



CS577b Quality Mgt. 4

March 12, 2003

Development Tools Demos: Rational Test Mgr. & Robot; gnats



Goals of Presentation

You should see a demo by Sachin Shah of

- Rational Test Manager
- Rational Robot;

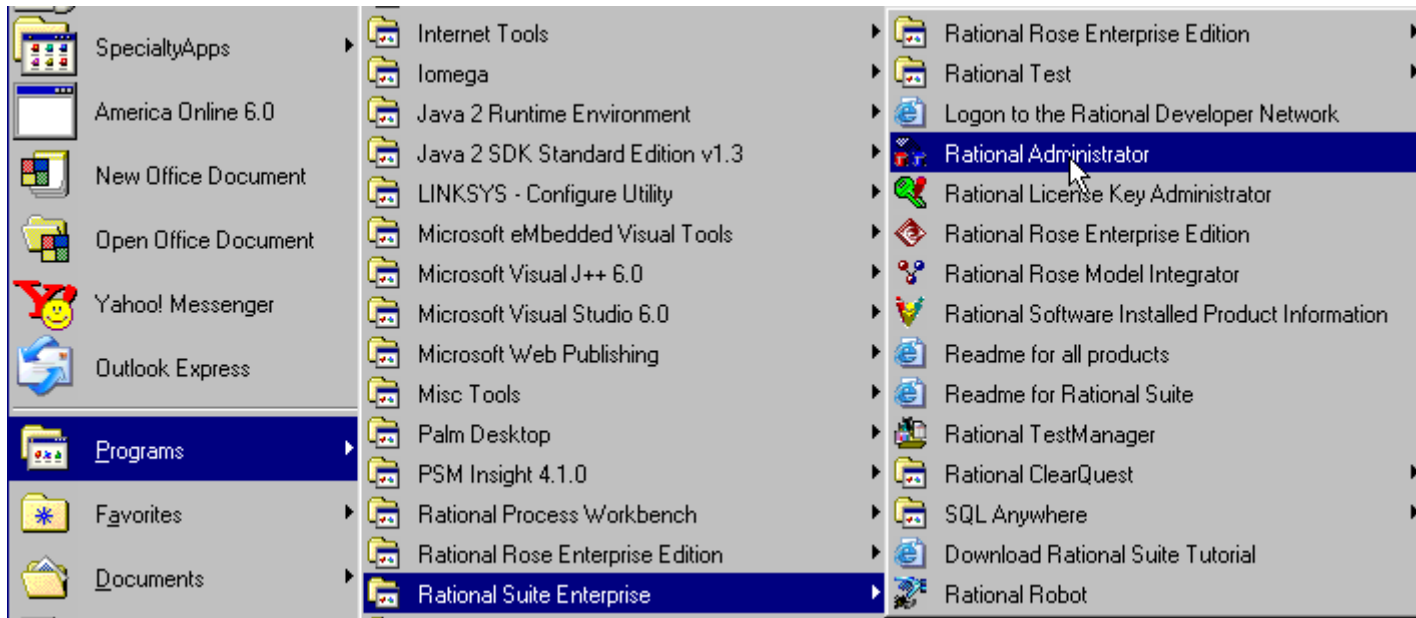
You should see some gnats use examples use

- User interfaces for
- Problem Report content

Rational Administrator

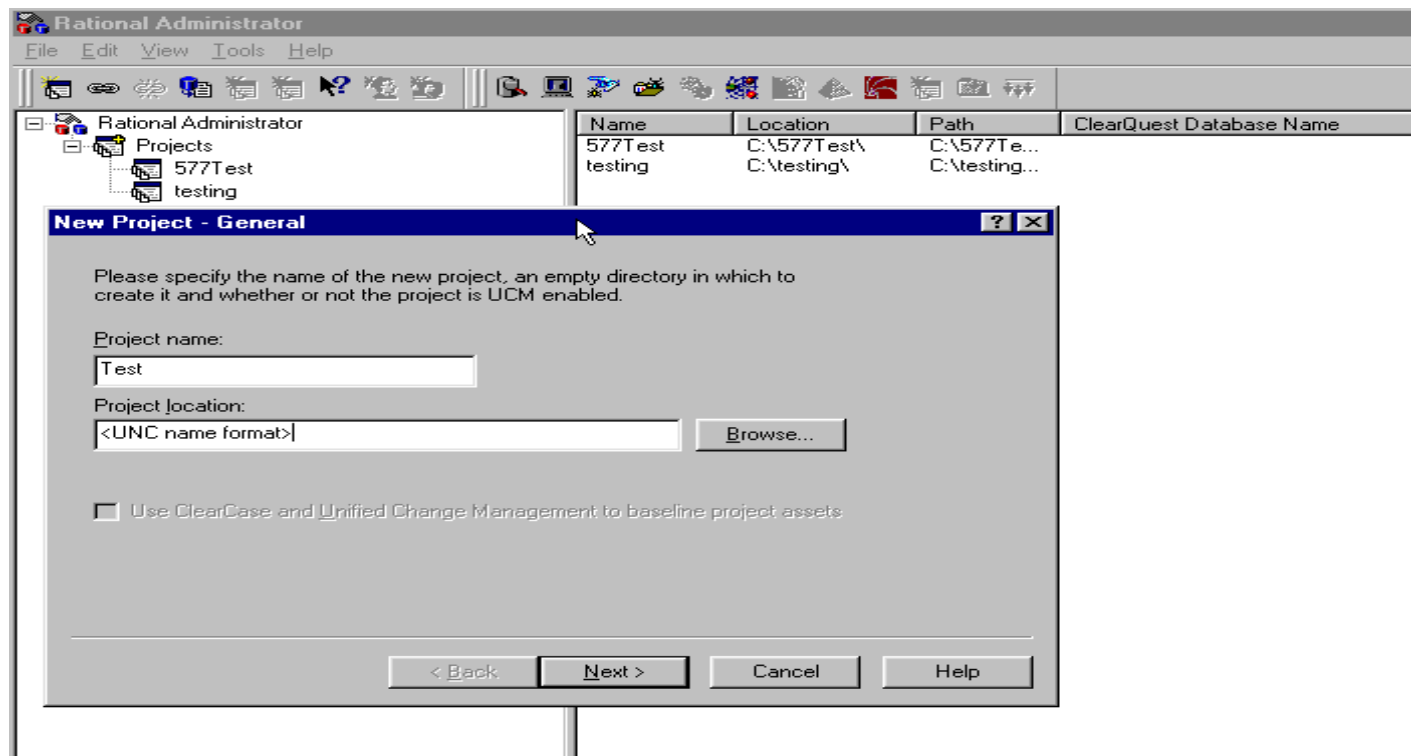
Available in Rational Suite Enterprise

- Helps in creating a project for which we can create a test plan and test cases. We can launch it as follows



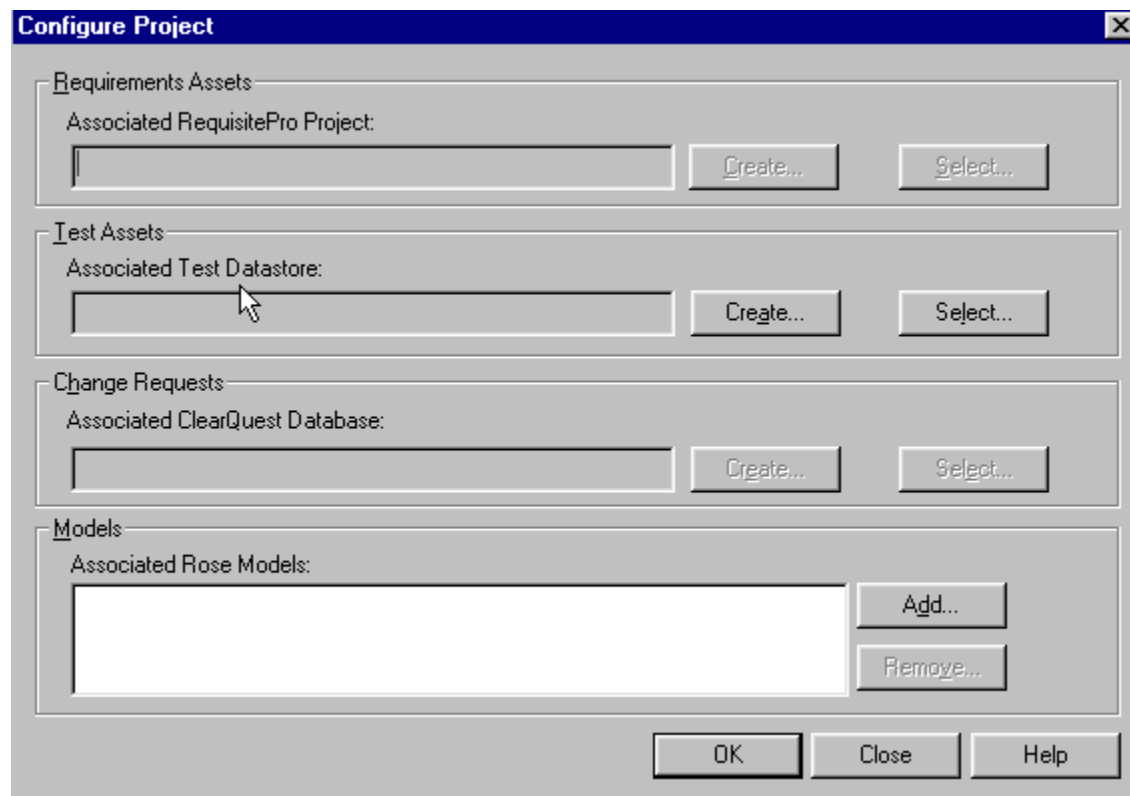
Rational Administrator

- We create a new project and enter its name and location. The location should be stored in the Universal Naming Convention (UNC) format if it is to be accessed by the team over the network.



