



User Guide – Defect Manager for Web

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About the User Guide – Defect Manager for Web

This guide describes how to use Defect Manager for Web and how the web-server version of this product can address your issue reporting, tracking and resolution needs.

The purpose of this guide is to assist you in learning what you can do and how to do it with *Defect Manager for Web*

Other Defect Manager Guides

The User Guide – Defect Manager for Windows has the following companion guides that provide additional detail on specific topics for Defect Manager:

- Getting Started Guide
- Installation Guide
- User Guide – Defect Manager for Windows
- User Guide – E-Tech Support Guide
- Administration Guide
- Programmer API Guide
- Glossary

Purpose of the System

Defect Manager is an interactive software product that allows companies, large and small, to manage the capture, tracking and resolution of defects, enhancement requests, tasks, calls and other issues related to its products, projects, processes or services.

In fact, Defect Manager should be thought of as an “Issue Management System” since defects and problems with products, projects, processes and services are merely a subset of issues that may be reported, tracked and managed. Reports of issues can come from customers as well as your staff and outside contractors. Such reports on issues may include actual defects, perceived defects, enhancements requests, questions, requests for action or service.

The purpose of Defect Manager is to provide tools you need to capture, track and resolve all reported issues and defects while maintaining effective communications with stakeholders on each issue.

How the System Works – Using Defect Manager for Web

Issue Tracking Process

It is important to remember that every company has different goals and objectives as well as different regulations, policies and procedures that affect how it operates.

There are many ways that you can track issues as well as different methodologies to accomplish this. In fact, almost everyone that deals with issues will have their own opinion or an existing business process for how this should be done.

What most companies lack is an effective tool for tracking and resolving reported issues.-
- Defect Manager is designed with the flexibility to meet your company's need for better control throughout the complete issue tracking lifecycle.

Although each company is different, your business processes, concepts and terminology can be accommodated in your use of Defect Manager.

Client Communications Process

As your support staff uses Defect Manager to track and resolve issues, problems and enhancements, it should not be working in a vacuum. Your clients, the people you serve and support, can be an integral part of your business process as well.

Defect Manager includes configurable features that automatically reminds your staff and communicates with your clients when significant events occur during issue-item processing such as opening an item to begin work or closing an item when the problem is resolved. This automated, as well as user-initiated, communication can be facilitated by Defect Manager to send appropriately formatted emails for an issue to clients and other stakeholders.

The *Defect Manager E-Tech Support* application provides a web-based application to allow your clients to easily browse your Knowledgebase of prior problems and solutions as well as interactively submit issues, defects and enhancement requests to you. Your clients can also use the system to check on the status of the issues they submitted. If the support team tells a client that they need more information, the client can add the requested information as a note or file attachment to the issue in the Defect Manager Repository.

Defect Manager not only improves the communication and relationships with your clients, it makes your client your “partner” where his problems are also your problems and you are solving them together using integrated automation – Defect Manager.

What are Issues?

The term, *Issue*, refers to an object in the repository database that maintains all of the accumulated information related to an issue that has been reported.

Thus an issue or defect that is submitted to you and entered into the repository, generates an *Issue* that can be tracked and have all of the related information that describes it associated in the repository database as a single item – a single object.

The *Issue-object* provides you with the convenience of being able to easily access any of its descriptive properties and associated collections of notes, documents, pictures, testing results to efficiently view, update and process the issue.

As you process an *Issue*, you can add your findings, notes, and updates to its properties and collections that reflect your contribution to the processing of the issue – Hence, the system is tracking your work on the issue.

When your part of the processing work is done, the *Issue* can be conveniently passed as a single object containing all its properties and associated information collections, including those you just made, to the next work step required to complete its processing.

Issues are the basic objects in the repository that allow you to track and manage reported issues such as: defects, enhancement requests, suggestions, questions, tasks, requests for action or service, etc. The main window, the Defect Log window, in *Defect Manager for Web* provides you with many ways to query and view issues, plus it allows you to select issues to view or process.

Issues Properties and Collections

The properties of an issue-item object are of the following types;

- **Identifying** property – A field that uniquely identifies an issue allowing it to be accessed quickly
- **Coded-Value** properties – Fields that accept only pre-defined code-values to insure data consistency and make it easy for a user to select the appropriate value from a drop-down list of values.
- **Timestamp and Schedule** properties – Schedule and tracking dates and time values
- **Descriptive** properties – text information characterizing the problem or groups of data fields that provide additional description of an issue

A **Collection** is a group of files containing information related to an issue-item object that are registered and linked in the Defect Manager Repository.

Identifying Properties

Id Number – Whenever you create a new issue, it is automatically assigned a unique numeric identifier. This unique identifier for an issue is disclosed at the time it is submitted. The Id number allows fast and unambiguous query access to each issue in the system.

Coded-Value Properties

These fields contain pre-defined code values to insure that consistent data is entered and makes it easy for a user to select the appropriate field value from a list of values.

The use of the system is made easier because your system administrator has the ability to add, delete and change most of the sets of coded values to make them familiar and appropriate codes for your organization.

Issue Type – When items are logged into the system they can be classified as a particular type of issue. Defect Manager provides five primary-issue types that can be assigned to an issue. These issue types are:

1. **Defect** - An issue that is a real problem that needs to be addressed such as a bug.
2. **Enhancement/Feature Request** – An issue that needs to be addressed in the future
3. **Call/Question** – If you have clients that may call in with an issue or a question. Ultimately the call/question could result in the opening of a defect, enhancement or task depending on the nature of the item.
4. **Task** – Work required to be performed by an individual. It could be related to another issue or it could be a stand alone item that needs to be researched.
5. **Other/Miscellaneous** – A generic type to be used at your discretion.

Status – Defect Manager provides four (3) primary-status type values for an issue that you control with certain built-in menu-bar operations (shown below) on the Defect-Issue Window:

- | | |
|--------------------|-------------------------------------|
| 1. Open Issue | New; Action → Re-Open Defect |
| 2. Closed Issue | Action → Close Defect |
| 3. Deferred Defect | Action → Defer |

The primary-status values are fixed and built-in. However within each primary-status value, the status codes you use can be tailored to provide four (3) sets of status-code values that meet the needs of your organization and your business process.

The status of an issue is determined by a combination of its primary status and one of its secondary status values.



The table, shown below, lists the default sets of status-code values for each primary-status code. These status-code sets can be changed by adding and deleting values, from within each group, to meet your organization’s needs.

Open Defect	Closed Defect	Deferred Defect	Enhancement
New	Bug	Need System Setup	Needs Evaluation
Verified As Bug	Not A Bug	Waiting on Client	Accepted
Fix Made	Documentation Error		Scheduled
Fix Verified	How To		Revenue Related
Fix in Progress	Not Reproducible		Client Requested
Packaged	Working As Designed		Rejected
On Hold			
Investigating			
Client Confirm Fix			

Severity – Processing severity for an issue is defined in terms of code names that indicate the severity of a defect or importance of an issue. Severity code definitions consist of a severity name and a numerical severity sort value. The numeric severity sort value allows issues to be ranked in the order of its severity with zero (0) being the highest severity with the greatest urgency for resolution.

Default priority definitions are shown below which can be customized by the Defect Manager *Administrator* program to meet your organizations needs.

Severity Name	Severity Sort Value
System Down	0
System Crash	100
Loss of Functionality	200
Minor Issue	300

Note: By leaving gaps in the numerical severity values assigned, it is possible at a later time to create new levels of severity within the existing severity assignments.

Priority – Processing priority for an issue is defined in terms of code names that indicate the severity of a defect or importance of an issue. Priority code definitions consist of a priority name and a numerical priority sort value. The numeric priority sort value allows issues to be ranked in the order of its priority with zero (0) being the highest priority with the greatest urgency for resolution.

Default priority definitions are shown below which can be customized by the Defect Manager *Administrator* program to meet your organizations needs.

Priority Name	Priority Sort Value
1	0
2	100

***Note:** By leaving gaps in the numerical priority values assigned, it is possible at a later time to create new levels of priority within the existing priority assignments.*

Extensible Coded Value Sets – Defect Manager allows other types of entities to be named and referenced with code values appropriate to your organization:

- **Work Queues** – Meaningful names for processing steps in your organization’s workflow process can be defined where work is held while awaiting attention and processing. Meaningful names for work queues also assist in routing work to the next processing step while identifying the nature of the processing at each work step.
- **Users** – Names of workers and their profiles of permissible operations can be defined. These user names can be chosen from a list of values for the **Assigned To** field that indicates the person responsible for processing an issue.
- **Products** – Names for the things you support in your organization such as products, projects, processes or services.
- **Product Releases** – Code names that describe the versions or releases for the things you support in your organization.
- **Groups** – Names for pairings of one or more Product Names and multiple User Names that indicate: “the Group of Users that support the Product Name(s) listed”. Groups provide the means for the system to provide an appropriate list of users for you to select from when assigning an issue to an individual.
- **Components** – Meaningful names for component elements that your organization must support or work with that may be subdivisions of products, platforms or other entities. The Components property and code values provide an additional level of granularity and classification for an issue.
- **Platform Names** – Code values that represent a physical context for an issue. Some examples of application areas and physical context are:
 - Software → Computer System Type: Windows, Macintosh, Solaris, Linux
 - Hardware → Environment Used: Clean Room; Lab, Office, Warehouse
 - Field Test → Test Group/Situation: Control Group, Placebo Group, Random Sample
- **Platform Releases** – Code values that represent specific versions of the physical context. Some examples of application areas and versions of physical contexts are:
 - Software → Windows 98, Windows 2000, Windows XP
 - Hardware → Clean Room: Standard 1, Standard 2, Standard 3
 - Field Test → Test Group: 2001 Tests, 2002 Tests, 2003 Tests

- **Clients/Users, Locations, and Contacts**

Your clients and users can have their location and contact information stored in the Defect Manager’s Repository database.

Timestamp and Schedule Properties

- **Entered On** -- The date the issue was entered.
- **Reported Date** – The date the issue was reported
- **Last Updated** -- The last time anyone updated the issue
- **Closed On** -- The latest date the issue was resolved and status indicated as “Closed”.
- **Due On** -- The latest date the issue is expected or to be resolved. The date represents a planned “on or before” date or it reflects an urgent milestone related to the issue and its stakeholders.

Descriptive Properties

Summary – A brief description of the issue.

Description -- A long description of an issue.

Revision -- A revision/build number associated with the product/project release.

Environment – The end user environment such as service packs, versions of system components, etc.

Sections – The ***Issue-Item Form*** has sections that contain a wealth of information related to an issue. The sections let you selectively view additional groups of descriptive information as follows:

- **General Section** -- This is general information about the Item. This section also includes any user defined fields that have defined by your Defect Manager System Administrator. User-defined fields allow you to extend Defect Manager to better suit your organizations needs. You can use up to eight (8) custom fields to hold data of a specified type that is appropriate for your organization’s issue-processing needs.

These fields are defined by using the ***Configuration Manager*** tool. You can also change the label that appears on this tab from within this tool. See the User defined fields in the **[Administration Guide](#)** for more information on defining these fields.

- **History Section** -- This is a log of activities that have been performed on an item such as updating, sending of e-mails, adding attachments, etc. Users can also add notes to an issue an they are kept in chronological order with the other activities that have been performed on an issue
- **Client Section** -- This tab is used to review the information that is required to resolve this defect including a workaround until the item is officially fixed. This section also includes the client history activity. This area holds the activities and notes that have been entered by your technicians that are pertinent. The activity notes that should be accessible by clients using the ***E-Tech Support*** interface, It is a good practice for

your technicians to add notes for all the work that they have done on a defect item, so that anybody can pick up and continue work on the defect item, if need be.

For example, if the individual is reassigned to another task, you will not lose the investigative work that has already been done. You should always document the time and effort you have spent on resolving your client's defects.

- **Bookmark Section** – This area is used to view and maintain keywords that serve as bookmarks that allow you and others to quickly locate an issue or multiple issues associated with the same key-word bookmark.

Issue Collections

Collections are groups of files containing documents, digital pictures, source code, text files, sets of test result data, etc. that are related to an issue.

Defect Manager provides the following types of collections:

- **Attachments** – Typically attachments are documents, source code segments, digital images of photographs or faxes, memory dumps and any other files of information that are related to an issue. This information includes information files that were submitted by the individual reporting the issue as well as those attached by workers while an issue is processed.

You can add, remove and view attachments.

Attachments to an issue are logged **immediately** -- update is not postponed until a **Save** operation. If you realize that you have made a mistake when adding an attachment, you can reverse your change.

- **Notes** – Notes can be added to the issue in the **History** section and **Client History** sections to document the progress of work on each issue.
- **System Test** – Test results in multiple files can be included as a group representing each test done while processing an issue.

Your System Test department can log system test information related to this defect. You can even import defect reports from other regression testing tools into this collection.

- **Source Files** – Your technicians can track multiple source code segments, date accessed, version of the source code and current status code.

Source file changes made on this tab are logged **immediately** -- update is not postponed until a Save operation. If you realize you have made a mistake when modifying a Source Files collection on an issue, you can reverse your changes.

The Source Files tab is primarily for use by companies involved in tracking

issues/defects with software products, applications and web-sites; however, it can be applied to forms of text other than program-source code.

With the exception of the **Attachments**, **Notes** and **Source Files** tabs, all other changes are temporary until you use the **Action→Save** menu item, or press the **Save** toolbar button, or the **Save** button.

When you save an issue all modifications are logged by the system. You can review these activities by selecting the **History Log** section and the **History Log** area in the Client History section.

Repository and Activity Log

The **Defect Manager Repository** is the central database for the Defect Manager system. It organizes all of the issues and related information needed to: enter, track and resolve issues/defects.

A key part of this repository database is the **History Log** that stores a record of all activities that are done to issues while using Defect Manager.

Knowledgebase

The Knowledgebase is a separate database that is available as WEB pages over the Internet/Extranet network by using Defect Manager or its E-Tech Support system. Only selected issues that you decide to publish to this Web-database are available for viewing by your support team, issue stakeholders and clients authorized to use the Defect Manager and E-Tech Support systems.

The majority of data related to an issue (including the company that reported the issue) are not visible when an issue is published.

Workflow and Work Queues

What is Workflow?

Workflow is a method for processing issues that typically require multiple work steps to complete its processing and it may also involve several different groups and individuals. Defect Manager is designed to use **Workflow** because the processing for reported issues and defects is typically done in multiple work steps that often involve different groups and individuals. Each work step, or stage of work, will have a specific group or individual that is trained and possesses the skills to do the work required at this point in the processing of an issue.

Workflow is a useful technique for both large and small organizations. Workflow can be applied to small organizations that may be a “One-Man-Band” who has many things going on and interruptions. Defect Manager workflow can help him organize and track the pending, in-process and resolved issues he must contend with on a daily basis to insure the important work and tasks do not get lost in the “cracks”.

The large organization may need and use many specialists that must co-operate during the lifecycle for a reported defect. Workflow provides an effective way to “flow” the

work between many cooperating individuals and organizations while tracking and helping to prevent any of the related defect item information from becoming lost.

What is a Work Queue?

As work flows between **work steps** and different workers, it is rarely a smoothly running assembly line where each of the work steps are synchronized by a common “conveyer belt” as you might imagine as running in an ideal factory.

As I am sure you are aware, processing for issues and defects is normally done by independent groups and individuals – This typically requires that the workflow be asynchronous because these workers are not immediately available when work arrives.

Work Queues are an effective way to allow an issue to flow to the next work step and be held until an appropriate worker is able to process it. Work queues should have meaningful names to make it easy to route each issue to the next work step.

Specific groups or individuals obtain issues to process from a named work queue. After completing the appropriate processing at a work queue, the issue is then placed in the work queue for the next step in the process. Such workflow processing continues until the final work step is completed and the issue is deferred or closed.

The names assigned to work queues should be meaningful terms within your business process. Work-queue names should reflect either the type of work performed in the work step or the group or individual that obtains work from the work queue.

It is recommended that the names be descriptive generically, rather than using the names of individuals who may be re-assigned. For example, use a generic description such as “QA Tester” rather than “Bill”.

Defect Processing Steps

Issues and defects are typically reported by: your customers, the system test or QA teams, technical support teams, help desk, sales support teams, documentation teams, management, and system integrators. Regardless of whom the defect is reported by, it is important that you log each and every defect. To properly address and resolve the issue it is important that:

- A priority level is set for the reported defect based on its severity. The most important issues should get resolved first.
- Your staff works on the defects in priority sequence.
- All effort spent on each defect is logged. This will give you the ability to re-assign the defect to another technician without losing the investigative work previously performed.
- Bookmarks are associated with this defect, so others can easily find all the relevant information related to this type of defect. This helps you to start building a coherent knowledgebase.

Once a defect is reported, the defect should be put into a verification queue, so that someone can verify if this is a defect, or not. The following sections *characterize the basic process from a software issue and defect processing point of view*. Other lines of business and applications for Defect Manager will have similar considerations in their respective contexts and environments.

Defect Verification

System Test or Technical Support specialists usually review reported defects and verify if they are in fact a defect. If is not a defect, the client must be notified that it is not a defect and why. If it is a defect, it must be passed to appropriate group (usually development or support) to be fixed.

Defect Correction

Based on the type of defect, there could be any number of skilled individuals that can correct the defect. You want to make sure that these individuals have a list of all the defects that they are expected to fix, an associated priority in which they should be worked on, and a scheduled date that they need to have the fix completed by. These individuals are typically software developers, documentation writers, graphic artists and release management engineers, etc.

As they work on the defects that are assigned to them they should keep notes on everything they have done to make progress on the defect. After they have fixed the defect, they need to pass it on to the group that will verify that the defect is corrected. These fixes should also be checked into the source code control system.

Defect Correction Verification

After the fix is made it needs to be passed to the group that will verify that it has truly been corrected. Usually, the System Test group does this work.

Defect Delivery

Usually, management (based on the client need or marketing need) determines when the defect corrections (fixes) must be completed and when they should be targeted for delivery.

Fixes are scheduled as a hot fix/patch into the production product, distributed as problem notices with documentation of fixes or workarounds, or they are targeted for a particular release in the future. The nature of fixes and how they are deployed depends on your type of business and products that are being supported.

The fix is deployed and delivered to the client along with a notice that the issue has been resolved. The defect is closed. A final resolution is recorded. The failing component area is recorded.

Workflow Example with Work Queues for each Work Step.

The following is a general example of workflow processing. The processing of reported defects could follow this workflow for our example company as shown in the figure below.

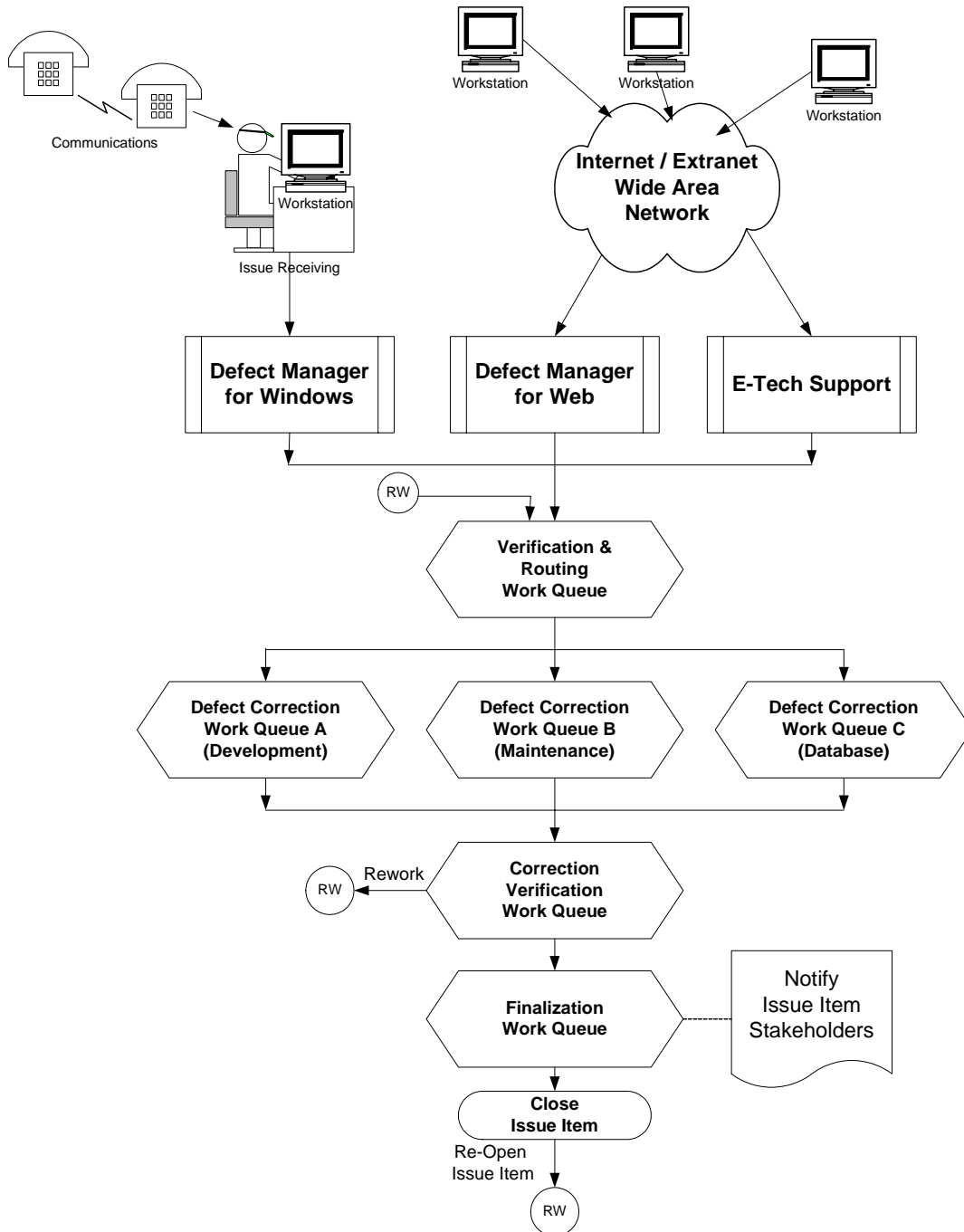


Figure: A Sample Workflow Sequence

The following outline describes the example workflow process shown in the above figure. This example begins with a report of a defect over the phone or via the internet which initiates the following action and subsequent work steps:

▪ **Initial Actions:**

1. Receive the defect report and enter it into Defect Manager storing it in the Repository.
2. The new issue is placed in the work queue named: **Verification & Routing**.
3. Optionally, the issue may also be assigned to a specific individual that is responsible for processing this issue.

▪ **Subsequent Work Steps:**

1. An assigned worker for the work queue accesses the highest priority issue from the work queue named: **Verification & Routing**.

Work-Step Actions: Review the issue properties and collections for completeness and accuracy. Determine the **Next** work queue that should process the issue and if a specific user should be **Assigned To** work on it at the next work step.

