Try it!
For Performance Testing
of SAP Applications

Welcome to Rational TestManager SAP

If you use SAP R/3 applications, you need Rational TestManager, a component of Rational Suite TestStudio— the easy-to-use, automated performance testing solution for client/server, Web, and ERP applications. Rational TestManager lets you plan, develop, and execute performance tests against your SAP R/3 application, regardless of your R/3 hardware platform or database server type.

As you use these testing tips on your SAP application, you will quickly discover how easy it is to plan and run tests using TestManager.

To find out more about TestManager, see *Using Rational TestManager*, as well as the other TestStudio and TestManager documentation and online Help.

Create a Project and Log In

Before you begin testing your SAP application, create a *project*. A project contains all of the information about your testing effort, including test plans, test cases, requirements, test scripts, logs, defects, queries, and reports.
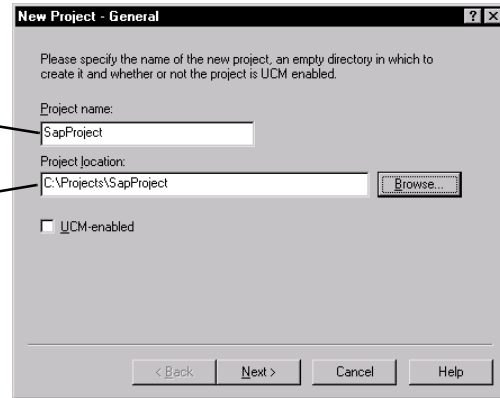
Try this:

1 Install Rational Robot according to the instructions in the *Installing Rational Testing Products* manual*.*

2 Click **Start > Programs >** *Rational product-name* **> Rational Administrator.**

3 Click **File > New Project.**
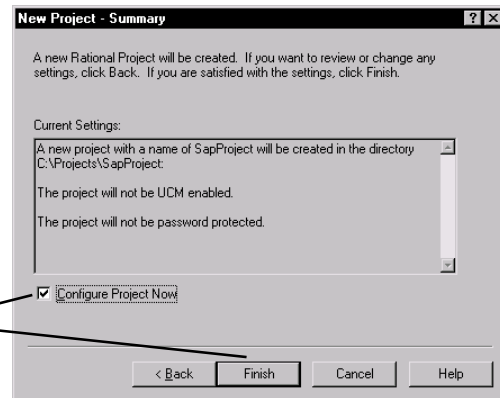
Type **SapProject** for the name of the project.

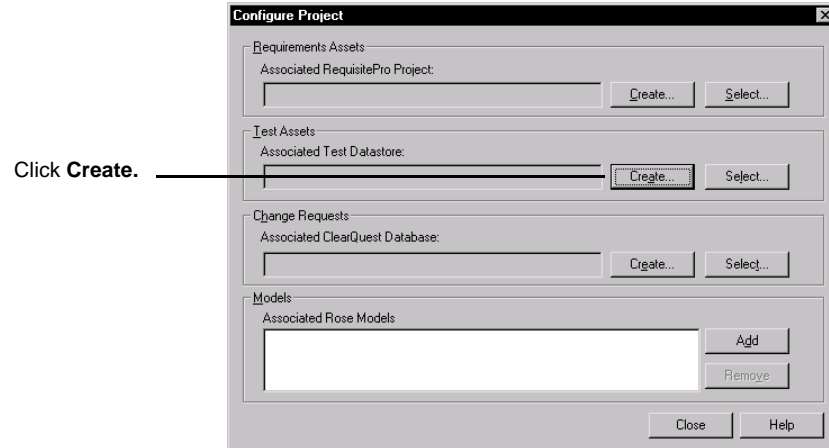Type **C:\Projects\SapProject** as the location of the project.

> **New Project - General**
>
> Please specify the name of the new project, an empty directory in which to create it and whether or not the project is UCM enabled.
>
> Project name:
>
> SapProject
>
> Project location:
>
> C:\Projects\SapProject   Browse...
>
> ☐ UCM-enabled
>
> < Back   Next >   Cancel   Help

Note: You do not need to make the project UNC-enabled.

4 Click **Next** until you see New Project - Summary.

Make sure that the **Configure Project Now** box is selected, and then click **Finish**.