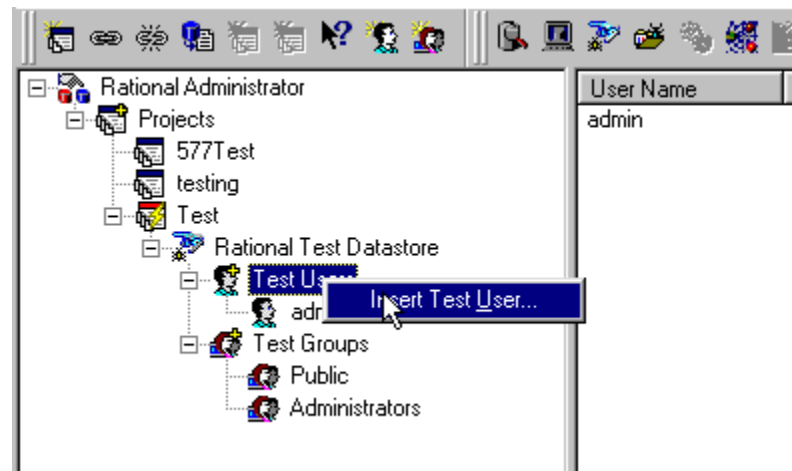
Rational Administrator

- Making the project password protected is optional and the next step is to configure the project.



Rational Administrator

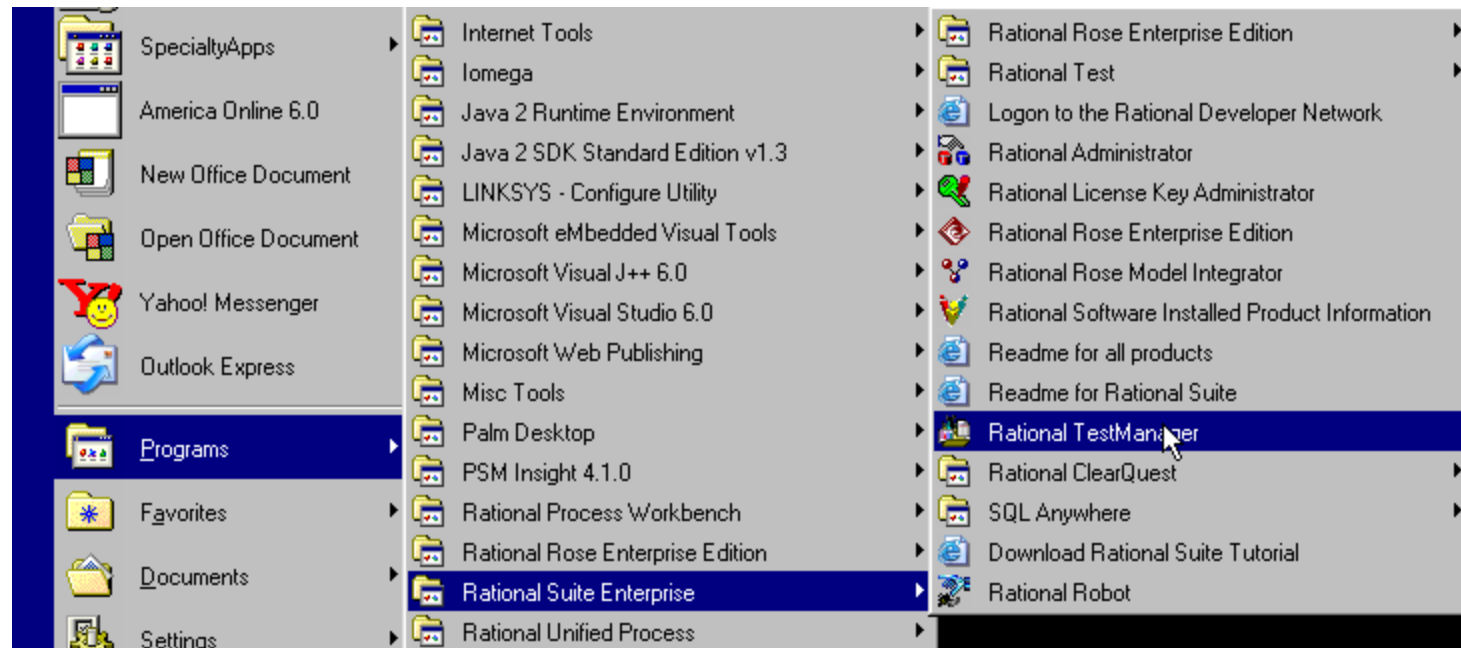
- After creating the Test DataStore and the associated Clearquest Database we should create the users and groups within this project.
- These users can then be assigned the responsibility for the test plans and the test cases in the TestManager.



Rational Test Manager

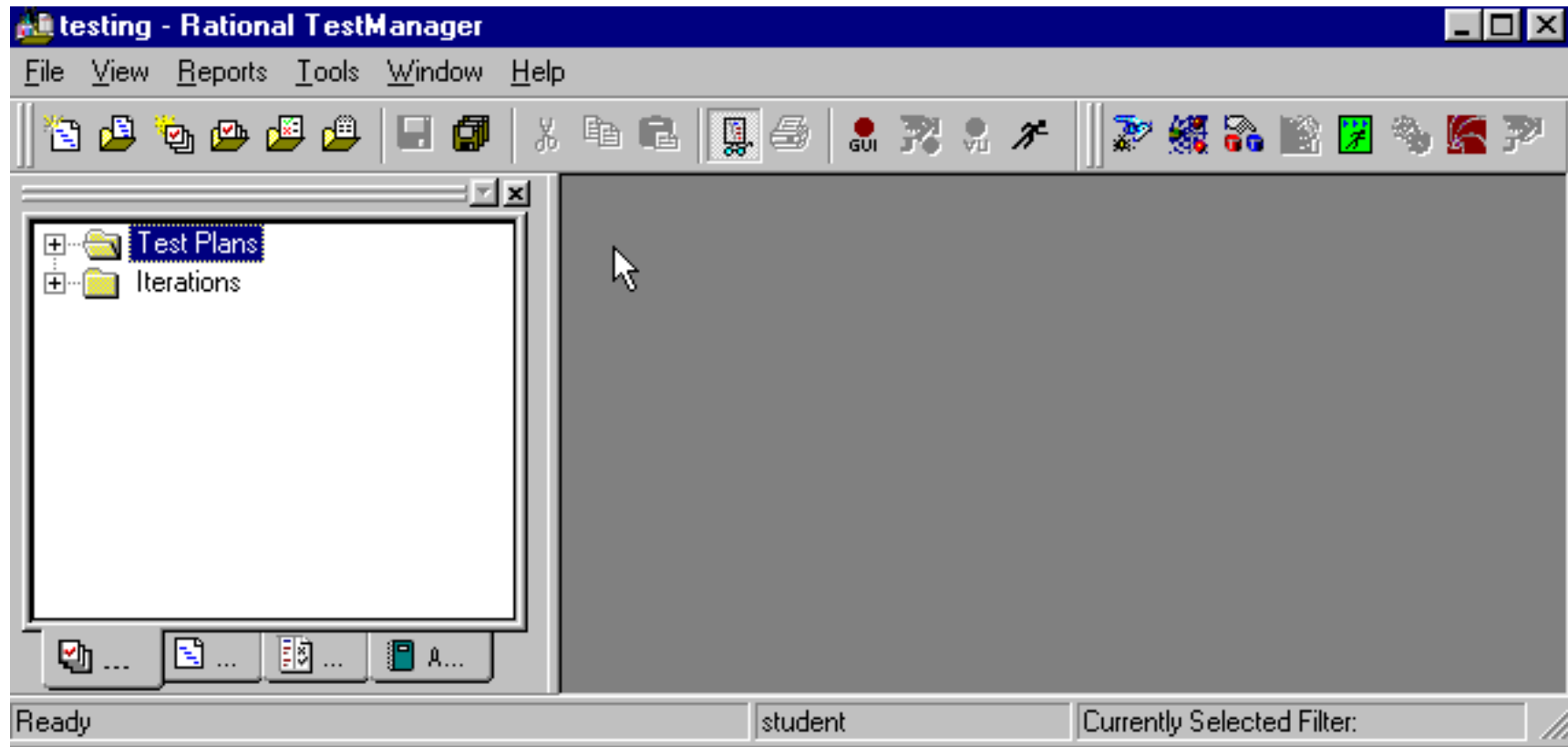
Available in Rational Suite Enterprise

- Helps in managing test plans and individual test cases.
- Today we will demonstrate how to create new test plans, test case folders and test cases.
- Read associated documentation for other features.