If the issue is incomplete, defer the item while taking action to obtain the missing elements needed – once obtained, re-activate the issue and continue.

Post-Process Actions: Send the issue to the next appropriate work step for processing by individual(s) with appropriate skills and training by placing the issue into the proper work queue (e.g., “**Defect Corrections**”). Likewise, if a specific individual should process it, assign the individual’s name in the **Assign To** field for this issue.

2. Assigned worker accesses the highest priority issue from the work queue named: **Defect Corrections**. (Note: The issue fetched next may or may not be the one shown in step one above, since a higher-priority issue may take precedence)

Work-Step Actions: Review the issue properties and collections to understand the nature of the issue or defect. Research and, attempt to, resolve the issue or defect. Log all actions taken, attach information and materials gathered that should be retained and update the status of the issue as appropriate.

Post-Process Actions: Send the issue to the appropriate next work step for processing:

- If the issue needs additional processing by other groups/specialists, assign the work to those individuals by placing this issue in the appropriate work queue
 - If this work-step processing is completed, then place this issue in the next appropriate work queue: **Correction Verification**
3. An assigned worker accesses the highest priority issue from the appropriate one of the three work queues named: **Correction Verification**.

The workflow diagram, shown above, shows three different queues that are used to hold and provide issues to workers with different specialties in defect corrections. One or more workers know which work queues they are assigned to use.

The **Assign To** field can further route the issue to a specific worker because he/she is responsible for the issue or because he/she is best able to process it at this time.

Work-Step Actions: Review the issue properties and collections to insure that the issue is completed properly with all of its accumulated information accurately logged. Verify that the correction is indeed valid and complete.

Note: In the case of a software bug and bug-fix correction, this work queue might be called “System Test”, QA-Quality Assurance, etc. This group must plan and test the correction to insure that it is valid, complete and can be deployed with the planned release. In addition, work-around suggestions and solutions may be identified to provide immediate relief from the defect until the next release can be obtained and installed.

Post-Process Actions: Send the issue to the appropriate work step for processing:

- If this issue does not meet the quality standards required by your business process, update its status and route it to the appropriate work queue for re-work.
The workflow diagram, shown above, indicates that the company’s policy is to send re-work to the **Verification & Routing** work queue (shown with connector marked RW) so the individual working this queue will be able to verify that the issue does need re-work and assign it to an appropriate worker to correct the problem.
 - If this issue meets the quality standards required by your business process, place it in the work queue named: **Finalization**.
4. The assigned worker accesses the highest priority issue from the work queue named: **Finalization**.

Work-Step Actions: Send appropriate follow-up responses to all issue-item stakeholders. These responses would advise of the disposition of the reported issue or defect, plans for deployment of a solution and any work-around suggestions or solutions that could provide immediate relief.

Review the issue to determine if it should be published to the Knowledgebase to allow staff and customers to find previously resolved issues and defects along with the solution.

Update the issue information required to track the finalization actions performed in this work step.

Post-Process Actions:

- If this issue does not meet the quality standards required by your business process, update its status and route it to the appropriate work queue for re-work.
- If this issue meets the quality standards required by your business process, update it as “closed” which removes it from workflow.

This workflow example has been kept very simple and generic to illustrate the concepts of workflow processes and issue-tracking lifecycle built around work queues.

We designed this example to show how you can combine quality-control and defect processing steps that are done by different individuals and to:

- Illustrate how independent steps and workers can collaborate effectively
- Emphasize that injecting quality control work steps, at the beginning and end of a process that is done by multiple independent workers, provides checks and balances to insure that work is ready for processing before it is assigned. Likewise, it insures that the processed work is correct before telling your customers and stakeholders that you have resolved the problem.
- Demonstrate that work can flow asynchronously and be accessed in priority order as it is delivered to workers at their desktop computers.

The administrator for your installation of Defect Manager will need to define and name the work queues that best suit your organization’s needs for processing your reported issues and defects (see the [Administration Guide](#)).

Basic System Operations

This section covers the basic operations needed to routinely add and process issues and defects while using *Defect Manager for Web*.

A separate section, [Advanced System Operations](#), describes the more specialized operations.

Logon to Defect Manager for Web

You begin by logging onto the system allowing it to recognize you as a pre-defined user and the permissions you are authorized to use. The logon window below will be displayed.

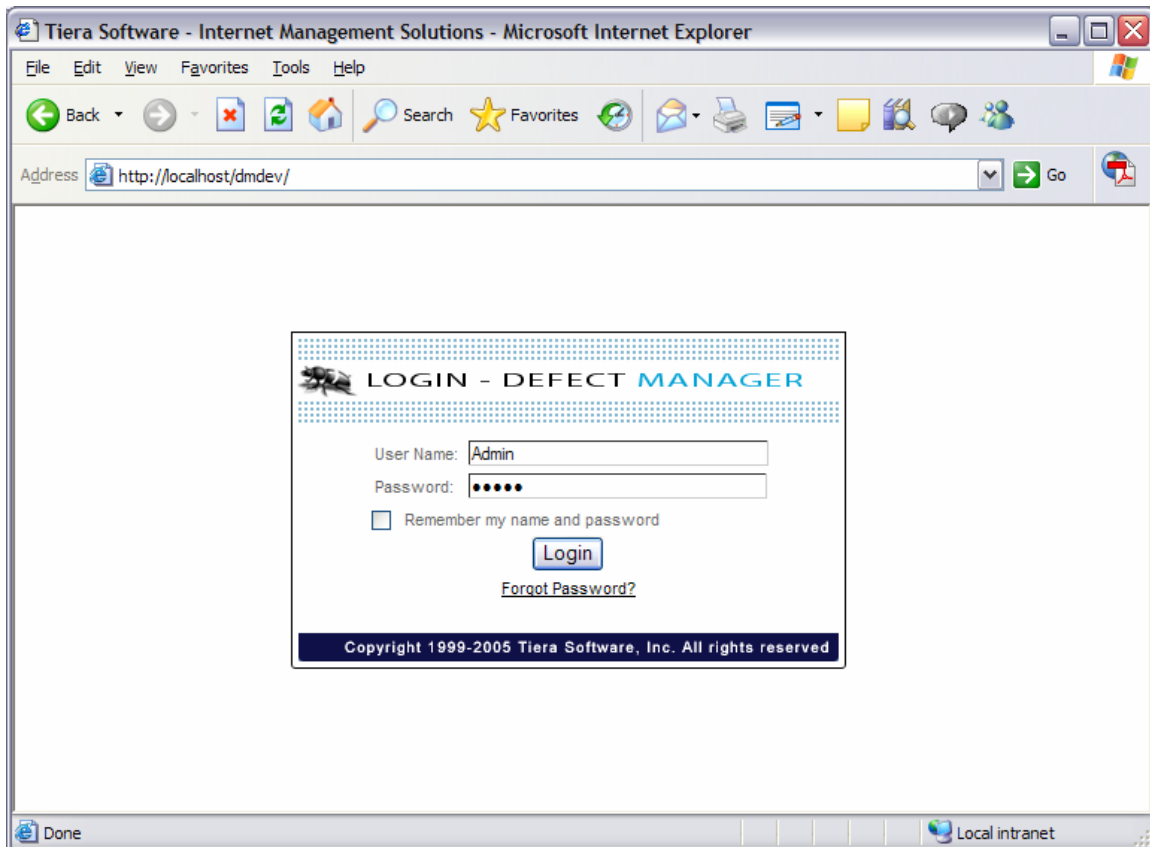


Figure: Defect Manager Logon Web Page

Staff users have issues assigned to them and perform work on it as a part of the process to resolve a problem or address an issue. Staff-users can be people who: answer support calls, do development, manage projects, test systems, document systems, produce graphics, manage product configurations, etc. – Anyone who is a part of your organization's issue resolution business process.

Users are defined by the administrator(s) of the system who configure each user with suitable permissions and parameters.

If you are an administrator, you will also want to read the section: [Configuring Users](#) in the [Administration Guide](#) to see how to add new users to the system.

If you do not know your password, contact your administrator, and they can provide you with your User Name and Password to logon to Defect Manager.

Once you are logged on to the system you can use the Defect Manager Log display grid to select, then view or process reported issues and defects.

Issue Log Window – Main Web Page

The main web page of Defect Manager displays a log of issues as shown in the figure below.

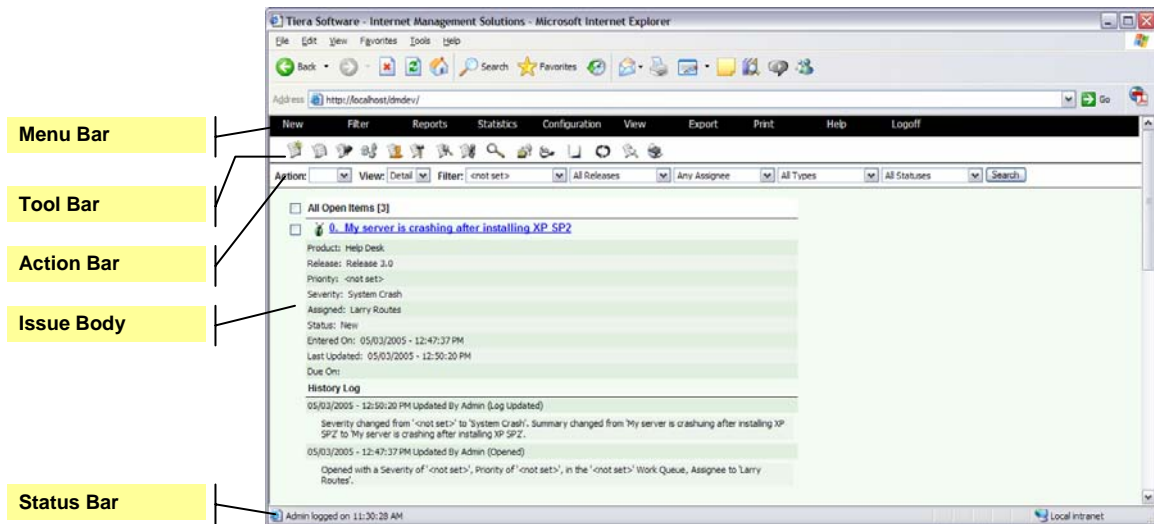


Figure: Defect Manager – Main Web Page –Issue Log Window

You can use the Right-Mouse Button pop-up menu to evoke browser operations. Unlike *Defect Manager for Windows*, this pop-up menu displays operations that apply to the browser – not issues.

This is one of the few minor differences that exist between the Windows and web-based versions of Defect Manager.

However, the Menu Bar, Tool Bar and Action Bar provide alternative ways to launch operations for the Web.

Menu Bar

The Menu Bar provides a list of actions that the user can perform by selecting a particular menu item. The menu bar is shown below.

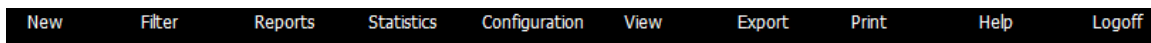


Figure: Defect Manager for Web – Main Web Page –Menu Bar

Menu items are group by related functional items. The main menu items are.

- **New** - Log a new issue into the system
- **Filter** – Filter the data based on a set of criteria. There are three classes of filters. They are:
 - **My Filters** – These are filters that were created by you or automatically generated by the system, to assist you in managing your issues.
 - **Standard Filters** – These are filters that are created automatically by the system.
 - **Public Filters** – These are filters that were created by other users and they have made them publicly available to the user community.
- **Reports** – Create and run existing reports. There are two classes of reports. They are:
 - **My Reports** – These are reports that were created by you or automatically generated by the system, to assist you in managing your issues.
 - **Public Reports** – These are reports that were created by other users and they have made them publicly available to the user community.
- **Statistics** – There are two types of statistics that are provided. They are distribution statistics and trend analysis statistics.
- **Configuration** – Configure the system. This requires Administrative privileges.
- **View** - Configure your workspace environment.
- **Export** – Export the current list of items.
- **Print** – Print the current list of items.
- **Help** – Stat the help system.
- **Logoff** – Logoff the system.

Tool Bar

The Tool Bar provides an alternative to the Menu Bar to perform certain actions. These actions are show below.

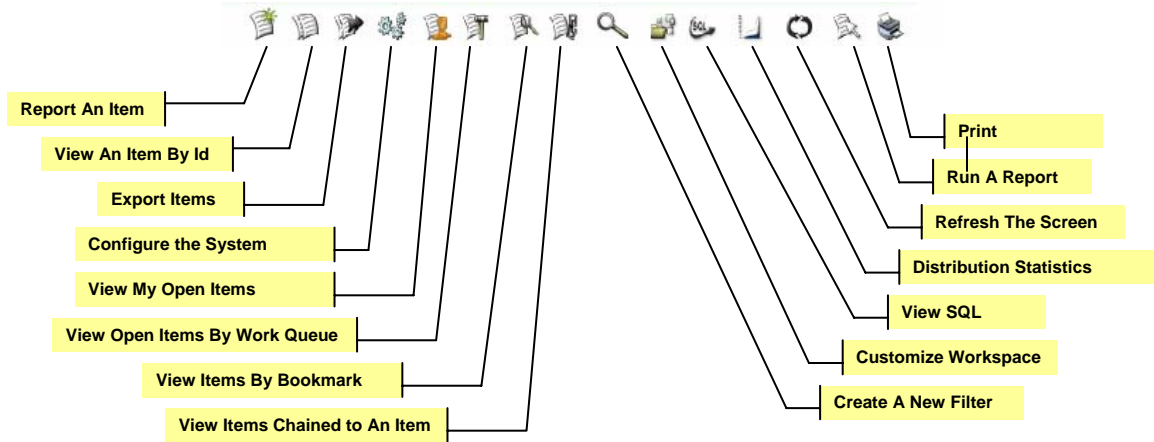


Figure: Defect Manager – Main Web Page –Tool Bar

Action Bar

The Action Bar has three primary functions. They are described below.

- **Action** - Perform multiple actions on selected items. Such as closing or deleting multiple items at once.
- **View** - Change the current view in the issue body. The issue body can be displayed as a **Grid**, **List** or **Detail**.
- **Filter** -Filter the data based on the product/project, release/version, assignee, issue type and status.

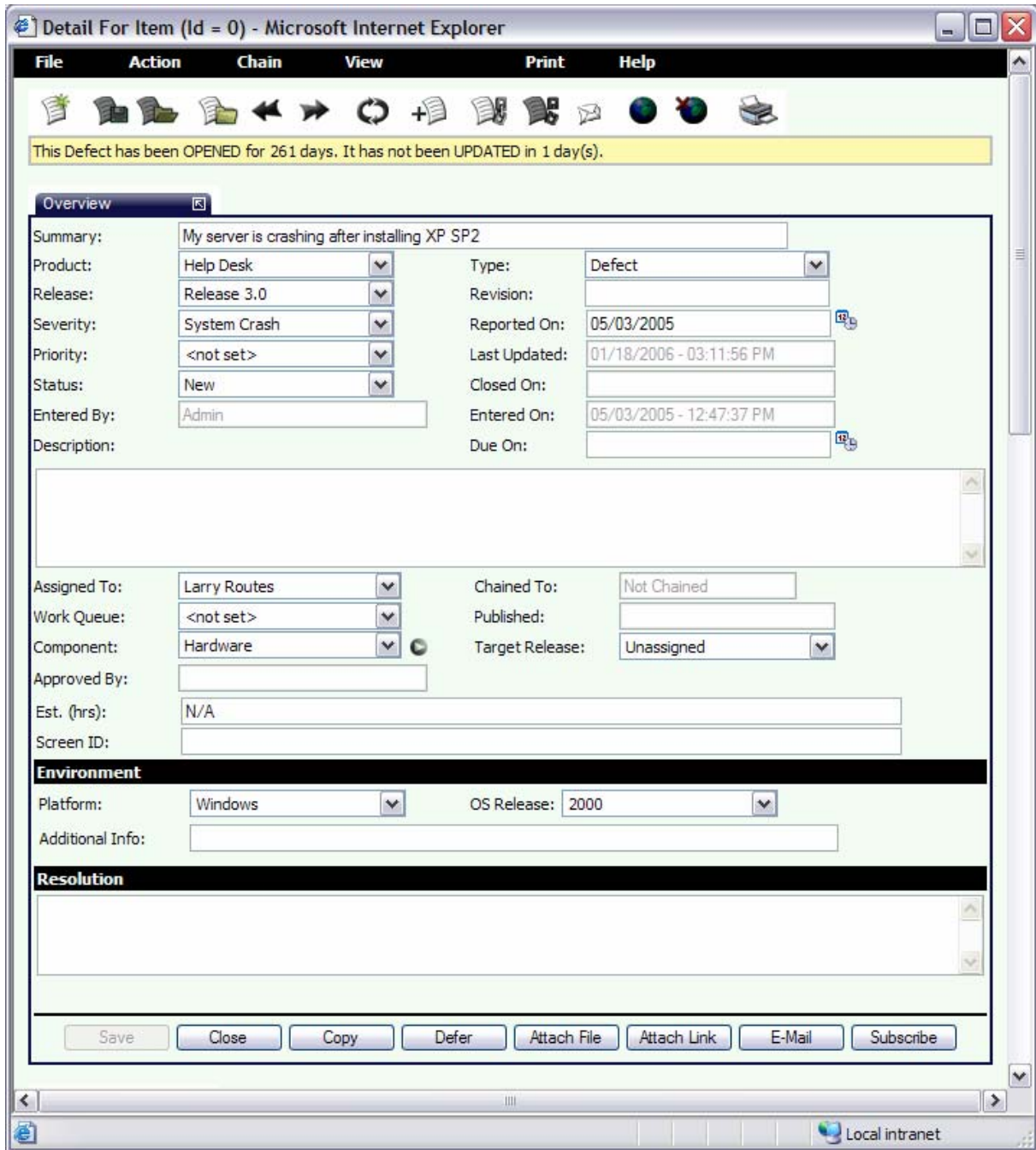
The Action Bar is shown below.



Figure: Defect Manager – Main Web Page –Action Bar

Selecting An Issue

To select an issue from the list, merely select it with a mouse and left click to open the **Issue Detail** window to view and update the selected issue as shown below.



Detail For Item (Id = 0) - Microsoft Internet Explorer

File Action Chain View Print Help

This Defect has been OPENED for 261 days. It has not been UPDATED in 1 day(s).

Overview

Summary: My server is crashing after installing XP SP2

Product: Help Desk Type: Defect

Release: Release 3.0 Revision:

Severity: System Crash Reported On: 05/03/2005

Priority: <not set> Last Updated: 01/18/2006 - 03:11:56 PM

Status: New Closed On:

Entered By: Admin Entered On: 05/03/2005 - 12:47:37 PM

Description:

Due On:

Assigned To: Larry Routes Chained To: Not Chained

Work Queue: <not set> Published:

Component: Hardware Target Release: Unassigned

Approved By:

Est. (hrs): N/A

Screen ID:

Environment

Platform: Windows OS Release: 2000

Additional Info:

Resolution

Save Close Copy Defer Attach File Attach Link E-Mail Subscribe

Local intranet

Figure: Defect Manager for Web – Issue Detail

You can also use the “**View Item By Id**” toolbar button or the **View → By Id** menu item to view a specific issue. Either approach will prompt you with a small window that requires you enter the desired Id of the issue you would like to view as shown below.

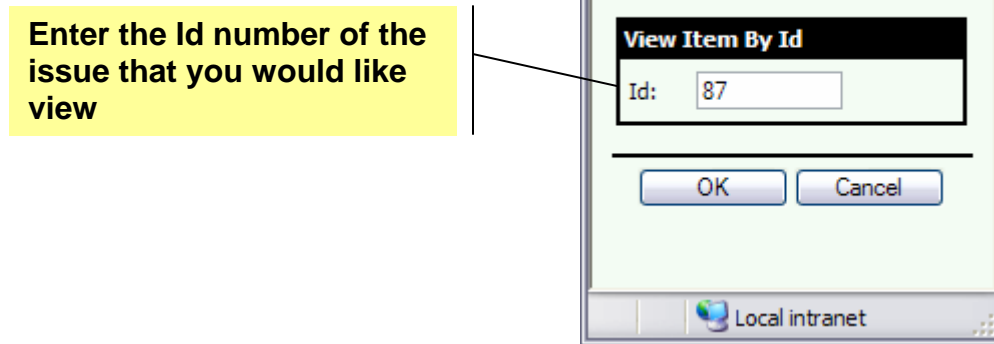


Figure: View the Issue- Item using its Id Number

This will show you the Issue window where you can view and update the issue that you specified.

Issue Detail Window

As a separate window from the main window, you can work with multiple issues at the same time in different *Issue Detail* windows. Each web-browser window holds a different web-page.

The *Issue Detail* window is broken up into four distinct areas as show below.

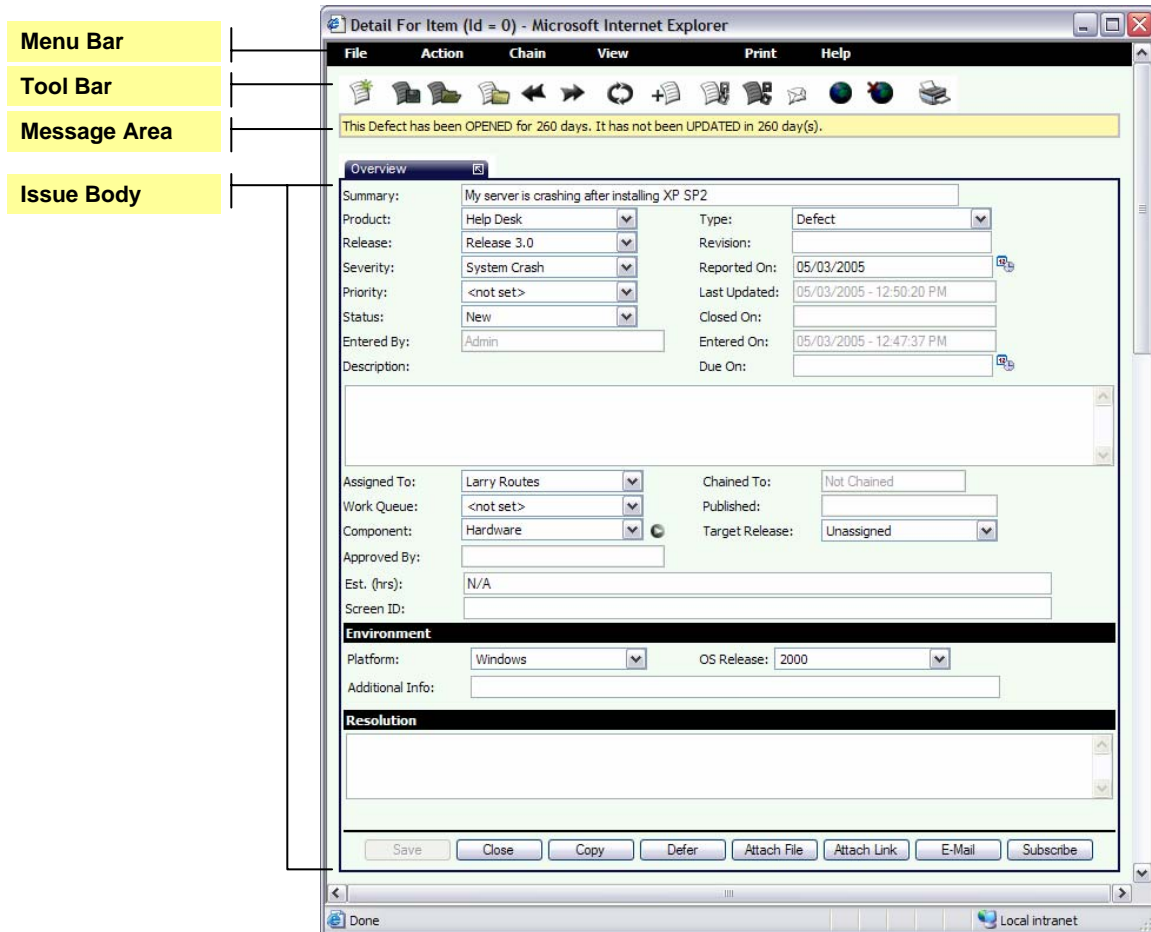


Figure: Issue-Detail Window

The Menu Bar area provides a list of menu choices to manage the information for the issue, the Tool Bar area provides an alternate means to the Menu Bar for more commonly used functions. The Message area describes important information regarding the state of the issue. The Issue area contains the bulk of information related to the issue. The Issue area is broken into sections. Each section contains related information.