> **New Project - Summary**
>
> A new Rational Project will be created. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Finish.
>
> Current Settings:
>
> A new project with a name of SapProject will be created in the directory C:\Projects\SapProject.
>
> The project will not be UCM enabled.
>
> The project will not be password protected.
>
> ☑ Configure Project Now
>
> < Back   Finish   Cancel   Help

5 At the Configure Project dialog box, click **Create** in the Test Assets section.

Click **Create.** ——————

| Configure Project | ✕ |

Requirements Assets
Associated RequisitePro Project:
[   ]   Create...   Select...

Test Assets
Associated Test Datastore:
[   ]   Create...   Select...

Change Requests
Associated ClearQuest Database:
[   ]   Create...   Select...

Models
Associated Rose Models
[   ]   Add
                                             Remove

Close   Help

6 Verify the location of the datastore in the directory of the current project.

The default location of the datastore directory is within the current project directory. ——————

| Create Test Datastore | ✕ |

New Test Datastore Path
[C:\Projects\SapProject\TestDatastore]   Browse...

Initialization Options
☐ Initialize Assets from the following Test Datastore:
[   ]   Browse...

☐ Initialize Test Users and Groups from the Rational Project:
[▼]   Browse...

Click **OK**. ——————   OK   Cancel   Help
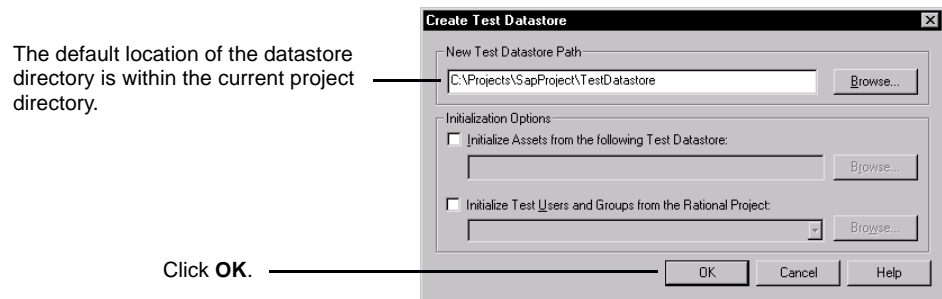
Rational Administrator displays some status messages, and then tells you that it created the Test Datastore successfully.

| Rational Administrator | ✕ |

ⓘ The Test Datastore has been successfully created.

Click **OK**. ——————   OK
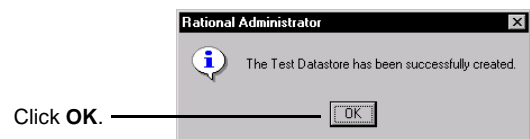
7 Click **Close** at the Configure Project dialog box.

Determine the SAP Host Name and System Number

Before you test your SAP application, you also need to determine your host name and system number. Follow the steps on this page to make a copy of the host name. Ask your system administrator for the system number.
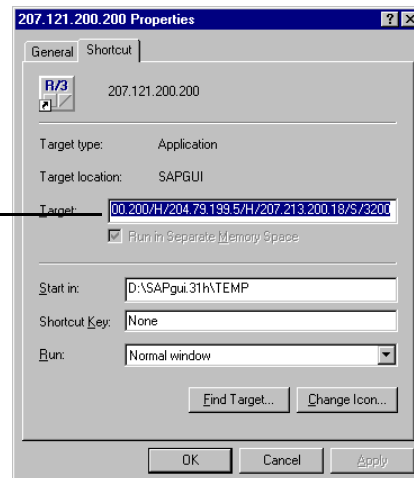
Try this:

1   Right click the SAPGUI icon for your application, and then click **Properties**.
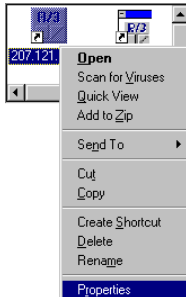
2   In the Properties dialog box, click the **Shortcut** tab**.**

3   Copy the host name by highlighting it and pressing **CTRL+C.**

The host name is a series of one or more computer names and/or IP addresses delimited by slashes and uppercase letters, often with a trailing port number.

You need the exact host name to connect to the application in the next set of steps.

