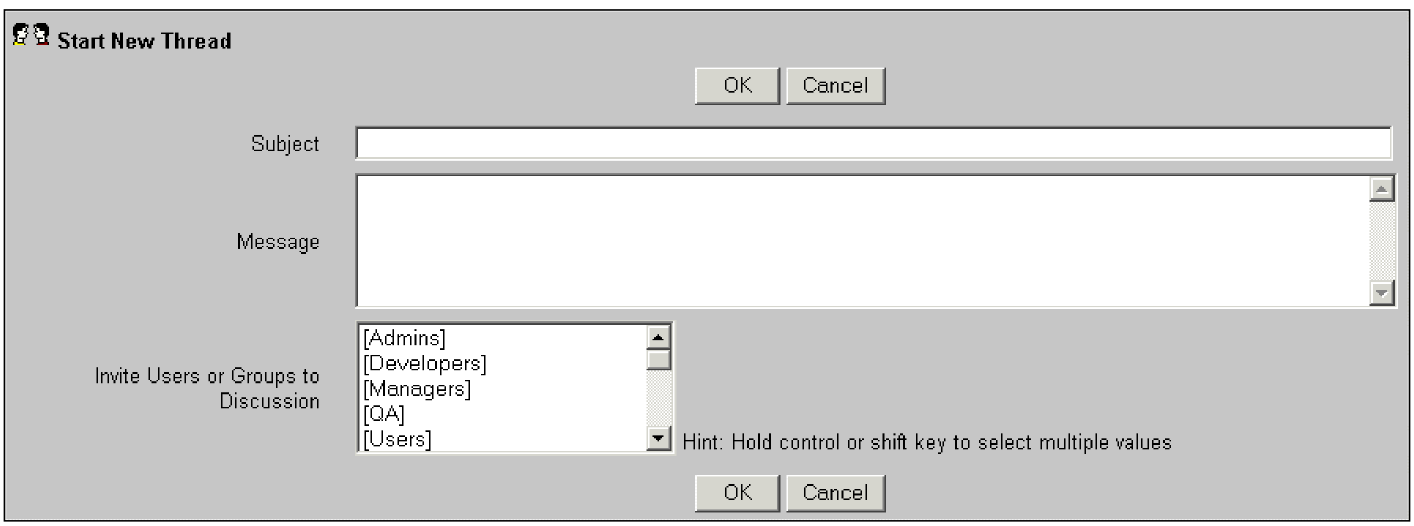
Any users in the **Subscribed** list that have "(*)" noted are users which manually subscribed to the thread by checking the **Subscribe** box on the Thread List or on the Message List pages.



Initiating a Discussion

With sufficient user group privileges, you can start a discussion within a record. One way to start a discussion is on the Add page when creating a new record. The other way is to go to the Discussion section for a record.

Starting a Discussion via the Add page
To start a discussion when adding a record, enter the information in the fields on the Add form, then check the **Start Discussion** box at the bottom, then click on the **Add** or **Add & Copy** button. On the next page, enter the following information about the discussion thread you are creating:



- **Subject**
  Enter some information to describe the topic of the new thread you are creating

- **Message**
  Enter information that will appear in the first message posted to this thread. For example, you could describe in more detail the topic of the thread. You could also describe what contributions are expected from the users who participate in the discussion.

- **Invite Users or Groups to Discussion**
  By default, when you initiate a discussion, you are subscribed to the discussion thread you are creating. You can unsubscribe yourself, by clicking on your username in the **Invite Users or Groups to Discussion** field so that your username is de-selected. Click on the users and / or user groups that should be invited to participate in the discussion thread you are creating. To select multiple users or groups, hold down the **CTRL** button on your keyboard while clicking on the users and groups. Users have the option to set their Personal Preferences such that they will receive an email when they are invited to participate in a new discussion thread.

After entering the information above, click **OK** to create the new thread.

Starting a Discussion for a record after it has been added
To create a thread, click on the **Discuss** icon in the top button bar, then enter the number of the record for which you want to start a discussion and click **OK**.

If the record does not have any existing discussion threads, you will be prompted to enter the following information. If the record already has existing threads, you can add a new thread by clicking on the **Start New Thread** button, then entering the information below:

- **Subject**
  Enter some information to describe the topic of the new thread you are creating

- **Message**
  Enter information that will appear in the first message posted to this thread. For example, you could describe in more detail the topic of the thread. You could also describe what contributions are expected from the users who participate in the discussion.

- **Invite Users or Groups to Discussion**
  Click on the users and / or user groups that should be invited to participate in the discussion thread you are creating. To select multiple users or groups, hold down the **CTRL** button on your keyboard while clicking on the users and groups. Users have the option to set their Personal Preferences such that they will receive an email when they are invited to participate in a new discussion thread.

After entering the information above, click **OK** to create the new thread.

Viewing a Thread

When one or more threads have been created in a record, they will appear on the Thread List. To get to the thread list for a record, click on the **Discuss** icon in the top button bar and enter the number of the record you wish to see. You can also click on the Discuss icon next to a record from the reports on the Home page.

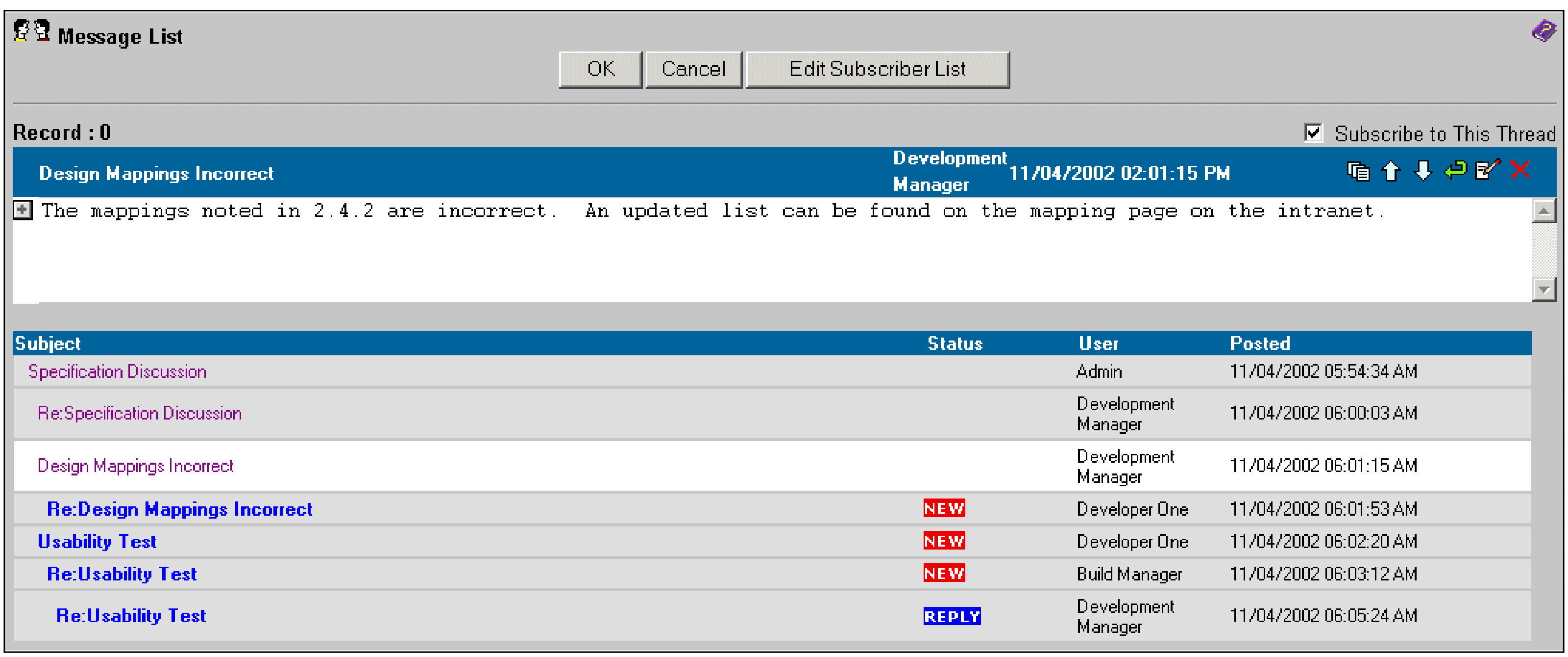
The Thread List for a record shows details about each thread such as the name of the thread, the user who started it, the number of messages, and the date and time of the last update. To view a thread, click on the name of a thread on the list.

If a thread has been updated since your last login, **UPDATED** will appear in the Status column of the thread list. This indicates that there are new message(s) to view in the thread.

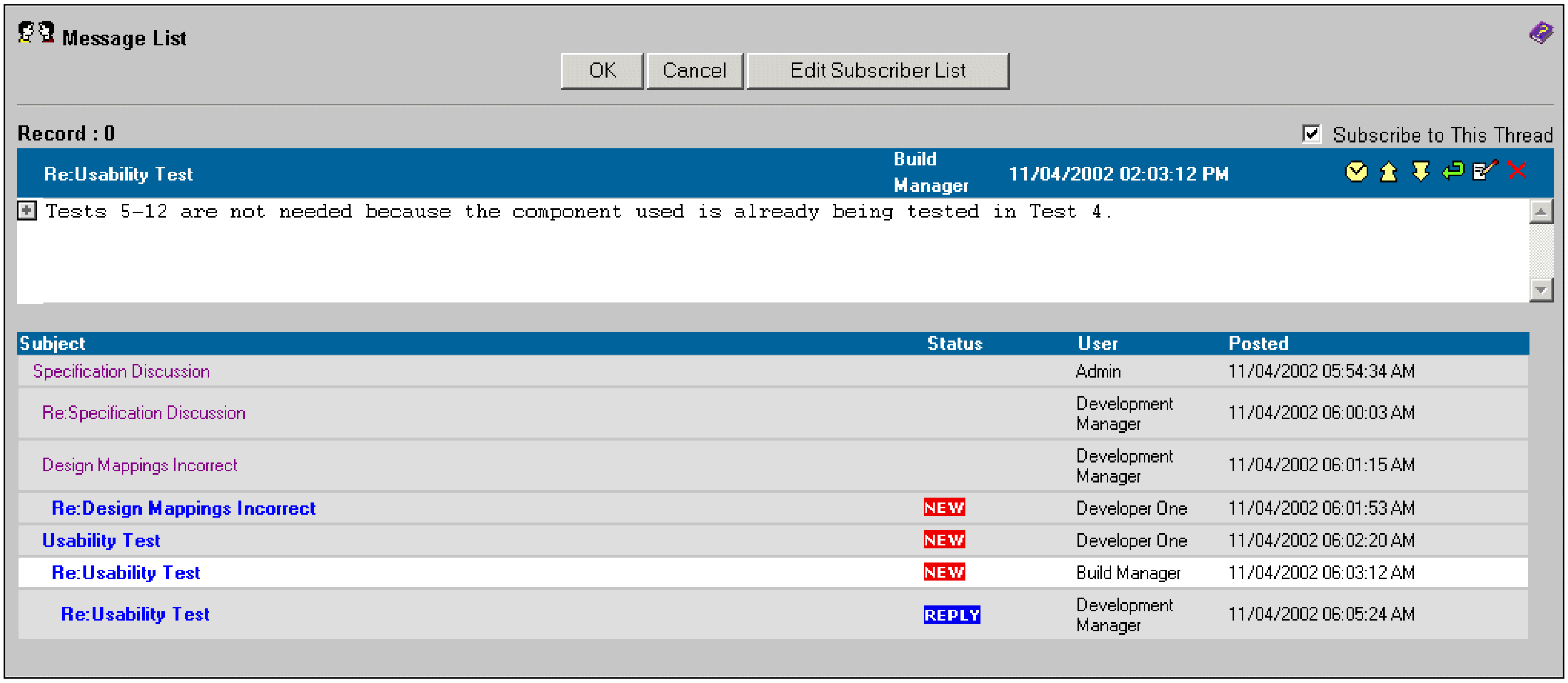
Thread Structure and Operations

When viewing a thread, the top of the page will display the thread information. Below the thread information, a tree structure is displayed which lists all messages in the thread. The first entry in the tree structure is the thread information. Click on the subject of a message in the tree structure so its contents will be displayed at the top of the page. To expand the message to see all of its contents, click on the + icon in the top left corner of the message contents.

There are 2 ways to sort the message list. By default, the messages are sorted in **thread order**, meaning the messages are organized in a tree structure with levels to indicate the hierarchy of each message. In this mode, the thread message is at the top level. Any reply to this thread message starts a new level (second level). Replies to messages at the second level start a new level (third level) and so on. The other way to sort the message list is in chronological, or **time order**. To change the sorting order, click on the order icon in the upper right corner of the message box. The first image below displays a message list sorted in thread order.



The following image shows an example of a message list sorted in time order.



When the thread order icon is displayed in the upper right corner of the message box, the message list is currently sorted in **thread order**. Click on this icon to change the message list sort order to time order.

When the time order icon is displayed in the upper right corner of the message box, the message list is currently sorted in **time order**. Click on this icon to change the message list sort order to thread order.

When viewing a message in the tree structure, you can use the up and down arrows in the upper right corner of the message to navigate through the tree structure.

If you have the appropriate privileges, you can view, edit, post, reply, or delete a thread and the messages it contains. The thread is the first message listed in the tree structure. If **NEW** is displayed in the Status column of a message on the list, this indicates that you have not viewed that message.

