

SCOPE

Project Sizing Software™

SCOPE 5 – Release Details

SCOPE 5 is the latest release of Total Metrics leading IFPUG functional sizing tool.

This document gives an overview of the changes in **SCOPE 5** versus **SCOPE 4.1**. **SCOPE 5** was released in December 2013.

Total Metrics Pty Ltd – Software Metrics Experts.
Level 1, 30 Cotham Road, Kew, Victoria, 3101, Australia
+61 3 9882 7611 - www.totalmetrics.com

#SCOPE-114 What's new SCOPE 5 v0.4.docx



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Overview

SCOPE 5 contains many technical changes and few functional changes. The cumulative effect of the technical changes is that **SCOPE 5** is dramatically more: reliable, fast, easy to install, and consistent to use compared to **SCOPE 4.1**.

Most substantially:

- a) Loading a **SCOPE** database across a network is now noticeably faster. For instance, to load the “example” database, which is distributed with **SCOPE**, the number of database queries has been reduced from 2609 to 52. On high-latency networks, **SCOPE 5** will load the example database about fifty times faster.
- b) In the “Application List” switching between the different sizes, for instance between the “Release Baseline Size” and the “Release Impacted Size” is now more than twenty times faster.
- c) Important to application-security groups is that **SCOPE 5** uses up-to-date versions of components. **SCOPE 4.1** uses the Microsoft Access 2002 Runtime to generate reports. The 2002 Runtime is now unsupported by Microsoft, so new security updates are not created for it. With **SCOPE 5** you can use the Microsoft Access 2007, 2010, or 2013 Runtimes which will be supported for more than a decade. **SCOPE 4.1** uses MSXML4, which will be unsupported by Microsoft from April 2014. **SCOPE 5** uses MSXML6 which is supported as long as your operating system is.
- d) **SCOPE 5** Enterprise now supports Microsoft SQL Server 2012.

Microsoft Windows 8

SCOPE 5 has been developed and tested to be compatible with the Microsoft Windows 8 operating system. **SCOPE 5** is our first version which we support on the Windows 8 operating system.

User Files

Some **SCOPE** configuration files are stored in the “My Documents” folder of the user. When **SCOPE 4.1** was first being used it was sometimes necessary to sometimes manually copy these files to the “My Documents” folder. With **SCOPE 5** the files are automatically copied to the “My Documents” folder the first time that **SCOPE** is run.

Microsoft Access Runtime 2007

SCOPE 5's reporting uses the Microsoft Access 2007, 2010 or 2013 Runtimes. **SCOPE 4.1** uses the Access 2002 Runtime (2002 Runtime). The 2002 Runtime is no longer supported by Microsoft.

If the location of the “Access Runtime” has been manually specified in the “User Options”, then after upgrading to **SCOPE 5** it is necessary to update the path to refer to the location of a later

Runtime. Figure 1 shows a manually specified path to the 2007 runtime (Office12). If the “Access Runtime location” is not specified manually, then it will be automatically updated.

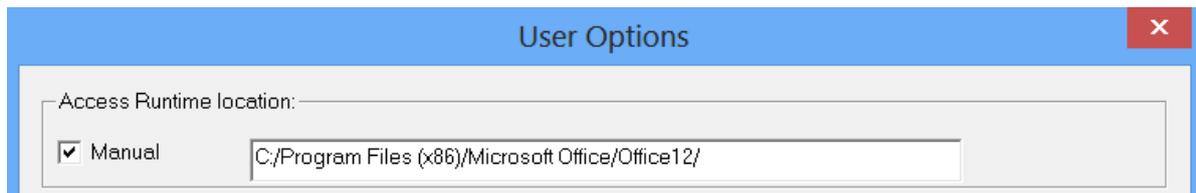


Figure 1 – In the user options, the location is set to the path of Microsoft Office 2007

If none of the 2007, 2010 or 2013 Runtimes (or the full version of Microsoft Access) are already installed, **SCOPE 5** installs and uses the 2007 Runtime. **SCOPE 5** installs the 2007 Runtime because it is substantially smaller than the other Runtimes. The 2013 Runtime is 175MB versus 57MB for the 2007 Runtime.

