



Enterprise Tester Version 4.X Upgrade Guide

Introduction

Version 4.0 introduces a number of changes which will affect existing customers upgrading from previous versions of Enterprise Tester, in summary:

- The existing search engine has been removed, and replaced with a new search engine which includes support for a powerful Testing Query Language (TQL).
- Search queries can now be saved.
- Search functionality now drives new graph portlets for the dashboard and all the requirement, script and execution package grids.
- Searching can no longer be disabled.
- Search Indexes will now be stored in the Data folder of your installation directory.
- The introduction of a new server-key generation method will ensure the server key does not change when network hardware (MAC) addresses change i.e. in Virtualized environments.

Notes for Upgrading -Please Read Before Upgrading

Enterprise Tester version 4.0 represents a large change in some fundamental parts of Enterprise Tester, we strongly advise that all customers:

- Backup your Database.
- Take a full copy of your installation folder prior to upgrading.
- Upgrade your test server prior to upgrading your production machine.
- Ensure a larger than normal production outage window is scheduled for production upgrades*. This will accommodate the time taken to re-index the database after upgrade.
- IE6 is no longer supported and IE7 will not be supported following the next release of ET. If you intend on using either of these browsers following this upgrade we recommend that you test the client-side performance of ET in a test environment prior to upgrading production. Some of the recent changes have impacted performance in these obsolete browsers - please see Appendix A of this guide for more details.

* The outage time you schedule will depend on the size of your database. The re-indexing process has been performance tuned and can range anywhere from 1 minute to 60 minutes. As an example, during testing of this feature a database with 100,000 entities took 30 minutes to re-index.

Upgrade Steps

First of all, install from the v4.0 MSI file or Zip installer as you would with previous versions. Once installed there are 5 steps you should work through:

1. Changing the indexes folder location [Optional]

By default the location of the Indexes folder will default to the "Data" folder of your installation. The indexes folder can grow up to 1 gigabyte in size, so if you don't have a lot of space free on your installation drive, or prefer to store data in a different location, you will need to update the web.config file to specify this location.

To change the location, locate the <appSettings>...</appSettings> section in the web.config file and add a new value "search.indexes.path" on the line after <appSettings> like so:

```
<appSettings>
  <add key="search.indexes.path" value="c:\savemy\indexes\" />
```

The "value" section of this entry needs to contain the absolute path of the folder where you want to have the indexes stored.

2. Setting permissions on the indexes folder

Enterprise Tester needs access to write to the indexes folder, so you will need to ensure that the Identity associated with the application pool in IIS which Enterprise Tester uses, has "Full Control" to the "indexes" folder. The application pool would normally be DefaultAppPool.

To verify what identify Enterprise Tester is using, follow these steps:

1. Go to Start -> Control Panel -> Administrative Tools -> Internet Information Services (IIS) Manager
2. Expand the server node in the left hand side tree
3. Click on "Application Pools"
4. Right click on "DefaultAppPool" and select "Advanced Settings..."
5. Locate the "Process Model" section and read the value for "Identity".

This account will require full control access to the "Indexes" folder, to set these permissions:

1. In windows explorer, navigate to the "Indexes" folder, right click and select properties.
2. When the properties dialog appears, switch to the "Security" tab.
3. On the security tab click the "Edit" button.
4. Click the "Add.." button.
5. Select the account as identified in the previous step.
6. Click the checkbox for "Full Control".
7. Click OK and then OK again to apply the changes.

3. Removing the old indexes

The old index files were stored in the \Web\App_data\Index\ folder of your installation, you can now safely remove these files when upgrading to Version 4.0, to free up disk space and keep your installation tidy.

If you have not backed up the indexes prior to the upgrade, please do not delete them until you are satisfied that the upgrade to version 4.0 has been completed successfully.

4. Removing old information from your web.config file

With the upgrade to Version 4.0 or later, the following web.config entries are no longer applicable. Leaving them intact will not stop Enterprise Tester from working, but it is good house-keeping practice to remove these old options from the configuration to avoid confusion in the future.

Values to remove:

```
<add key="search.index.disable" value="..." />
<add key="versionControl.changeTracking.disable" value="..." />
```

```
<add key="hibernate.search.default.directory_provider"
value="NHibernate.Search.Store.FSDirectoryProvider, NHibernate.Search" />
<add key="hibernate.search.default.indexBase" value="~/App_Data/Index" />
```

5. Re-indexing

Access Enterprise Tester in your web browser when you have completed the above steps. After a small pause, while the necessary database migrations are applied, you will be taken to the login screen.

Login as an Administrator and you will then be immediately redirected to the Indexes administration page, at this point:

- Check the Index directory is correct i.e default directory or configured as required
- If the Index directory is not correct, edit the web.config file and then restart Enterprise Tester, then continue with these steps.
- If the Index directory is OK, Click the “Reindex Now” button.
- The re-index dialog will appear.
- From the Project drop down select “—All Projects —”.
- Click the button “Optimize”.
- Click “OK”.
- A progress dialog will appear.

Re-indexing can take anywhere from 5 to 60 minutes depending on many factors including database performance, IO performance of the disk where the Enterprise Tester indexes are being stored (a slow SAN/NAS based disk can impact on indexing and search performance) and the number of records and relationships stored in Enterprise Tester.

When the re-index completes, the indexing window should refresh and the value “Requires Index” value should be “No”.

Users can still log in while the index is underway, but results in searches, grids and graphs will be inconsistent until the re-indexing process has completed. To avoid issues we recommend scheduling an outage window and ensuring that users do not log into Enterprise Tester until the re-index is complete.

Appendix A - Browser Performance

In Enterprise Tester version 4.0 two new features have been introduced into the client side that are likely to negatively impact on users of IE7. These features are the new filtering and grid functionality, and the new graph dashboard portlets.

The impacts include:

- Unresponsive or sluggish behaviour when moving around Enterprise Tester.
- Rendering issues with some graphs, or very slow rendering performance in graphs when performing animations.
- Excessive memory and CPU usage in Internet Explorer.

We do still support IE7 as a browser, but have announced the end of support for it by the next release of Enterprise Tester. Due to the rich client-side functionality and features delivered in Enterprise Tester, a modern browser is required to make the application work to an acceptable level.

Internet Explorer 7 is based on 6 year old technology and was not built with Rich Internet Applications (RIA) such as Enterprise Tester in mind. If at all possible we recommend customers shift to one of the following browsers, which we have ranked in order of best performing for Enterprise Tester:

- Chrome
- Safari
- Firefox
- Internet Explorer 9
- Internet Explorer 8

If you cannot avoid using IE7 we have enabled support for chrome frame in Enterprise Tester version 4.0. Chrome frame is a plugin for Internet Explorer 6 and above which allows rendering of pages using the chrome engine from within Internet Explorer. This allows you to continue using IE7 and to gain the performance benefits of Chrome when accessing supporting applications such as Enterprise Tester.

To download and install Chrome Frame into Internet Explorer, please access this website:
<http://code.google.com/chrome/chromeframe/>

Internet Explorer 9 Support

IE9 introduced a new Javascript engine that dramatically improved performance compared to previous versions of IE, however it requires that websites support IE9 native mode.

At this stage we do not have support for IE9 native mode, currently Enterprise Tester forces the use of IE8 compatibility mode within IE9 due to a number of JavaScript libraries that rely on IE8 compatibility. When we do add support for this, users should see a noticeable improvement in performance when using IE9 and above.

Until then if users are finding client-side performance of IE too slow, we again recommend installation of Chrome Frame.