To **reply** to the **thread**, click on the reply icon in the upper right corner of the thread message box at the top. A reply to the thread is a message. The message you create with your reply will be listed one level under the thread in the tree structure. The message is indented to the right to show that it is at the next lower level to the thread. **REPLY** will be displayed in the Status column of your reply message in the message list.

To **reply** to the **thread** with the original thread information included, click on the reply with original thread icon in the upper right corner of the thread message box at the top. The content of the thread will appear in the Message section preceded by "<User Name> wrote:". Type your reply above the original thread content. The message you create with your reply will be listed one level under the thread in the tree structure. The message is indented to the right to show that it is at the next lower level to the thread. **REPLY** will be displayed in the Status column of your reply message in the message list.

To **edit** the **thread**, click on the edit icon in the upper right corner of the thread message box at the top.

When a message is viewed (by clicking on the message in the tree structure), the message content is displayed in the message box at the top.

To **reply** to a **message**, click on the reply icon in the upper right corner of the message box at the top. The message you create with your reply will be listed one level under the message to which you replied. The message is indented to the right to show that it is at the next lower level to the message (and two levels below the thread). **REPLY** will be displayed in the Status column of your reply message in the message list.

To **reply** to a **message** with the original message content included, click on the reply with original message icon in the upper right corner of the message box at the top. The content of the original message will appear in the Message section preceded by "<User Name> wrote:". Type your reply above the original message content. The message you create with your reply will be listed one level under the message to which you replied. The message is indented to the right to show that it is at the next lower level to the message (and two levels below the thread). **REPLY** will be displayed in the Status column of your reply message in the message list.

To **edit** the **message**, click on the edit icon in the upper right corner of the message box at the top.

To **delete** the **message**, click on the delete icon in the upper right corner of the message box at the top.

Discussion Information in Reports

The reports displayed on the Query and Home pages in ProblemTracker can display the following icons related to discussions within a record.

If you have the appropriate privilege, you can click on this icon to view the discussion threads in a record in the query results.

If you have the appropriate privilege, you can click on this icon to view the discussion threads with new messages posted in a record in the query results.

You can also include whether a record contains a discussion to which you are subscribed as criteria in a saved query. The field **Discussion Subscription** on the Query page has "*", "Yes", and "No" as options. Selecting "Yes" will include records which contain discussion threads to which you are subscribed in the query results. Selecting "No" will exclude such records.

NetResults ProblemTracker

Querying Records

Help Topics | << | >>

To generate a ProblemTracker report, press the **Query** icon located in the button bar. The Dialog Area of the Query page that is displayed has several sections: a Saved Queries bar, a Saved Report Layouts bar, the Query for Records, and Advanced Query section. All four sections operate independently of each other (except for the Preview button in the Saved Queries bar). The Saved Queries bar and the Saved Report Layouts bar are described in the Using Saved Queries & Reports section. The Advanced Query feature is discussed in the Advanced Query section. This section describes the Query for Records part of the Query page.

The **Report Layout** pulldown displayed in the Query dialog section (below the Run Query button) is the field where you select which report layout should be used when you run a query. The Report Layout selected determines the fields that will be used in the columns of the report displaying the results of the query.

You can combine any or all of the fields displayed to define a query. Each value is applied to the query as an AND clause, that is, the query will return all records that match all of the specified criteria.

The rules for each particular data type are:

Integer or Float
You can specify a value and one of the following conditions: >,<,=. To match any value, select the condition ? and leave the value blank.

Pulldown
You can pick any particular value, or select * to match any value.

Date
You can enter a start and an end date for the period you wish to match. To match any value, leave the field blank.

Status
You can select any currently defined workflow state, or a State Group. State Groups allow you to defined collections of states to query against. By default the system defines a single State Group named All that includes all the current workflow states, but your Administrator can define others. For example, your Administrator could define a State Group named "Active" that includes all the states except for "Closed". Click here for more information on State Groups.

Assigned To
You can select any active user or user group within the system. User groups are denoted as [user group] within the pulldown.

In addition to specifying the search criteria, you can also select which fields to **Sort By**, and choose Ascending or Descending as the **Sort Order** for the selected fields for the query results. The Sort By and Sort Order selection are at the bottom of the Query page.

There are three buttons in the Query for Records section. For convenience, they are displayed at both the top and bottom of the web page.

Run Query
The Run Query button executes the query based on the values specified in the Query for Records section including each query field, the Sort By selections, and the Report Layout selection. Both the Sort By and Report Layout selections for the Run Query operation are at the bottom of the page. The Saved Queries bar and Saved Report Layouts bar (just below the Status bar) have no affect on the Run Query operation.

Clear
The Clear button restores the default values and wildcards for each query field. This function is useful if you wish to restore the query field values to a query which will "return all records".

Reset
The Reset button restores the values supplied for each query field to the values which were used in the last query. This function is useful if you wish to use a previously executed query as a baseline for further queries.

Dependent Pulldowns

In some cases, your ProblemTracker Administrator may have configured dependent pulldowns in the system. A set of dependent pulldowns is a pair of pulldown menus where one pulldown is the child pulldown field and the other is the parent pulldown field. The menu option values that are displayed in the child pulldown field are determined by the menu option value that is selected for the parent pulldown field. A simple example to illustrate this functionality:

A system has a pulldown called Product with two menu option values "Our Computer" and "Our Printer". A pulldown called Component has the menu option values "Hard Drive", "Video Card", "Toner", and "Paper Tray". The components "Hard Drive" and "Video Card" correspond to the "Our Computer" menu option in the Product pulldown field. The components "Toner" and "Paper Tray" correspond to the "Our Printer" menu option in the Product field. When a user selects "Our Computer" for the Product field, only the options "Hard Drive" and "Video Card" will be displayed in the Component field. The Component pulldown (child) is dependent on the Product pulldown (parent).

By default, these relationships between pulldown fields are not enforced when running queries. If you would like these dependencies between pulldown fields to be enforced when you perform queries (including the queries that display your home page reports), change the setting **Enforce Pulldown Dependency in Query** to be set to Yes in the Personal Preferences section. To do this,

1. Login to ProblemTracker
2. On the Home Page, click on the **Preferences** link
3. Configure the setting **Enforce Pulldown Dependency in Query** to Yes
4. Click **OK** to save this change.

Examples

Goal	Procedure
Find all records assigned to "Robert Frank"	Press the Clear button. Then do a Field Lookup by setting the "Assigned To" field to "Robert Frank". Then press the Run Query button.
Find all problems for the product "Big Widget" that need to be assigned for testing	Press the Clear button. Then do a Field Lookup by setting the "Product" field to "Big Widget" and the "Status" field to "Fixed". Then press the Run Query button.
Locate a problem related to random program crashes.	Press the Clear button. Then do a String Lookup in the Description field. Enter "random crash" in the "Description" text field and press the Run Query button.
Locate all records with the word "print" in the Description.	Press the Clear button. Then do a String Lookup in the Description field. Enter "print" in the "Description" text field and press the Run Query button.

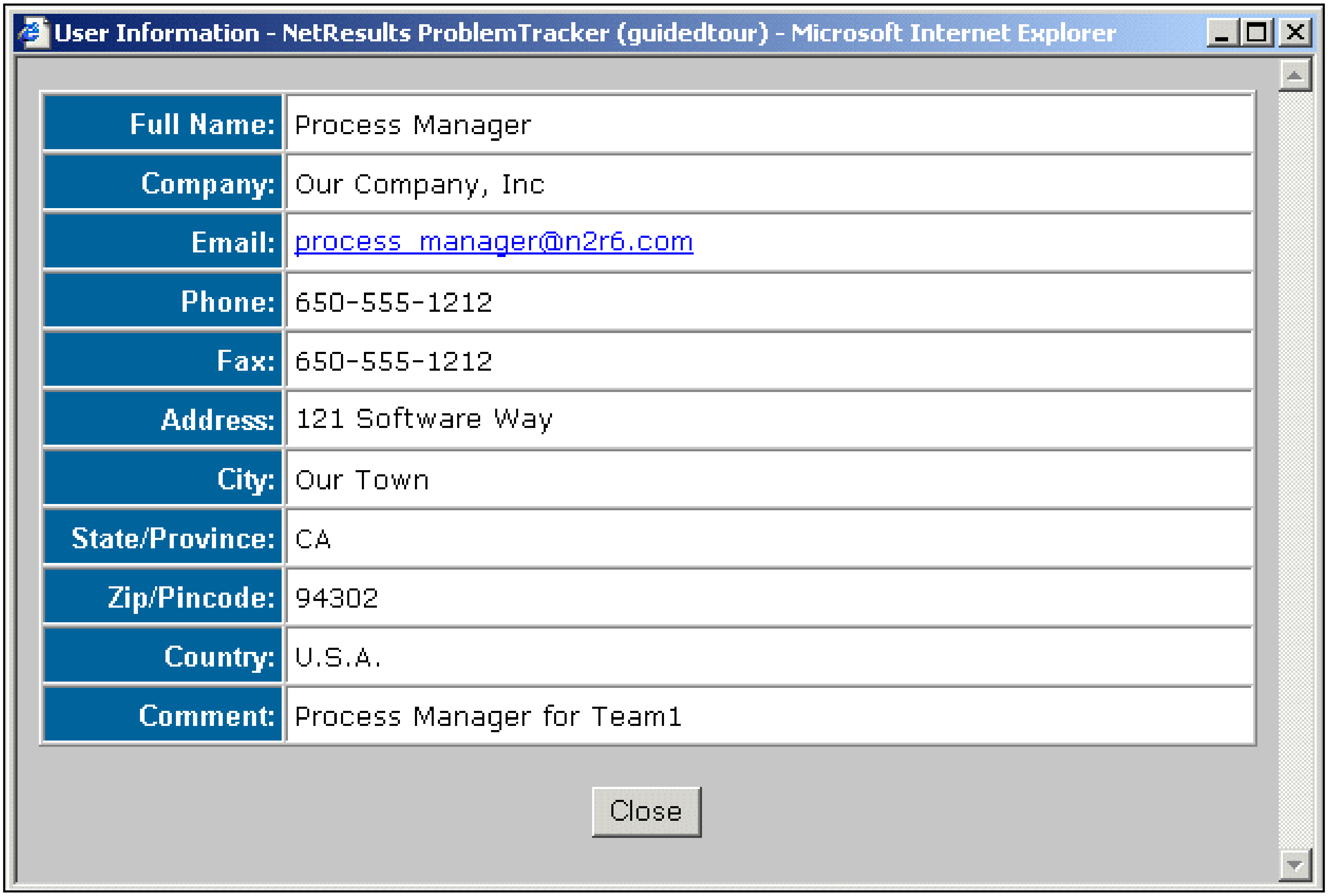
Query Results

Once you have generated a query, you can view, task, or edit any of the records listed in the query results. You can change the sort order of the Query results at any time by clicking on the field name of the column you wish to sort by. The initial sort order is based on the selections made in the **Sort By** section on the Query page. The field that is being used as the primary sort field will have an arrow to the right of the field name. If the arrow is pointing down, the results are sorted by that field in a descending order. If the arrow is pointing up, the results are sorted by that field in an ascending order. Clicking once on the field with the arrow will reverse the sort order. Clicking once on any field that does not have the arrow will sort the results in ascending order by that field. Any field except BigText type fields can be clicked to sort the results by that field.

The number of query results displayed per page is based on the value of the field **Maximum Records** in the Report Settings section of your Preferences page. By default, this is set to display 20 records per page.


Use the next page and previous page icons to navigate through the query results or use the page pulldown to go directly to a specific page number.

When the "Assigned To" or "Reported By" fields are displayed in the query results and if you have the privilege that allows you to see user profile information, you can click on the user's name to display their profile details as shown below.


User Information - NetResults ProblemTracker (guidedtour) - Microsoft Internet Explorer

Full Name:	Process Manager
Company:	Our Company, Inc
Email:	process_manager@n2r6.com
Phone:	650-555-1212
Fax:	650-555-1212
Address:	121 Software Way
City:	Our Town
State/Province:	CA
Zip/Pincode:	94302
Country:	U.S.A.
Comment:	Process Manager for Team1

Close

If you have the appropriate privilege, you can click on this icon to view a record in the query results.

If you have the appropriate privilege, you can click on this icon to task a record in the query results.

If you have the appropriate privilege, you can click on this icon to edit the fields, attachments or source code list in a record in the query results.

If you have the appropriate privilege, you can click on this icon to view the discussion threads in a record in the query results.

If you have the appropriate privilege, you can click on this icon to view the discussion threads with new messages posted in a record in the query results.

The query results can be formatted for printing as a table or text (text will display the full contents of all fields, table format may truncate long fields based on the settings in the Report Layout you used). To print the query results, select "Text" or "Table" and click on the print icon at the top of the page. If you wish to see a preview before printing, select "Text" or "Table", then click on the **Print Preview** button.

The query results can be exported to a *.CSV file (comma separated values format) by clicking on the export icon in the upper right corner of the query results page.

Editing or Deleting a Set of Query Results

If you have the appropriate privilege you may also have the option to **Edit Results**. The Edit Results option allows you to make changes to all of the records that matched your query in a single edit operation. Please note that using the Edit Results options can make large changes to your database and cannot be undone. By default, this option is only available to the Admin user. To use this operation after running a query, on the page where the query results are displayed, click on the **Edit Results** button in the upper right corner of the page. The Edit Results page will display the fields active in the database. Make changes to the fields you desire, then click **OK**. Click **OK** once again to confirm that this will change multiple records and cannot be undone.