Capture a VU Test Script

When you use Rational TestManager to test the performance of your application, you record a test script that emulates an actual user working with the SAP application. The test script, called a *VU test script*, captures the requests and responses that occur between the client application and the database server.

For more information about creating VU test scripts, see the *Using Rational TestManager* manual and the online Help. For information about the VU scripting language, see the *VU Language Reference* and the corresponding online Help.

Try this:

1 Click **Start > Programs >** *Rational product-name* **> Rational Test> ERP> Rational ERP VU** to display two dialog boxes**.**

Before you record a test script, name it to create a placeholder for it. Then save it in your project.
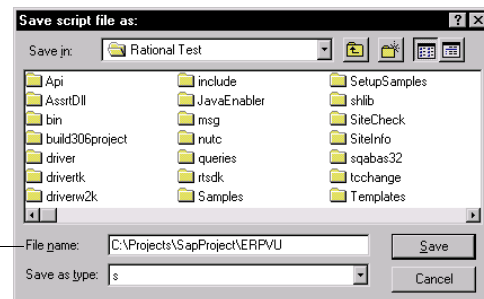
2 In the File name box, do not accept the default path. Instead, type the following path: **C:\Projects\SapProject\TestDatastore\DefaultTestScript\Datastore\TMS.Scripts \ERPVU.s** where **SapProject** is the project that you created, and **ERPVU** is the name of the test script you to record.

3 Click **Save.**

4 In the Host name box, paste the host name that you just copied by pressing **CTRL+V**, enter the system number, and then click **Connect**.

If the program path is part of the host name, delete the path to the SAPG01 executable.

Press **CTRL+V**.
Enter the system number.
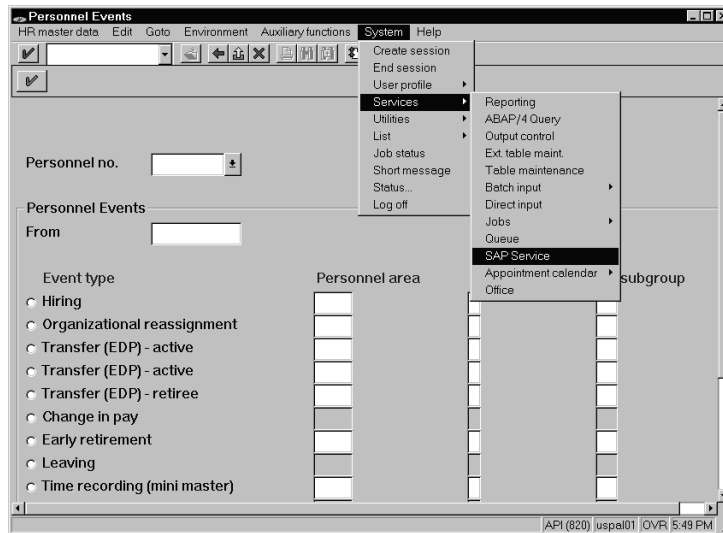
Click **Connect.**
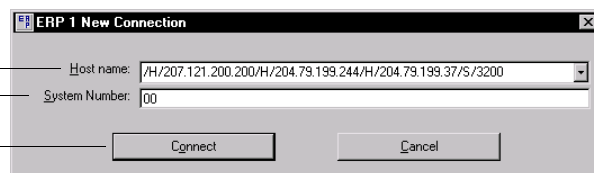
5 Log in.
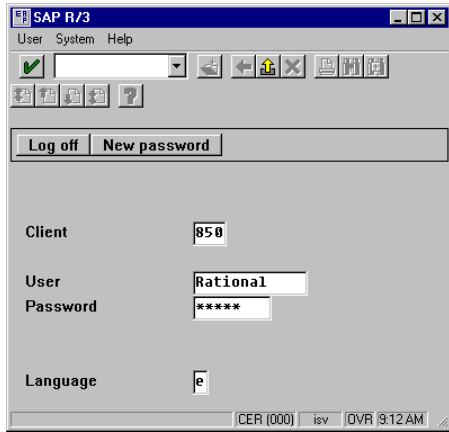
6 Navigate through the application. Rational ERP vu records all actions against the user interface.

Note: The interface of your SAP application may differ from the screen shots displayed here.

Note: To record VU test scripts other than SAP VU test scripts, use Rational Robot.