The Issue area contains the following sections:

1. Overview
2. History Log
3. Client History
4. Attachment
5. Source Files
6. System Test
7. Bookmarks

Each section can be either in the displayed state or the hidden state. In the displayed state, all the information related to that section is display under the section header. In the hidden state, only the section header is displayed. In the example below, the Overview section is hidden. Only the header is displayed.

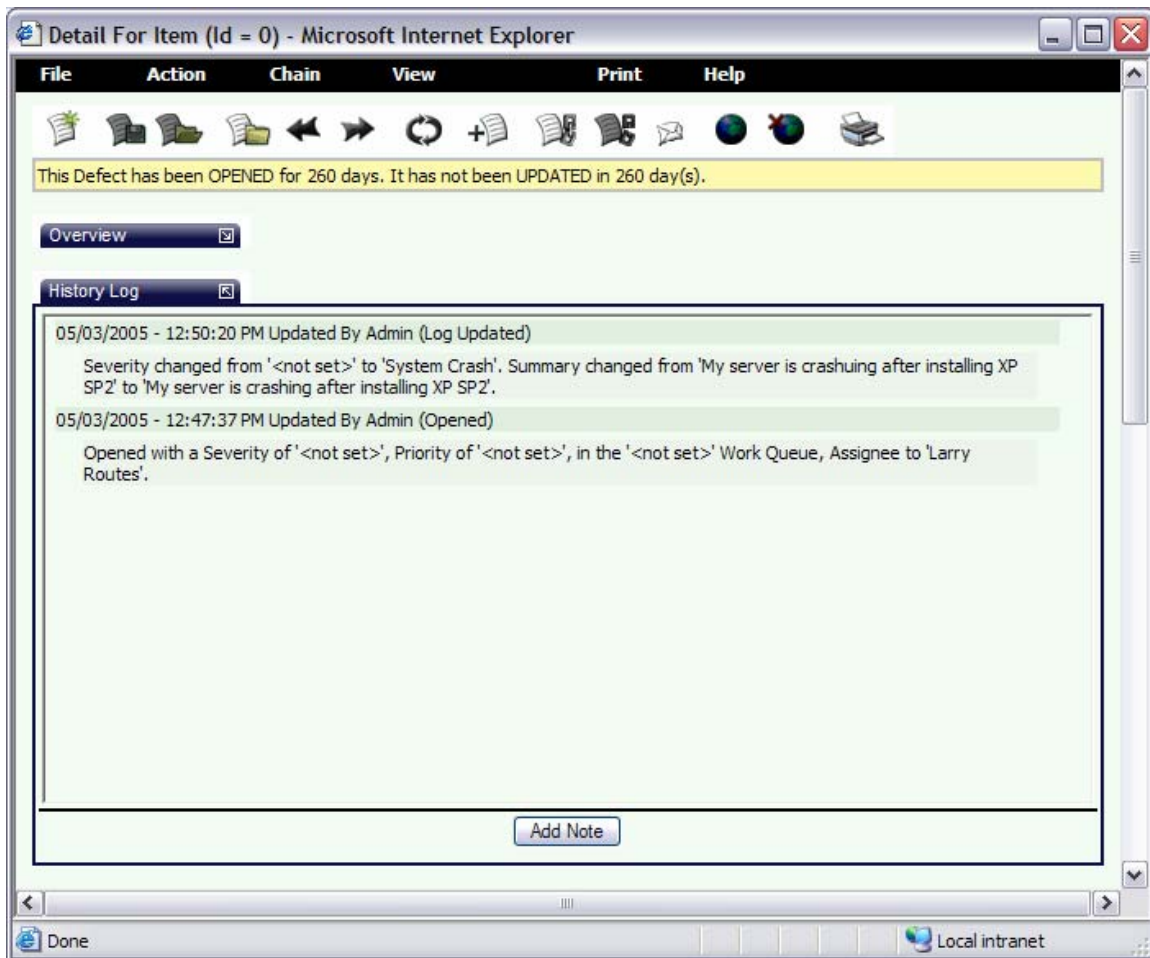


Figure: Hidden Overview Section-

To switch between the displayed and hidden states, you only need to press the arrow on the right side of the section header.

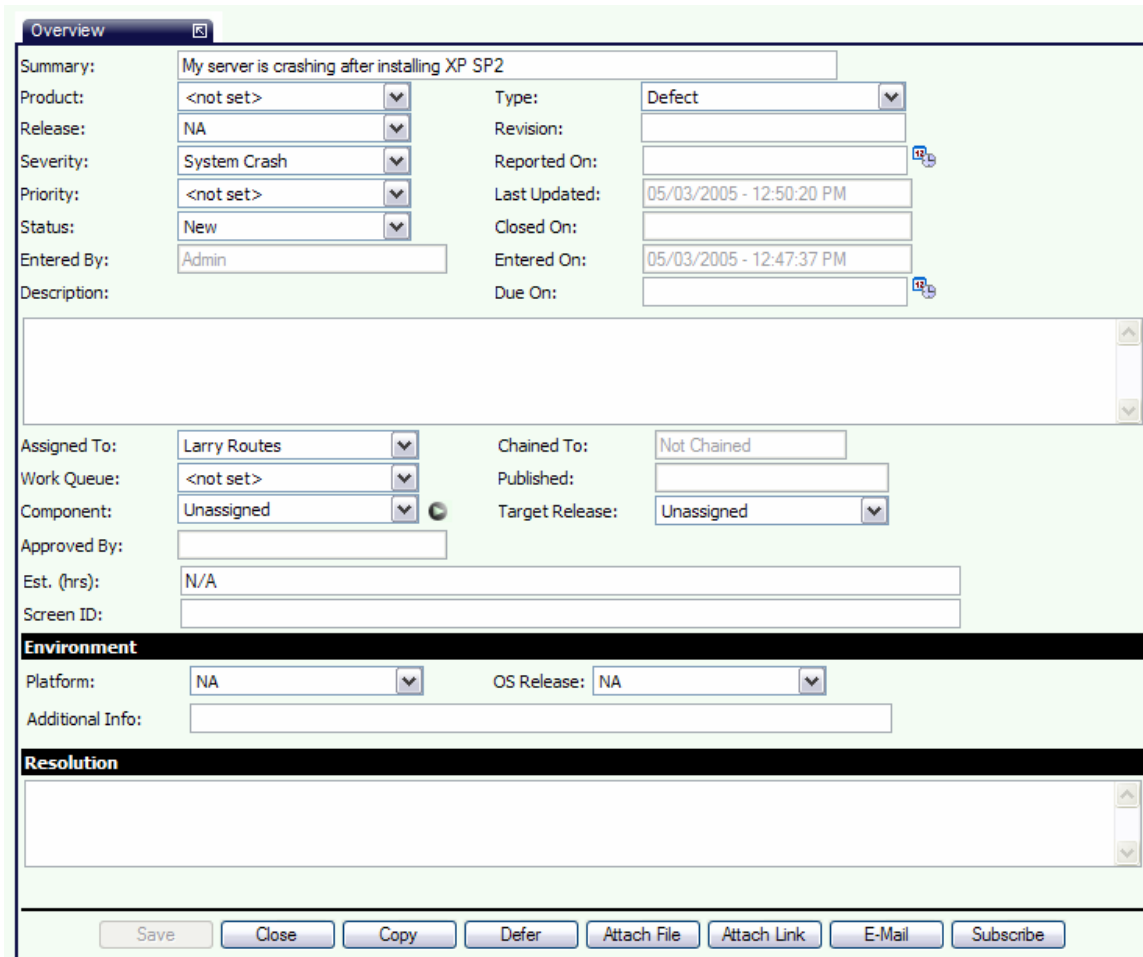
You can control the sections that will be displayed on this form by selecting **Customize** → **View** on the menu on the Issue Log window. This allows you to remove sections that you never use.

Note: It is important to note that removing sections that you do not use, or hiding sections that you do not use frequently, will significantly improve performance.

Each of the sections on this form will be discussed in the pages that follow.

Overview Section

Some of the most important information fields that characterize the issue and identify the current state of the item are shown in the figure below.



The screenshot shows the 'Overview' section of a defect management system. The main title is 'Overview'. The summary field contains the text 'My server is crashing after installing XP SP2'. Below this, there are several fields for product and release information, including Product (set to '<not set>'), Release (set to 'NA'), Severity (set to 'System Crash'), Priority (set to '<not set>'), Status (set to 'New'), and Entered By (set to 'Admin'). To the right, there are fields for Type (set to 'Defect'), Revision, Reported On, Last Updated (05/03/2005 - 12:50:20 PM), Closed On, Entered On (05/03/2005 - 12:47:37 PM), and Due On. A large empty text area is provided for the Description. Below this, there are fields for Assigned To (Larry Routes), Work Queue (<not set>), Component (Unassigned), Approved By, Est. (hrs) (N/A), and Screen ID. Further down, there are fields for Chained To (Not Chained), Published, and Target Release (Unassigned). The 'Environment' section includes Platform (NA) and OS Release (NA). The 'Resolution' section is currently empty. At the bottom, there is a row of buttons: Save, Close, Copy, Defer, Attach File, Attach Link, E-Mail, and Subscribe.

Figure: Overview Section

The Overview section fields are described below.

- **Summary** – A brief description that summarizes the problem.
- **Product** – Product name picked from a pre-defined list created and maintained by your system administrator
- **Type** – The type of item. This can be Defect, Enhancement, Call, task, or Miscellaneous.
- **Product Release** – Product release identification picked from a pre-defined list created and maintained by your system administrator.

- **Revision** – This is the current revision level for the selected release. This field is often used as the build level. .
- **Severity** – The current Severity is expressed as a code for the severity of the problem in a list box that allows the user to select from a pre-defined list of values when updating this field.
- **Reported On** -- The date the item was reported.
- **Priority** – The current priority expressed as a code for the priority of the problem in a list box that allows the user to select from a pre-defined list of values when updating this field.
- **Last Updated** -- The last time anyone updated the item.
- **Status** -- The current status-code for the item in a list box that allows the user to select from a pre-defined list of values when updating this field.
- **Closed On** -- The date the defect was resolved.
- **Entered By** -- The person who entered the item into the system
- **Entered On** -- The date the item was entered.
- **Description** – A text description of the defect or enhancement request.
- **Due On** -- The on-or-before date the defect is scheduled to be resolved.
- **Assigned To** -- The person assigned as responsible for processing the issue-defect item in the next processing step. Selected from a list of pre-defined user names.
- **Chained To** – Set to “Not Chained” or shows links to other issues that this item is related to. Items can be chained to other as a dependent or as a duplicate.
- **Work Queue** – The current work-step’s Work Queue name. By selecting another Work Queue name from a list of pre-defined work queues, the issue may be routed to the next work step.
- **Published** – Set to “Not Published” or “Published” or date-published indicating that external descriptions for the issue are visible in the eTech Support Knowledgebase.
- **Component** – A name for the specific part of the product (e.g., module, sub-assembly, etc.), project (e.g., project phase, task, etc.), process or service that is related to the issue. It provides a way to identify the specific sub-component that the issue or defect is related to. This field allows you to select the proper component from a pre-defined list.

Notice the button to the right of this field, it allows you to add new component names to the list-box when components that have not been previously involved in issue reports.

- **Approved By** – The person that has approved this item to be worked on.

- **Target Release** – View the release identification where the resolution to this issue will be deployed (if appropriate).
- **Platform** – Name of the operating system or environment related to the issue picked from a pre-defined list created and maintained by your system administrator. When software products are involved this refers to the software operating system environment. When other types of products are involved, your list of operating environments can refer to those appropriate to your industry.
- **OS Release** – Identification of the operating system version or operating environment version/type that is appropriate to your industry.
- **Environment** – Additional information about the end user environment that will be helpful in diagnosing and resolving the item beyond the Platform and OS Release.
- **Workaround** – Describes the workaround to be used for this item until a final resolution is provided.
- **Resolution** – Describes how this issue was resolved from an internal perspective.

The following actions can be performed on the item by pressing the following buttons:

- **Save** – Save the changes made to the item. This button is gray until a data field is modified.
- **Close** – Close (resolve) the item
- **Copy** - Copy the item to another product/project.
- **Defer** – Defer working on this item until a later date.
- **Attach File** – Attach a file to this item
- **Attach Link** – Attach a link (URL) to this item.
- **Approve** - Approve this item
- **E-Mail** – E-Mail this item to any number of individuals on your team.
- **Subscribe** – Subscribe to all updates of this item via e-mail. These e-mails are sent independently of the e-mail alerts that are generated by the system.

History Log Section

This section is a collection of activities and notes that have been performed or entered by your technicians for this item. It is a good practice for your technicians to add notes for all the work that they have done on the issue, so that anybody can pick up and continue processing the item if they are not available or quit.

For example, if the individual is reassigned to another task, you will not lose the investigative work that has already been done. You should always document the time and effort you have spent on resolving your client's defects.

This section contains an item each activity that has been performed on the item or note that has been added. For each activity performed, the date, the individual that performed the activity, and the type of activity are recorded as shown below.

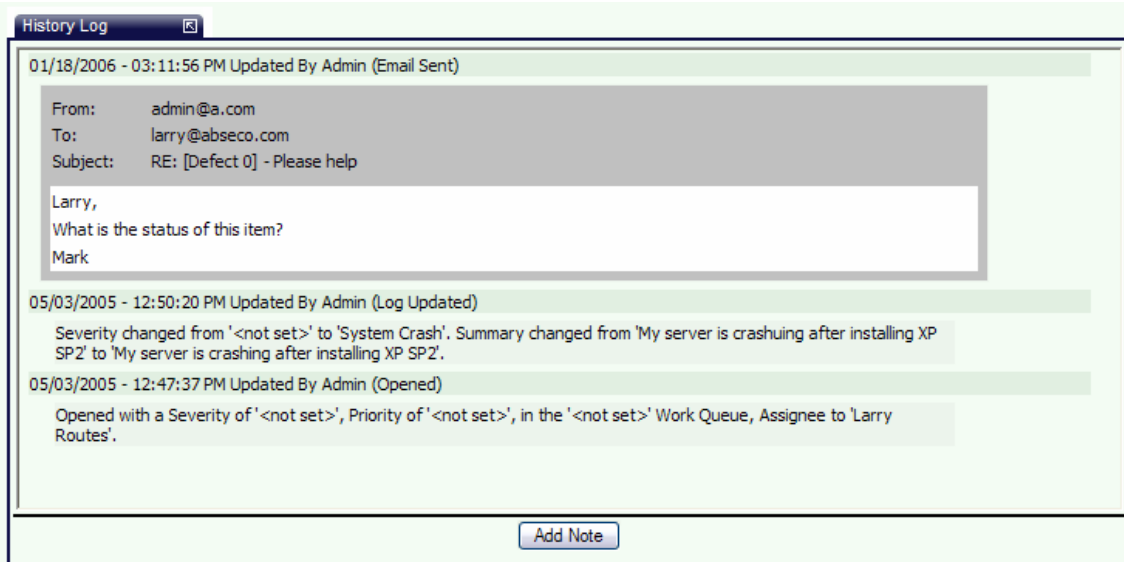
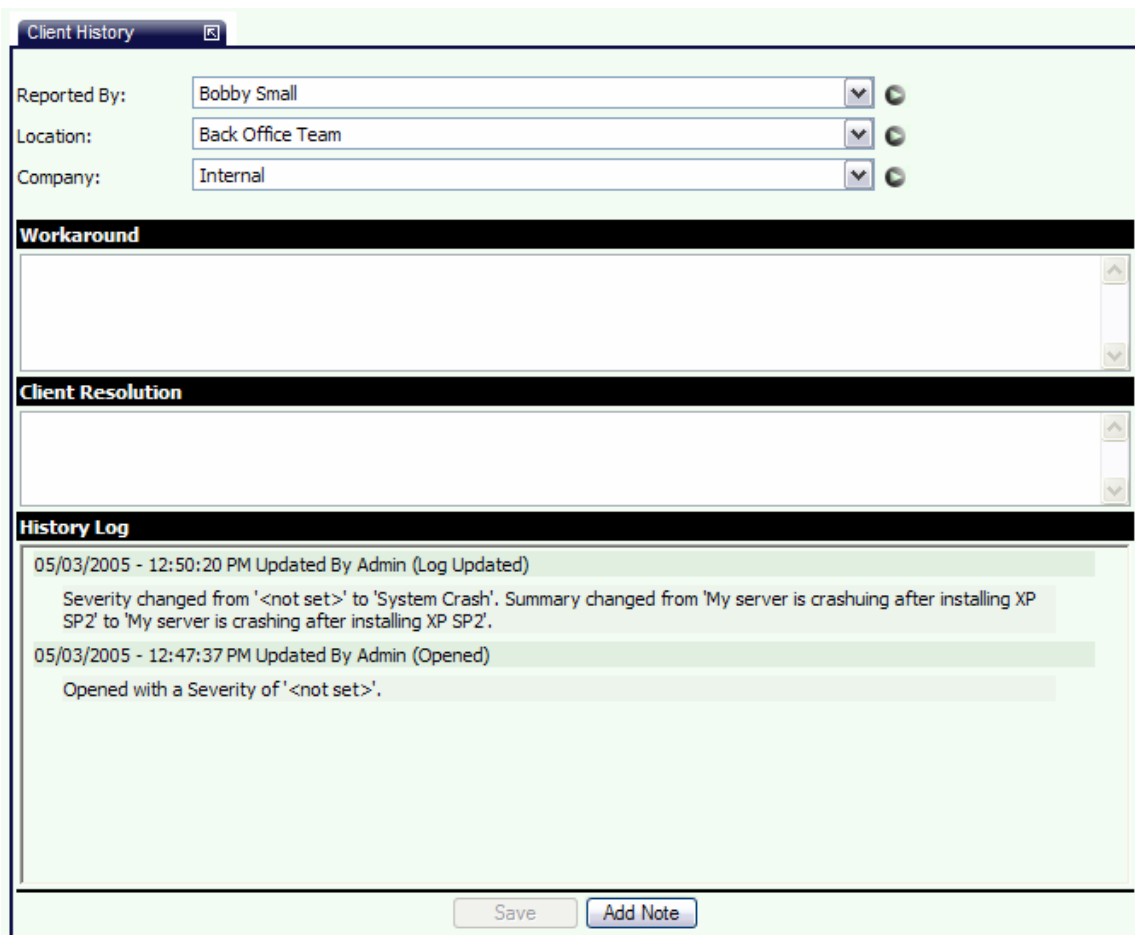


Figure: History Log Section

To add a note to an item, press the **Add Note** button or use the **Action→Add Note** menu item.

Client History Section

The **Client History** section displays all the information that is related to the client that reported the item as shown below.



Client History

Reported By: Bobby Small

Location: Back Office Team

Company: Internal

Workaround

Client Resolution

History Log

05/03/2005 - 12:50:20 PM Updated By Admin (Log Updated)
Severity changed from '<not set>' to 'System Crash'. Summary changed from 'My server is crashing after installing XP SP2' to 'My server is crashing after installing XP SP2'.

05/03/2005 - 12:47:37 PM Updated By Admin (Opened)
Opened with a Severity of '<not set>'.

Save Add Note

Figure: Client History Section

The **Client History** section fields are described below.

- **Reported By** – User Name for the submitter of the issue picked from a pre-defined list of users (which can include customers) that is created and maintained by your system administrator.
- **Located At** – Identifier for the user's site/organization location that submitted the issue picked from a pre-defined list created and maintained by your system administrator.
- **Company** – Name of the user's company that submitted the issue picked from a pre-defined list created and maintained by your system administrator.
- **Workaround** – Describes the workaround to be used for this item until a final resolution is provided.
- **Resolution** – Describes who this issue is resolved from the clients perspective.

- **History Log** – Shows a chronological list of activities that have been performed and notes that have been added to this item from the client’s perspective.

To add a note to an item, press the **Add Note** button. Press the **Save** button to save other changes.

Note: The **Workaround**, **Resolution** and **History Log** are visible to the client via the E-Tech Support interface.

Attachments Section

You can add, remove and view attachments that are associated with an issue.

For instance, you could save documents that contain screen captures of error messages (e.g., a .bmp image file) sent in by your client. Likewise, the individual submitting the issue may have included text-information related to the problem as a text file (.log file, as shown below), a screen image (.bmp file) or a Microsoft Word document (.doc) that can be attached, etc.

Clicking on the **Add File** button will display a file browser control that allows you to pick the files you want to attach to the current issue.

Clicking on the **Add Link** button will display a window that allows you to enter the URL’s you want to attach to the current issue.

After a file or link has been attached, the Attachments section will be updated as shown below.