The Edit Results operation can also be used to set the Alerts settings for multiple records that matched your query in a single edit operation. If you wish to delete the alerts settings for all records in the query results, select **Delete** in the Alerts field at the bottom of the page. If you wish to modify the alerts settings for all records in the query results, select **Modify...** in the Alerts field at the bottom of the page. When selecting Modify..., another page will be displayed where the alerts settings can be changed. To change a particular setting, click on the check box next to the setting as shown in the example below. Modify the alerts settings you wish to change, then click **OK** to save the changes for all records in the query results.

You can change the record visibility for a set of records using the Edit Results operation. A list of user groups will be displayed in the field **Make Visible to These User Groups**. If a user group(s) is selected during the Edit Results operation, the records in the query results will be set such that they are visible only to the user group(s) selected. To make a set of records visible to only the Admins user group, click on the blank space at the bottom of the list in the Make Visible to These User Groups field. Changing the visibility for a set of records will eliminate the visibility settings previously in effect for these records.

If you have the appropriate privileges and your system has been configured to use "hard" deletes (deletes which permanently purge records from the database), then you may see a **Delete Records** button. Clicking this button will (after asking for a final confirmation), permanently delete all records that matched the query you just ran. However, entries will be made to Record History for all records deleted in this manner. By default, ProblemTracker is configured to perform only "soft" (recoverable) deletes and only the administrator is able to perform the Delete Records operation (it requires the same privilege as Edit Results).

NetResults ProblemTracker

Using Saved Queries and Reports

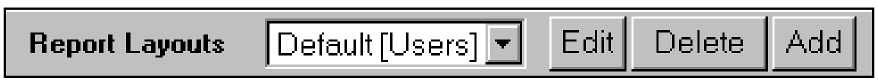
Overview

A ProblemTracker report is composed of a search criteria (query) and an output layout (report format). You can define and save both queries and report formats. This enables you to quickly select from a list of frequently used queries, rather than re-entering all the query parameters for each query. You can use either group or personal saved queries. You can always save a personal saved query, and if you have been given permission by your Administrator, you may also be able to save a query or report for use by all users in your assigned user group.

Saved queries are managed by the Saved Query bar which appears on the Query Page below the status bar, as shown below:

Using the Saved Query bar, you can define new queries, edit or remove existing saved queries, and run or preview a saved query. Group level saved queries are listed followed by the User Group name in square brackets. Admin users can access saved queries for all user groups without having to be a member of each group.

Saved report formats are managed by the Saved Report bar which also appears on the Query Page below the status bar, as shown below:



Using the Saved Reports bar, you can define new report formats, and edit or remove existing saved report formats. Group level saved report formats are listed followed by the User Group name in square brackets. Admin users can access saved reports for all user groups without having to be a member of each group.

Restrictions Related to Adding Saved Queries and Report Layouts

In order to create a saved query or report layout for a user group, a user must have the necessary privileges. Without these privileges, a user can only create personal saved queries and report layouts.

Field Level Visibility in Saved Group Queries and Reports

Field Level Visibility is the feature that allows fields to be restricted by user group in various areas of ProblemTracker such as the Add, Edit, and View pages and in Queries and Reports. That is to say that the system can be configured such that each user group may see a different set of fields in each area of ProblemTracker. Therefore, when creating saved group queries and report layouts, all fields may not be displayed depending on field visibility settings for the group selected.

When a field is not visible to the user group selected in a saved group query, the field will be set to the default value when the saved group query is run. In most cases, this default value is "*", which will include all possible values for the field in the saved group query results. In the case of the Deleted field, the default is "No" such that all records that have not been marked as deleted will be included in the results of the saved group query.

In the case of report layouts, if the field is not visible to the group selected for the saved group report layout, the field will not appear in the list of possible values for each column of the report.

Please contact your ProblemTracker if you wish to include a field in a saved group query or report layout that is not visible to the selected user group.

Add a Saved Query

To **add** a saved query, follow these steps:

1. Login to the workgroup
2. Click on the **Query** icon in the Button bar
3. Click on the Add button to the right of the Saved Query pulldown. Note: to create a Saved Query that is similar to an existing Saved Query, select the existing Saved Query in the pulldown menu to the left before clicking the Add button.
4. Select the **Query Type**. **I**f it's a group saved query, select the name of the group to which this saved query should be visible. You will only be able to select the user groups in which you are a member (however, the ProblemTracker Administrator can add saved queries for any user group). Click **Next** to proceed.
5. In the form that appears, enter a query name (this is the name that you will use to retrieve the query) in the **Query Name** field.
6. Enter the criteria for the query as you would for an ad-hoc query.
7. Click on the **Add** button

Run a Saved Query

To **run** a saved query, follow these steps:

1. Login to the workgroup
2. Click on the **Query** icon in the Button bar
3. In the Saved Query pulldown at the top of the page, select the saved query you wish to run
4. Click on the **Run** button to the left of the saved query pulldown

Preview a Saved Query

Many times you may wish to verify the criteria of a saved query before running it or perhaps modify it slightly before running it. The ProblemTracker saved query Preview feature allows you to do this.

To **preview**, optionally modify, and run a saved query, follow these steps:

1. Login to the workgroup
2. Click on the **Query** icon in the Button bar
3. In the Saved Query pulldown at the top of the page, select the saved query you wish to preview
4. Click on the **Preview** button to the right of the Saved Query pulldown
5. The parameters for the saved query appear in the query dialog below. Modify the query parameters if desired.
6. Click on the **Run Query** button in the query dialog to run the query

Set Default Saved Query Drop-Down Menu Selection

To set the query which you would like to appear in the Saved Query drop-down list when you first browse to the Query page, follow these steps:

1. Login to the workgroup
2. Click on the **Query** icon in the Button bar
3. In the Saved Query pulldown at the top of the page, select the saved query you wish to save as the default
4. Click on the **Default** button to the right of the Saved Query pulldown. The page will be refreshed and the Status will say "Default Query has been updated.".

Edit a Saved Query

To **edit** a saved query, follow these steps:

1. Login to the workgroup
2. Click on the **Query** icon in the Button bar
3. In the Saved Query pulldown at the top of the page, select the saved query you wish to edit
4. Click on the **Edit** button to the right of the Saved Query pulldown.
5. A page containing the current query parameters is displayed. Edit the query parameters as desired.
6. Click on the **OK** button to save your updates.

Delete a Saved Query

To **delete** a saved query, follow these steps:

1. Login to the workgroup
2. Click on the **Query** icon in the Button bar
3. In the Saved Query pulldown at the top of the page, select the saved query you wish to delete
4. Click on the **Delete** button to the right of the Saved Query pulldown

Standard Saved Queries within ProblemTracker

Within ProblemTracker, there are three saved queries that are installed by default:

- **Default [Users]**
  A saved query for the Users group that will display all records within ProblemTracker.
- **Assigned to Me [Users]**
  A saved query for the Users group that will display all records assigned to the user who is currently logged into ProblemTracker. By default, this query is selected as the First Home Page Report in the Personal Preferences page for all non-Restricted users. Please review the Preferences section for more information about selecting a saved query for the First Home Page Report.
- **Reported By Me [Users]**
  A saved query for the Users group that will display all records reported by the user who is currently logged into ProblemTracker. By default, this query is selected as the Second Home Page Report in the Personal Preferences page for all non-Restricted users. Please review the Preferences section for more information about selecting a saved query for the Second Home Page Report.
- **Added By Me [RestrictedUsers]**
  A saved query for the RestrictedUsers group that will display all records reported by the restricted user who is currently logged into ProblemTracker. By default, this query is selected as the First Home Page Report in the Preferences page for all Restricted users. Please review the Preferences section for more information about selecting a saved query for the First Home Page Report.

Add a Saved Report Format

To **add** a report format, follow these steps:

1. Login to the workgroup
2. Click on the **Query** icon in the Button bar
3. Click on the **Add** button to the right of the Report Layouts pulldown
4. Select the **Report Layout Type**. If it's a group report layout, select a group to which this report layout should be visible. You will only be able to select the user groups in which you are a member (however, the ProblemTracker Administrator can add

saved report layouts for any user group). Click **Next** to proceed.
5. In the form that appears, enter a report name (this is the name that you will use to select the report format) in the **Report Layout Name** field.
6. Select how to align text fields (left, center, right).
7. Select the maximum size for text fields.
8. Select the fields you would like displayed.
9. Click on the **OK** button

When the "Assigned To" or "Reported By" fields appear in a report layout, users with the privilege "View User Information" will be able to click on the user's name in the query results to display the user's profile information (e.g. phone number, email address, company name).

Edit a Saved Report Format

To **edit** a saved report format, follow these steps:

1. Login to the workgroup
2. Click on the **Query** icon in the Button bar
3. In the **Report Layouts** pulldown, select the report layout you wish to edit
4. Click on the **Edit** button to the right of the Report Layouts pulldown
5. A page containing the current format is displayed. Edit the format as desired.
6. Click on the **OK** button to save your updates

Delete a Saved Report Format

To **delete** a saved report format, follow these steps:

1. Login to the workgroup
2. Click on the **Query** icon in the Button bar
3. In the **Report Layouts** pulldown, select the report layout you wish to delete
4. Click on the **Delete** button in the Saved Reports bar

Use a Saved Report Layout in a Query

To **run** a query using a particular report layout, follow these steps:

1. Login to the workgroup
2. Click on the **Query** icon in the Button bar
3. Enter the query directly or start with an existing Saved Query by selecting it in the Saved Query pulldown, then clicking on the **Preview** button.
4. Select the report layout wish to use in the **Report Layout** pulldown in the Query dialog section (below the Run Query button)
5. Click on the **Run Query** button

Associate a Saved Report Layout to a Saved Query

To **associate** a saved report layout to a saved query, follow these steps:

1. Login to the workgroup
2. Click on the **Query** icon in the Button bar
3. Select the Saved Query in the Saved Query pulldown, then click on the **Edit** button to the right of the Saved Query pulldown.
4. In the **Report Layout** pulldown, select the desired saved report layout.
5. Click on the **OK** button to save the change

Standard Saved Report Layouts within ProblemTracker

Within ProblemTracker, there are three saved report layouts that are installed by default:

- **Default [Users]**
  A saved report layout for the Users group that will display the fields PRN, Product, and Status in a report. The saved query Default [Users] uses this report layout by default.
- **Home Report1 [Users]**
  A saved report layout for the Users group that will display the fields PRN, Product, Title, Reported By, Status, Request Type, Priority, and Description within a report. By default, this report layout is used by the saved query "Assigned To Me [Users]".
- **Home Report2 [Users]**
  A saved report layout for the Users group that will display the fields PRN, Product, Title, Assigned To, Status, Date Reported, Reported in Version, Request Type, and Released in Version within a report. By default, this report layout is used by the saved query "Reported By Me [Users]".
- **Added By Me [RestrictedUsers]**
  A saved report for the RestrictedUsers group that will display the fields PRN, Product, Title, Status, and Date Reported within a report. By default, this report layout is used by the saved query "Added By Me [RestrictedUsers]"

NetResults ProblemTracker

Advanced Queries

Overview

The Advanced Queries function allows you to build more intricate queries using operators such as AND, OR, and NOT, multiple selection of values to match, and grouping (parentheses) of query criteria to generate more refined results. You can define and save advanced queries, enabling you to quickly select from a list of frequently used advanced queries, rather than re-entering the numerous query parameters that compose this type of query. You can use either group or personal advanced queries. You can always save a personal advanced query, and if you have been given permission by your Administrator, you may also be able to save an advanced query for use by all users in a user group.

Advanced queries are managed by the Saved Query bar which appears on the Query Page below the status bar.

Using the Saved Query bar, you can define new advanced queries, edit or remove existing advanced queries, and run or preview an advanced query. Group level advanced queries are listed followed by the User Group name in square brackets. Admin users can access advanced saved queries for all user groups without having to be a member of each group.

Field Level Visibility in Advanced Saved Group Queries

Field Level Visibility is the feature that allows fields to be restricted by user group in various areas of ProblemTracker such as the Add, Edit, and View pages and in Queries and Reports. That is to say that the system can be configured such that each user group may see a different set of fields in each area of ProblemTracker. Therefore, when creating advanced saved group queries, all fields may not be displayed depending on field visibility settings for the group selected.