Output to PDF by default

SCOPE 4.1 uses Microsoft Snapshot viewer to view reports. **SCOPE 5** generates PDF reports by default, and launches whatever is configured as the default PDF viewer to view those reports. Which PDF viewer to use is not configured in **SCOPE**, instead the machine’s default PDF viewer is used. That is, the same PDF viewer is used that is opened when you double-click a PDF file.

When **SCOPE 4.1** is uninstalled it removes neither the 2002 Runtime nor snapshot viewer, because they may be used by other applications. When upgrading, if other applications are not using snapshot viewer of the 2002 Runtime, we recommend uninstalling them.

SCOPE 4.1 users commonly converted Snapshot reports into PDF, this change removes one step from the workflow of generating reports.

Microsoft XML Core Services 6

SCOPE 4.1 installs and uses Microsoft XML Core Services 4, which is not support by Microsoft from the 12th of April 2014. **SCOPE 5** uses Version 6, which is supported as long as your Operating System is.

This change is important for corporate environments where supported components must be used.

.NET Runtime

SCOPE 4.1 installs the Microsoft .NET 4 client profile by default. **SCOPE 5** works with .NET version: 4 full, 4 client profile, 2.0, 3.0, and 3.5. If none of these versions are installed, only then will, the .NET 4 client profile be installed.

This change makes corporate deployment of **SCOPE** more straightforward. Microsoft .NET 2 is already widely deployed. So in general, **SCOPE 5** will not require Microsoft .NET to be specially installed.

Sorting

The “Applications Portfolio” tree and “Projects” tree can now be sorted. The sort buttons (Figure 2) sort: projects, applications, releases and count sessions. The sort buttons sort the children of the currently selected node.

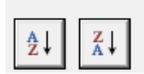


Figure 2 - Sort ascending / descending buttons.

To sort projects:

- a) Select the root node, “Projects”, on either the projects tree of the “Application List” tab, or the root node, “Projects”, on the “Project List” tab.
- b) Click one of the sort buttons.

To sort applications:

- a) On the “Application List” tab select the root node, “Applications Portfolio”.
- b) Click one of the sort buttons.

To sort the releases of an application:

- a) On the “Application List” tab, select either a “Production Releases” node, a “Work in Progress Releases” node, or an “Other Releases” node.
- b) Click one of the sort buttons.

To sort the count sessions of a release:

- a) On the “Application List” tab, select the name of a release.
- b) Click one of the sort buttons.

Keyboard short-cut to insert data-group folders.

Pressing Alt+d creates a new data-group folder in the data tree of a count session. The new shortcut, along with the others, is listed in the right-click menu.

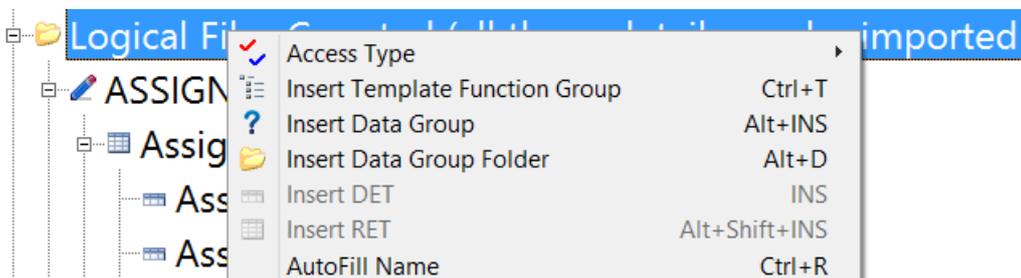


Figure 3 - Right click menu showing the new Alt+d shortcut.

Search and replace

The search and replace functionality has been altered to make it more consistent.

There are two types of search:

- a) The “from current position” search, which only searches the descendants of the currently selected node. For example, in Figure 4 the search text “Client” will not be found because it is not contained in any of the descendants of the currently selected node. Note that the text “Client” does appear elsewhere in the tree.
- b) The standard search, which searches down or up the screen from the currently selected node. By default, the search is down the screen from the currently selected position. The parent/child relationship of nodes is ignored in this search. For example, in Figure 5 the search text “Client” will match the “CLIENTS DETAILS” node.