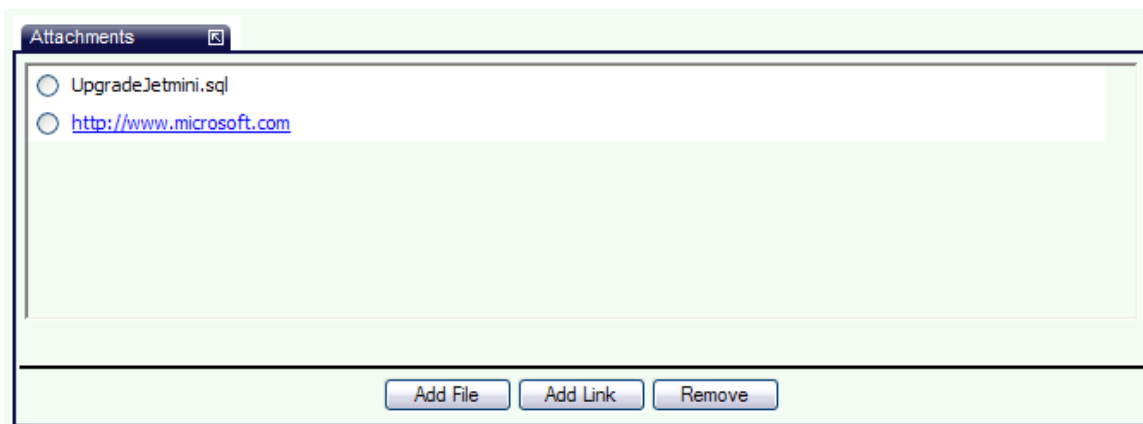


Figure: The Attachments Section

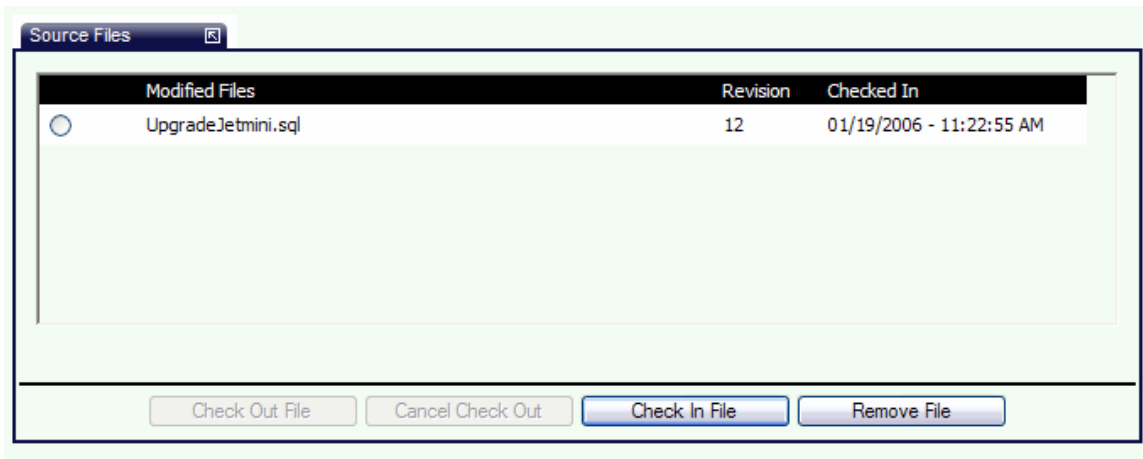
To view an attachment, click it with your left-mouse button to display the attachment

To view a link, click it with your left-mouse button and the browser will be opened with the selected link.

To remove an attachment, select the radio button of the desired entry and then press the **Remove** button.

Source Files Section

Your technicians can identify which source files (and the version) that were changed to resolve this issue.



Modified Files	Revision	Checked In
<input type="radio"/> UpgradeJetmini.sql	12	01/19/2006 - 11:22:55 AM

Check Out File Cancel Check Out Check In File Remove File

Figure: The Source Files Section

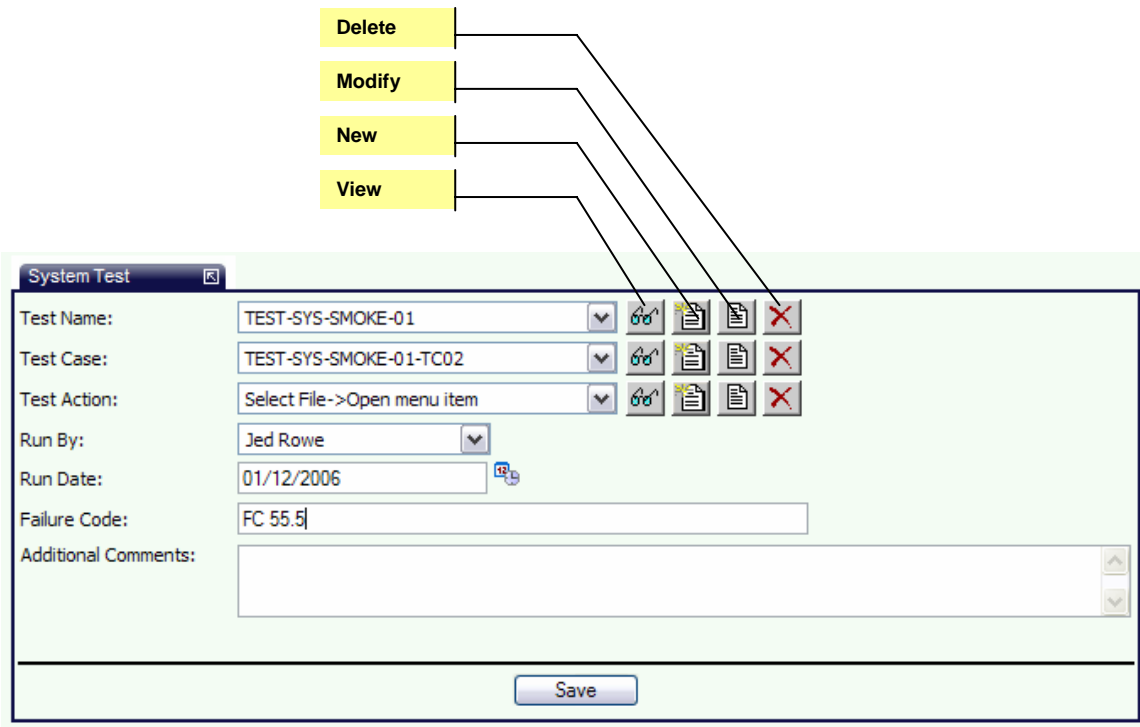
The above form lists the file name, version number, and a date of the last action for an issue.

The buttons on the right-side of the form allow you to:

- **Check In File** – Allows you to identify the revision of the source code that needs to be checked into your Source Code Control System(SCCS)
- **Remove File** – Allows you to delete a source file that was not required to resolve the item.

System Test Section

Your System Test department can use this tab to log typical system test information related to this defect. You can even import defect reports from other regression testing tools.



The screenshot shows a web form titled "System Test" with the following fields and controls:

- Test Name:** A dropdown menu containing "TEST-SYS-SMOKE-01". To its right are four icons: a magnifying glass (View), a plus sign (Add), a document with a pencil (Modify), and a document with an X (Delete).
- Test Case:** A dropdown menu containing "TEST-SYS-SMOKE-01-TC02". To its right are the same four icons as above.
- Test Action:** A dropdown menu containing "Select File->Open menu item". To its right are the same four icons as above.
- Run By:** A dropdown menu containing "Jed Rowe".
- Run Date:** A text input field containing "01/12/2006".
- Failure Code:** A text input field containing "FC 55.5".
- Additional Comments:** A large text area with scrollbars.
- Save:** A button at the bottom center of the form.

Four yellow callout boxes on the left side of the form are labeled "Delete", "Modify", "New", and "View". Lines connect these boxes to the corresponding icons in the Test Name, Test Case, and Test Action fields.

Figure: The System Test Section

Each system test case related to an issue-item object has the following properties that can be viewed and entered on this form:

- **Test Name** – Test Names can be viewed and entered by picking from a pre-defined list of QA Test names in this field. The tools buttons to the right of this field allow you to: View, Add, Modify and Delete tests. When a new QA test is created with the Add-Tool button, it is added to the pre-defined list of values for this field.
- **Test Case** – Test Cases can be viewed and entered by picking from a pre-defined list of QA test cases in this field. The tools buttons to the right of this field allow you to: View, Add, Modify and Delete test cases. When a new QA test case is created with the Add-Tool button, it is added to the pre-defined list of values for this field.
- **Test Action** – Test Action Names can be viewed and entered by picking from a pre-defined list of QA test action names in this field. The tools buttons to the right of this field allow you to: View, Add, Modify and Delete test action names. When a new QA test action name is created with the Add-Tool button, it is added to the pre-defined list of values for this field.

- **Run By** – The user's name that ran the system test is picked from a pre-defined list created and maintained by your system administrator.
- **Started** – The date and time the system test was started can be viewed and entered in this field by using the date and time controls.
- **Failure Code** – This field allows you to, optionally, record a system test failure or exception conditions and a description of its cause
- **Comments** – You may enter additional comments and observations in this field.

Bookmarks Section

These are keywords that can be used by all users to easily find related issues that are associated with a bookmark name.

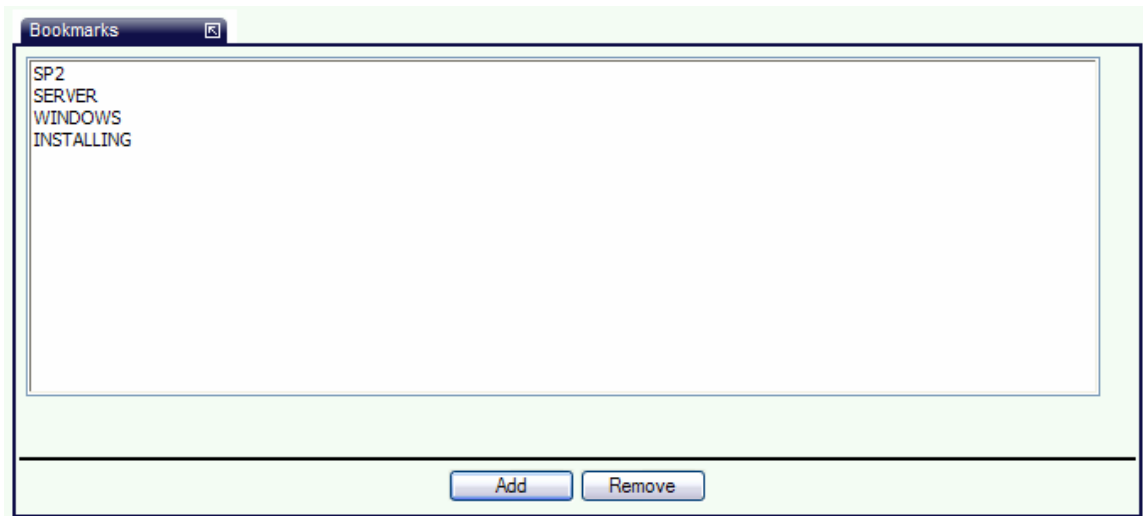


Figure: The Bookmarks Section

You can press the **Add** or **Remove** buttons to add and remove bookmarks for the issue

Saving Changes

With the exception of the **Attachments** and **Source Files** tabs, all other changes are temporary until you select the **File->Save** menu item, or press the **Save** toolbar button. When you save a defect all modifications are logged by the system. You can review these activities by selecting the **Internal Activity** and **External Activity** folders.

Attachments, Notes and **Source File** changes take affect **immediately**.

If you realize you have made a mistake when modifying either of these data items associated with either of these folders, you can reverse your changes.

Issue Tool Bar Summary

The Issue Toolbar operations are described in the figure below.

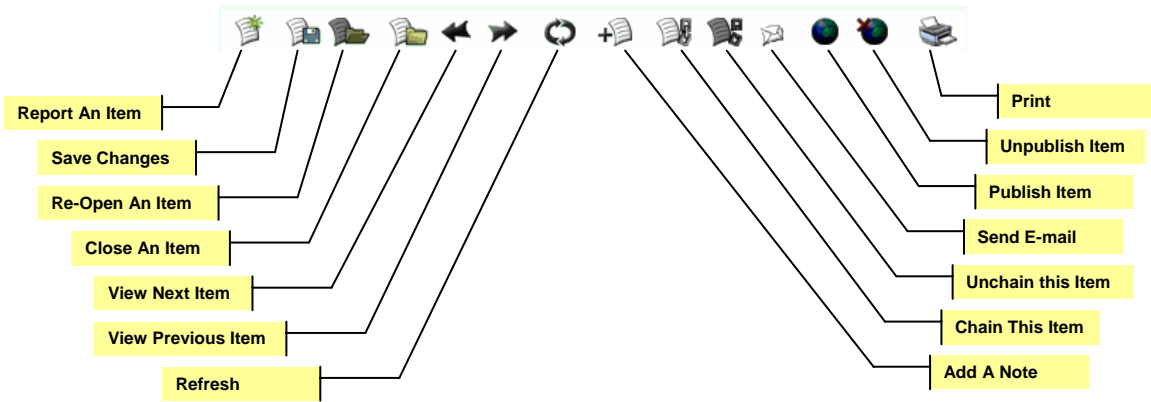
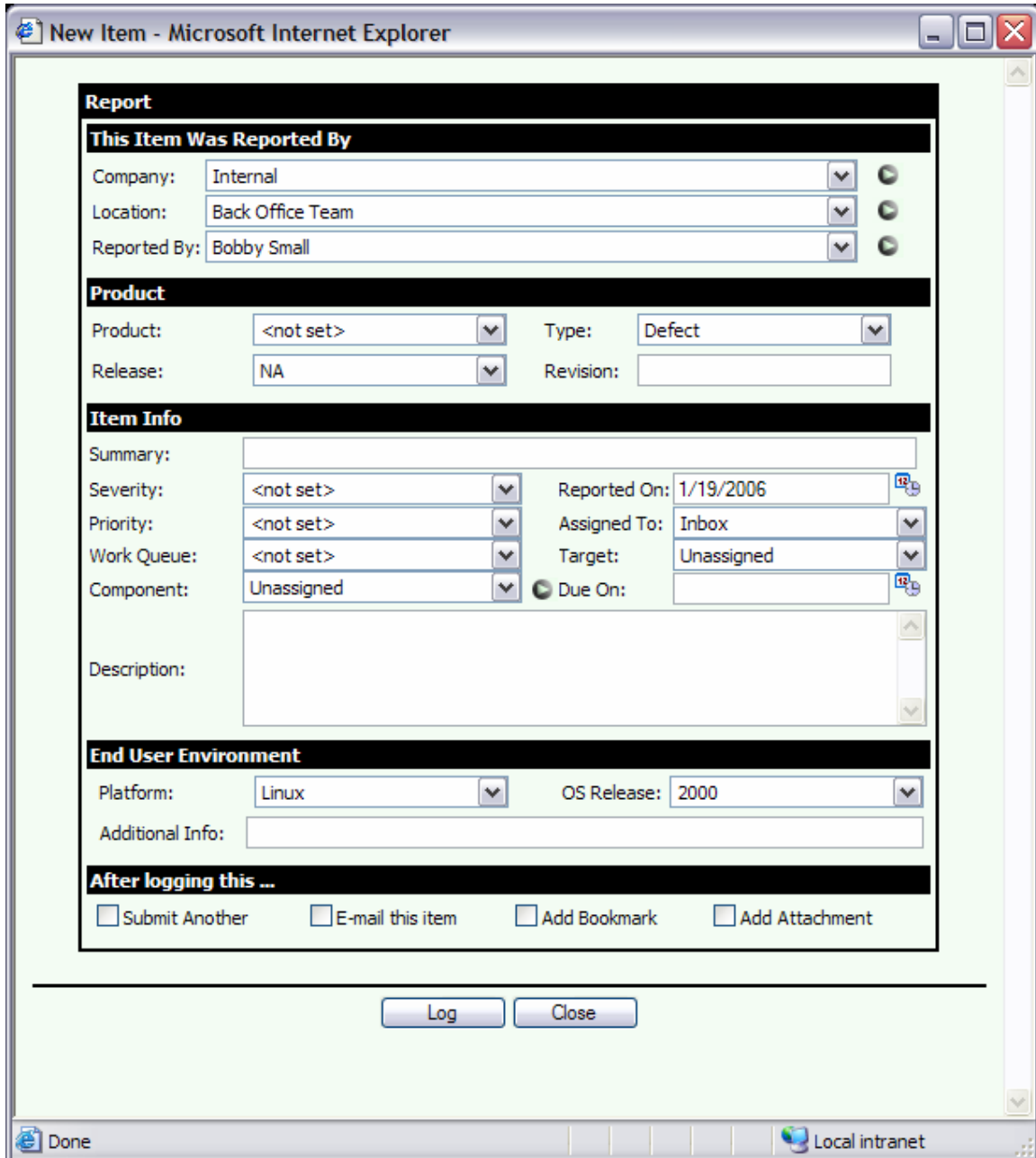


Figure: Issue Detgail – Toolbar Operations

Entering a New Issue

A new issue is entered by pressing the **Report** button on the toolbar or by using the Menu Bar to select: **File** → **New Item**. After do so, the following window will be shown.



Report

This Item Was Reported By

Company: Internal
Location: Back Office Team
Reported By: Bobby Small

Product

Product: <not set> Type: Defect
Release: NA Revision:

Item Info

Summary:
Severity: <not set> Reported On: 1/19/2006
Priority: <not set> Assigned To: Inbox
Work Queue: <not set> Target: Unassigned
Component: Unassigned Due On:

Description:

End User Environment

Platform: Linux OS Release: 2000
Additional Info:

After logging this ...

Submit Another E-mail this item Add Bookmark Add Attachment

Log Close

Done Local intranet

Figure: New Issue Web Page

This activates the Issue form with a new issue object to complete by filling out the appropriate fields, described below.

- **Company** – The company that reported that is reporting the new issue
- **Located At** – The specific company location that reported the issue. If your clients are not specified at this level of granularity, just have your administrator create a single location for each company.
- **Reported By** – The contact that reported this issue.
- **Product** – Select the product that this issue was found in.
- **Type** – Select the type of issue.
- **Release** – Release/version of the product the issue was reported in.
- **Revision** – The revision/build level that the item was found in.
- **Summary** – A brief description of the issue.
- **Severity** – Select the severity of the issue.
- **Priority** – Select the priority of this issue.
- **Reported On** – The date this issue was reported.
- **Work Queue** – Select the work queue where this issue should be placed.
- **Assigned To** – Select the user who this issue should be assigned to.
- **Target** – Optionally, you can select the product release that this issue will be fixed in.
- **Component** – Optionally, you can select the component area that this issue is related to.
- **Due On** -- Select the date this issue needs to be resolved by.
- **Defect Description** – Enter the description that describes this issue.
- **Platform** – Name of the operating system or environment related to the issue picked from a pre-defined list created and maintained by your system administrator. When software products are involved this refers to the software operating system environment. When other types of products are involved, your list of operating environments can refer to those appropriate to your industry.
- **OS Release** – Identification of the operating system version or operating environment version/type that is appropriate to your industry.
- **Environment** – Additional information about the end user environment that will be helpful in diagnosing and resolving the item beyond the Platform and OS Release.

If you want to enter more than one item, check the **Submit Another** checkbox and the window will stay open after logging the item. If this is not selected, then the window will close after logging the item.

If you want to add bookmarks to this item, check the **Add Bookmark** checkbox.

If you want to e-mail this item to someone, check the **E-mail this item** checkbox.

If you want to attach an item (such as a screen image, problem report, etc.) to this item, check the **Add Attachment** checkbox.

Click the **Log** button to log the item into the system.

After pressing the **Log** button, the status bar at the bottom of the window will display the unique Id assigned to this item. If you have specified e-mail form letters, your form letter would automatically be e-mailed to the person that reported the item. See [Administration Guide: E-Mail form Letters](#) for information on how to configure this.

When you have completed logging new defects, click the **Close** button to close the window.

Viewing Open Item By Work Queue

Choosing the filter, **Filter**→**Standard Filters**→**Open Items By Work Queue**, causes the following window to appear – it allows you select one of your assigned work queues.

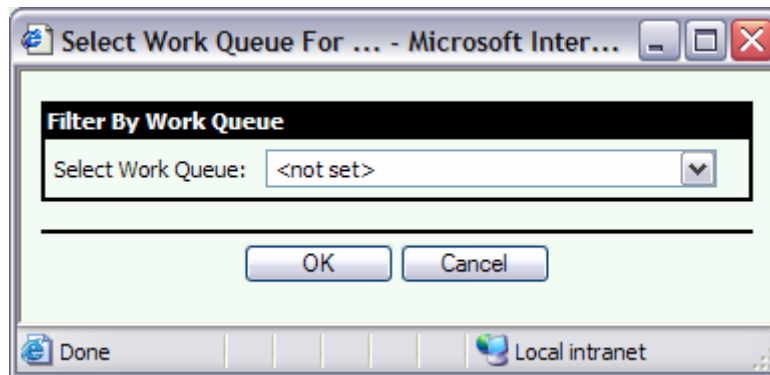


Figure: Viewing Open Issue By Work Queue

Pressing the **OK** button, sets the filter for the Issue-Log web-page, and the Issue Log web page is updated showing the open items for the work queue “<not set>”.

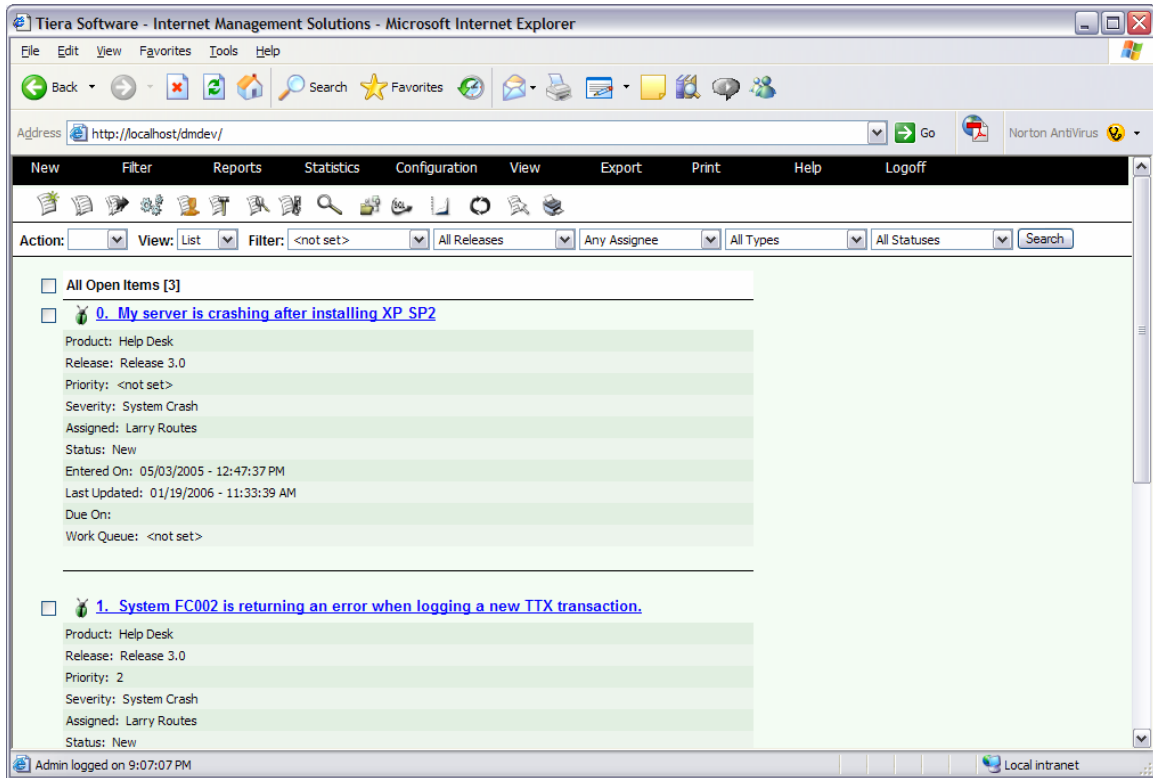


Figure: Selecting and Processing an Issue in a Work Queue

The user can now select the next issue from the work queue to work on. The use of **Work Queue** and **Assigned To** properties allows users and their managers to easily be informed of workloads present for work queues and individual’s assignments.