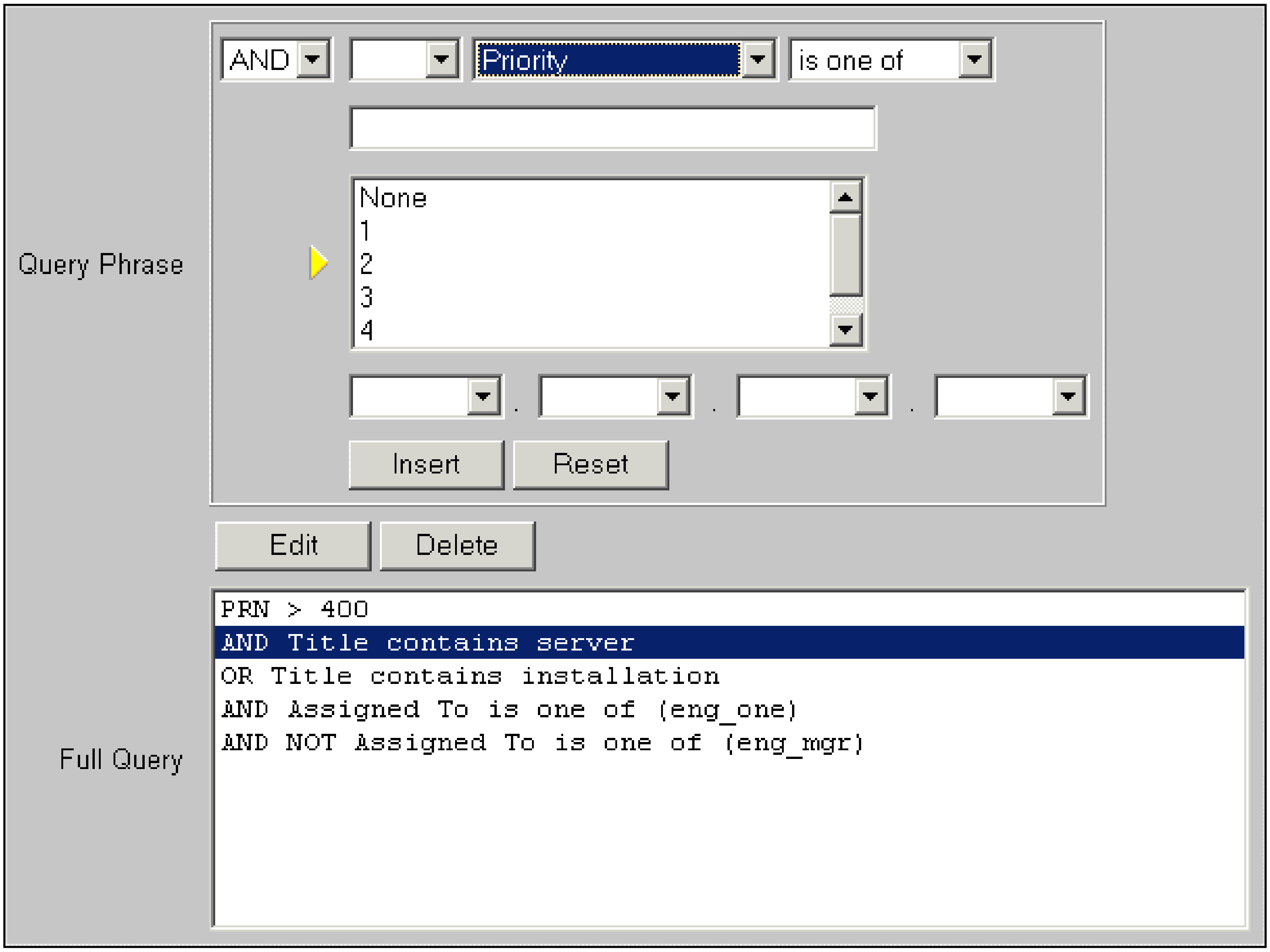
When a field is not visible to the user group selected in a advanced saved group query, the field will be set to the default value when the advanced saved group query is run. In most cases, this default value is "*", which will include all possible values for the field in the advanced saved group query results. In the case of the Deleted field, the default is "No" such that all records that have not been marked as deleted will be included in the advanced saved group query results.

If a personal or group advanced saved query was created before a field was made invisible to a user group, it is possible for this user group to see an invisible field in a clause in the "Query Phrase" section of the advanced saved query. Any clause containing a field that is now invisible to the user group will be "read only". This clause cannot be edited because it contains a field that has been restricted for the user group. However, the clause can be deleted from the advanced saved query.

Please contact your ProblemTracker administrator if you wish to include a field in an advanced saved group query that is not visible to the selected user group.

Building Query Phrases

The procedure for building an advanced query differs from a standard query in that multiple options for each field can be selected and / or excluded for advanced queries. This is done by composing various query phrases that will be combined to generate the query results. These phrases are constructed in the Query Phrase section of the Advanced Query page.



Logic operators and fields are selected for a query phrase in the first row of the Query Phrase section. A description of the fields in the first row of the Query Phrase section:

1. The first field is a pulldown that contains the operators "AND", "OR", and "(blank)". For the first phrase of an advanced query, "(blank)" is the only possible option for this first field.
2. The second field is a pulldown that contains the operators "NOT" and "(blank)".
3. The third field is a pulldown menu that lists all fields within the data record. In addition, "(" and ")" are options in this pulldown that can be used to nest (or group together) query phrases within the full query.
4. The fourth field will automatically change based on the selection that was made for the third field. Table 1 shows the possible values for the fourth field based on the input of the third field:

Table 1

3rd Field Type	4th Field Displays...	Yellow Triangle On...	Type of Information to Enter Near Yellow Triangle...
PRN	<, >, =, >=, <=	Row 2	PRN number
Text Field	"contains" or "is empty"	Row 2	text string (or nothing if "is empty" is selected)
Pulldown Menu	is one of	Row 3	select value(s) from menu
RelNum	=	Row 4	select value from menu or leave as "*"

Date	"before", "on or after", or "is empty"	Row 2	date (or nothing if "is empty" is selected)
Float	<, >, =, >=, <=	Row 2	floating point number
Integer	<, >, =, >=, <=	Row 2	non-negative whole number
URL	"contains" or "is empty"	Row 2	text string (or nothing if "is empty" is selected)
(	"(blank)"	N/A	N/A
)	"(blank)"	N/A	N/A
<Clone>	"is"	Row 3	true (if record is a clone) or false

A yellow triangle will appear to the left of the second, third or fourth rows in this section based on the selection made for the third field in the first row. The yellow triangle indicates that more information is needed in that particular row to complete the query phrase. Table 1 describes the type of information that should be entered in rows 2, 3, or 4 based on the selections made in the first row.

Once the components of the query phrase have been selected, you can click on the Insert button to add the query phrase to the Full Query section. To add another query phrase, click on the Reset button and begin selecting options in the first row.

To edit a query phrase that has been inserted into the Full Query section, click on the query phrase, then click on the Edit button. Modify the phrase in the Query Phrase section, then click on the Update button. The query phrase will be updated in the Full Query section.

To delete a query phrase that has been inserted into the Full Query section, click on the query phrase, then click on the Delete button.

Define an Advanced Query

To define an advanced query, follow these steps:

1. To start, select a query from the Saved Query pulldown menu that will be used as the starting point (template) for the new saved query. To start with a basic saved query, select the saved query "Default [Users]".
2. Click on the Add Adv. button on the Saved Query bar.
3. Select whether this is a Personal or Group saved query. If it is a Group advanced query, also select the User Group to which this advanced saved query should be visible. You will only be able to select the user groups in which you are a member (However, the ProblemTracker Administrator can add advanced saved queries for all user groups). Click OK to proceed.
4. In the form that appears, enter a query name (this is the name that you will use to retrieve the query) in the "Query Name" field.
5. Build the first query phrase, by selecting "(blank)" for the first field of the first row of the Query Phrase section.
6. Select values for the rest of the fields in the first row.
7. If applicable, enter information in the rows 2, 3, or 4. To select multiple values in row 3, hold down the CTRL button on your keyboard while clicking on each value you wish to select.
8. Click on the Insert button to add the first query phrase to the Full Query section.
9. Click on the Reset button to clear the Query Phrase section, then construct the next query phrase.
10. Repeat steps 7 and 8 until you have inserted all of the query phrases you wish to include.
11. If desired, choose fields and order in the Sort By section to sort the query results.
12. If desired, select a Report Layout from the pulldown menu.
13. Click on the Add button to save your advanced query.

Run an Advanced Query

To run an advanced query, follow these steps:

1. Click on the pulldown menu in the Saved Query bar and select the desired advanced query from the list of options.
2. Press the Run button in the Saved Query bar.

Preview an Advanced Query

Many times you may wish to verify the parameters of an advanced query before running it or perhaps modify it slightly before running it.

To preview, optionally modify, and run an advanced query, follow these steps:

1. Press the Preview button in the Saved Query bar. The parameters for the advanced query appear in the query dialog below.
2. Modify the advanced query parameters if desired.
3. Press the "Run Query" button in the query dialog to submit the query.

Edit an Advanced Query

To edit an advanced query, follow these steps:

1. Click on the pulldown menu in the Saved Query bar and select the advanced query you would like to edit from the list of options.
2. Press the Edit button in the Saved Query bar. A page containing the current advanced query parameters is displayed.
3. In the Full Query section, click on a query phrase you wish to modify, make the changes in the Query Phrase section, then click on the Update button. After you are done making changes to the advanced query, click on the OK button to save your updates.

Delete an Advanced Query

To delete an advanced query, follow these steps:

1. Click on the pulldown menu in the Saved Query bar and select the advanced query you would like to remove from the list.
2. Press the Delete button in the Saved Query bar.

Metrics The Metrics operation is a way to gather and display statistical information based on your ProblemTracker data. The information can be displayed as bar, pie, or line charts using system defined or user defined Chart Layouts to specify the format for the chart. You can limit the records used as input to the statistical calculations (Input Records) by specifying a Saved Query. Only those records which match the Saved Query will be used when performing the statistical calculations. Chart parameters can be stored away for future runs as Saved Charts (for global, group, or personal use).

Generating a Chart

A chart can be generated using the "Project Status (Default) [Users]" Saved Chart or any other saved chart that has been added by a ProblemTracker user with the appropriate privilege(s) by performing the following steps:

1. Select a chart from the "Saved Chart" pulldown field (by default, only the default saved chart "Project Status (Default) [Users]" will appear in this field
2. The options displayed in the Chart Layout, Input Records, and Chart Title fields will be automatically filled with the settings in the Saved Chart selected. If desired, make other selections for the Chart Layout, Input Records, and Chart Title fields.
3. Click on the "Show Chart" button to display the chart.
4. Make changes to the formats of the chart displayed by using the Dynamic Chart Layout Options. Details on the options available can be found in the Chart Layout Options section.
5. To change the parameters used to display the chart, click on the "Change Parameters" button to return to the Chart Selection page.

Printing a Chart

After generating a chart, you can click on the Print icon to print the chart.

Note: Any changes made to the chart layout (such as changing from 2D to 3D chart layout) after you generated it will not be in the printed version.

Exporting Chart Data

After generating a chart, click on the Export icon to export the chart data to a CSV (comma separated values) file. You can then open this file with another tool such as Microsoft Excel or Crystal Reports.

To create a chart in Microsoft Excel from the exported data, "rubber band" (left-click mouse and drag a rectangle around) the data plus column and row titles (exclude rows 1 through 3, but include the individual row/column titles in row 4 and column A along with the data in your selection) and click the Chart Wizard icon (or select Insert->Chart...). Click the Finish button in the Chart Wizard to accept the Microsoft Excel default settings for the chart; or make selections, click Next button, then click Finish to create a chart with custom settings. Please review the Microsoft Excel Help for further information on Excel charts.

Set a Default for the Metrics Page

You can set a default such that whenever you click on the Metrics icon a particular Saved Chart, Chart Layout, Input Records, and Chart Title will be ready to be displayed by clicking on the "Show Chart" button. By setting a default, you will be one click away from seeing your default chart when you go to the Metrics page. This is useful if there is a particular chart you will be displaying on a frequent basis.

To set a default for the Metrics page:

1. Select a Saved Chart, Chart Layout, Input Records, and Chart Title to be used to generate your default chart
2. Click on the Set as Default button at the top

Save

The "Save" operation allows you to change the saved chart layout, input records, or chart title associated with a saved chart. You must have the appropriate privilege to perform this operation on a group saved chart. To make changes to a saved chart on the Metrics main page:

1. Click on the Metrics icon in the top button bar
2. In the Saved Chart pulldown, select the saved chart you wish to modify
3. In the fields for Chart Layout, Input Records, and Chart Title make the desired changes
4. Click on the "Save" button

Save as New

The "Save as New" operation allows you to save a new chart based on the settings displayed on the "Select a Saved Chart" page or when previewing a saved chart. On the "Select a Saved Chart" page, this operation allows you to create a new saved chart with different selections for Chart Layout, Input Records, and Chart Title.

To use the "Save as New" operation on the "Select a Saved Chart" page:

1. Click on the Metrics icon in the top button bar
2. Make selections for the Saved Chart, Chart Layout, Input Records, and Chart Title
3. Click on the "Save as New" button
4. Enter a name for the new saved chart, then select whether the saved chart will be a group or personal saved chart. If you select "Group" for the "Saved Chart Type" field, select the group that should have access to this saved chart in the "Group" field.
5. Click OK to complete the operation

To use the "Save as New" operation after previewing a saved chart, click here for instructions.

Adding a Saved Chart

To create a saved chart, perform the following steps:

1. Click on the Metrics icon in the top button bar
2. Click on the "Add" button to the right of the "Saved Chart" pulldown
3. Enter a name for your Saved Chart in the "Saved Chart Name" field
4. In the "Saved Chart Type" field, select whether this chart will be a personal or group saved chart. Selecting "Group" indicates that any member of the user group selected in the "Group" field below will be able to access this saved chart.
5. If "Group" is selected in the field "Saved Chart Type" above, select which user group will be able to access this saved chart in the "Group" field. You will only be able to select from user groups in which you are a member (However, the ProblemTracker Administrator can add saved charts for all user groups).
6. Click "Next" to continue
7. Select the criteria for the Saved Chart. Click here for full details of the criteria selections for a saved chart.
8. Click on the Add button

Editing a Saved Chart

To edit a saved chart, perform the following steps:

1. Click on the Metrics icon in the top button bar
2. Select a saved chart in the "Saved Chart" pulldown
3. Click on the "Edit" button to the right of the "Saved Chart" pulldown
4. Make changes to the criteria of the saved chart
5. Click OK to save the changes

Deleting a Saved Chart

To delete a saved chart, perform the following steps:

1. Click on the Metrics icon in the top button bar
2. Select a saved chart in the "Saved Chart" pulldown
3. Click on the "Delete" button to the right of the "Saved Chart" pulldown
4. Click OK to confirm the operation

Preview a Saved Chart

The preview operation allows you to make changes to the criteria of a saved chart before using the "Show Chart" operation to display the chart. This operation is useful when you want to display a chart with a change in the criteria for a saved chart, but want to preserve the saved chart's original settings. This is also useful for creating a new saved chart based on the criteria of an existing saved chart.