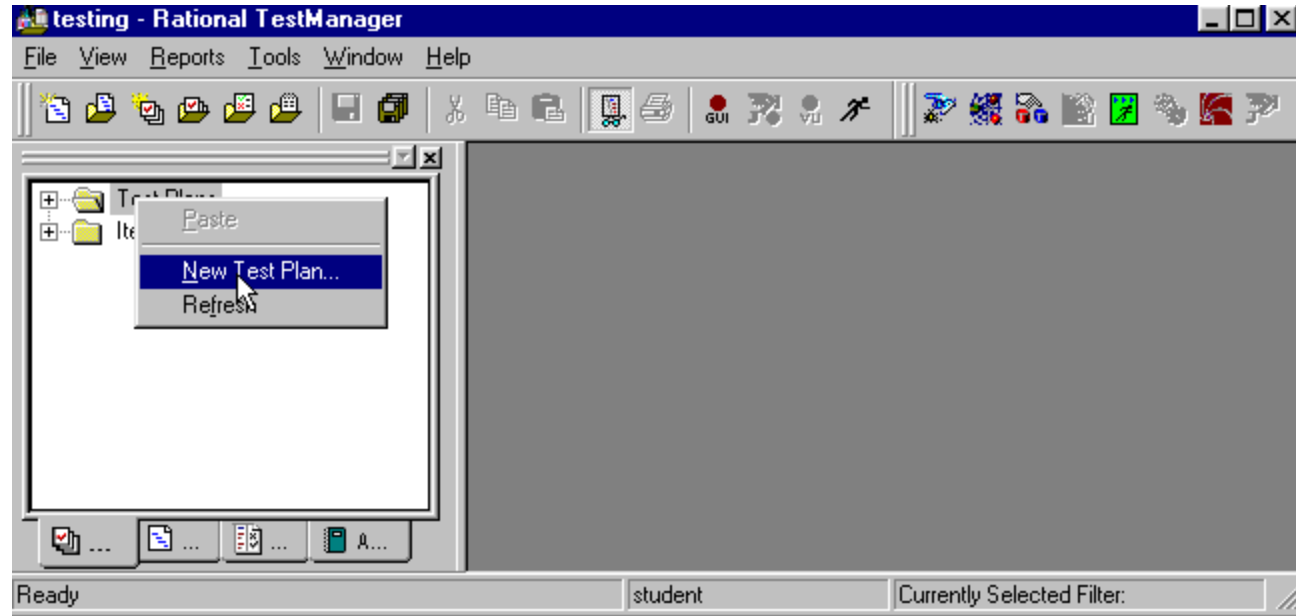
Rational Test Manager (cont.)

- This launches the TestManager



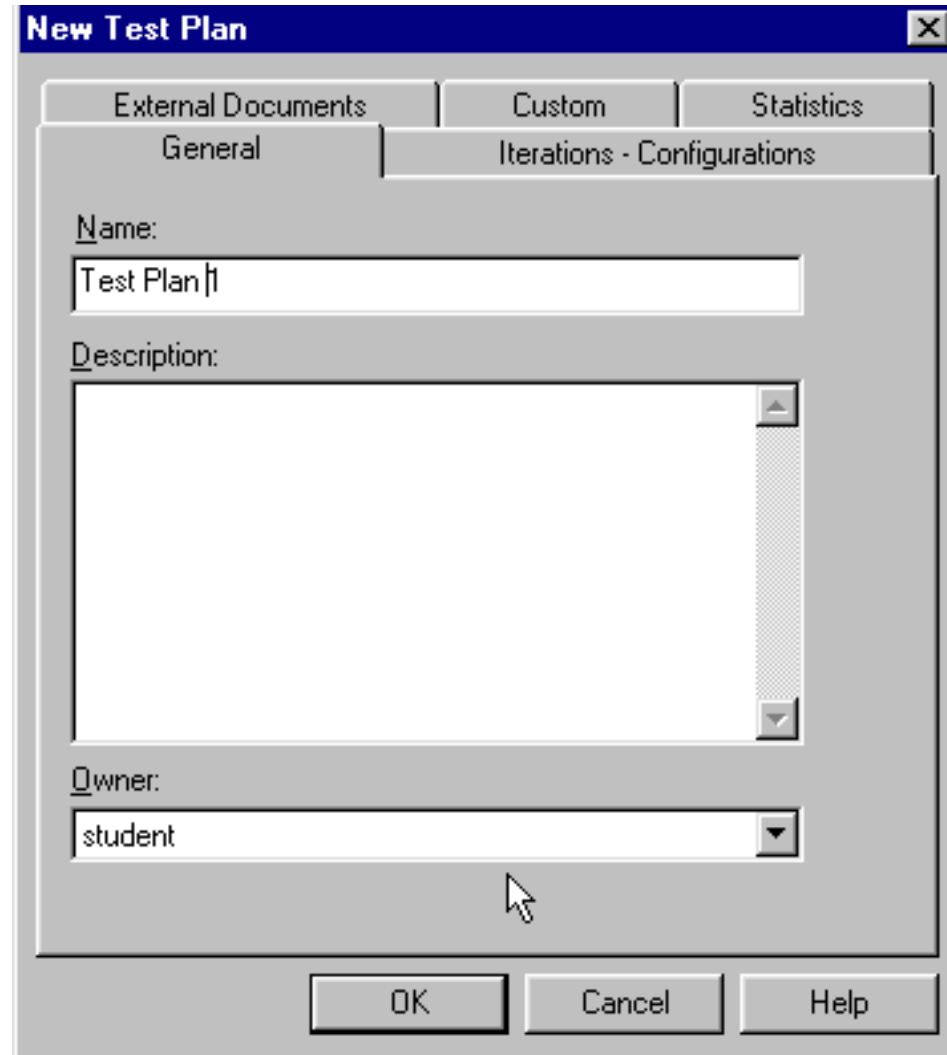
Rational Test Manager (cont.)

- We can create new test plans within our project



Rational Test Manager (cont.)

- Here we can name the test plan and enter its properties.



New Test Plan

External Documents Custom Statistics

General Iterations - Configurations

Name:
Test Plan

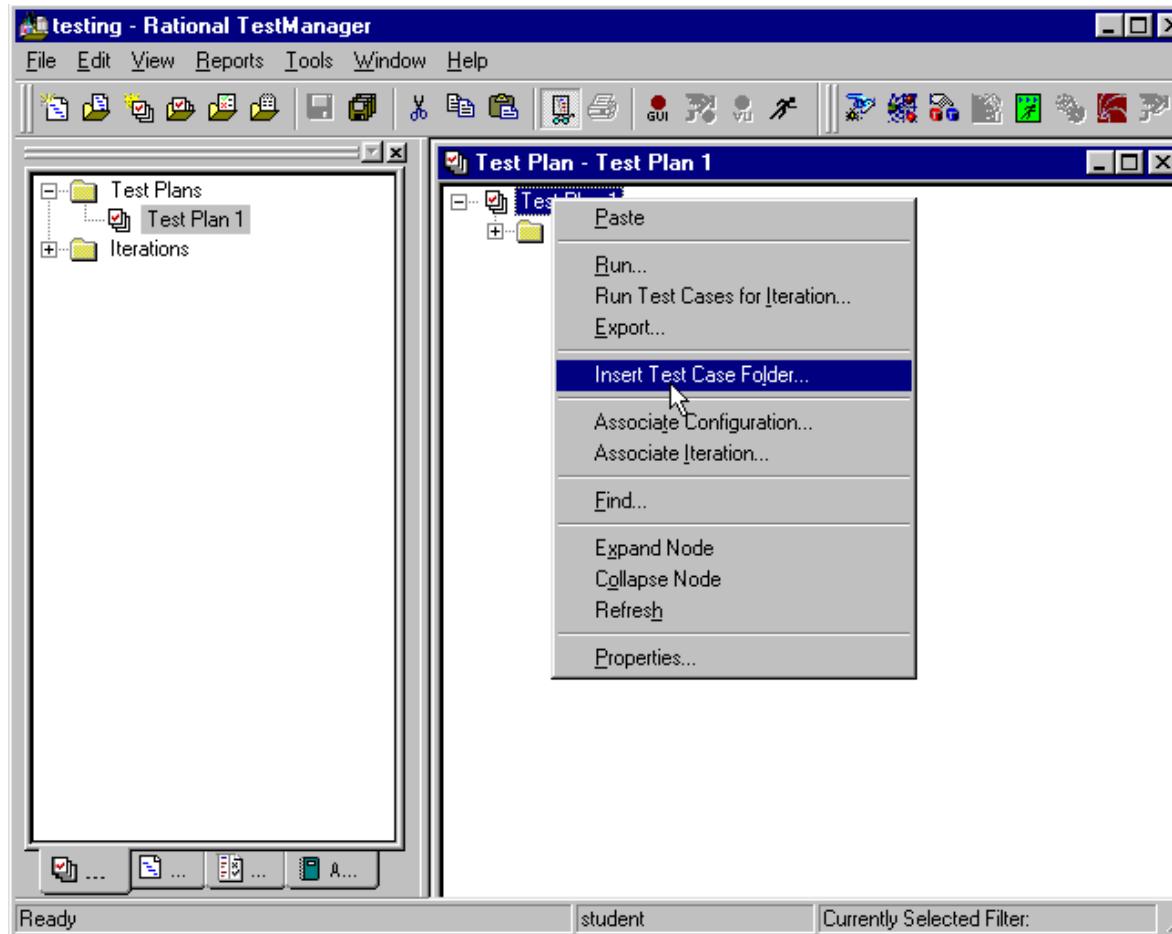
Description:
[Empty text area]