Adding Notes to the Activity Log

To add a note to an issue, you will need to use the **Action → Add Note** menu item. When you make this selection the following window will appear.

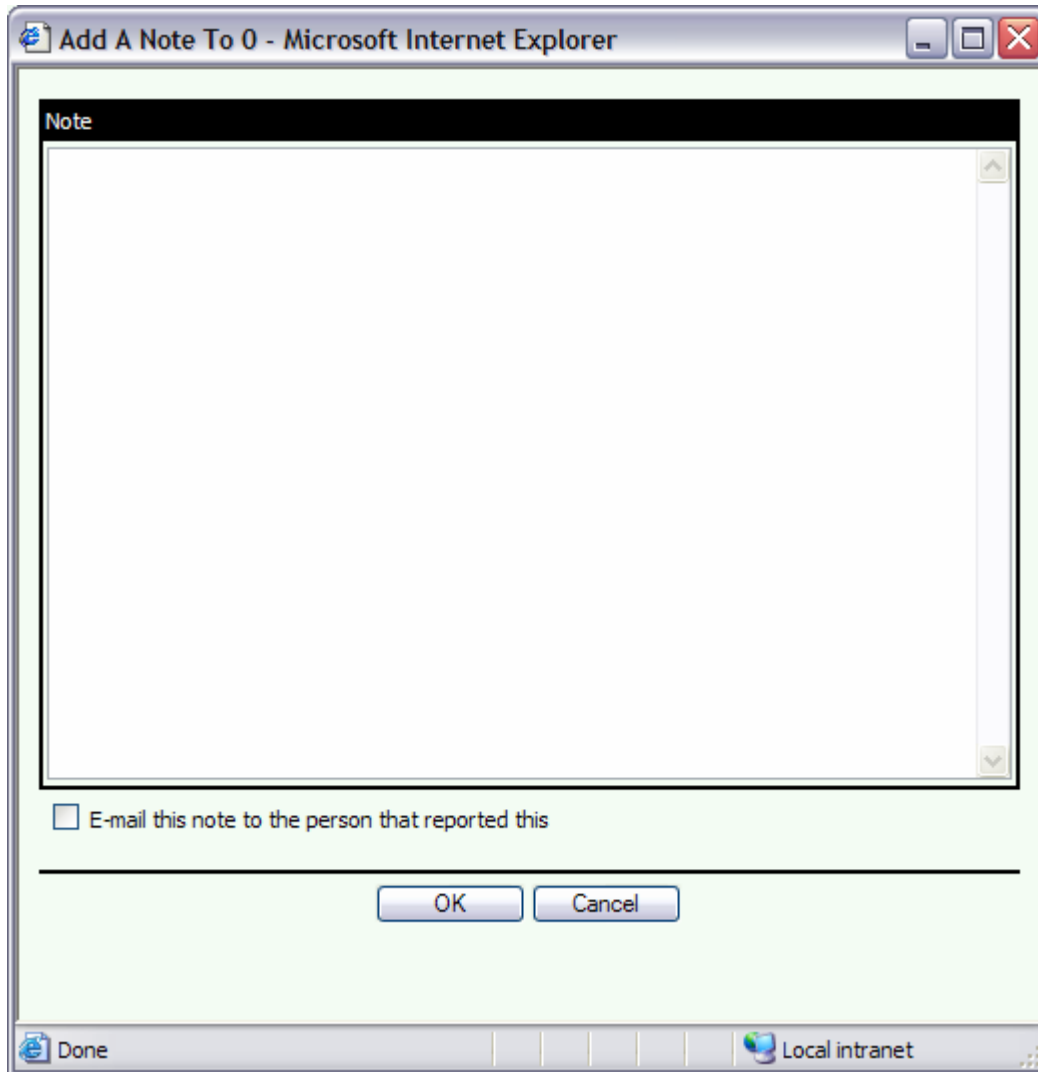


Figure: Adding a Note to the Activity Log

Enter the note you would like to add in the **Note** field. The checkbox labeled “**Email this note to the person that reported this**” provides an effective way to keep your clients informed.

Adding Attachments

Defect Manager allows you attach an unlimited number of documents or links to an issue. There are many reasons why you might want to do this, here are just a few.

- It is more accurate and simpler to attach the original information than to re-key the information. Pictures “speak a thousand words” and original artifacts can better articulate the problem at hand.
- When opening a new defect, your management, technicians and clients may want to attach relevant error screens or additional documentation that would be helpful for solving the problem.
- When implementing enhancements -- requirements, design notes, customer comments could be attached to an issue, so the information would be available to all who process the issue and the information would not have to be obtained in another way.
- Attached information is unlikely to get separated from the issue and lost. .

You can attach a document to an item when:

- You open a new defect as part of the **New Issue** window.
- Your client opens a defect via the web interface and adds an attachment.
- When reviewing the defect after it has been opened using the **Action→Attachment** menu item, or pressing the **Add** button in the Attachments folder, or dropping in a file from Windows Explorer.
- Pressing the **Attach File** button in the **Overview** section of the Issue Window.
- Pressing the **Add File** button in the Attachments section of the Issue.
-

You can attach a document link to an issue when:

- Pressing the **Attach Link** button in the Overview section of the Issue Detail window.
- Pressing the **Add Link** button in the **Attachments** section of the Issue Detail.

When you view the Attachments section, you will see the following window.



Figure: Viewing Attachments For An Issue

To add a document, press the **Add File** button To add a document link, press the **Add Link** button. To remove a document or a document link, select the document/document link and press the **Remove** button. To view a document or a document link, click the attachment/link and click on the item.

Send E-mail Notification

If you press the **Send E-mail** button, you will see the following window.

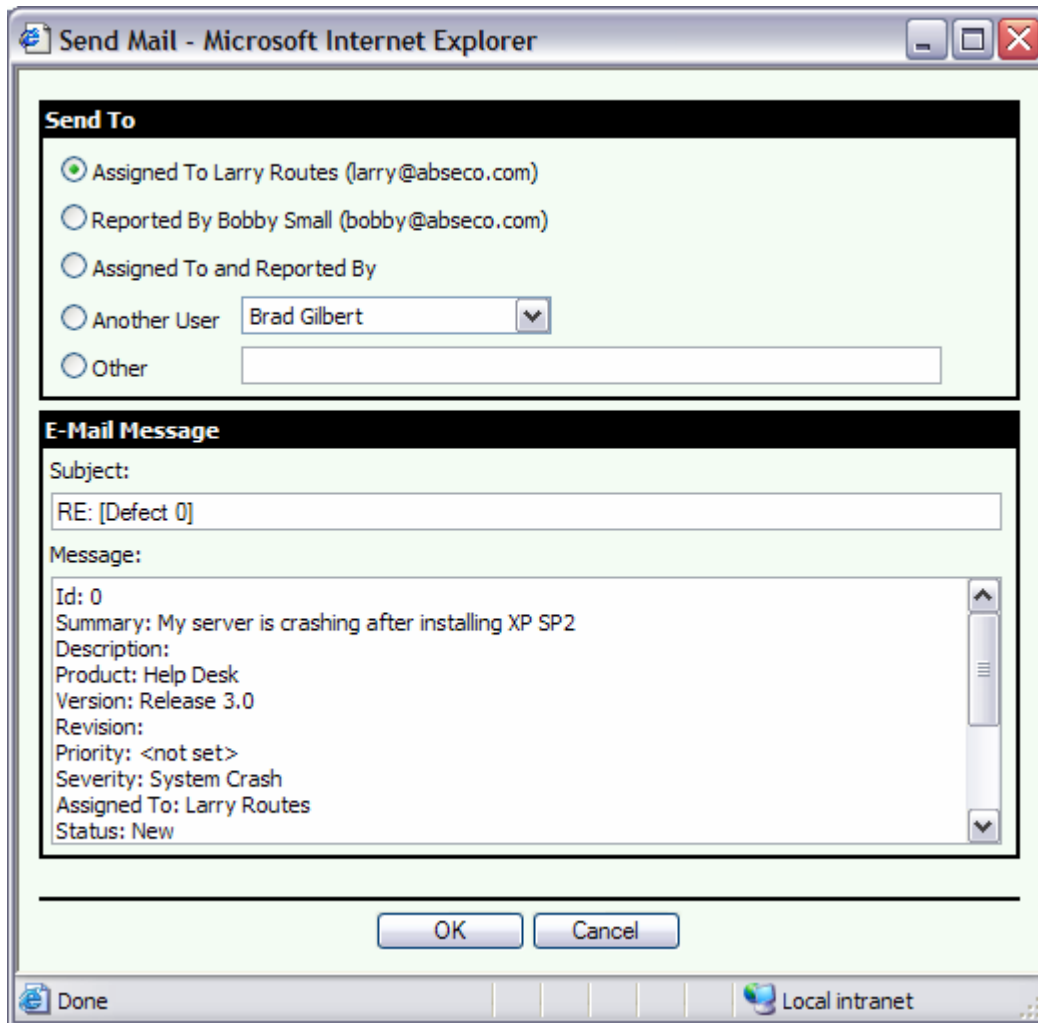


Figure: Send E-mail

Select the appropriate person you would want to send the e-mail to, optionally change the Subject and Message field and click the OK button. The e-mail will be sent and the e-mail will be logged into the **History Log** section.

If you have specified an e-mail signature, then your e-mail signature will be automatically appended to the end of the message.



Note: The default Subject and Message are based on configurable templates by your System Administrator. If you want these defaults values changed you should contact them.

Copying an Issue

There will be times when you need to copy an issue from one project to another. Defect Manager lets you do this quite easily and provides you some options for the copy. When you select the **Action→Copy** menu item, the following window will be displayed.

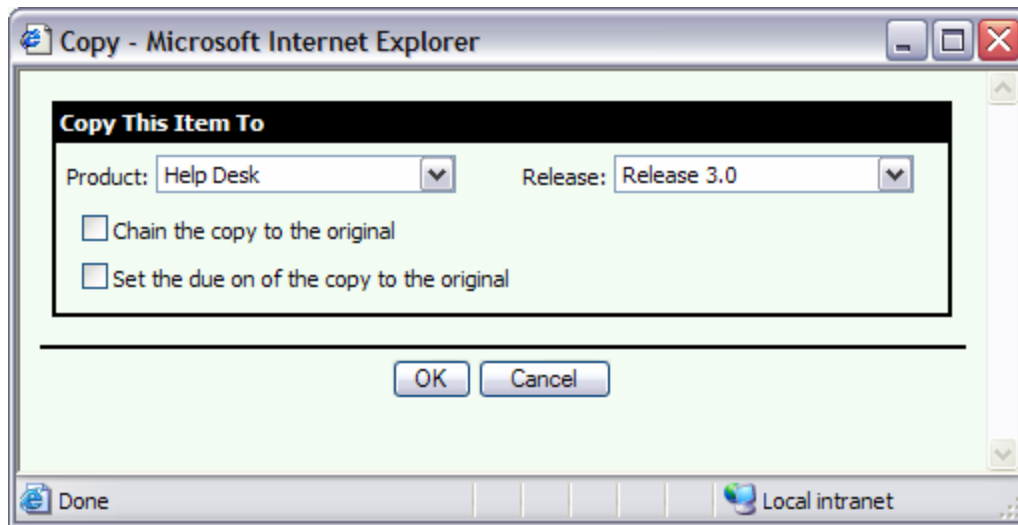


Figure: Copying an Issue

Select the product or project you want the current issue to be copied to and press the **OK** button. Optionally you could chain this issue to the original one by checking the **Chain the copy to the original** checkbox. Checking the **Set the due date of the copy the same as the original** checkbox will carry the due date from the original to the copy.

Closing an Issue

When you have resolved an issue, you will want to close the issue, indicating that this item no longer requires any more action. When you select the **Action→Close** menu item, the following window will be displayed.

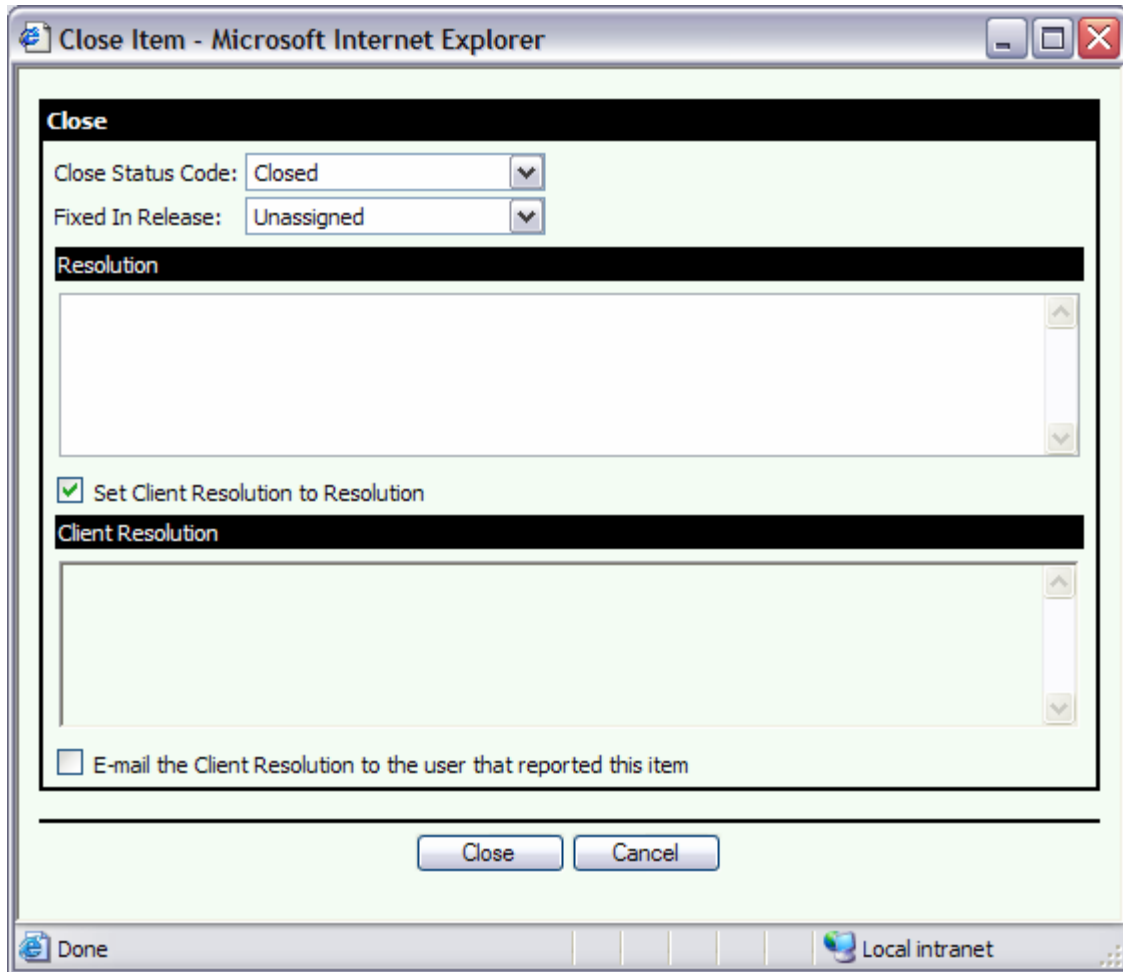


Figure: Closing an Issue

You will need to select the **Close Status Code** from the drop-down list, enter the **Resolution**, optionally enter the **Client Resolution** field, set the **Fixed In Release** drop-down list field and then press the **Close** button.

The **Close Status Code** can be tailored to the needs of your organization by your system administrator, as shown in the example below. Your Administrator can define any **Close Status** codes that would be meaningful to your organization

Notice the checkbox labeled “**Email the Client Resolution to the person that reported this item**” is a convenient way to maintain effective communication and follow-up with your clients.

Remember, the **Client Resolution** will be visible to your clients after you completed this operation.

Opening a Closed Issue

After an issue has been closed, you might realize the item was erroneously closed, and in fact was not resolved. To do this you will select the **Action → Re-open** menu item. The item will now be open again.

You may begin working on this item or place it in the appropriate work queue to get the correct specialist to find the real resolution for the item.

Deferring an Issue

There will be times when it is not possible to work on an item. There can be many reasons for this such as:

- One reason might be that you are working on a defect and it requires additional information from the person that reported the defect. Since you cannot actively work on it now, you can defer it until later, when the additional documentation arrives. Then you can re-open the defect and actively pursue its resolution. When you defer and issue with defect manager, it will no longer be visible in your work queue as an open defect.
- There will be times when you want to take a more proactive role in resuming work on the defect. With Defect Manager you can defer the defect until a particular date. At that time the defect will magically re-appear in the open queue. To defer work on a defect until a later time use the **Action → Defer** menu item.

Chaining an Issue

There will be times when you want associate one or more items with other items. There can be many reasons why you link items. When you link items, you are chaining them. There are many reasons why you might want to chain items. Here are just a few.

- **Multiple reports of the same item** --. When the item is closed, you would want all the others reporting the same problem to be notified.

- **Avoid Redundant Effort** – When identical issues are reported by different sources, chaining allows them to be linked together so they can be treated as one problem to solve.
- **Recognize the Impact of an Item** – By chaining, you can easily see the many different clients that are affected by the same item.

To chain an item to another item, use the **Chain → Chain Item** menu item. The following window will be displayed.

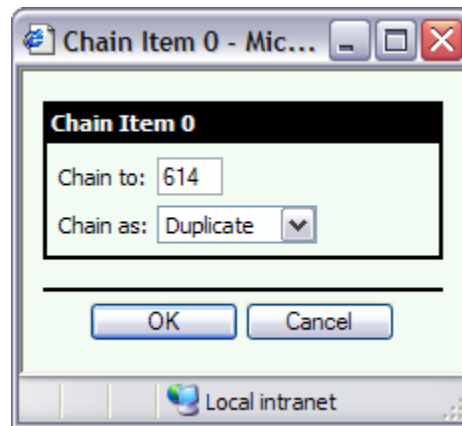


Figure: Using Chaining to Link Two Issues

The window above shows how the current issue (Id 0) will be chained to item 614 as a duplicate. Once an item is chained, you can see that the item is chained by looking at the **Chained To** field on the **Overview Section** of the **Issue** window.

You chain an issue to another issue for one of two reasons. The reasons are:

- This issue is a duplicate of another issue or,
- This issue is a dependent of another issue

When you close a root issue that has duplicates chained to it, all duplicate issues will be closed when the root issue is closed.

You cannot close a root issue until all the dependent issues are closed first.

Advanced System Operations

This section describes additional Defect Manager options that are available to you.

Adding Bookmarks

Assigning bookmarks to an item is a good way to index them so they can be found later. You can also think of bookmarks as keywords. Press the **Add** button on the Bookmark section of the Issue form and you will see the Specify Bookmarks form appear.

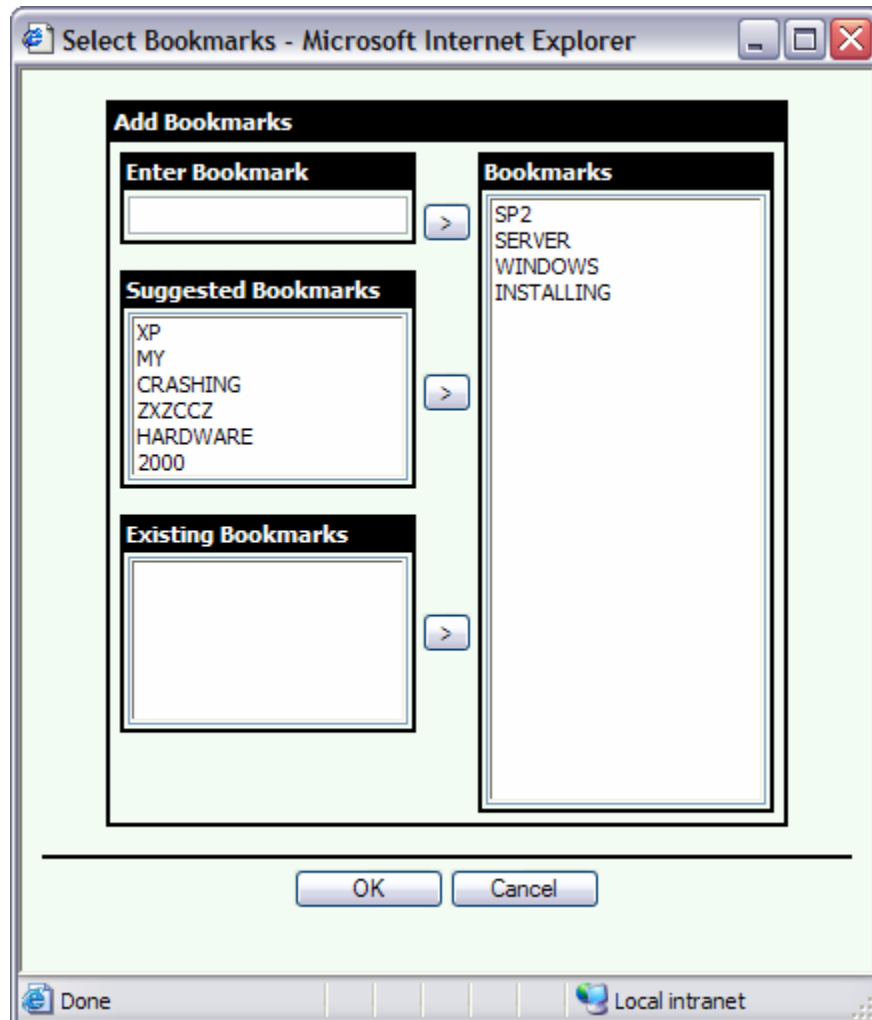


Figure: Assigning a Bookmark to an Issue

Bookmarks can be specified from three possible sources, shown on the left of the window. You can enter them yourself based on a value that you enter (**Enter Bookmark**), or you can use a suggested bookmark (**Suggested Bookmark**) from the suggested bookmark list, or select an existing bookmark (**Existing Bookmark**) that is already defined in the system.