To preview a saved chart, perform the following steps:

1. Click on the Metrics icon in the top button bar
2. Select a saved chart in the "Saved Chart" pulldown
3. Click on the "Preview" button to the right of the "Saved Chart" pulldown
4. If desired, make changes to the criteria
5. Click "Save" to save your changes. To create a new saved chart with the criteria displayed, click on the "Save as New" button. Otherwise, click on the "Show Chart" button to display the chart.
6. If you clicked on the "Save as New" button, you will be prompted to select a name, chart type, and group for the new saved chart.

Saved Chart Criteria

Each saved chart has criteria which defines the data and formats that will be displayed when the chart is generated. The options available when creating a saved chart are explained below:

- **Default Chart Layout**
  Select a chart layout to be used with this saved chart. For information on creating a Chart Layout, click here.

- **Default Input Records**
  This option determines which records will be included when performing the calculations to generate the data which is displayed in the chart. Select "<All Records>" to include all records in the database or choose a Saved Query to limit the records included in calculations. The filtering which is done by selecting a Saved Query is done based on the records as they are now (at the time you display the Saved Chart) with the following exceptions.
  - If you are calculating the *number of records added* and you select a Saved Query, the filtering is done based on the values of the Status, Assignee, and Product fields at the time the record was added. Since those values (Status, Assignee, and Product) are stored in the Record History for the Add operation, we can use the actual values at the time of the Add operation rather than the current values for the records. So, for example, if you select a Saved Query which matches only those records where you are the Assignee (e.g. Assigned To Me), the calculations will only include those records where you were the Assignee when the record was first added (as opposed to those records where you are currently the Assignee). For all record values other than Status, Assignee, and Product, the values used for filtering are the current values (since no other fields are stored in the Record History).
  - If you are calculating the *number of input records* or the *average value of <field>*, and you are performing the calculation *as of the end of each day/week/month...*, and you select a Saved Query, the filtering is done based on the values of the Status, Assignee, and Product fields as of the end of each day, week, or month displayed in the chart. Since those values (Status, Assignee, and Product) are stored in the Record History, we can use the actual values as of the dates used in the Chart rather than the current values for the records when doing the filtering. So, for example, if you select a Saved Query which matches only those records where you are the Assignee (e.g. Assigned To Me), the calculations will only include those records where you were the Assignee on the date used in each calculation (e.g. as of the end of each month for the past six months) as opposed to only including those records where you are currently the Assignee. For all record values other than Status, Assignee, and Product, the values used for filtering are the current values (since no other fields are stored in the Record History).

- **Default Chart Title**

Enter a title to be displayed at the top of the chart

- **Calculate the ... (y-axis for a line chart)**
  Select a calculation to be done on the set of records you chose in "Default Input Records" above. If you selected a Chart Layout to produce a line chart, the selection made in this section will become the y-axis when the chart is displayed.
    - **number of input records**
      Selecting this option indicates that the number of records included in the chart data will match the number of input records determined by the "Default Input Records" field.
      Example 1: If you select this option and "<All Records>" is selected for "Default Input Records", the chart data will display all records in the database.
      Example 2: If you select this option and a Saved Query is selected for "Default Input Records", the chart data will display all records in the database that match the criteria in the Saved Query selected.

    - **calculated value of an Integer or Float field**
      Selecting this option indicates that a calculation (average, total, minimum, maximum) should be performed on the values of an Integer or Float field present in the set of records selected in "Default Input Records".
      Example: If you select this option and "average" value of "Estimated Size" field, then the chart will calculate the average value of the Float field called Estimated Size within the set of records selected for "Default Input Records".

    - **calculated time between 2 date fields in a particular date increment**
      This option allows you to calculate a time (average, total, minimum, maximum) between the values of 2 date fields in a set of records.
      Example: If you select this option and "average" value from "Date Reported" to "Fix Date" in "days", then the chart will calculate the average time in days between the date fields selected for the set of records listed in "Default Input Records".

    - **calculated time for record to progress from one state to another**
      This option allows you to calculate a time (average, total, minimum, maximum) between the time a record was in a particular status (state 1) to the time when a record was in another status (state 2) over a set of records. This calculation uses the Record History to compare the date a record was in state 1 to the date a record was in state 2. The calculation will be the same if a record moved directly from state 1 to state 2 or passed through other states before moving to state 2.
      Example: If you select this option and "average" value from "Reported" to "Closed" in "days", then the chart will calculate the average time in days it took a record to go from the Reported state to the Closed state.

    - **number of records added**
      Selecting this option indicates that the number of records included in the chart data will match the number of records created within the set of records listed in the "Default Input Records" field.

    - **number of transitions to a state from another state**
      This option allows you to calculate the total number of transitions that were made into a state (state 2) from another state (state 1). Selecting the option "<Any State>" for state 1 indicates

that all transitions that moved a record from any state (including state 2) into state 2 will be included in the chart data. Selecting the option "<Any Other State>" for state 1 indicates that all transitions that moved a record from any state (except state 2) into state 2 will be included in the chart data. This calculation yields the total number of times a transition between 2 states occurred. The calculation will count each time the transition occurred even if it occurred on the same record multiple times.
Example: If you select "Scheduled" as state 2 and "Reported" as state 1, then the calculation will be the total number of times any record moved from the Reported state to the Scheduled state.

- **number of records moved to a state which passed through another state**
  This option allows you to calculate the total number of records that moved to a state (state 2) and passed through another state (state 1). Selecting the option "<Any State>" for state 1 indicates that the calculation will yield any record which has moved to state 2. Selecting a specific state for state 1 limits the calculation to records that passed through state 1 and state 2. Unlike "number of transitions," this calculation will not include multiple "hits" for the same record. Even if the same record passed from state 1 to state 2 multiple times, it will only count the record once as it is counting number of records and not number of transitions. Also, if a record loops while in state 2, the record is assumed to have completed the move from state 1 to state 2, when it first moves into state 2. This calculation can take a long time to run.

- **Perform calculations ... (x-axis for line chart)**
  Select an option to add a further constraint to the data that resulted from the option in the **Calculate the ... (y-axis for line chart)** option above.
  - **for every option menu item in a pulldown field**
    Selecting this option will perform the calculation selected in the **Calculate the ... (y-axis for line chart)** option above for every option menu item within the pulldown field selected.
    Example: If you select this option and "Status" as the pulldown field, the chart will display a separate calculation for each Status in your database.

  - **for every state in <State Group> or for every reported by or assigned to in [User Group]**
    Selecting this option will perform the calculation selected in the **Calculate the ... (y-axis for line chart)** option above for every state included in the State Group selected or for every user (Reporter or Assignee) in the User Group selected. State Groups and User Groups are configured by your ProblemTracker Administrator in the Admin section.
    Example: If you select this option with "Reported By" and "[Developers]", the chart will display a separate calculation for each user in the Developers user group who was the reporter of a record that matched the criteria in the Calculate the ... (y-axis for line chart) section.

  - **as of the current date and time (single calculation)**
    This option indicates that the chart should perform the calculation selected in the **Calculate the ... (y-axis for line chart)** option above as of the current date and time.

  - **as of the end of or during a time increment for the previous X time increments**
    This option indicates that the chart should generate the calculation selected in the **Calculate the ... (y-axis for line chart)** option above as of the end of or during each time increment for the number of increments selected.
    Example: If you select "as of the end of" each "day" for the previous "2" "weeks", the chart will

generate 14 calculations (one value for the calculation as of the end of each day for the last 2 weeks).

Dates are displayed as two part dates (month & day), except that the first (left most) calculation and any calculation that begins a new year will include a three part date (month, day, and year). All date parts are displayed using 2 digit values (with leading zeros if necessary), including the year. The date format is based on the personal preference of the user who clicked Show Chart. The time zone used for calculations (to determine midnight of a date) is the time zone specified in personal preferences of the user who clicked Show Chart. If you select "during each week" or "during each month," each week or month will be displayed as two dates with a hyphen between the two (a date range).

When you select week or month, the calculation may include a partial week or month as the most recent value (month to date, week to date) so that it always includes information up to and including the current day. Selecting month will always give you a partial month for the most recent (right most) value, unless today is the last day of the month. When you select "during each month," the months will always begin on the first of the month. When you select "as of the end of" or "during" each week, for the previous N weeks, you will always get data for a full week in each calculation. However, if you select "as of the end of" or "during" each week for the previous N months or years, you may get a partial week value (so that the data includes exactly N months or exactly N years). To get data that always includes exactly one week for each data point, use N weeks (rather than N months or N years).

- **as of the end of or during a time increment for a date range**
  This option indicates that the chart should generate the calculation selected in the **Calculate the ... (y-axis for line chart)** option above as of the end of or during each time increment for the specified date range. If you do not enter a value for the end of the date range (second date), the chart will use the day on which the chart is run (it will use today as the value). The dates you enter should not include a time component (only month, day, and year).
  Example: If you select "during" each "day" from "01/01/2002" to "01/05/2002", the chart will generate 5 calculations (one value for the calculation during each day in the date range specified).

  Dates are displayed as two part dates (month & day), except that the first (left most) calculation and any calculation that begins a new year will include a three part date (month, day, and year). All date parts are displayed using 2 digit values (with leading zeros if necessary), including the year. The date format is based on the personal preference of the user who clicked Show Chart. The time zone used for calculations (to determine midnight of a date) is the time zone specified in personal preferences of the user who clicked Show Chart. If you select "during each week" or "during each month," each week or month will be displayed as two dates with a hyphen between the two (a date range).

  When you select week or month, the calculations may include a partial week or month at the beginning and/or end, as necessary to fit within the date range. If you select "during each month," months are displayed from the first of the month to the end of the month, with the possible exception of the first and last months displayed. The first month may be a partial month if your date range does not begin on the first of the month. Your last month may be a partial month if your date range does not end on the last day of the month.

- **Breakdown calculations by a pulldown field**
  This option indicates that the calculations generated based on the selections made above should be broken down by a pulldown field. For each calculation, a value will be displayed for each option menu item in the pulldown field selected. In addition, if the chart layout selected for the saved chart contains a legend, one legend entry will be present for each option menu item in the pulldown field selected.
  Example: If you select this option and select "Status", the chart will display a calculated value for each state in your database.

- **Breakdown calculations by every state in a <State Group> or by every user in a [User Group]**
  Selecting this option indicates that the calculations generated based on the selections made above should be broken down by each state included in the State Group selected or by each user (Reporter or Assignee) that is a member of the User Group selected. In addition, if the chart layout selected for the saved chart contains a legend, one legend entry will be present for each state or user (Reporter or Assignee) in the State Group / User Group selected.
  Example: If you select this option and select "Assigned To" and "[QA]", the chart will display a calculated value for each user in the the QA user group who is the Assignee for the records that matched the chart criteria.

- **Do not breakdown calculations**
  This option will not breakdown the calculations generated by the chart criteria in the y-axis and x-axis sections above.

- **Don't chart data for a breakdown value if its data is all zeros**
  Checking the box for this option indicates that when the calculations are broken down per the option selected above, a separate calculation should not appear on the chart if its value is zero(e.g. it is zero for any particular option menu item / state / user).
  Example: If you select the option "Breakdown calculations by the pulldown field "Product", then check the box for the option "Don't chart data for a breakdown value if its data is all zeros", and the chart data has 0 records that matched the criteria for Product A, the chart will not display a calculation or legend entry for Product A.

Saved Chart Layouts

A saved chart layout provides the formats used to display a saved chart. A saved chart cannot be displayed without selecting a saved chart layout. Examples of the formats that a saved chart layout provides are:

- whether a chart is a bar, pie, or line chart
- whether a legend should be displayed
- whether labels should be displayed to reflect the names of the data categories

To create a saved chart layout, perform the following steps:

1. Click on the Metrics icon in the top button bar
2. In the "Chart Layout" field, select the default saved chart layout that corresponds to the chart type you wish to use. For example, if you wish to create a saved chart layout for a bar chart, select the default saved chart layout called "Bar - default [Users]"
3. Click on the "Add" button to the right of Chart Layout field

4. Enter a name for your saved chart layout in the "Chart Layout Name" field
5. In the "Chart Layout Type" field, select whether this layout will be a personal or group layout. Selecting "Group" indicates that any member of the user group selected in the "Group" field below will be able to access this saved chart layout.
6. If "Group" is selected in the field "Chart Layout Type" above, select which user group will be able to access this saved chart layout in the "Group" field. You will only be able to select from user groups in which you are a member (However, the ProblemTracker Administrator can add saved chart layouts for all user groups).
7. Click "Next" to continue
8. Select the options for the Saved Chart Layout. Click here for full details of the options available for a saved chart layout. A sample chart is displayed in the lower right corner of the page. As you make selections to the chart layout options, the sample chart will reflect these changes.
9. Click on the Add button to save the chart layout

Chart Layout Options

The Chart Layout Options determine the formats used to display the data of the saved chart selected.

The following chart options are available for any chart type (bar, pie, line):

- **Width x Height**
  Enter the dimensions of the area that should be used to display the chart. We recommend using "600 x 400" so that the chart area is visible within the bounds of a user's screen when the browser window is maximized. Using a setting like "800 x 600" or "1200 x 800" will cause most users to have to use a browser's scroll bars to see the full chart area.