Owner:
student

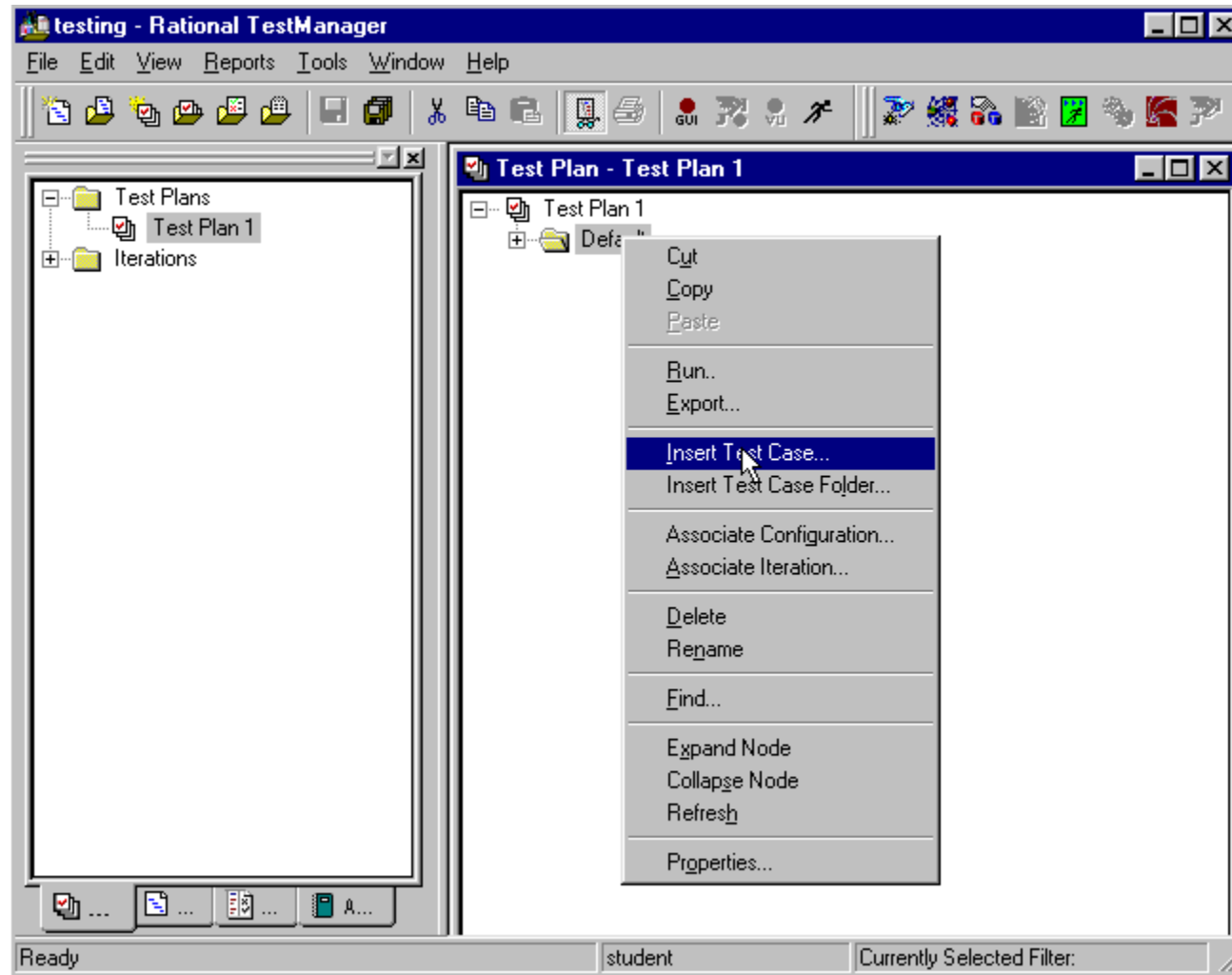
OK Cancel Help

Rational Test Manager (cont.)

- We then include a test folder within the test plan and insert test case folder and within it the test cases.



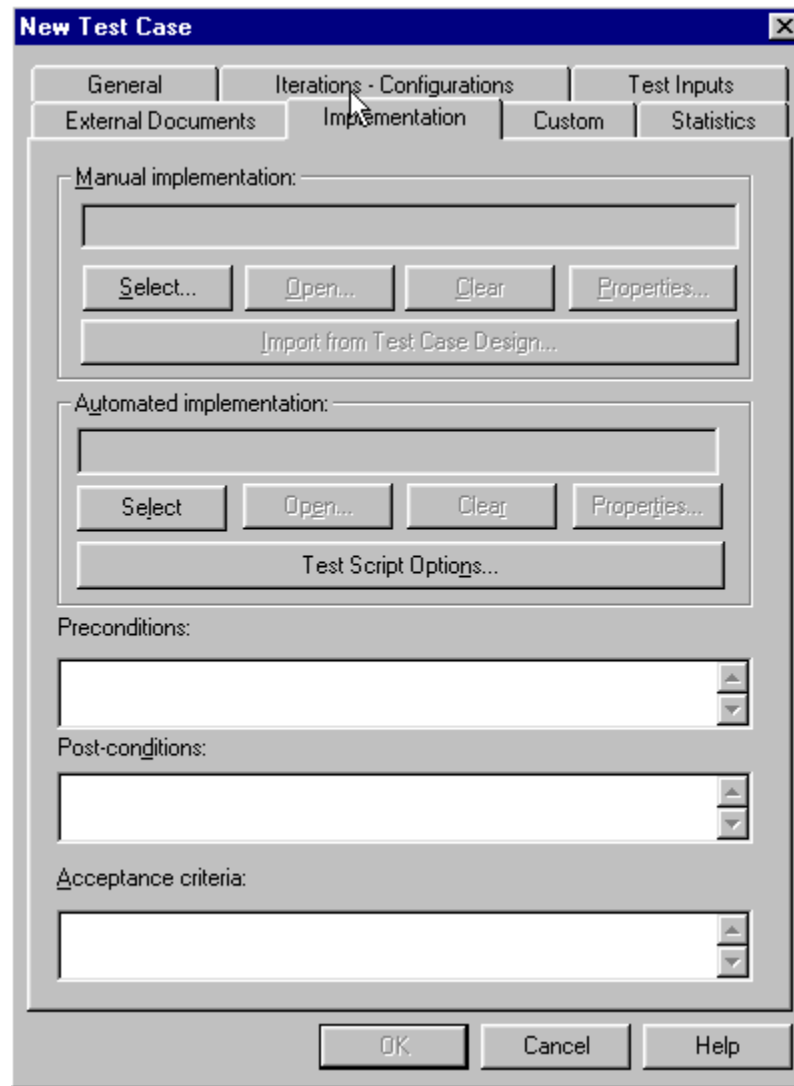
Rational Test Manager (cont.)



Rational Test Manager (cont.)

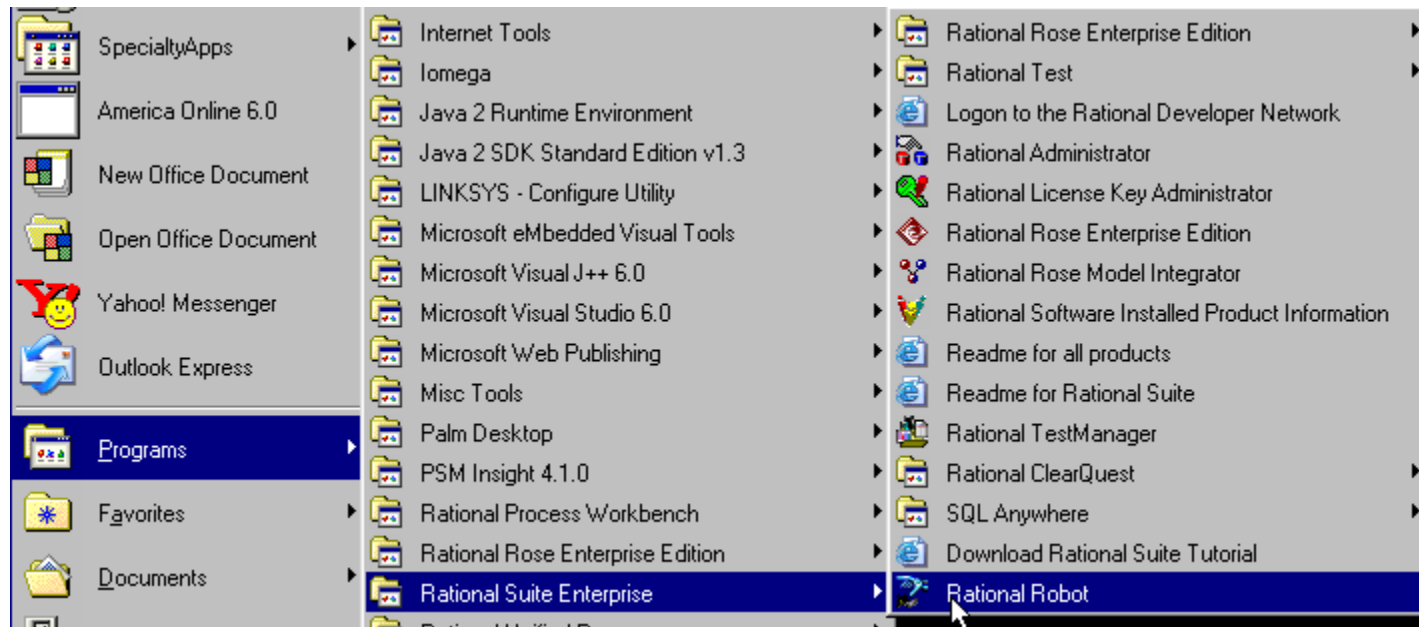
- Here we can name the test case and enter its properties.
- We can determine whether it is a manual test or an automated test. We can identify the pre-conditions, post – conditions and the acceptance criteria along with other properties.