In **SCOPE 5** both searches allow for the searching and replacing of text that contains leading or trailing spaces.

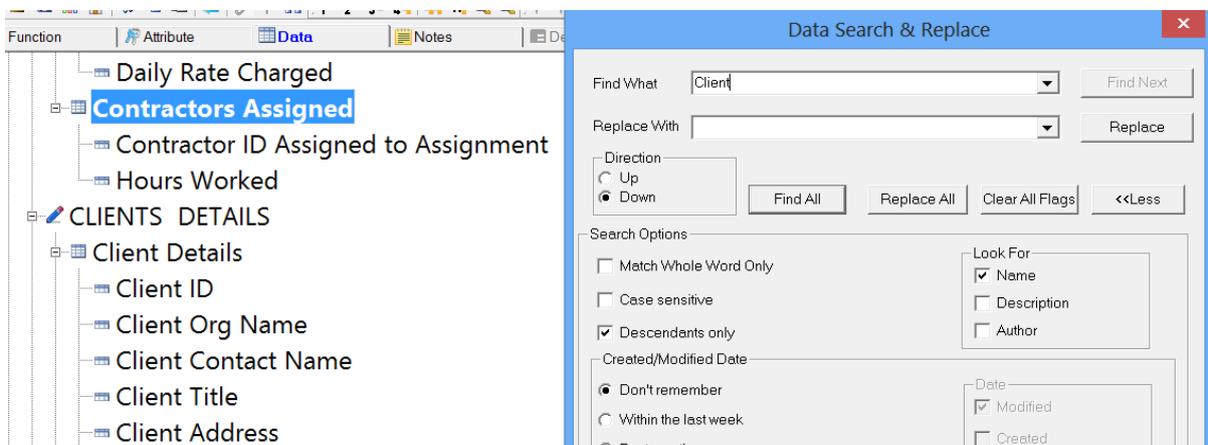


Figure 4 - Searching for "Client" with "Descendants only" will not match text present in other sub-trees.

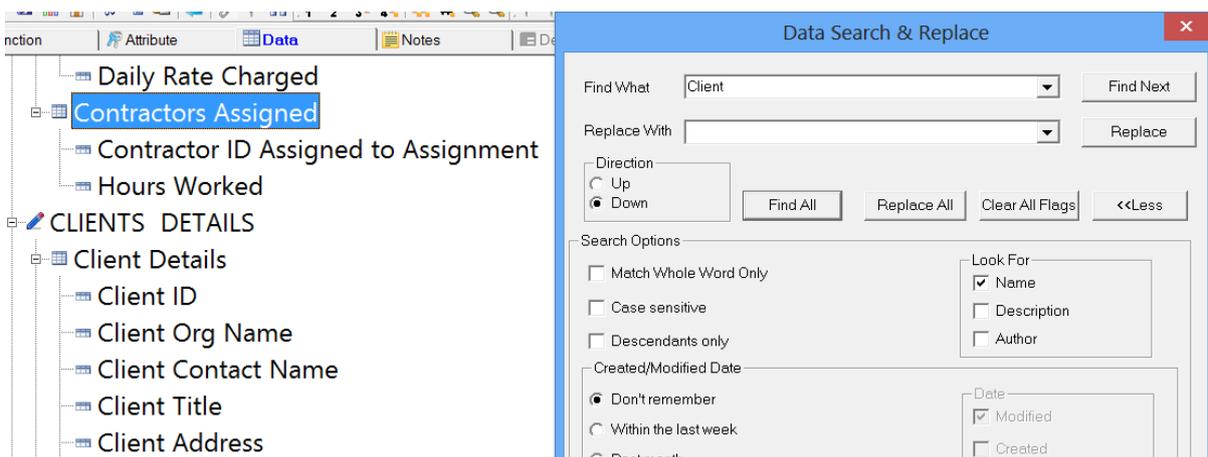


Figure 5 - Searching for "Client" in default mode, will match the text present in lower sub-trees.