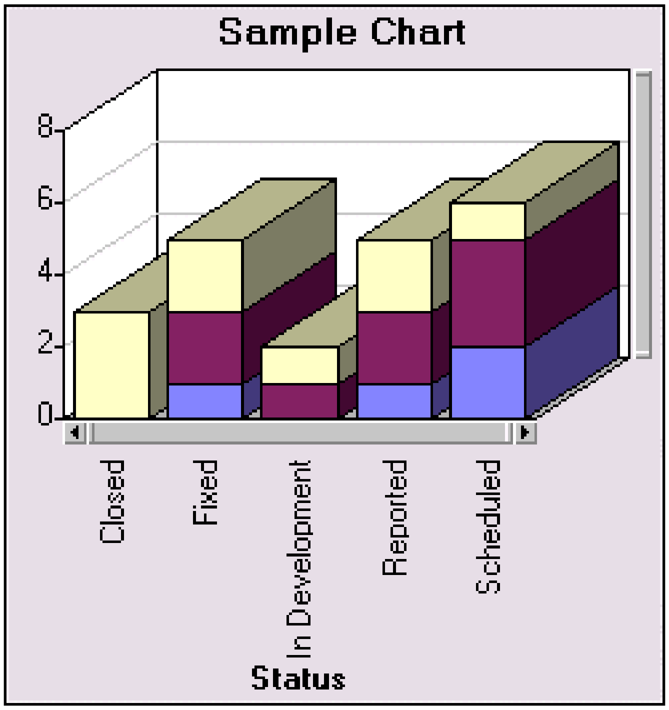
- **Label Length**
  A label in the chart is generated from the records included in the chart data. Enter the maximum number of characters allowed for a label in the chart. If a data field is longer than the number of characters specified here, it will be truncated when used as a chart label.

- **Display dynamic layout options (below) with chart**
  Checking the box for this option will display the chart layout options below a chart generated by using the "Show Chart" operation. This option enables you to make changes to a chart's layout options after the chart is displayed without altering the original saved chart layout.

Each chart type (bar, pie, line) has its own set of chart layout options as follows. Click on the link below to see the options that correspond to the chart type selected. For all chart types, checking the box to the left of the option enables the option to be applied to the chart layout:

Bar Chart Options
Pie Chart Options
Line Chart Options

Bar Chart Options



- **Use 3D mode**
  Enables the chart to be displayed in three dimensions instead of two

- **Bar Type**
  Determines how the bars should be displayed when the data is broken down by a particular pulldown field. Selecting "Side by side" will display the bar for each category side by side or "Stacked" will display the break down categories stacked upon each other for each bar.

- **Show Legend**
  Displays a color coded legend to explain the data categories displayed in each slice

- **Legend Position**
  If "Show Legend" option is enabled, this option determines whether the legend appears to the left or the right of the chart

- **Show Bar Labels**
  Determines whether the labels for each bar should be displayed

- **Bar Label Style**
  If "Show Bar Labels" is enabled, this option determines where the bar labels should be displayed. Selecting "Below and Floating" will show the labels below each bar as well as when the mouse is moved over a bar. Choosing "Floating (mouse over)" will only display the label when the mouse is moved over a bar. "Below" will display the label below each bar.

- **Show Bar Outlines**
  Whether each bar should be outlined

- **Bar Label Angle**
  If "Show Bar Labels" is enabled and "Bar Label Style" is set to either "Below and Floating" or "Below",

this option determines the angle of the label. If the labels have a large number of characters, using "90" or "270" for this option will yield the best results.

- **Show Range Adjuster**
  Whether the range adjustment bar should be displayed. Enabling this option allows you to change the range of the Y-axis by scrolling the range adjuster along the bar. This option is useful for focusing in on a particular area of the chart.

- **Bar Alignment**
  Whether the bars should be displayed horizontally or vertically

- **Show Range Labels**
  Whether the labels for the Y-axis should be displayed

- **Show Range Lines**
  If the "Show Range Labels" option is enabled, this option determines whether lines should be displayed for each value marked on the Y-axis

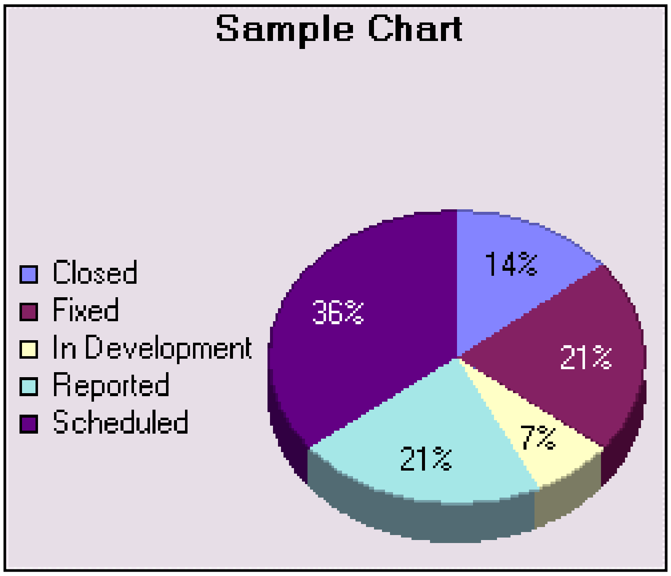
- **Show Value Labels**
  Whether the number of items in a category should be displayed in each bar

- **Value Label Style**
  If "Show Value Labels" is enabled, this option determines where the values should appear. Selecting "Floating (mouse over)" will only display the value when the mouse is moved over a particular bar, or "Inside" will display the values within each bar, or "Outside" will display the values above each bar.

- **Show Bar Scroller**
  Whether the bar scroller should be displayed. Enabling this option allows you to change the number of bars shown on the X-axis by moving the scroller along the bar. This option is useful for focusing in on a particular area of the chart.

- **Initial Bar Display**
  If "Show Bar Scroller" is enabled, this option determines which bars should be displayed on the X-axis. Selecting "All" will display all data, or "First 20" will show the first twenty bars in the data set, or "Last 20" will show the last twenty bars in the data set.

Pie Chart Options



- **Use 3D mode**
  Enables the chart to be displayed in three dimensions instead of two

- **Show Pie Labels**
  Displays the label for each category within a slice of the pie

- **Show Legend**
  Displays a color coded legend to explain the data categories displayed in each slice

- **Legend Position**
  If "Show Legend" option is enabled, this option determines whether the legend appears to the left or the right of the chart

- **Show Slice Separators**
  Whether lines (borders) should be displayed to separate each pie slice

- **Slice Style**
  Determines how a pie slice should be formatted when it is selected by double clicking on a particular pie slice Selecting "Detached" displays the selected pie slice slightly removed from the rest of the pie, or "Circle" adds a circle inside the slice to note which one is selected, or "Triangle" adds a triangle inside the slice to note which one is selected

- **Show Slice Values**
  Whether the number of items in a category should be displayed in each pie slice

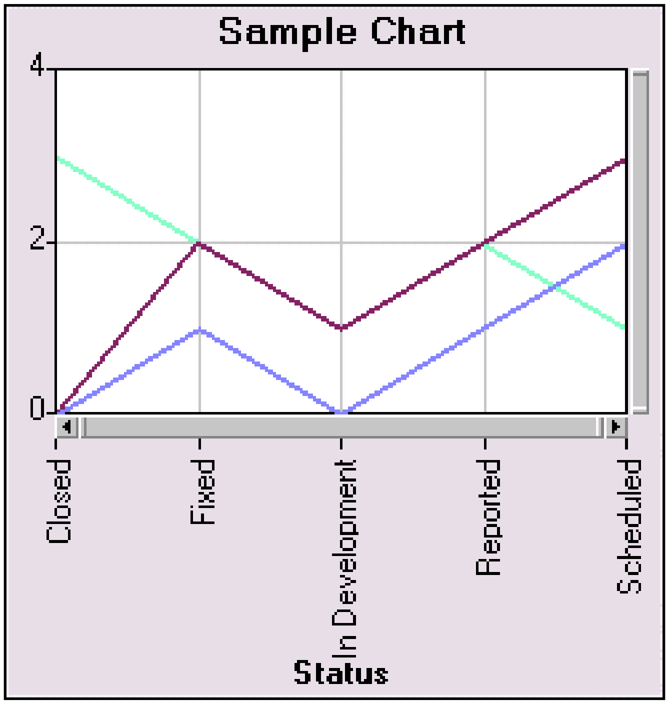
- **Slice Value Style**
  If "Show Slice Values" is enabled, this option determines where the values should appear. Selecting "Floating (mouse over)" will only display the value when the mouse is moved over a particular pie slice, or "Inside" will display the values in each pie slice.

- **Show Slice Percentage**
  Whether the percentage of a category should be displayed in each pie slice

- **Slice Percentage Style**
  If "Show Slice Percentage" is enabled, this option determines where the percent value should appear. Selecting "Floating (mouse over)" will only display the value when the mouse is moved over a particular pie slice, or "Inside" will display the values in each pie slice.

- **Show Slice Labels**
  Whether the label for each category should be displayed when the mouse is moved over a pie slice

Line Chart Options



- **Use 3D mode**
  Enables the chart to be displayed in three dimensions instead of two

- **Show Stacked**
  Enabling this option will display the lines for each break down category stacked on top of each other.

- **Show Legend**
  Displays a color coded legend to explain the data categories displayed in each slice

- **Legend Position**
  If "Show Legend" option is enabled, this option determines whether the legend appears to the left or the right of the chart

- **Show Value Labels**
  Whether the number of items in a category should be displayed at the corresponding point in the line.

- **Value Label Style**

If "Show Value Labels" is enabled, this option determines where the values should appear. Selecting "Point" will display each value on the point in the line which corresponds to the category, or "Outside" will display each value above the point in the line.

- **Show Value Scroller**
  Whether the value scroller should be displayed. Enabling this option allows you to change the values shown on the X-axis by moving the scroller along the line. This option is useful for focusing in on a particular area of the chart.

- **Initial Value Display**
  If "Show Value Scroller" is enabled, this option determines which values should be displayed on the X-axis. Selecting "All" will display all data, or "First 20" will show the first twenty points in the data set, or "Last 20" will show the last twenty points in the data set.

- **Show X-Axis Labels**
  Whether the labels for each point on the X-axis should be displayed

- **X-Axis Label Angle**
  If "Show X-Axis Labels" is enabled, this option determines the angle of the label. If the labels have a large number of characters, using "90" or "270" for this option will yield the best results.

- **Show X-Axis Lines**
  Enabling this option will display a line for each category listed on the X-Axis

- **Show Range Lines**
  If the "Show Range Labels" option is enabled, this option determines whether lines should be displayed for each value marked on the Y-axis

- **Show Range Labels**
  Whether the labels for the Y-axis should be displayed

- **Show Range Adjuster**
  Whether the range adjustment for the Y-Axis should be displayed. Enabling this option allows you to change the range of the Y-axis by scrolling the range adjuster along the bar. This option is useful for focusing in on a particular area of the chart.

- **Show Value Highlights**
  Enabling this option will display a circle at each point on the line that represents a data value

Edit a Chart Layout

To edit a chart layout, perform the following steps:

1. Click on the Metrics icon in the top button bar
2. In the "Chart Layout" field, select the layout you wish to modify
3. Click on the Edit button to the right of the "Chart Layout" field

4. Make changes to the layout, then click OK

Deleting a Chart Layout

To delete a chart layout, perform the following steps:

1. Click on the Metrics icon in the top button bar
2. In the "Chart Layout" field, select the layout you wish to modify
3. Click on the Delete button to the right of the "Chart Layout" field
4. Click OK to confirm the operation

Summary Reports

To obtain a summary report, click on the Metrics icon in the top button bar, then click on the "Go To Summary Reports" button. The following summary reports are currently supported:

- **User Summary**
  This reports shows a summary for each user in ProblemTracker. The summary includes the number of records assigned to the user broken down by Status and Product.
- **Product Summary**
  This report shows a summary for each product in ProblemTracker. The summary includes the number of records with a particular product selected broken down by Status and Assignee.

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Deleting Records

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To delete a record, use the Delete button located in the Button Bar. When you press this button you will be prompted to enter the Problem Record Number (PRN) of the record you would like to delete.

Note that when you delete a record, by default, ProblemTracker does not remove it from the database. Instead the "Deleted" attribute (field) of the record is set to Yes. By default, queries do not include such deleted records; however, deleted records can be included in the query results by setting the "Deleted" field to "Yes" or "*" when defining the query criteria. If, at a later time, you would like to make this record visible again, you can directly edit the record (using the record PRN) and change "Deleted" attribute to the value "No".

However, if your ProblemTracker administrator has changed the default delete behavior, the delete may be permanent. Check with your ProblemTracker administrator before performing a delete that you may wish to recover.

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Printing Records

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In order to print documents from ProblemTracker, you can click on the print icon present on the Home, Query, and View pages of ProblemTracker to print the contents of the frame where the record(s) are displayed.

To print the reports displayed on the Home Page, go to the Home Page and click on the print icon in the upper right corner of the page.

To print Query Results, run the query, then select either Table or Text for the format. Table format resembles the same table as shown on the Query Results page. Text format removes the table layout and lists each record sequentially from top to bottom. Click on the print icon to begin printing the query results.

To print individual problem records, the best method is to go to the View page for the problem record, click on the Format for Printing button, then click on the print icon at the top of the page. This method allows you to print an individual record with the full content of each field.

To print this ProblemTracker help file, there are 2 ways to print out the complete set of files.