Pressing the **Arrow (>)** button moves your selection (on the left) to the list of bookmarks for the current issue (on the right). Pressing the **OK** button, completes the **Add** operation and adds the bookmarks to the system.

Selected Bookmarks

This lists all the bookmarks that are currently associated with this defect.. Any bookmarks you add for this issue will appear in this list.

Enter Bookmark

To manually enter a bookmark of your own choosing, you can enter the bookmark into this field and press the **Arrow (>)** button, to add the bookmark to the **Selected Bookmarks** List.

Suggested Bookmarks

The list is created from the description of the defect. To add these bookmarks to the **Selected Bookmarks** list, just select bookmarks from this list, and press the **Arrow (>)** button.

Existing Bookmark

This list is created from the list of all currently used bookmarks in the system. To move bookmarks from this list to **Selected Bookmarks** list, just select bookmarks from this list, and press the **Arrow (>)** button.

Searching with Bookmarks

When selecting the **Filter** → **Standard Filters** → **Items By Bookmark** menu item, the following window is displayed:

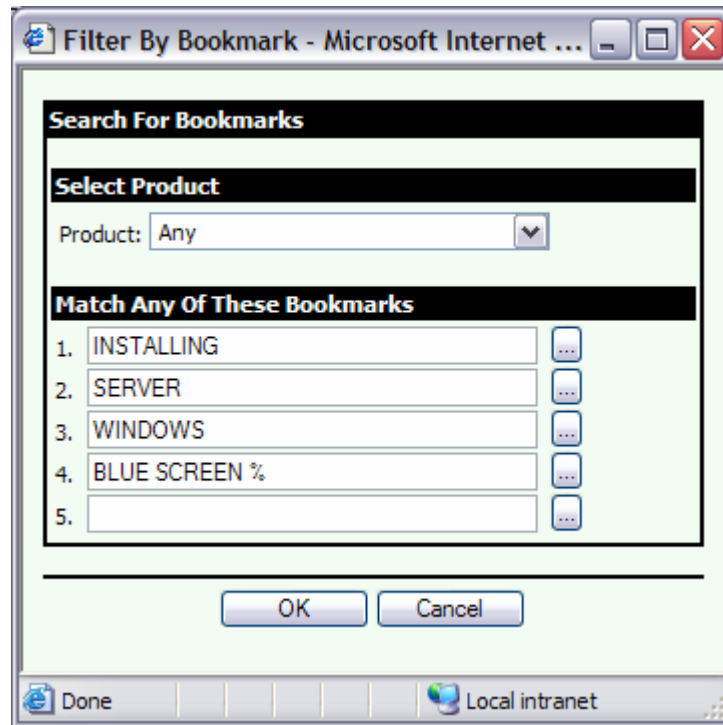


Figure: Specifying Bookmarks to Find with a Query

In this window you specify the bookmark(s) that you would like to search for items that have the specified bookmark(s). The example (above) shows the use of four (4) bookmarks in a search with and without wildcard characters. Press the **OK** button to begin the search.

You can use SQL wildcards such as '?' and '%' in your search term. For example, if you are looking for all defects that have bookmarks of Windows, Windows 98, and Windows NT, you could use a search term of **Windows%**, which would retrieve all of the defects that begin with **Windows**.

You can select up to five bookmarks to search for. The bookmark fields will provide you with the current bookmarks as known in the system. You can select any of these or modify existing ones to add wildcards as described above.

Using Filters

As discussed earlier, you use the Defect Manager to review a list of issues based on a selected filter.

For example, if you chose **Filter** → **Standard Filters** → **Open Items**, you would get a list of all the open issues like the figure below.

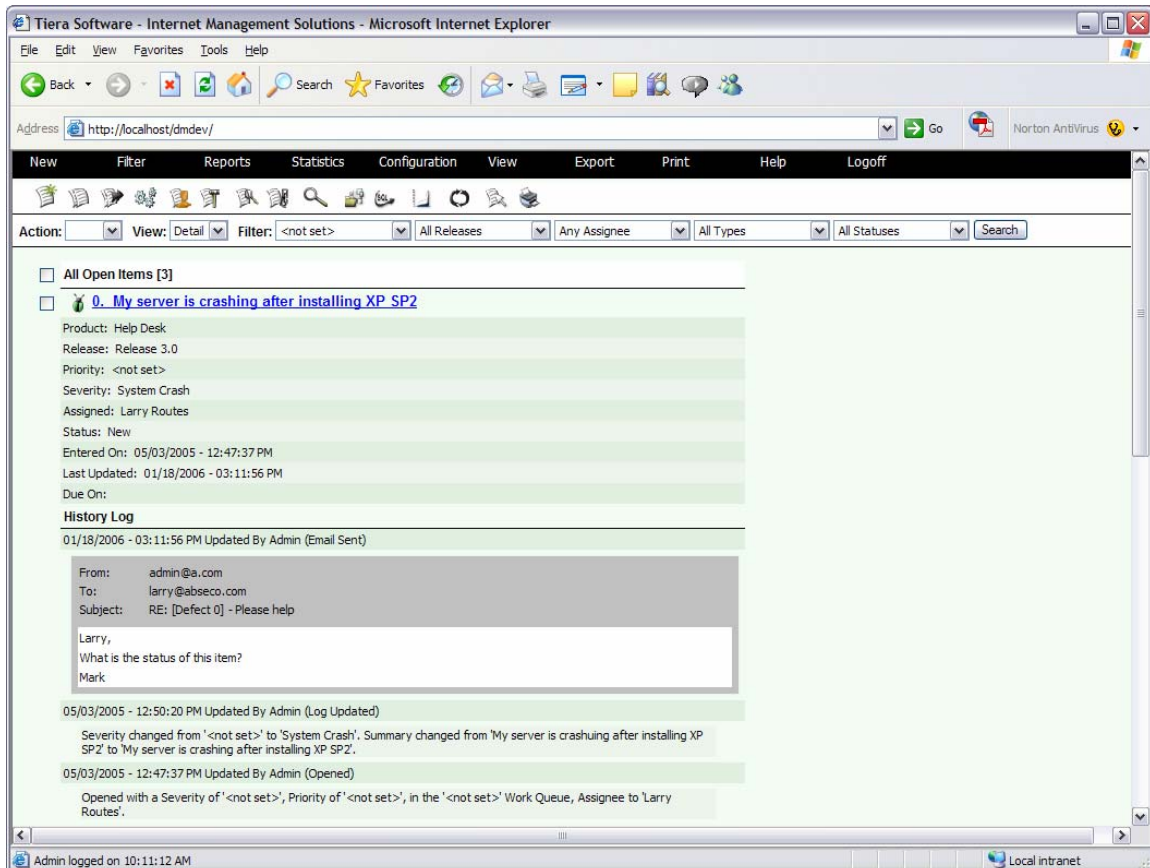


Figure: Viewing All Open Issues

Now that you have a list of open item, you may choose to work on a particular one. Click the specific item and the Issue window will be displayed.

Available Issue Lists

There are many filters that are pre-defined in the system for you. You can also create your own custom filter. Filters are broken into the following categories: **My Filters**, **Standard Filters** and **Public Filters**

My Filters

The My Filters menu item shows the filters that are generated for the system for you, or the filters that you have created. The figure below shows the choices for **My Filters**.

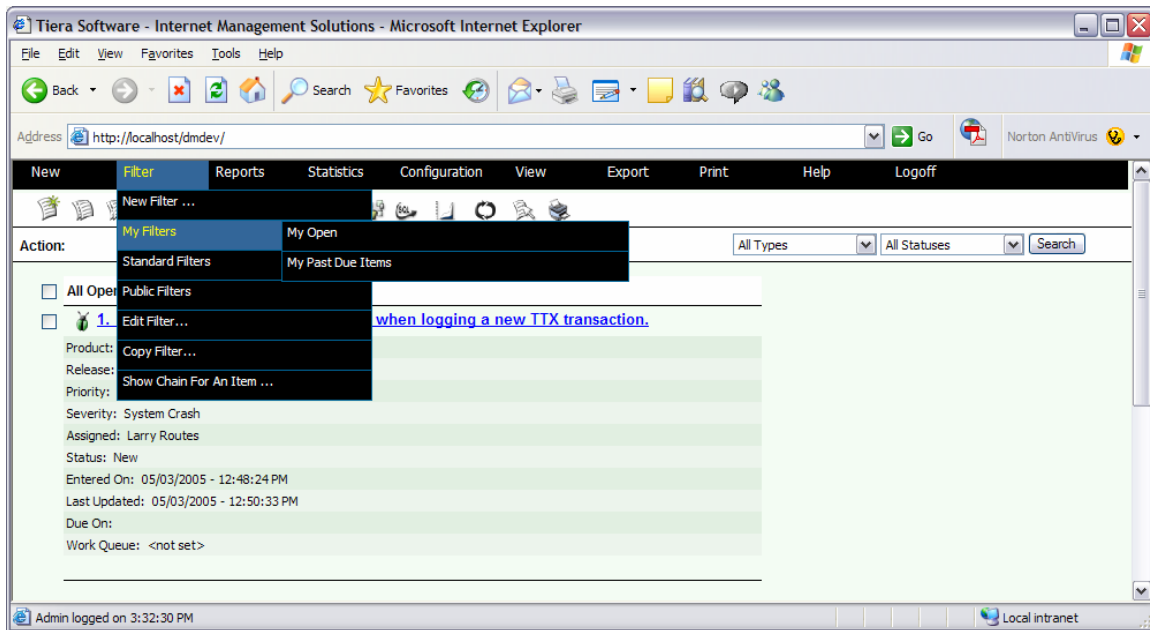


Figure: Menu of many Defect Lists to Select From

When you select the **My Filters** menu item you will all the system generated filters (such as the **My Open** filter) as well as any custom filters that you have created.

Standard Filters

Standard filters are filters that would be of interest to the vast majority of users. These filters are generated by the system. By selecting the **Standard Filters** menu item, you would see the choices of the following filters.

Listed below are the built-in filters that are available, and a brief description of each.

- **Open Items** – This filter shows all open items in the system
- **Open Items By Work Queue** – This filter allows managers and technicians to view all defects for any or their specific work queue. It allows users to get their assigned issues to process them.

- **Items By Bookmark** – This filter allows a technician/manager to find defects that have been indexed by a bookmark. Think of bookmarks as an alternate way to index defects by a specific keyword. All defects that get published to the knowledge base can be found by their bookmarks.
- **Items For A Company** – This filter allow a technician/manager to view all defects for a particular client/company.
- **Items For A Company Location** – This filter allows a technician/manager to view all defects for a particular department/site location for a particular company.
- **Items Reported By** – This filter allows a technician/manager to view items reported by a specific contact.
- **Search For Search** – This filter lets you search the **Summary, Description, Resolution, or Notes** for a text string. You can optionally select a product or project to narrow the search.

Public Filters

Public filters are filters that have been created by other users and have been made public for the user community to sue.

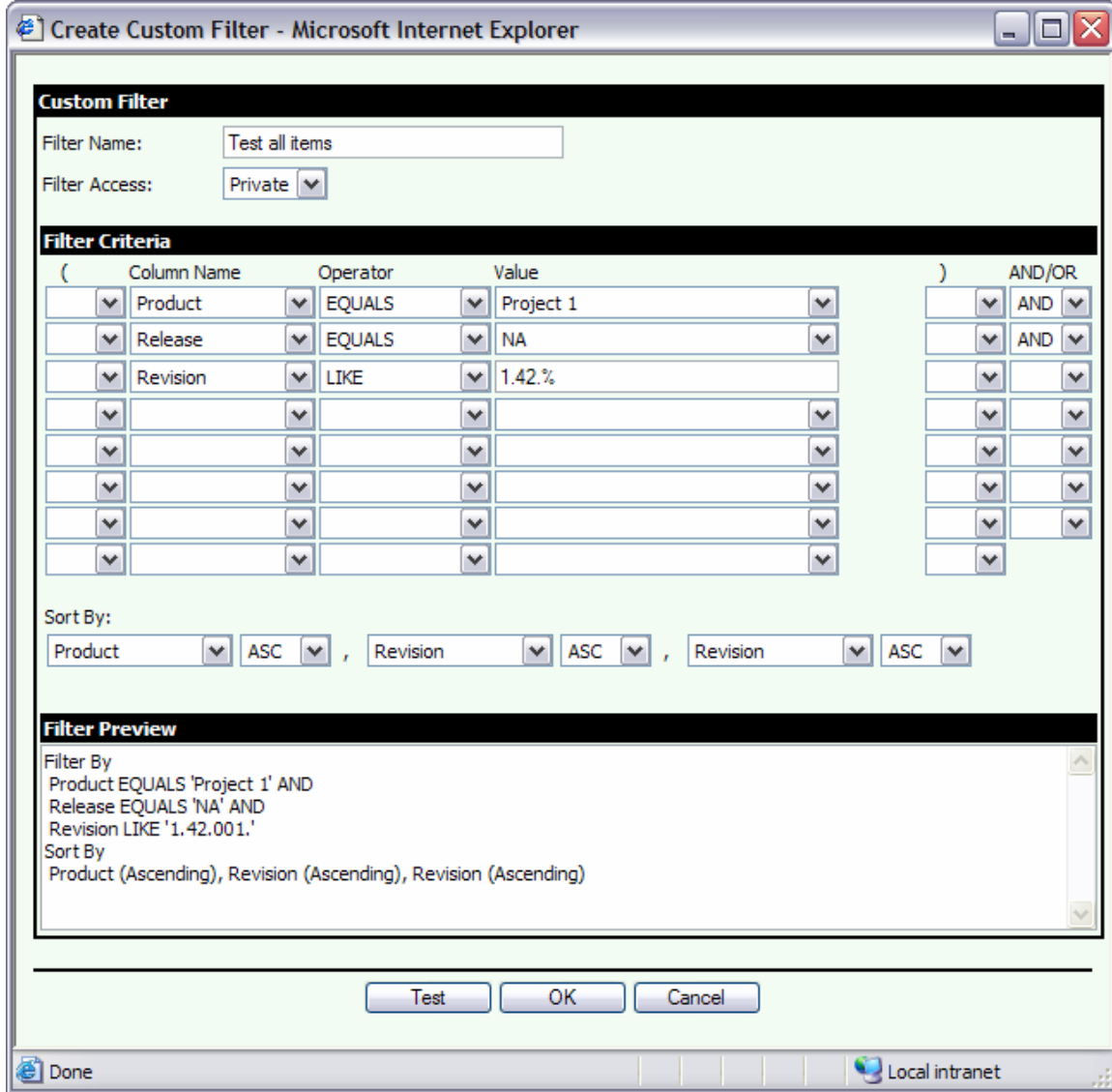
By selecting the **Public Filters** menu item, you would see all the filters that are publicly available to all users of the system.

Custom Filters

Users can create queries and save them for your exclusive use, or you can make them public, allowing other team members to use them. Custom queries are created by selecting the **Filters→New Filter** menu-item. After you create a custom filter, you can always use it later. It will always be under the **Filters→My Filters** menu. If you made it a public filter, then other users would see it under the **Filters→Public Filters** menu item.

Creating Custom Filters

When the user selects the **Filter →New Filter** menu-item, the following window will be displayed:



Custom Filter

Filter Name:

Filter Access:

Filter Criteria

(Column Name	Operator	Value)	AND/OR
	Product	EQUALS	Project 1		AND
	Release	EQUALS	NA		AND
	Revision	LIKE	1.42.%		

Sort By:

Product ASC, Revision ASC, Revision ASC

Filter Preview

Filter By
 Product EQUALS 'Project 1' AND
 Release EQUALS 'NA' AND
 Revision LIKE '1.42.001.'

Sort By
 Product (Ascending), Revision (Ascending), Revision (Ascending)

Test OK Cancel

Done Local intranet

Figure: Defining a Custom Filter

The custom filter window will allow you to create a custom filter on any field in the system, including user defined fields. Custom filters are either named, or unnamed.

Named queries are saved by the system so they can be rerun at a later date. Unnamed queries are temporary and are only valid after the time that you create them.

Hint: All named queries can also be used to create hard copy reports.

To create a named query, just specify a name in the **Filter Name** field. If you do not specify a name, then the query will be an unnamed query.

Named queries can be specified as public or private. Private queries cannot be viewed by anyone other than the user that created the query. All users in the system can view public queries.

To create a query, the user starts by selecting the specific criteria for the custom query by selecting the **Columns Name**, **Operator**, and **Value** fields. When the user selects certain columns such as date fields, there will be an additional push button to the right of the **Value** field. Pressing this button will assist the user in selecting the value for the **Value** field.

The user can also choose to use parenthesis to specify the order of evaluation for each expression in the query. Each expression in the query, must be connected through a Boolean operator such as **AND** or **OR**. The user can employ a drop down list containing **AND/OR** to specify this relationship. As the user works with the query-builder dialog selecting different fields that are to be part of the query, the system generates the query syntax and the query text is displayed in the **Filter Preview** box.

Additionally, the user can select a list of sort fields that will be used when executing the query. Each sort field can be specified in ascending order (**ASC**), or descending (**DESC**) order.

After the user selects all the different criteria for a custom query, a press of the **Test** button will show how many defects match the query.

When the user is satisfied with the query, press the **OK** button to save the query, or press **Cancel** to discard the query. After pressing the **OK** button, the Defect Manager main window, will be updated displaying all the defects that match the custom query that has just been created.

Running Custom Filters

To run a custom filter, you can select it from the **Filter**→**My Filters** or the **Filter**→**Public Filters** menu item. If there are more than 20 filters available, the last menu item will be named **More...** If you select this menu item, you will see all the filters defined to the system as show below.

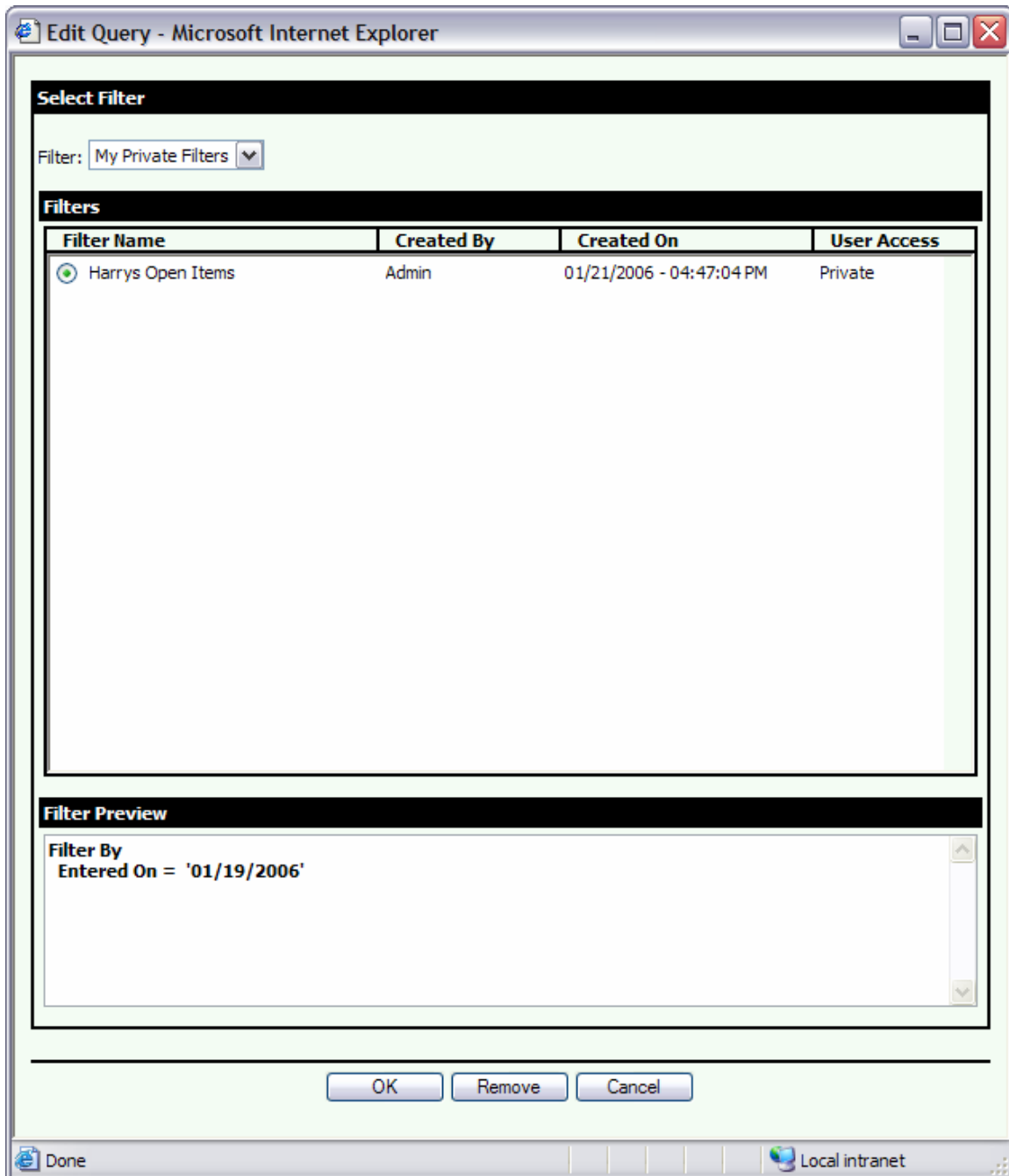


Figure: Selecting a Filter

Once this window is displayed, the user selects the query they would like to run. The following fields are available.

- **Filter** – Limit the amount of filters displayed in the **Filters List** . You can choose to see only your filters, or only public filter, or all filters.
- **Filters List** – The list of all available queries that can be selected.
- **Filter Preview** – The specific selection criteria that this query is based upon.

As the user selects a filter from the **Filters List** , the **Filter Preview** window is updated to show the specific selection criteria for the query.

After the user has selected the query that they want to run, the user presses the **OK** button to run the query that they have selected, or presses the *Cancel* button to close the window.

If the user wants to delete a query that is no longer needed, a press of the **Remove** button after selecting a query will remove the obsolete query. Users can only delete queries that they have created.

Editing A Filter

To edit a filter that you have previously created, select the **Filter** →**Edit** menu item and the following window will be displayed.