Rational Test Manager (cont.)



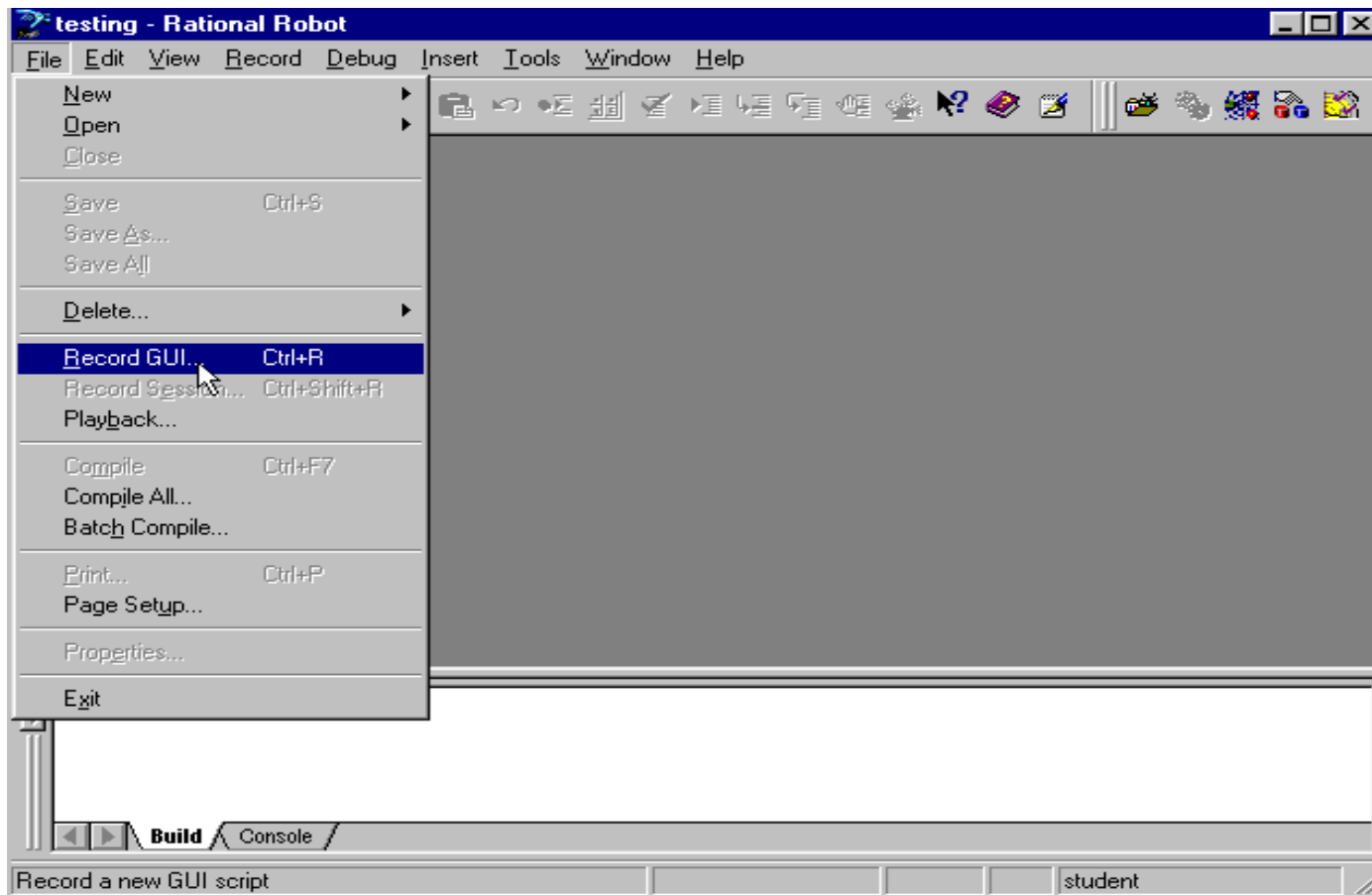
Rational Robot

This helps in building and executing automated test scripts. You can launch it from the TestManager or from the windows program menu under Rational Suite Enterprise.



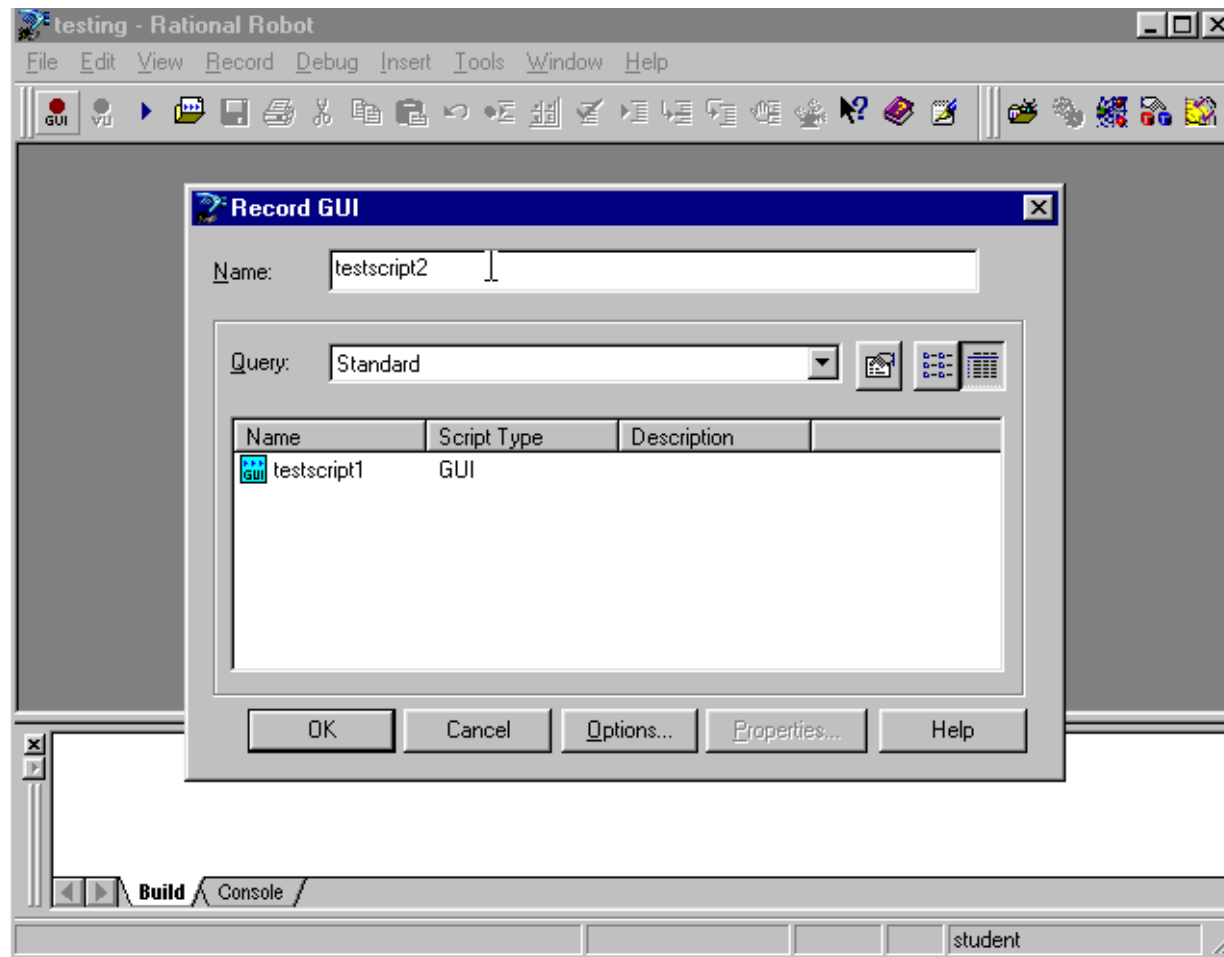
Rational Robot (cont.)

- One can create an automated script by recording the key-strokes while navigating the application to be tested.