Use Print All Linked Documents Option
Go to the Table of Contents, then select File->Print in your browser to launch the print properties dialog. Click on the option tab, then check the box for the option called "Print all linked documents". This will print the table of contents and each of the subsections listed as clickable links (each individual Help section). The availability of the "print all linked documents" option may depend on your operating system. If the option is not available, use the next method described below.

Print via Windows Explorer
This method will print all of the Help section, but the pages will need to be manually sorted. In Windows Explorer, browse to the directory where ProblemTracker is installed. Typically, C:\Inetpub\wwwroot\ProblemTracker\workgroup, where workgroup is ptdev, ptweb, pteval, etc. In the workgroup folder will be a subdirectory called Help. In the Help folder, there are three directories: Admin, Install, Std, and WMS. In each of these folders there will be a table of contents file. For Admin, the table of contents file is called admin_toc.htm. For Install, it is called install_toc.htm. For Std, it is called bots_toc.htm. For WMS, it called wms_toc.htm. Print each of these files first. Then go into the Admin directory and select all of the files, then right-click and select print. Do the same for the files in the Install, Std and WMS folders. You can use the printed table of contents files to help you sort the remaining web pages. There is one web page for each table of contents entry. The corresponding title is at the top of each web page.

If you wish to print information other than items mentioned above, use your browser's print functionality to print the information.

ProblemTracker can be configured as a Knowledge Base. When the Knowledge Base feature is enabled, you can perform searches using the Knowledge Base Search Page to find the information you are seeking.

Knowledge Base Search Page

To search the Knowledge Base for information, browse to the Knowledge Base Search Page by going to

http://servername/workgroup/kb/search.asp

where **servername** is the TCP/IP host name of the machine where the ProblemTracker server software is installed, and **workgroup** is the name of the ProblemTracker workgroup (e.g. pteval) you wish to access. If you are not sure where ProblemTracker was installed on your network, please ask your ProblemTracker Administrator.

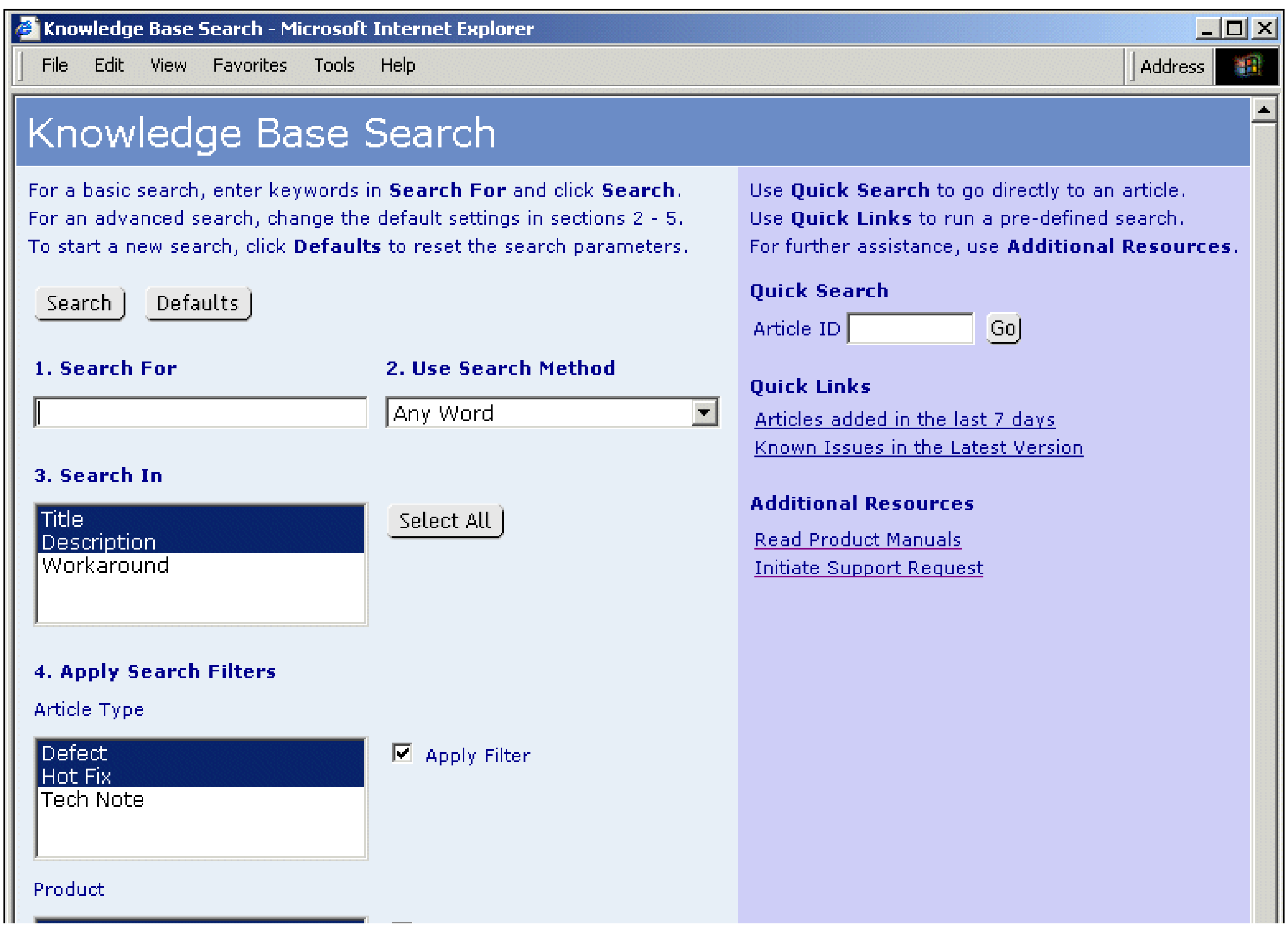
Performing a Search

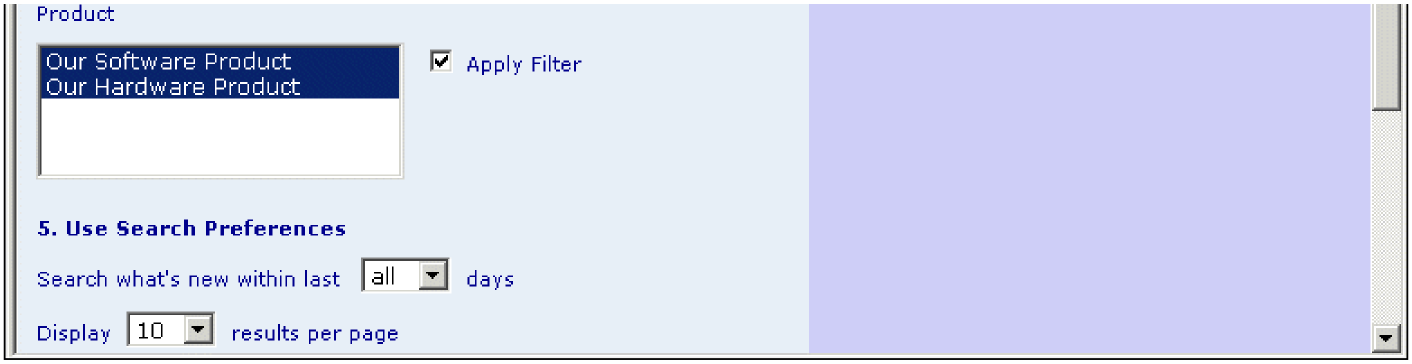
To perform a **basic search** of the knowledge base, enter keywords in the **Search Words** field described below, then click on the **Search** button. If you wish to skip to the information about the Results Page or the Knowledge Base Articles. Click on one of the following links:

- Results Page
- Knowledge Base Articles

To perform an **advanced search**, make selections in the available options on the Search Page, then click on the **Search** button to return the results. The options are described in detail below. Click on the **Defaults** button to return all components on the Search page to their default selections. This will clear any crtieria or selections you have made in the Search Page.

A sample Knowledge Base Search Page is displayed below.





Depending on the configuration set by your ProblemTracker Administrator for the Search Page, the following components may be available on the Search Page to use when performing a search:

Search Words
Enter a keyword(s) or phrase to be used as search criteria in the space provided. In the example above, the Search Words field is called **1. Search For**.

Search Methods
Select the method that should be used when performing the search. One or more of the following choices may be available for selection: Any Word, All Words, Exact Phrase. In the example above, the Search Methods pulldown is called **2. Use Search Method**.

When choosing **Any Word**, the search will return all articles which contain at least one word entered in to the Search Words field.

When choosing **All Words**, the search will return all articles which contain all words typed into the Search Words field.

When selecting **Exact Phrase**, the search will return all articles which contain the exact string of words as entered into the Search Words field.

The table below shows examples of the search results obtained by entering "access denied" as the **Search Words** with each of the different **Search Methods**.

Search Words	Search Methods	Results
access denied	Any Word	The search will return all articles which contain the word "access" **OR** the word "denied".
access denied	All Words	The search will return all articles contain **both** "access" **AND** "denied".
access denied	Exact Phrase	The search will return all articles contain the **string** "acess denied".

Search Fields
Select the fields in each article that should be used when performing the search. In the sample Search Page at the top of this section, Search Fields is called **3. Search In**. The fields you select will be searched to see if they contain the key word(s) you entered in the **Search Words** field.

To select a field, click on it so that it is highlighted. To select multiple fields, click on the fields you wish to select while holding down the **CTRL** button on your keyboard. To select all fields in the list, click on the **Select All** button to the left of the **Search Fields** list.

Search Filters
Select a value(s) in a field to be used as a filter for the search. In the sample Search Page at the top of this Help section, the Search Filters option is called **4. Apply Search Filters**. The value(s) you select will be used to limit the search results to only those articles which match the value(s) you selected.

To select a value, click on it so that it is highlighted. To select multiple values, click on the values while holding down the **CTRL** button on your keyboard. Check the **Apply Filter** box to the right of the field to limit the search results based on the values selected for the field. Uncheck the **Apply Filter** box if you do not wish to limit the search results based on the field to the right of the check box.

Using the sample Search Page as an example, the values "Defect" and "Hot Fix" are selected as search filters, indicating that the search results should only include articles that have "Defect" or "Hot Fix" selected as the "Article Type".

Search Preferences
The Search Page may be configured to allow you to select preferences to be applied to the results of your search. In the sample Search Page at the top of this section, the preferences are displayed under **5. Search Preferences**. The preferences described below may be available on the Search Page:

- **Search what's new within the last given number of days from a Date Field** narrows the search results to be articles that were modified within the last X number of days. The available choices for number of days are all, 2, 7, 14, 30, 60, 90, 180.

- **Display a given number of results per page** sets the number of articles that will be displayed per page in a list as the result of a search. The choices for the number of results per page are 10, 20, 30, 50, 100.

- **Open search results item in same or new window** allows you to choose whether the list of results are displayed in the same browser window as the Search Page or are opened in a new browser window.

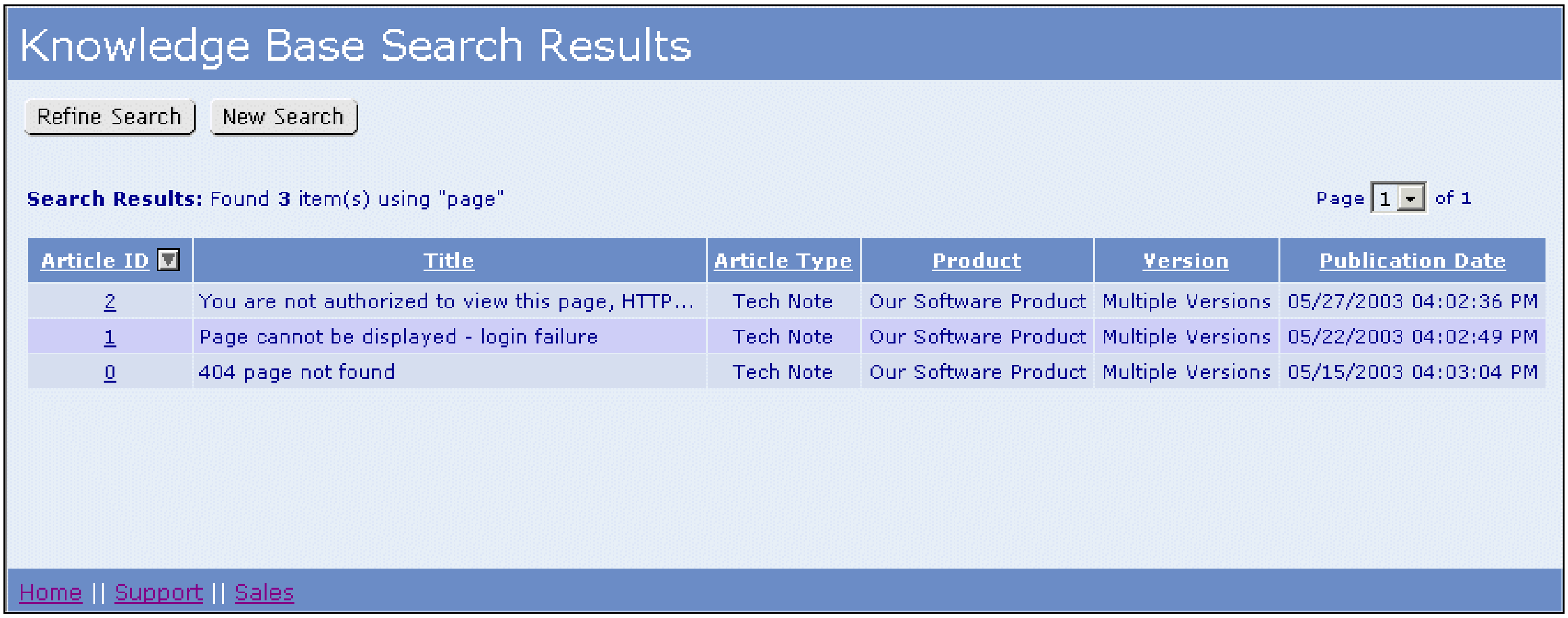
Quick Search
If you know the number (may be called Article ID, PRN, Record Number, or another name) of the Knowledge Base article you want to see, type this number into the **Quick Search** section on the right pane of the Search Page, then click on the **Go** button. This will immediately display the Knowledge Base article you requested. The Quick Search field is called **Article ID** in the sample Search Page shown at the top of this section.