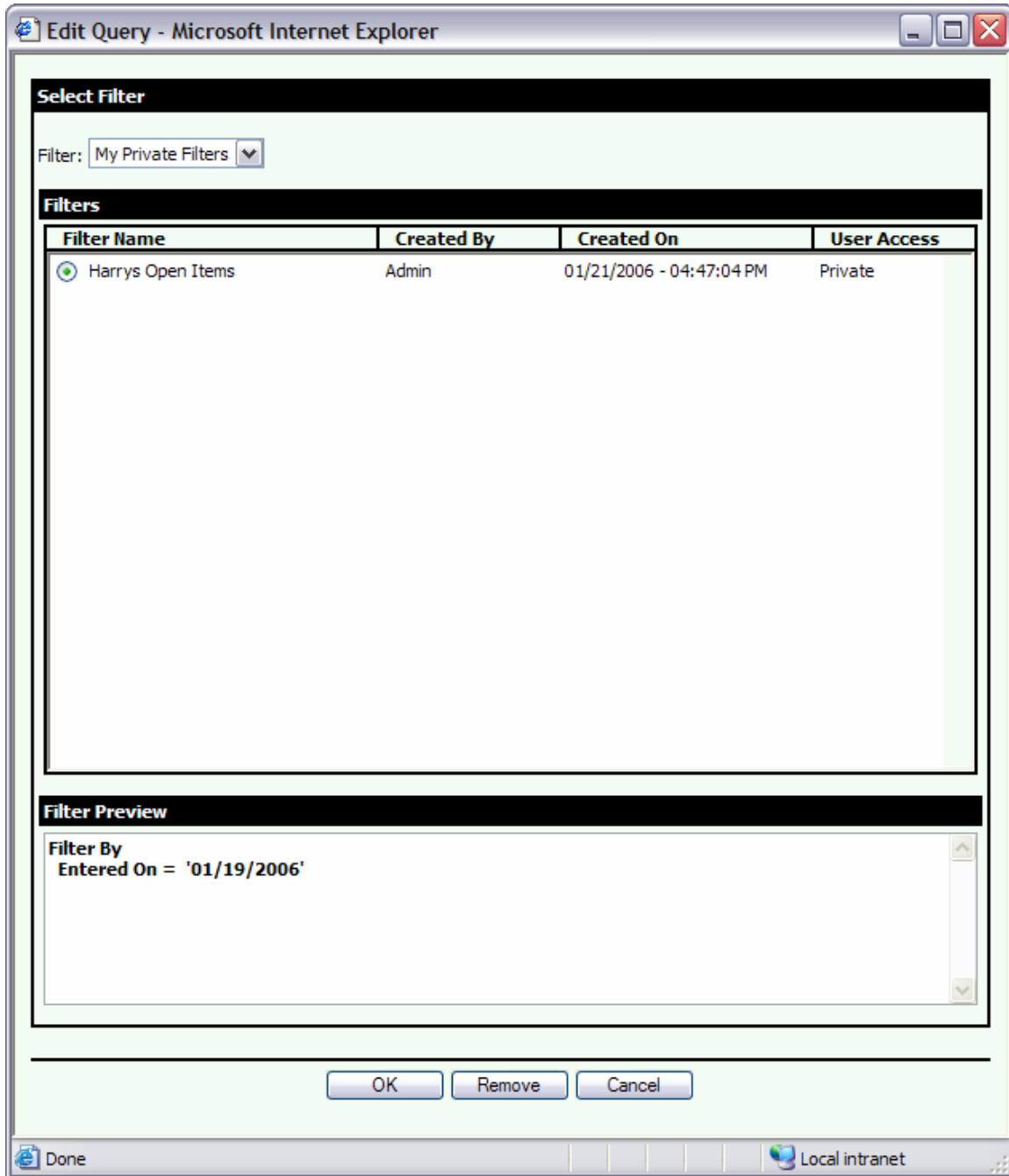
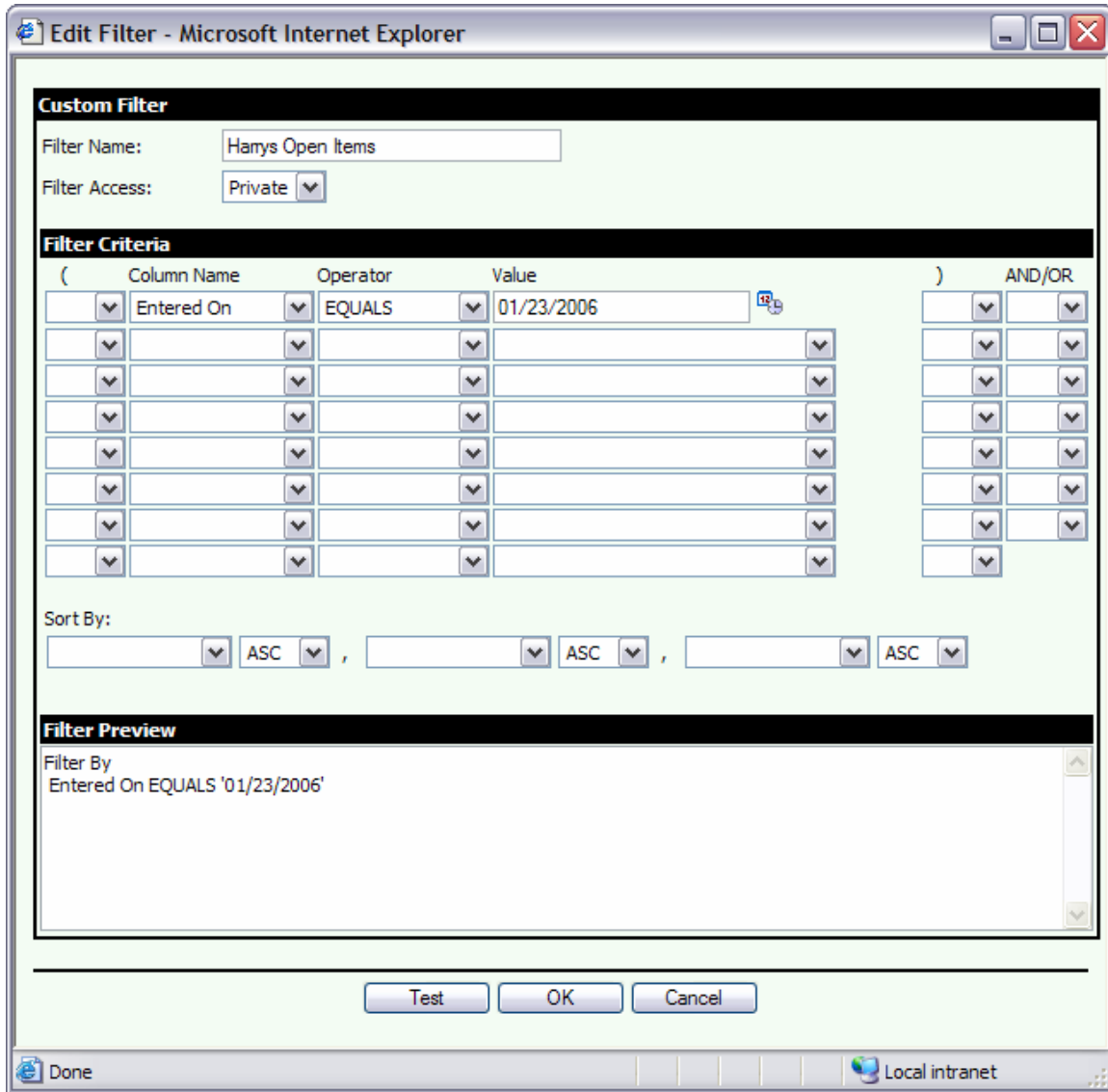


Figure: Editing a Filter

Select the filter that you want to edit and press the **OK** button. The Edit Custom Filter window will be displayed as shown below.



Custom Filter

Filter Name:

Filter Access:

Filter Criteria

(Column Name	Operator	Value)	AND/OR
<input "="" type="text" value="("/>	<input type="text" value="Entered On"/>	<input type="text" value="EQUALS"/>	<input type="text" value="01/23/2006"/>	<input type="text" value=")"/>	<input type="text" value=""/>
<input "="" type="text" value="("/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=")"/>	<input type="text" value=""/>
<input "="" type="text" value="("/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=")"/>	<input type="text" value=""/>
<input "="" type="text" value="("/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=")"/>	<input type="text" value=""/>
<input "="" type="text" value="("/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=")"/>	<input type="text" value=""/>
<input "="" type="text" value="("/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=")"/>	<input type="text" value=""/>
<input "="" type="text" value="("/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=")"/>	<input type="text" value=""/>
<input "="" type="text" value="("/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=")"/>	<input type="text" value=""/>
<input "="" type="text" value="("/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=")"/>	<input type="text" value=""/>

Sort By: , ,

Filter Preview

Filter By
Entered On EQUALS '01/23/2006'

Test OK Cancel

Done Local intranet

Figure: Editing a Custom Filter

Make the desired changes to the filter and click the **OK** button.

Copying A Filter

Select the **Filter** → **Copy** menu item. Select the filter that you want to copy and press the **Ok** button

Deleting a Filter

Select the **Filter** → **Edit** menu item. Select the filter that you want to delete and press the **Remove** button.

Viewing the SQL Query

As you are viewing different defect lists, it may be advantageous to create reports based on the lists you are looking at. By choosing the **View →SQL Query** menu item, you can view the SQL statement that Defect Manager used to create the list. You can then copy the SQL query to one of your favorite reporting tools, to easily generate a report.

Choosing the **View →SQL Query** menu item will display the following window.

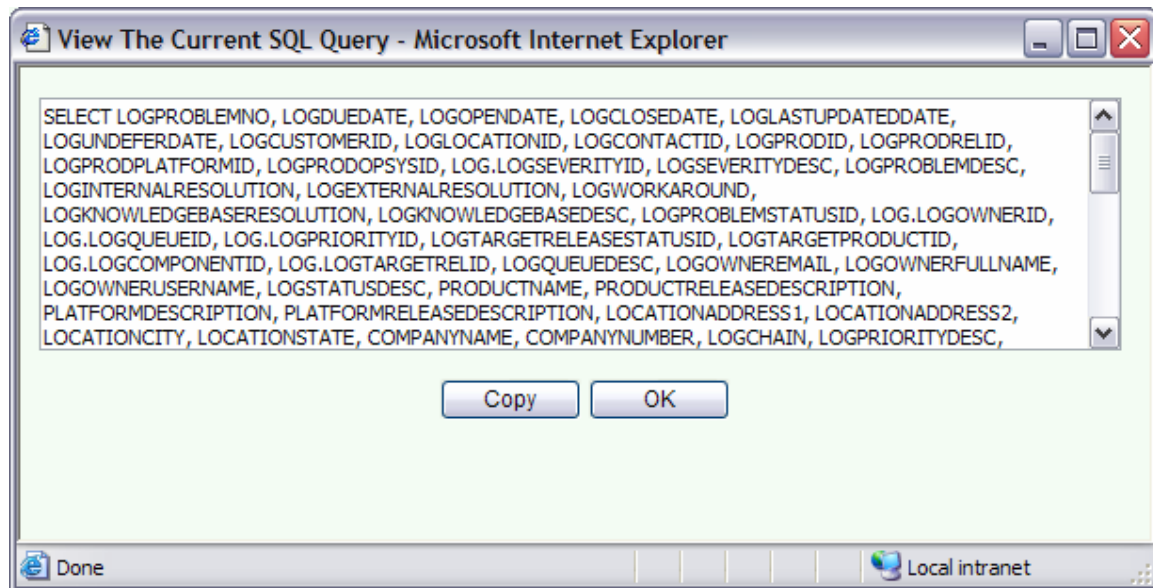


Figure: Viewing the SQL Query that Created a List of Issues

Pressing the *Copy* button will copy the SQL query to the clipboard. You can now use your favorite reporting tool and paste the SQL query into it.

Exporting Issues Items

There might be times when you want to export items from Defect Manager. You can export items in Microsoft Excel format or as an HTML page.

To export items to Microsoft Excel, select the **Export →Microsoft Excel** menu item.

You can use Excel to manipulate, analyze and display this information in spreadsheet, report or graphical form using the Excel tool. Excel also provides you with a wide-range of data-interchange formats that you can use to convert the extracted file to another format.

To export items as an HTML page, select the **Export →HTML Page** menu item.

Publishing Issues to the Knowledgebase

After spending countless hours resolving issue that have been reported, you will want to be able to share this knowledge with the rest of the community that uses your product.

Defect Manager makes this very easy to do. After an item has been closed it is eligible to be published. Once it is published, users can search the knowledgebase for insight into their own problems.

To be able to publish an item, the following two conditions must be met.

1. The item must be closed.
2. The user needs to have the **Can Publish** privilege.

If both of these conditions are met, then you select the **Knowledgebase → Publish To Knowledgebase** menu item. When you select this menu item, the following window will be displayed as shown below.

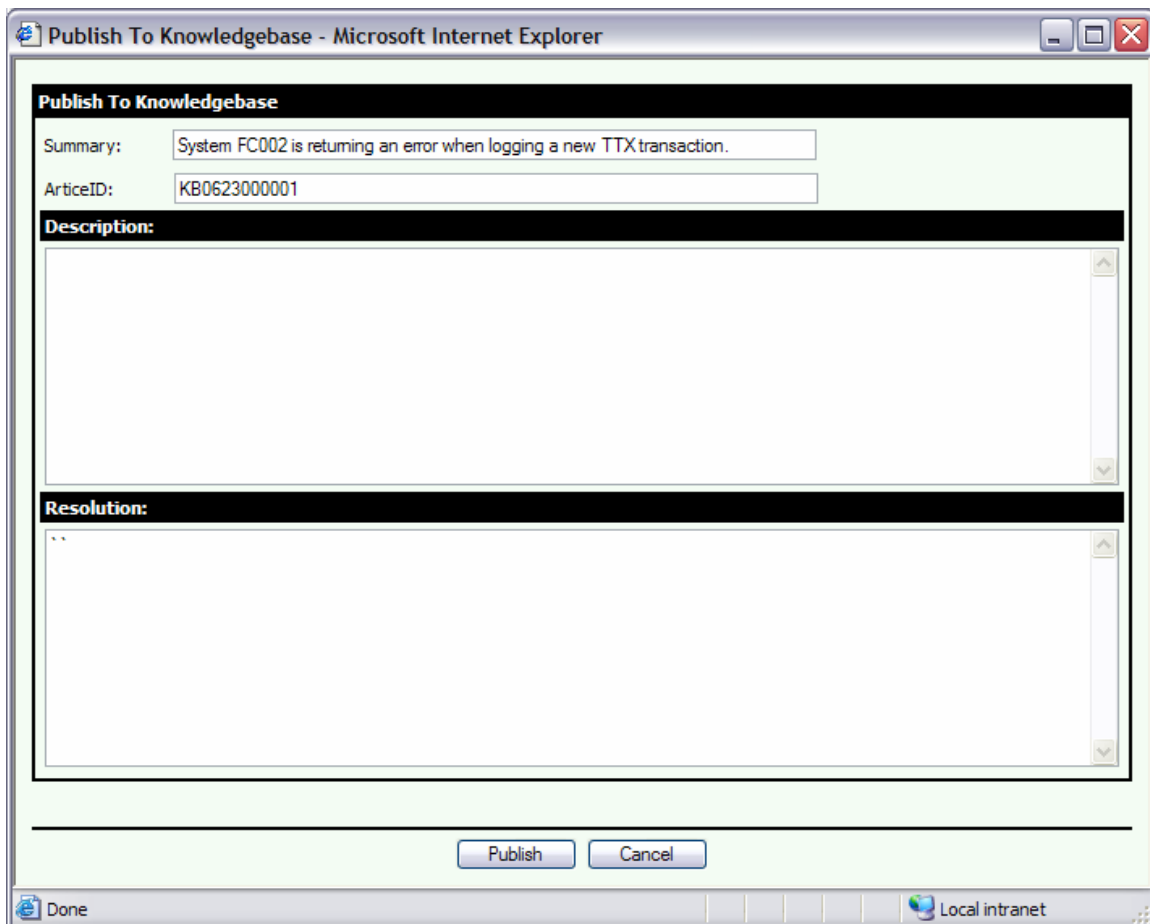


Figure: Publish to the Knowledgebase

You will be able specify the **Summary**, **Article ID**, **Description**, and the **Resolution** for the item that you are publishing. These fields will be available to all E-Tech Support users, so make sure these fields are appropriately filled out. The published item will be displayed in a browser, so you can embed HTML tags in these fields. Make sure that you have the proper bookmarks defined for this item so it can easily be found.

The **Article ID** field is automatically generated to make it unique, but can change the **Article ID** to anything you like, just make sure the value is unique.

If you have published an item and no longer want it to be published, select the **Knowledgebase → Remove From Knowledgebase** menu item, or the toolbar button.

Customize Your Workspace

To customize your workspace, press the **Customize System** Tool Bar button or select the **View → Customize ...** menu item. The following window will be opened.

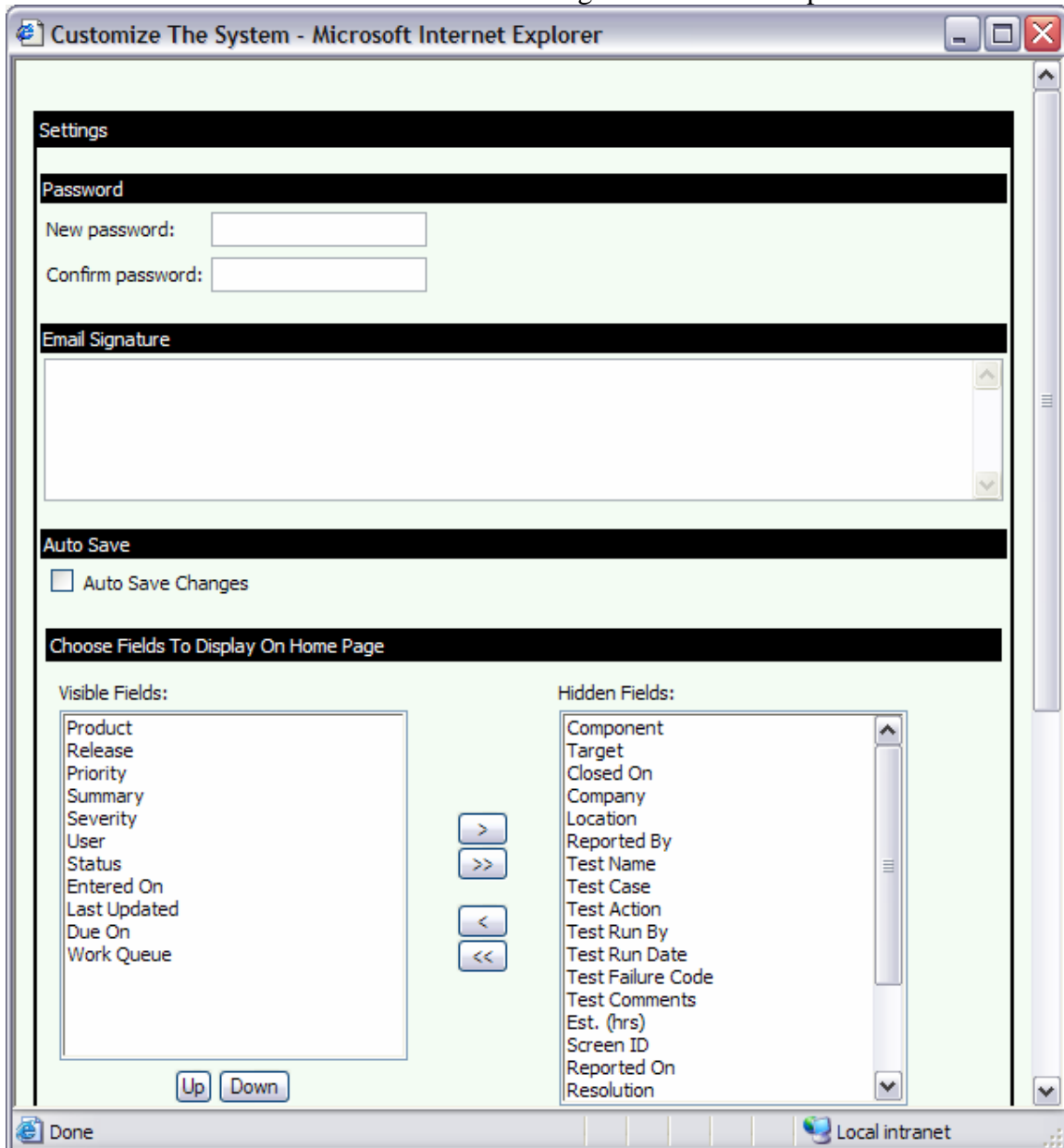


Figure: Customizing Your Workspace

You can change the following settings in your workspace.

Password – Your password to access the system

E-Mail Signature – The Email Signature field allows you to enter text in a multi-line format to provide a standard-block format for closing all email correspondence that you generate with Defect Manager.

Auto Save Changes – When you make change on Issue Detail window, your changes will automatically be saved when you browse to the next or previous item. If this option is not set, then you have to manually press the **Save** button to save your changes.

Fields On The Home Page – Select which fields will be displayed on your Defect Manager Home page.

Sections On The Issue Window – Select which sections will be displayed on the Issue window.

After you make the appropriate changes press the OK button to save these changes.

Configuring the System

To configure the system and change settings such as priorities, users, severities, projects, etc. select the **Configuration** menu item. After selecting this menu item, the Configuration Manager window will be open as show below.

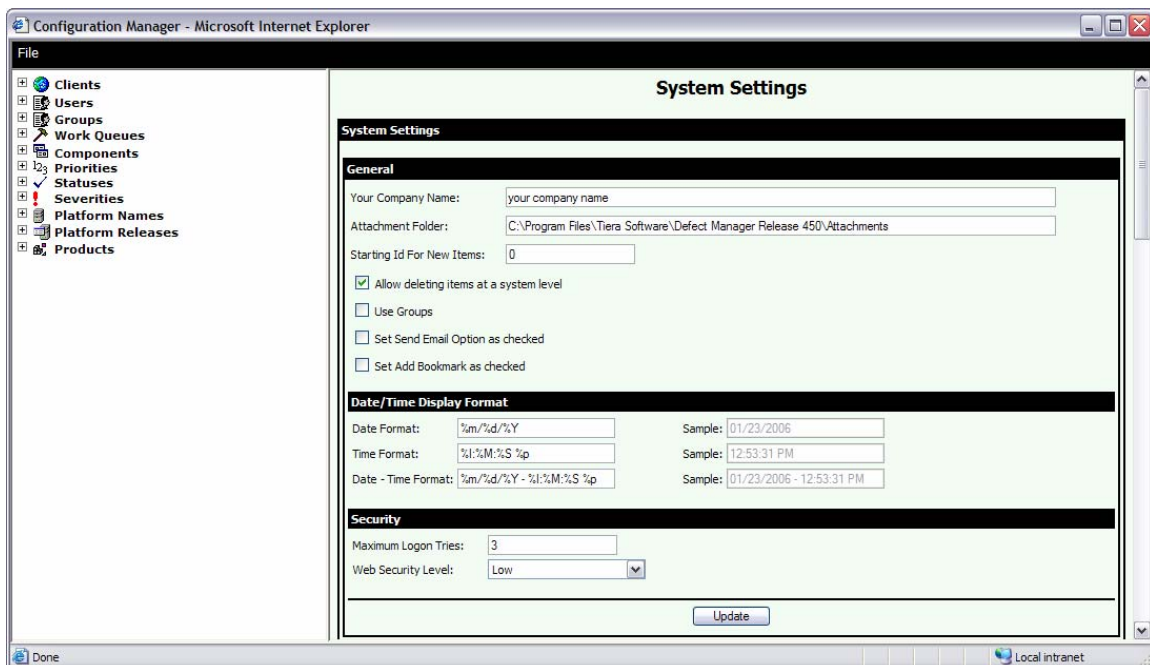


Figure: Configuring the System

Statistics

In order to assess the effectiveness of your team, you need to know how the issues are distributed across the various users, project and statuses. Additionally, you will want to know if your products/project are improving over time as you prepare to put your system into production.