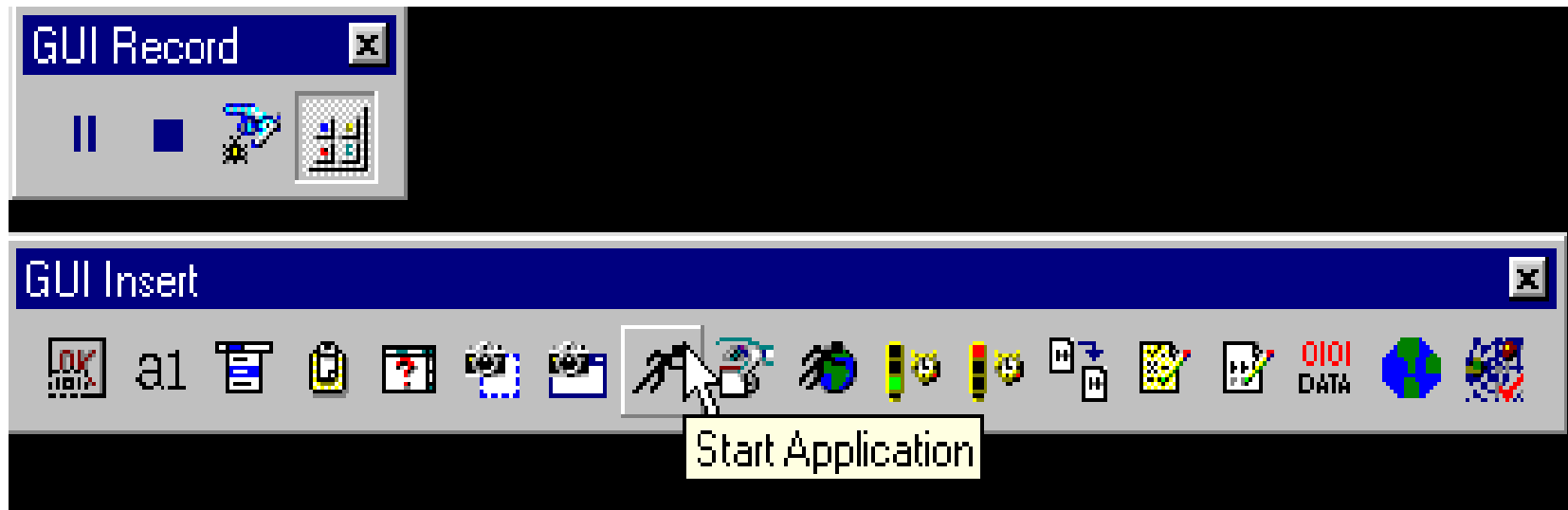
Rational Robot (cont.)

- Name the script and click Ok. You are now ready to record the script.



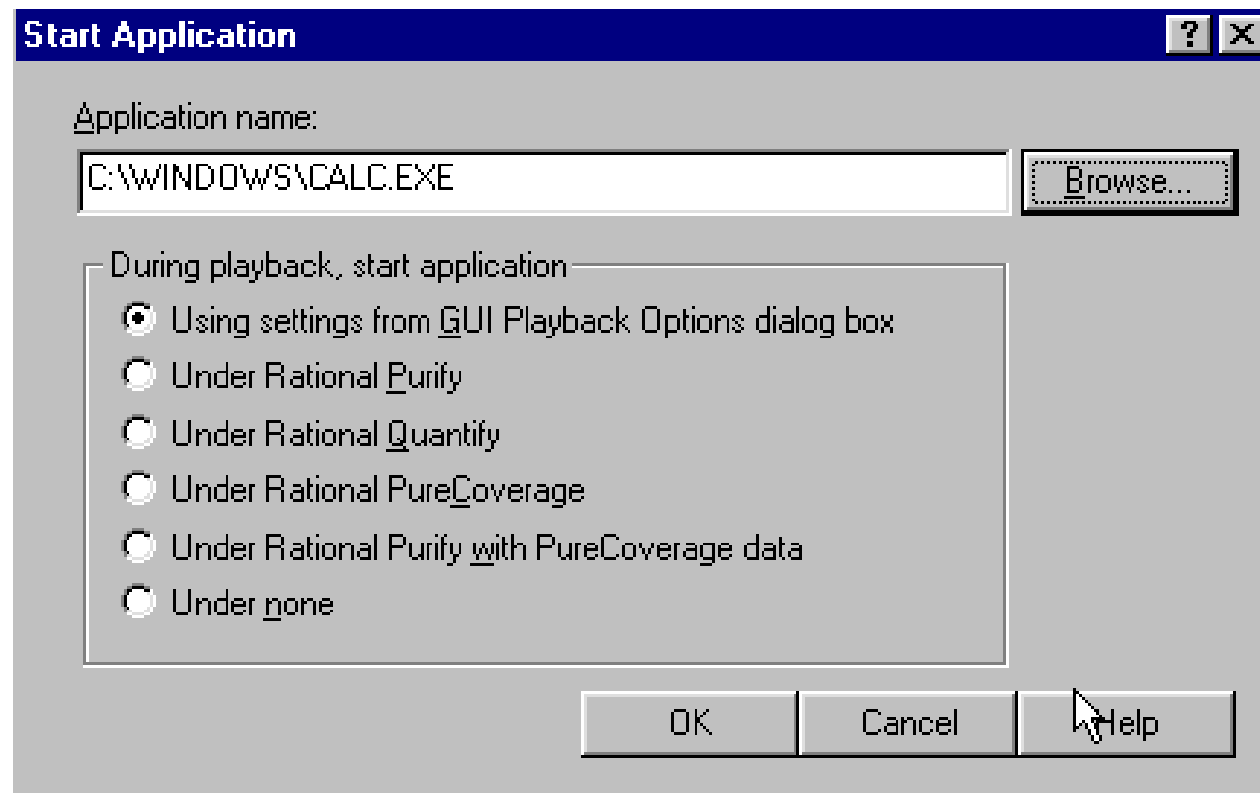
Rational Robot (cont.)

- Name the script and click Ok. You are now ready to record the script. This will launch the recorder. You can select the application you want as shown below.



Rational Robot (cont.)

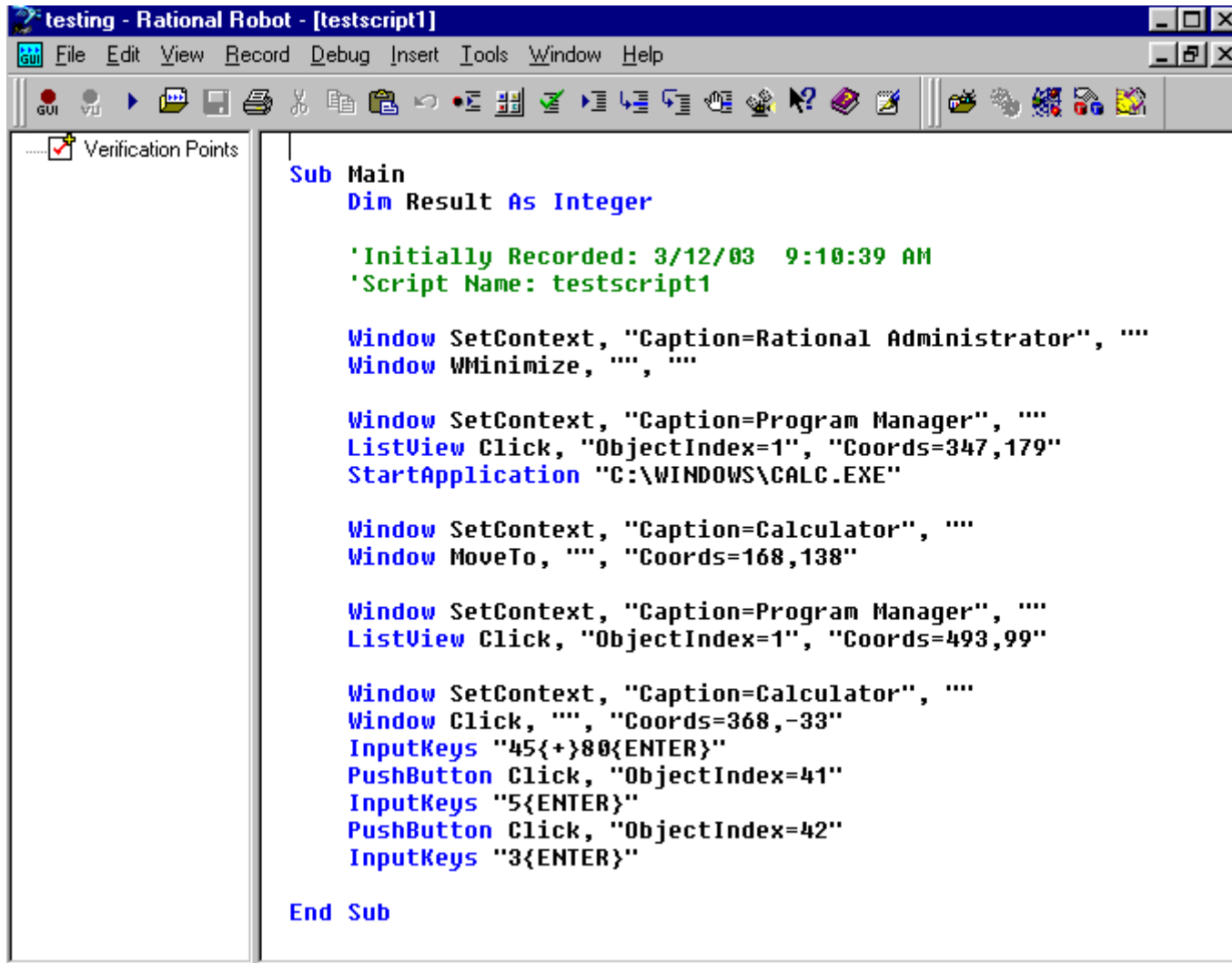
- Choosing the calculator application we can capture the key-strokes of our entries and then playback the same key strokes using Robot.