Quick Links and Additional Resources
Your ProblemTracker Administrator may have included a section called Quick Links in the right pane of the Search Page. If so, clicking on one of the Quick Links displayed will perform a pre-defined search and display the results. The sample Search Page at the top of this Help section includes 2 Quick Links: "Articles added in the last 7 days" and "Known Issues in the Latest Version".

Other useful information may be displayed such as links to other web sites or documentation. An example of this type of information can be found in the **Additional Resources** section in the right pane of the sample Search Page above.

The Results of a Search

After clicking on the Search button or clicking on one of the Quick Links, the Knowledge Base will be searched to find any articles that match the criteria entered in the Search page. The articles that match the crtieria will be displayed on the Results page similar to the sample below. The example below displays the result of a search for articles that contain the keyword "page".



At the top of the Results page, the total number of records that matched the search criteria will be displayed at the top. If there are multiple pages of results, you can jump to another page of results using the page pulldown at the top right corner of the Results page. You can click on the heading of any **underlined column** to dynamically sort the results by that field. To view the contents of an article, click on the **Article Number**. The **Article Number** is always the first column on the left of the Results page, but the name of this field may be different (it may be called Record Number, PRN, or something else). A sample article is displayed below.

Refine Search
To perform another search based on the crtieria used to generate the current results, click on the **Refine Search** button. Clicking on the **Refine Search** button will return you to the Search page, preserving the crtieria you entered to run the previous search.

New Search
To perform a new search, click on the **New Search** button. Clicking on the **New Search** button will return you to the Search Page with defaults selected and any keywords used in the previous search will no longer be displayed.

Results
After viewing the contents of a Knowledge Base article, you can click on the **Results** button to return to the Results page of the last search performed.

Knowledge Base Article

Results | New Search

404 page not found

Article ID	0
Article Type	Tech Note
Product	Our Software Product
Oldest Version	1.0.0
Newest Version	Latest Release
Severity	2 (High Impact - Medium %)
Publication Date	05/15/2003 04:03:04 PM

Description

==== 05/27/2003 02:58:55 PM [UTC-0700] ==== Publications One ====
The error "HTTP 404 page not found" indicates that the file requested is not present in the location specified. This can occur due to one of the following reasons:
-The file is not in the location expected because the URL you entered was redirected to another location.
-URLSCAN was installed on your web server and is configured to block access to certain types of files like *.asp, *.exe, *.js, etc.
-Your browser is set to use a proxy server, which may block access to certain files.

Workaround

==== 05/27/2003 03:04:14 PM [UTC-0700] ==== Publications One ====
To workaround this error, try the following suggestions:
-Check the IIS settings on the virtual directory for the application you are trying to reach.
-Check to see if URLSCAN was installed on your machine. If so, check the URLSCAN.ini file settings to see whether particular applications or file types are being prohibited from running.
-Check the proxy server settings in your browser. Setting the option "bypass proxy server for local addresses" may allow you to workaround the 404 error.

Home || Support || Sales

NetResults ProblemTracker

Windows 2003 / XP / 2000 Time Zone Selection Chart

The following is a list of time zones that are supported by ProblemTracker when installed on a Windows 2003 / XP / 2000 system. Entries with (*) are only available in Windows 2003 and XP.

Time Zone Offset (in Hours)	**Time Zone**	**System Time Zone** (as displayed in Date/Time Settings)
-12:00	Dateline Standard Time	Eniwetok, Kwajalein
-11:00	Samoa Standard Time	Midway Is, Samoa
-10:00	Hawaiian Standard Time	Hawaii
-10:00	Alaskan Standard Time	Alaska
-08:00	Pacific Standard Time	Pacific Time (US & Canada); Tijuana
-07:00	Mexican Standard Time[La Paz](*)	Chihuahua, La Paz, Mazatlan
-07:00	Mountain Standard Time	Mountain Time (US & Canada)
-07:00	Mountain Standard Time [Arizona]	Arizona
-06:00	Central Standard Time	Central Time (US & Canada)
-06:00	Mexico Standard Time	Mexico City, Tegucigalpa
-06:00	Canada Central Standard Time	Saskatchewan
-06:00	Central America Standard Time	Central America
-05:00	Eastern Standard Time	Eastern Time (US & Canada)

-05:00	Eastern Standard Time [Indiana (East)]	Indiana (East)
-05:00	SA Pacific Standard Time	Bogota, Lima, Quito
-04:00	Atlantic Standard Time	Atlantic Time (Canada)
-04:00	SA Western Standard Time	Caracas, La Paz
-04:00	Pacific SA Standard Time	Santiago
-03:30	Newfoundland Standard Time	Newfoundland
-03:00	SA Eastern Standard Time	Buenos Aires, Georgetown
-03:00	E. South America Standard Time	Brasilia
-03:00	Greenland Standard Time	Greenland
-02:00	Mid-Atlantic Standard Time	Mid-Atlantic
-01:00	Azores Standard Time	Azores
-01:00	Cape Verde Standard Time	Cape Verde Is
00:00	Universal Coordinated Time	Casablanca, Monrovia
00:00	Greenwich Mean Time	Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London
+01:00	Romance Standard Time	Amsterdam, CopenHagen, Madrid, Paris, Vilnius
+01:00	W. Central Africa Standard Time	West Central Africa
+01:00	Central European Standard Time	Belgrade, Sarajevo, Skopje, Sofija, Zagreb
+01:00	Central Europe Standard Time	Bratislava, Budapest, Ljubljana, Prague, Warsaw
+01:00	W. Europe Standard Time	Brussels, Berlin, Bern, Rome, Stockholm, Vienna

+02:00	Egypt Standard Time	Cairo
+02:00	South Africa Standard Time	Harare, Pretoria
+02:00	Israel Standard Time	Israel
+02:00	E. Europe Standard Time	Bucharest
+02:00	FLE Standard Time	Helsinki, Riga, Tallinn
+02:00	GTB Standard Time	Athens, Istanbul, Minsk
+03:00	Arab Standard Time	Kuwait, Riyadh
+03:00	E. Africa Standard Time	Nairobi
+03:00	Arabic Standard Time	Baghdad
+03:00	Russian Standard Time	Moscow, St. Petersburg, Volgograd
+03:30	Iran Standard Time	Tehran
+04:00	Arabian Standard Time	Abu Dhabi, Muscat
+04:00	Caucasus Standard Time	Baku, Tbilisi
+04:00	Afghanistan Standard Time	Kabul
+05:00	West Asia Standard Time	Islamabad, Karachi, Tashkent
+05:00	Ekaterinburg Standard Time	Ekaterinburg
+05:30	India Standard Time	Bombay, Calcutta, Madras, New Delhi
+05:45	Nepal Standard Time	Kathmandu
+06:00	Central Asia Standard Time	Almaty, Dhaka
+06:00	Sri Lanka Standard Time	Columbo
+06:00	N. Central Asia Standard Time	Almaty, Novosibirsk
+06:30	Myanmar Standard Time	Rangoon
+07:00	SE Asia Standard Time	Bangkok, Hanoi, Jakarta
+07:00	North Asia Standard Time	Krasnoyarsk

+08:00	China Standard Time	Beijing, Chongqing, Hong Kong, Urumqi
+08:00	W. Australia Standard Time	Perth
+08:00	Singapore Standard Time	Singapore
+08:00	Taipei Standard Time	Taipei
+08:00	North Asia East Standard Time	Irkutsk, Ulaan Bataar
+09:00	Tokyo Standard Time	Osako, Sapporo, Tokyo
+09:00	Korea Standard Time	Seoul
+09:00	Yakutsk Standard Time	Yakutsk
+09:30	AUS Central Standard Time	Darwin
+09:30	Cen. Australia Standard Time	Adelaide
+10:00	AUS Eastern Standard Time	Canberra, Melbourne, Sydney
+10:00	E. Australia Standard Time	Brisbane
+10:00	West Pacific Standard Time	Guam, Port Moresby
+10:00	Tasmania Standard Time	Hobart
+10:00	Vladivostok Standard Time	Vladivostok
+11:00	Central Pacific Standard Time	Magadan, Solomon Is, New Caledonia
+12:00	Fiji Standard Time	Fiji, Kamchatka, Marshall Is
+12:00	New Zealand Standard Time	Auckland, Wellington
+13:00	Tonga Standard Time	Nuku'alofa

NetResults ProblemTracker

Windows NT 4.0 Time Zone Selection Chart

The following is a list of time zones that are supported by ProblemTracker when installed on a Windows NT 4.0 system.

Time Zone Offset (in Hours)	**Time Zone**	**System Time Zone** (as displayed in Date/Time Settings)
-12:00	Dateline Standard Time	Eniwetok, Kwajalein
-11:00	Samoa Standard Time	Midway Is, Samoa
-10:00	Hawaiian Standard Time	Hawaii
-10:00	Alaskan Standard Time	Alaska
-08:00	Pacific Standard Time	Pacific Time (US & Canada); Tijuana
-07:00	Mountain Standard Time	Mountain Time (US & Canada)
-07:00	Mountain Standard Time [Arizona]	Arizona
-06:00	Central Standard Time	Central Time (US & Canada)
-06:00	Mexico Standard Time	Mexico City, Tegucigalpa
-06:00	Canada Central Standard Time	Saskatchewan
-05:00	Eastern Standard Time	Eastern Time (US & Canada)
-05:00	Eastern Standard Time [Indiana (East)]	Indiana (East)
-05:00	SA Pacific Standard Time	Bogota, Lima, Quito
-04:00	Atlantic Standard Time	Atlantic Time (Canada)
-04:00	SA Western Standard Time	Caracas, La Paz

-03:30	Newfoundland Standard Time	Newfoundland
-03:00	SA Eastern Standard Time	Buenos Aires, Georgetown
-03:00	E. South America Standard Time	Brasilia
-02:00	Mid-Atlantic Standard Time	Mid-Atlantic
-01:00	Azores Standard Time	Azores
00:00	Universal Coordinated Time	Casablanca, Monrovia
00:00	Greenwich Mean Time	Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London
+01:00	Romance Standard Time	Amsterdam, CopenHagen, Madrid, Paris, Vilnius
+01:00	Central European Standard Time	Belgrade, Sarajevo, Skopje, Sofija, Zagreb
+01:00	Central Europe Standard Time	Bratislava, Budapest, Ljubljana, Prague, Warsaw
+01:00	W. Europe Standard Time	Brussels, Berlin, Bern, Rome, Stockholm, Vienna
+02:00	Egypt Standard Time	Cairo
+02:00	South Africa Standard Time	Harare, Pretoria
+02:00	Israel Standard Time	Israel
+02:00	E. Europe Standard Time	Bucharest
+02:00	FLE Standard Time	Helsinki, Riga, Tallinn
+02:00	GTB Standard Time	Athens, Istanbul, Minsk
+03:00	Arab Standard Time	Kuwait, Riyadh
+03:00	E. Africa Standard Time	Nairobi
+03:00	Russian Standard Time	Moscow, St. Petersburg, Volgograd

+03:30	Iran Standard Time	Tehran
+04:00	Arabian Standard Time	Abu Dhabi, Muscat
+04:00	Caucasus Standard Time	Baku, Tbilisi
+04:00	Afghanistan Standard Time	Kabul
+05:00	West Asia Standard Time	Islamabad, Karachi, Tashkent
+05:00	Ekaterinburg Standard Time	Ekaterinburg
+05:30	India Standard Time	Bombay, Calcutta, Madras, New Delhi
+06:00	Central Asia Standard Time	Almaty, Dhaka
+06:00	Sri Lanka Standard Time	Columbo
+07:00	SE Asia Standard Time	Bangkok, Hanoi, Jakarta
+08:00	China Standard Time	Beijing, Chongqing, Hong Kong, Urumqi
+08:00	W. Australia Standard Time	Perth
+08:00	Singapore Standard Time	Singapore
+08:00	Taipei Standard Time	Taipei
+09:00	Tokyo Standard Time	Osako, Sapporo, Tokyo
+09:00	Korea Standard Time	Seoul
+09:00	Yakutsk Standard Time	Yakutsk
+09:30	AUS Central Standard Time	Darwin
+09:30	Cen. Australia Standard Time	Adelaide
+10:00	AUS Eastern Standard Time	Canberra, Melbourne, Sydney
+10:00	E. Australia Standard Time	Brisbane
+10:00	West Pacific Standard Time	Guam, Port Moresby
+10:00	Tasmania Standard Time	Hobart
+10:00	Vladivostok Standard Time	Vladivostok

+11:00	Central Pacific Standard Time	Magadan, Solomon Is, New Caledonia
+12:00	Fiji Standard Time	Fiji, Kamchatka, Marshall Is
+12:00	New Zealand Standard Time	Auckland, Wellington