Defect Manager provides for two distinct types of statistics. They are distribution statistics, and trend analysis.

Distribution statistics and trend analysis data can be viewed as raw data, or a graph. You can export the data to Microsoft Excel (or any other tool that you wish to use) to perform complex analysis of the data.

Distribution Statistics

There are three types of issue distribution data that you can view. They are.

- **User Distribution** – View the distribution of issues across the users of your system.
- **Status Distribution** – View the distribution of issues by primary-status such as open items, closed items or deferred item.
- **Product Distribution** – View the distribution of items across your various products (i.e., products, projects, processes or services).

Each type of distribution has its own menu item under the **Statistics** menu item. Selecting any of these items from the menu will open the Issue Distribution window shown below.

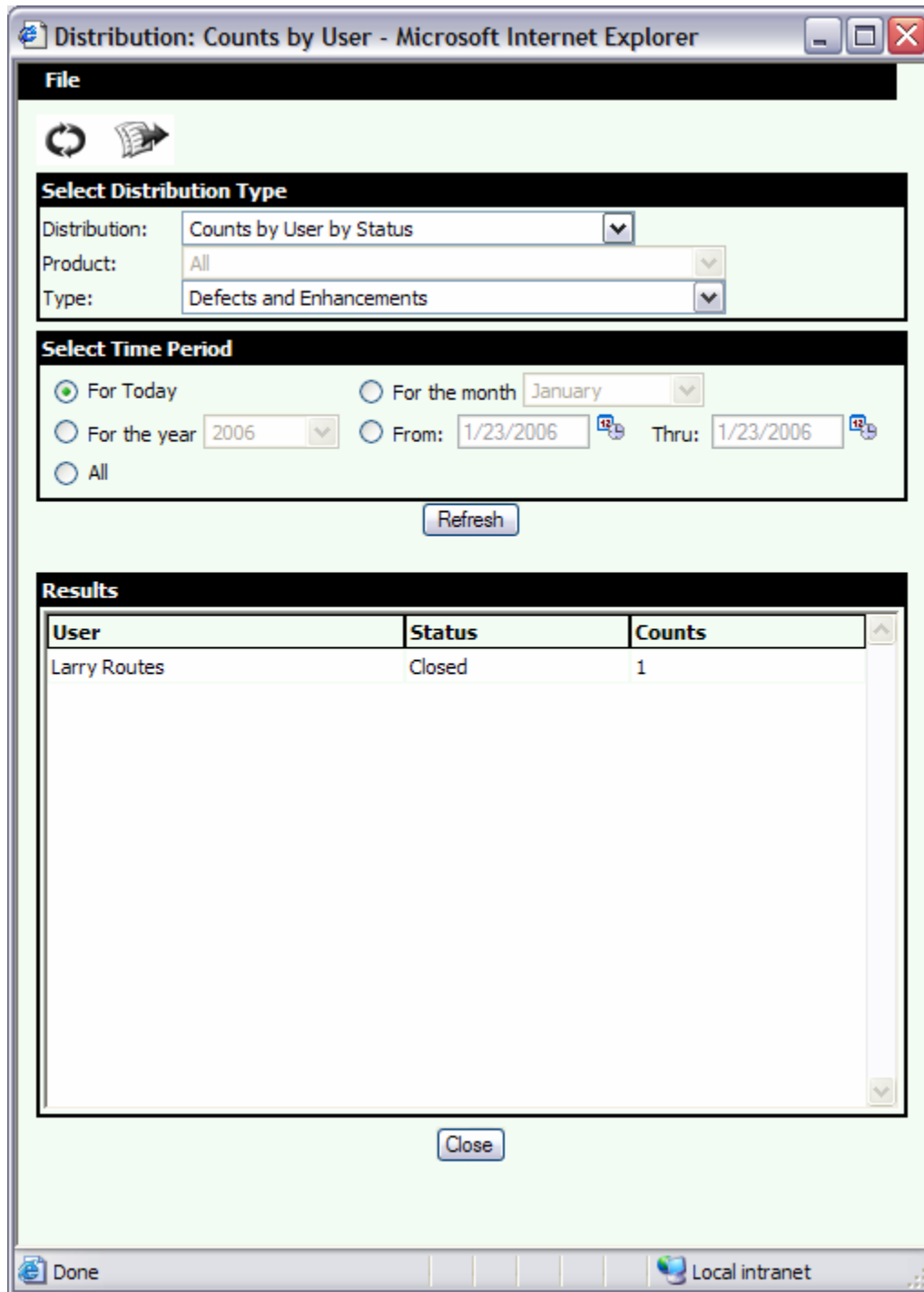


Figure: Displaying the Selected Distribution Statistics

The window is broken into the following areas from top to the bottom.

1. **Tool Bar** – It includes the **Refresh** button and the **Export** button
2. **Selected Distribution Type** – Allows selection of **Distribution Type** and the **Product** to use

3. The **Distribution Date and Time Period** – Allows selection of the date/time range for the distribution analysis
4. The **Distribution Data Grid** – It lets you view the raw distribution data

Setting The Distribution Criteria

To get distribution statistics, Defect Manager needs the following information..

- **Distribution** – The exact type of distribution you are looking for.
- **Product** – The project this distribution is for.
- **Issue Type** – The issue types that you are looking for.
- **Time Range**
 - **Today** – Show the defect distribution for the current day.
 - **By Month** -- Show the distribution for a specific month.
 - **By Year** – Show the distribution for an entire year.
 - **Custom** – Show the distribution for a specific date range.
 - **All** – Show the distribution since the system has been in use.

Trends By Product Release

You can also perform trend analysis related to a particular product (i.e., product, project, process or service) and it's set of releases.

To view trend analysis, select the **Statistics →Product Trend By Release** menu item. This produces the following display.

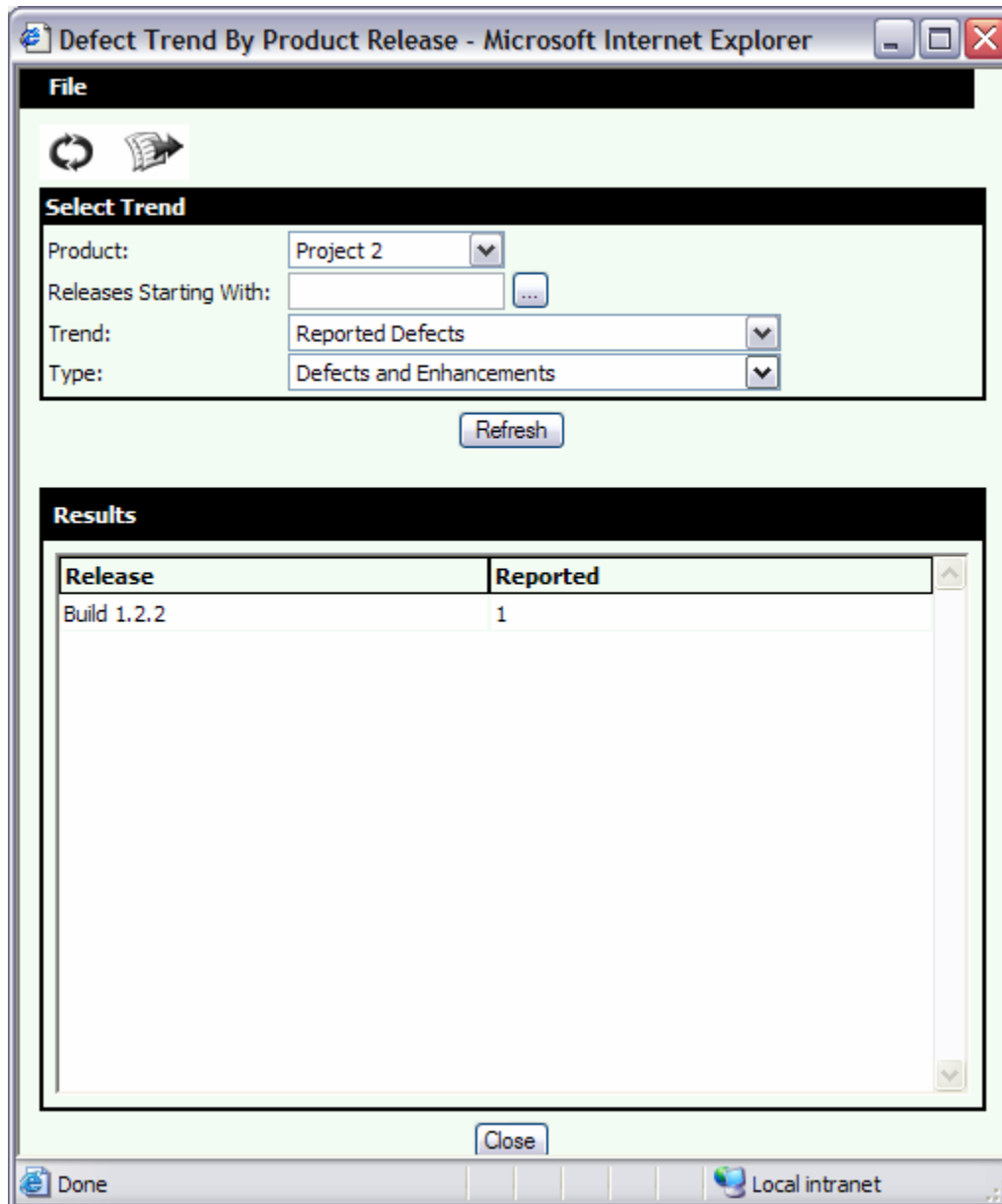


Figure: Product Trends By Release Metrics – Defect Trend

To get distribution statistics, Defect Manager needs the following information..

- **Product** – The product this trend analysis is for.
- **Releases Starting With** – Releases for this product that start with a particular value. For instance, if you have releases 1.2.3.4, 1.2.3.5, thru 1.2.3.55, then specifying 1.2.3 for this field would give you all the release from 1.2.3.5 thru 1.2.3.55
- **Type** –The issue types you want for this trend analysis type.
- **Trend** –The trend analysis type. The choices are:

- **Opened vs. Closed Items** – Show the opened versus closed items by release.
- **Opened vs. Reported Items** -- Show the opened versus reported items by release.
- **Percentage of Reported Items** – Show the percentage of reported items by release.
- **Reported Items** – Show the number of reported items by release.

Exporting Statistical Data

There might be times when you want to export statistical data (distribution or trend data) from Defect Manager.

You can do this with the **Export** button or by selecting the **File → Export** menu item.

Defect Manager Reports

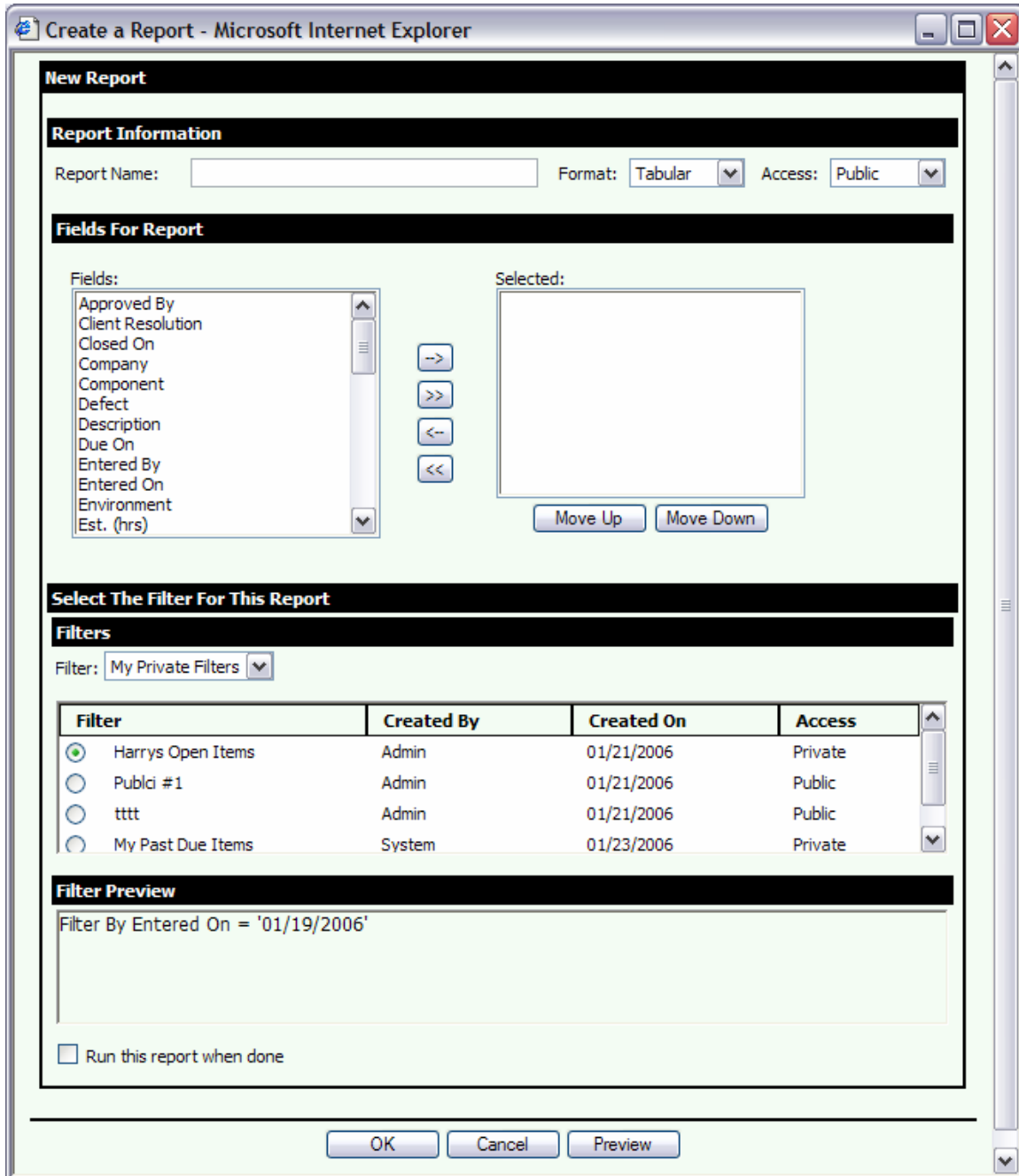
Defect Manager gives you a powerful set of predefined reports and the ability for you to create your own reports using a customized query statement within Defect Manager.. Whether you use predefined reports or create your own Defect Manager report, Defect Manager will allow you to select a list or a detail presentation version of a report.

Defect Manager also allows you to preview your report before you print it.

Creating New Reports

Defect Manager gives you a powerful set of tools to define your own reports based on any query that you have created.

To create a new report, select the **Reports → New** menu item. The following window will be displayed.



New Report

Report Information

Report Name: Format: Access:

Fields For Report

Fields:

- Approved By
- Client Resolution
- Closed On
- Company
- Component
- Defect
- Description
- Due On
- Entered By
- Entered On
- Environment
- Est. (hrs)

Selected:

Move Up Move Down

Select The Filter For This Report

Filters

Filter:

Filter	Created By	Created On	Access
<input checked="" type="radio"/> Harrys Open Items	Admin	01/21/2006	Private
<input type="radio"/> Public #1	Admin	01/21/2006	Public
<input type="radio"/> tttt	Admin	01/21/2006	Public
<input type="radio"/> My Past Due Items	System	01/23/2006	Private

Filter Preview

Filter By Entered On = '01/19/2006'

Run this report when done

OK Cancel Preview

Figure: New Custom Reports

You will review and complete the following panels on the **Create A Report** form.

Report Name

Enter the descriptive name for this report.

Format

Select the format of the report. Reports can be either tabular, list, or detail formats.

Access

You can specify this report to either be private or public. If you specify public, this report can be seen and run by others. If you specify private, only you can see the report.

Fields for Report

Select the fields that you want to be present in the report. The fields will be displayed in the report in the same order they are listed here.

Filter for Report

Select the filter that you want to use for this report.

Run this report when done

Select this option if you want to run the report immediately after saving the report.

If you want to see what the report looks like before saving the report, press the **Preview** button and the report will be built and displayed. Click the **OK** button to save the report.

Printing a Report

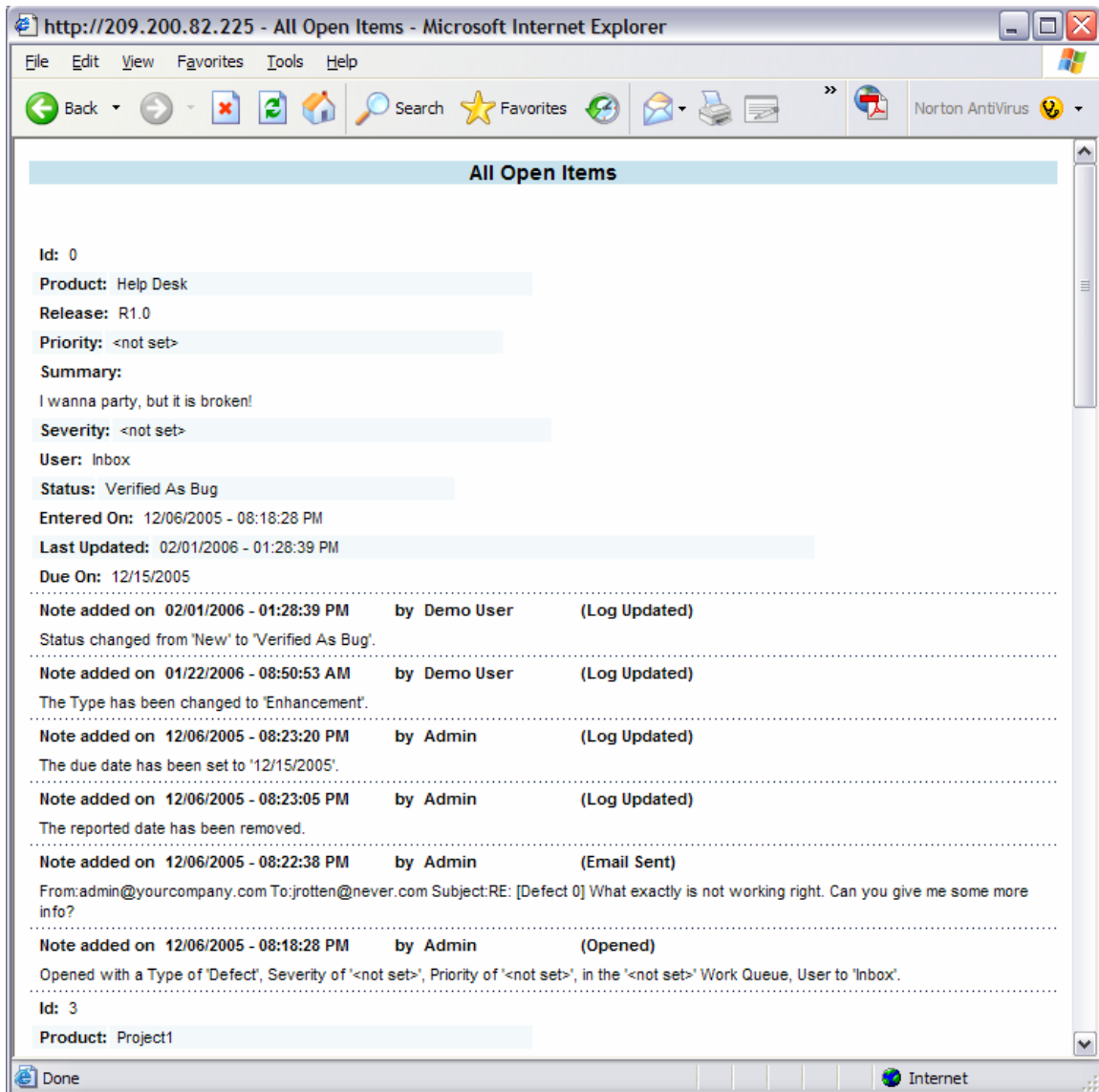
You can choose to run reports that you have created, default reports created by the system, or reports created by others that have elected to share them by making them public. To run your reports select the **Reports → My Reports** menu item and you will see a list of your reports that you can run. To run other reports in the system, select the **Reports → Public Reports** menu item and select the specific report you would like to run.

Deleting a Report

You can delete any report that you have created. To delete a report, select the **Reports → Delete** menu item, select the report you want to delete and then click the **OK** button.

Previewing a Report

When you run a report in Defect Manager, you will get a chance to see the report in the Report Pre-viewer window as shown below.



. Figure: Report Pre-viewer Window

After the report has been created you can perform the following actions:

- **Print the Report** – Select the **File**→**Print** menu item
- **Print Preview the Report** – Select the **File** →**Print Preview** menu item
- **Save the Report to Disk** – Select the **File** →**Save As** menu item
- **Page Setup** – Select the **File** →**Page Setup** menu item
- **Send the Report** – Select the **File** →**Send** menu item

Using Other Reporting Tools

Defect Manager provides the following ways to access the Defect Manager issue data from other tools. The following ways are described below.

- Using SQL from a third party tool
- Exporting issue data
- Creating SQL from the database schema

Using SQL from a Third Party tool

At anytime you can get the SQL associated with a Defect Manager filter by selecting the **View→View SQL** menu item in the Issue Log. See the section [Viewing the SQL Query](#) section for more information. You can use the SQL query in any SQL compliant reporting tool.

Exporting Issue Data

You can export issues associated with a Defect Manager filter by selecting the **Export** menu item in the Issue Log. See the section [Exporting Issue Items](#) section for more information. After you export the data, you can then import it into any tool that supports the data format that you specified when exporting the data.

Creating SQL from database schema

Defect Manager uses industry standard databases such as Access, SQL Server and Oracle. You can always create your own SQL statements to retrieve the Defect Manager issue data.

For additional information concerning the Defect Manager database schema, see the section: [Database Model](#) in the [Programmer API Guide](#). The database schema layouts for the tables will show you the data names and structures of the repository database so you can create your own SQL queries.

It is imperative that you do not modify any of the data. Doing so could damage the integrity of the repository and you could cause irreversible damage.