Rational Robot (cont.)

- The script gets automatically generated as we navigate through the application and at the end of it click “stop” to end recording.
- We have used the calculator application for demonstration and here is the script generated by the Robot.

Rational Robot (cont.)



```

testing - Rational Robot - [testscript1]
File Edit View Record Debug Insert Tools Window Help

Sub Main
  Dim Result As Integer

  'Initially Recorded: 3/12/03 9:10:39 AM
  'Script Name: testscript1

  Window SetContext, "Caption=Rational Administrator", ""
  Window WMinimize, "", ""

  Window SetContext, "Caption=Program Manager", ""
  ListView Click, "ObjectIndex=1", "Coords=347,179"
  StartApplication "C:\WINDOWS\CALC.EXE"

  Window SetContext, "Caption=Calculator", ""
  Window MoveTo, "", "Coords=168,138"

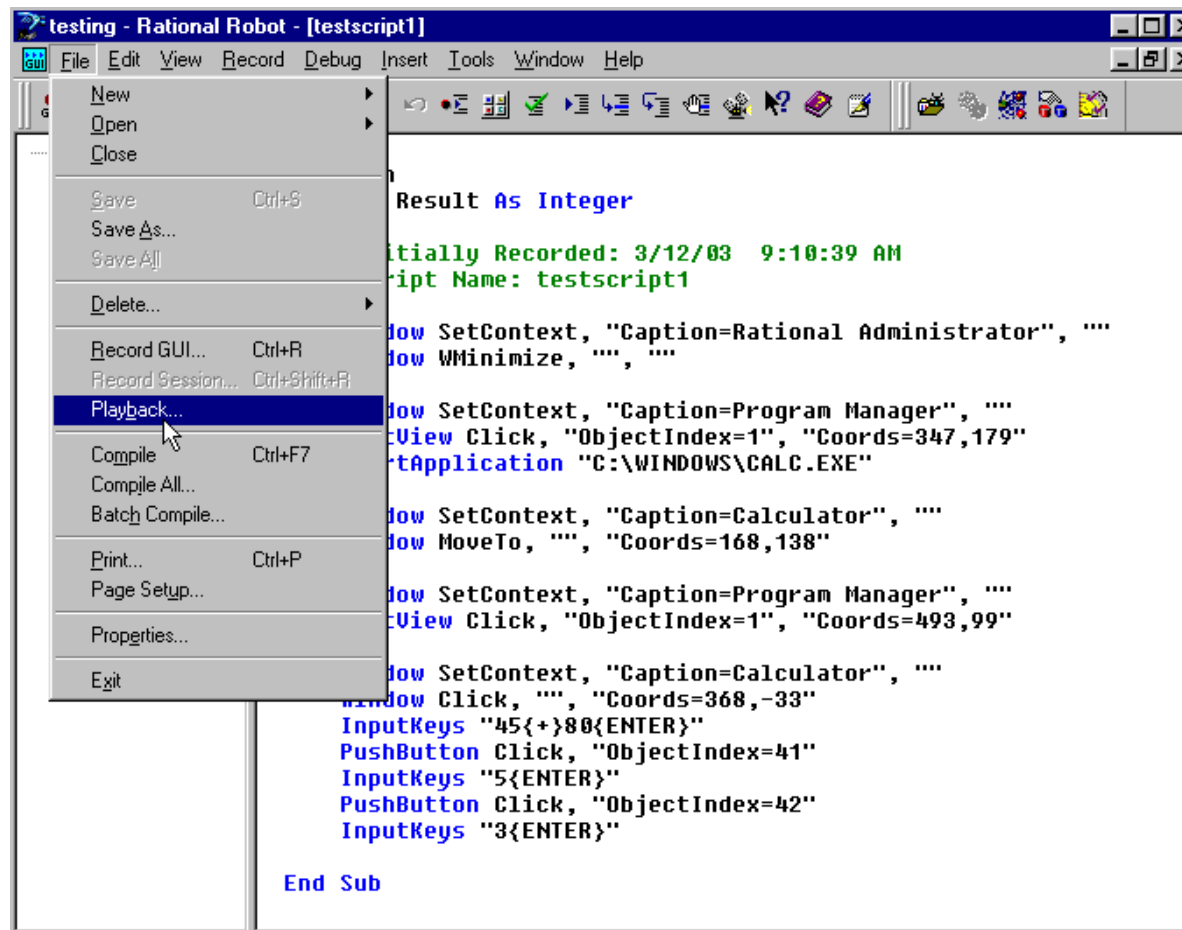
  Window SetContext, "Caption=Program Manager", ""
  ListView Click, "ObjectIndex=1", "Coords=493,99"

  Window SetContext, "Caption=Calculator", ""
  Window Click, "", "Coords=368,-33"
  InputKeys "45{+}80{ENTER}"
  PushButton Click, "ObjectIndex=41"
  InputKeys "5{ENTER}"
  PushButton Click, "ObjectIndex=42"
  InputKeys "3{ENTER}"

End Sub
  
```

Rational Robot (cont.)

- We can then playback this script by choosing the playback option and selecting the script





Gnu Anomaly Tracking System (gnats)

From Free Software Foundation

- GNU stands for “Gnot another Unix”

Used by CSE for it’s tools

Will be set up for 2002-2003 577 projects

All links below done via

http://sunset.usc.edu/available_tools/gnats/



CSE Problem Report System - All Projects

Choose from among the following supported tools/projects

CSE supported tools

- [COCOMO II](#)
- [CodeCount](#)
- [Easy WinWin](#)
- [USC WinWin](#)
- [CSE Problem Reports Management System \(PRMS\)](#)

CSCI 577 Projects of 2001 - 2002

- [Project 1: Dental Library New Booklist](#)
- [Project 6: ISD Interactive Web Based Contract Management System](#)
- [Project 7: Velero Station Data for the Web II- Map Enhancement](#)
- [Project 8: USC Collaborative Services](#)
- [Project 9: Student/Staff Directories](#)
- [Project 11: Collaborative Project Management Tools](#)
- [Project 15: Strategic Risk-Value Assessment Tool](#)
- [Project 19: Opportunity Tree Experience Base](#)
- [Project 20: 577 MBASE in BORE](#)
- [Project 21: Quality Management Assistant](#)

CSCI 577 Projects of 2000 - 2001

- [Station Data Project \(SDP\) for the web](#)
- [Pathology Image Search Engine \(PISE\)](#)
- [Photocopied Table-of-Contents Faculty Current Awareness Service \(FAS\)](#)
- [Fulltext Titles Database \(FTD\)](#)
- [Access and Display of Slide Library Images \(ADSLI\)](#)
- [Web Mail \(WMAIL\)](#)
- [CSE Affiliate Private Area Portal \(PAP\) and Tech Reports System](#)

CSCI 577 Projects of 1998 - 1999

- [Dissertation Records Updating System \(DRUS\)](#)
- [Hispanic Digital Archive \(HDA\)](#)
- [Qualcomm Dinner Reservation System \(QDRS\)](#)
- [Streamline Unicom Report Generator \(SURG\)](#)
- [Voice Meta Data \(VMD\)](#)
- [World War I \(WWI\) - Access Enhancement](#)

gnats (cont.)

Address



http://sunset.usc.edu/cgi-bin/csegnats.pl/COCOMO



Links

CSE Tools User Communication System - USC COCOMO

This is the start page for User Communication on USC COCOMO.

Choose an operations from the list below

- [Submit Problem Reports](#)
 - [Locate and View Problem Reports](#)
 - [Manage Problem Reports](#)
-

gnats (cont.)

Report problems - USC COCOMO

Please provide [details](#) of the problem.

Submitter's Name *

 Organization

Email *

 Other organization (*)

if Organization is Other

Class

Release

Severity

Synopsis *

Description *


Additional Information *

Make sure all fields marked * are entered correctly!

[Facing problems? Got Suggestions?](#)

Instructions for completing the problem report.

Name: Provide your complete name for tracking the source of this problem report
Email: Provide your Email address for contact regarding this problem report
Class: Choose a category to which you think this problem belongs
Organization: We also need the name of the organization to which you belong. If your organization is not listed above, choose Other and provide the name of your organization below. If you are an Affiliate, provide us your name in the Other input area
Release: Identify the version you are facing a problem with.
Severity: Choose the severity of the problem you are facing.
Synopsis: Describe your problem very briefly here.
Description: Describe the details of your problem including the likely location of the problem.
Additional Information: In case of a software problem, please provide information on repeating the problem. Provide any workaround you might have used to overcome the problem.