Enter keystrokes and transactions that reflect what your users do.

7 Turn **Exception Handling** on if an unexpected, unwanted window appears during recording. You can turn it on in two ways:

   a Click Yes if a dialog box appears that says, "**An error or a warning condition was detected. Do you want to activate exception handling mode?**"

   b Or click this icon:

8 Click the icon to turn **Exception Handling** off after you dismiss the unexpected window.

Turning on Exception Handling inserts an 'if' statement in the VU test script to indicate the code for the unwanted window. If the unwanted window doesn't appear during playback, playback will still succeed.

9 After you finish recording the test script, log off from **Rational ERP vu.**

Build a TestManager Suite

A TestManager *suite* represents the workload that you want to apply to your application. A suite contains one or more user groups to emulate the types of people who use your application, as well as the number of users in each group. The suite also contains test scripts that emulate the activities that the users perform.
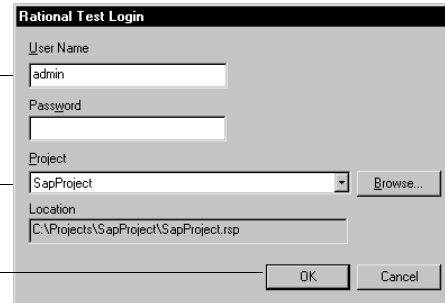
Try this:

1   Start > Programs > *Rational product-name* > Rational TestManager.

Accept admin as the
User Name and do
not enter a password.

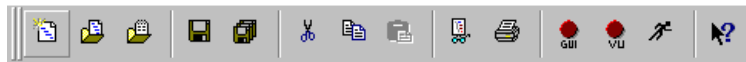Select the project you
created — SapProject.

Click **OK** to log in.
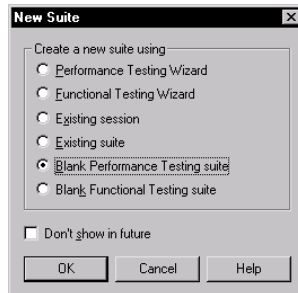
2   On the TestManager toolbar, click New Suite.

Click **New Suite**.

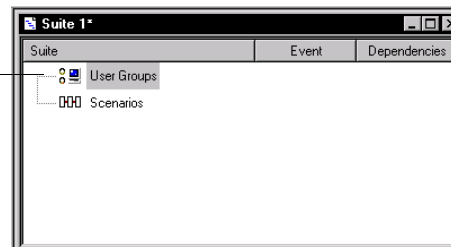**3   Select Blank Performance Testing suite, and then click OK to continue.**

4   Right-click User Groups, and then click Insert > User Group.

A user group represents one type of
person who will use the application.

5 Accept **User Group1** as the name and **1** as the number of users, and then click **OK**.

Start with one user to test the suite and add more users to add a workload to the application.

6 Right-click **User Group1:1user(s),** and then click **Insert > Test Script.**

ERPVU was the test script that you saved and created a placeholder for before you started to record.

7 Select **VU- (Rational Test Datastore)** as the **Test script source**.

8 Type **ERPVU** for the test script name, and click **OK.**

9 Click **Yes** when TestManager asks if you want to create the script.

10 Click **File > Save As,** accept the default suite name, and then click **OK.**

Play Back the Test Script

Before running the test with the full user load, make sure that one virtual tester completes the test correctly and successfully. As the suite runs, TestManager provides numerous views so you can watch the progress of the test

Try this:

1 From TestManager, click **File > Run Suite,** accept Suite1 as the suite name, and then click **OK.**

2 After the suite starts to run, click **Monitor > Script**. TestManager displays the individual test script commands as they execute.

3 After the suite finishes running, click **File > Exit** to close TestManager.

What's Next

You have just recorded an SAP R/3 session and played it back with one virtual tester. You can record test scripts with different types of virtual testers. Or you can increase the number of testers for each group and build them into suites to form a real-life performance test.

The value of suites becomes even more apparent when you scale up the number of virtual testers in your test — to hundreds or thousands of virtual testers — by increasing the number of testers in a suite. This lets you identify system performance errors and bottlenecks before you deploy your application.

For detailed playback instructions and more information about suites, see the *Using Rational TestManager* manual and the online Help.