Address  http://sunset.usc.edu/cgi-bin/csegnats.pl/COCOMO/su

Report problem

Please provide [details](#) of the problem.

Submitter's Name *

Email *

Class

SubmitPR

s - USC COCOMO

Organization

Other organization (*)

if Organization is Other

Other

Other

Affiliates

Center for Software Engineering

gnats (cont.)

More “Submit Problem Reports” for COCOMO options

Report problems - USC COCOMO

Please provide details of the problem.

Submitter's
Name
*

Organization

Other

Email *

Other organization (*)
if Organization is
Other

Class

software-bug

Release

software-bug
documentation-bug

Severity

support
change-request

Synopsis *

mistaken
duplicate



gnats (cont.)

More “Submit Problem Reports” for COCOMO options

Report problems - USC COCOMO

Please provide details of the problem.

Submitter's

Name

*

Organization

Email *

Other organization (*)

if Organization is
Other

Class

Release

Severity

USC COCOMO.II.1998
USC COCOMO.II.1999

gnats (cont.)

More “Submit Problem Reports” for COCOMO options Report problems - USC COCOMO

Please provide [details](#) of the problem.

[Submitter's Name](#) *

[Organization](#)

[Email](#) *

[Other organization \(*\)](#)
if Organization is
Other

[Class](#)

[Release](#)

[Severity](#)

[Synopsis](#) *

Critical	<input type="text"/>
Serious	
Non-critical	



gnats (cont.)

Submit a Problem Report

Report problems - USC COCOMO

Please provide details of the problem.

Submitter's

Name

awbrown

Organization

Other

*

Email *

awbrown@jps.net

Other organization

(*) if Organization is Other

FCS

Class

support

Release

USC.COCOMO.II.1998

Severity

Serious

Synopsis *

Where does one report problems with COCOMO.II 2000?

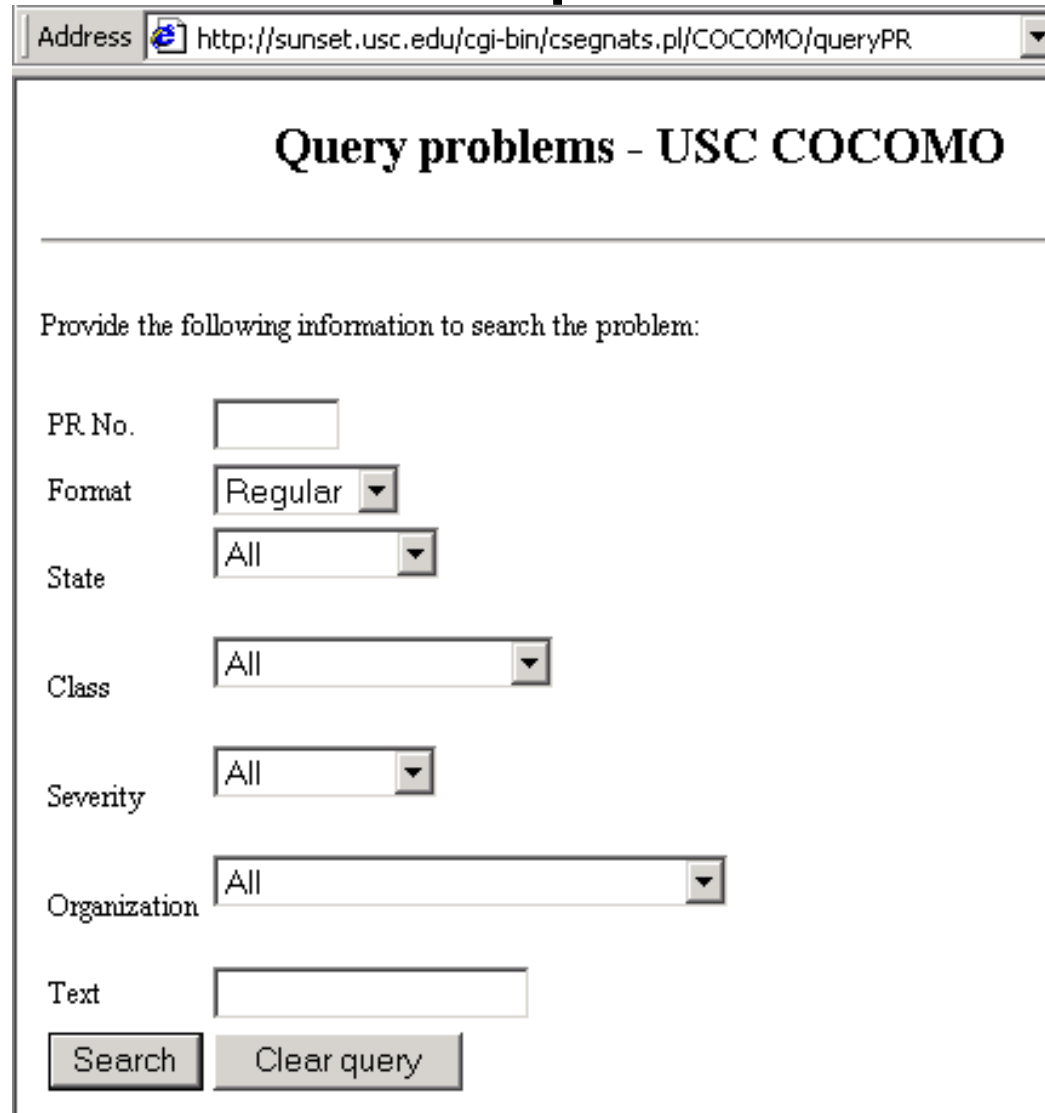
Description

*

The release pulldown menu does not offer COCOMOII.2000 as an option.




gnats (cont.)

Locate and View Problem Reports

A screenshot of a web browser window showing the 'Query problems - USC COCOMO' interface. The browser's address bar contains the URL 'http://sunset.usc.edu/cgi-bin/csegnats.pl/COCOMO/queryPR'. The page title is 'Query problems - USC COCOMO'. Below the title, there is a horizontal line and a prompt: 'Provide the following information to search the problem:'. The form includes several input fields: 'PR No.' (text box), 'Format' (dropdown menu with 'Regular' selected), 'State' (dropdown menu with 'All' selected), 'Class' (dropdown menu with 'All' selected), 'Severity' (dropdown menu with 'All' selected), 'Organization' (dropdown menu with 'All' selected), and 'Text' (text box). At the bottom of the form are two buttons: 'Search' and 'Clear query'.

gnats (cont.)

Locate and View Problem Reports – Default query result

Address  <http://sunset.usc.edu/cgi-bin/csegnats.pl/COCOMO/handleQuery>  

Query problems - USC COCOMO

The Problem reports matching your query are:

PR Number	Category	State	Synopsis
93	COCOMO	open	Counting IF and FOR statement without block structure doesn't work.
94	COCOMO	open	COCOMO Project name window problem
95	COCOMO	open	COCOMO Calibration Window , not enough space for each project name to be seen clearly, same as in the main screen of COCOMO
96	COCOMO	open	Incorrect Calculation of SLOC in Cobol Data Divison
97	COCOMO	open	invalid code count
100	COCOMO	open	[CODE_COUNT-JAVA] Lines containing only closing curly brackets counted in "Executable Instructions"



gnats (cont.)

Locate and View Problem Reports – Selected “94” Full text of PR number 94:

```
From problems-q-request Tue Sep 18 17:42:32 2001
Received: (from nobody@localhost)
    by sunset.usc.edu (8.9.3.1/8.9.3/usc)
    id RAA11326; Tue, 18 Sep 2001 17:42:31 -0700 (PDT)
Message-Id: <200109190042.RAA11326@sunset.usc.edu>
Date: Tue Sep 18 17:42:31 PDT 2001
```

```
From: "Hiral Shah" <hms@usc.edu>
Reply-To: hms@usc.edu
To: cse-gnats
Subject: COCOMO Porject name window problem
X-Send-Pr-Version: 3.107
```

```
>Number:          94
>Category:        COCOMO
>Synopsis:        COCOMO Porject name window problem
>Confidential:    no
>Severity:        Serious
>Priority:         medium
>Responsible:     jongmoon
>State:           open
>Class:           software-bug
```



gnats (cont.)

Locate and View Problem Reports – Selected “94” (cont.)

```
Address http://sunset.usc.edu/cgi-bin/csegnats.pl/COCOMO/fullPR/94 Go Links
```

```
>Submitter-Id:    CSE
>Arrival-Date:   Tue Sep 18 17:50:01 PDT 2001
>Closed-Date:
>Last-Modified:
>Originator:    Hiral Shah
>Release:       USC COCOMO.II.1998
>Organization:  Center for Software Engineering
>Environment:
>Description:
The window for the project name in COCOMO is very small.& One cannot scroll the window..SC
>How-To-Repeat:
This problem exists in version COCOMOII 2000
>Fix:
>Release-Note:
>Audit-Trail:
>Unformatted:
```



gnats (cont.)

Manage Problem Reports

Address http://sunset.usc.edu/cgi-bin/csegnats.pl/COCOMO/login

Login to Report Management - USC COCOMO

Please login to manage the reports:

Name

Password(4-digit)