Editing the multiplier allows transition through incorrect states

In a count session, **SCOPE 4.1** enforced that the “Multiplier” was an integer greater than zero during editing. Deleting the Multiplier gave an error message (see Figure 6). **SCOPE 5** changes

the semantics so that, instead, validation of the multiplier is performed when focus leaves the "Multiplier" text-box. This allows the multiplier to be deleted then replaced without a warning being issued by **SCOPE**.

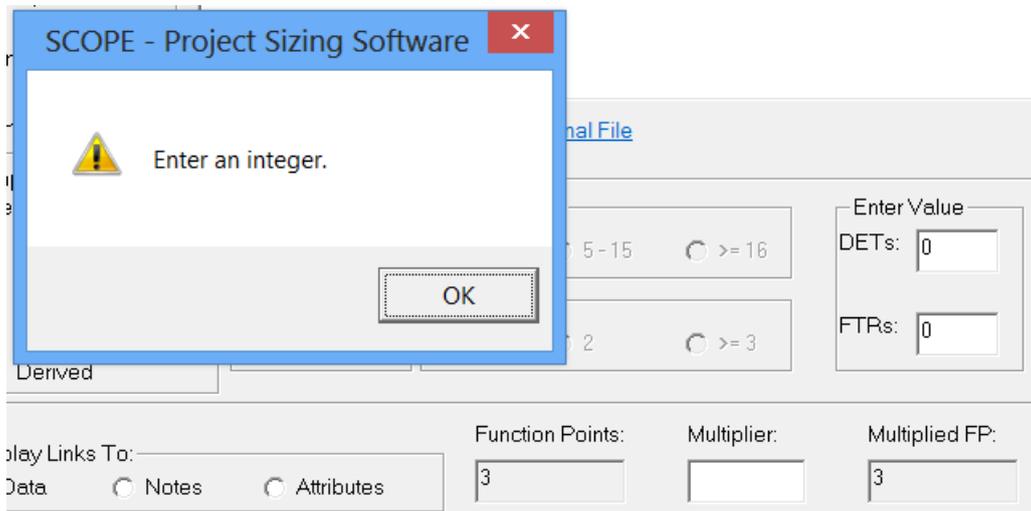


Figure 6 - **SCOPE 4.1** deleting the multiplier gives an error message.

Optional options can now be reset to empty after selection

SCOPE 5 allows optional drop-down lists to be reset to empty after a selection has been made (see Figure 7). In **SCOPE 4.1** it was not possible to reset an optional drop-down list back to empty after a selection had been made.

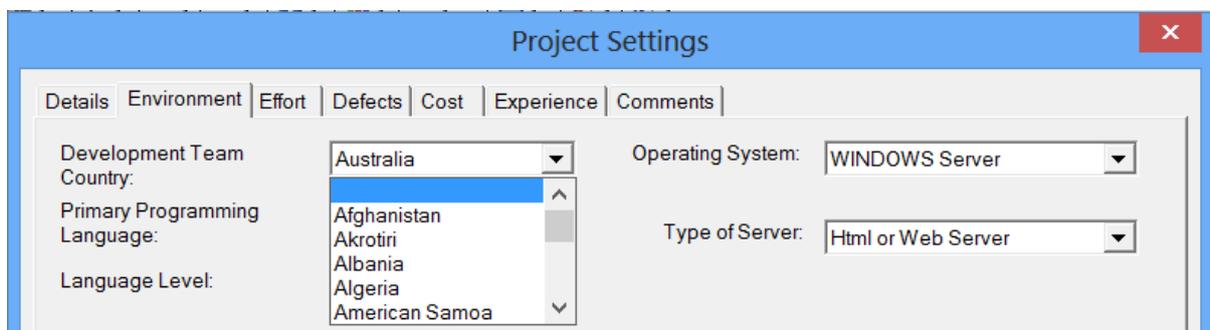


Figure 7 - **SCOPE 5**, showing the empty option to reset the "Development Team Country" to empty.

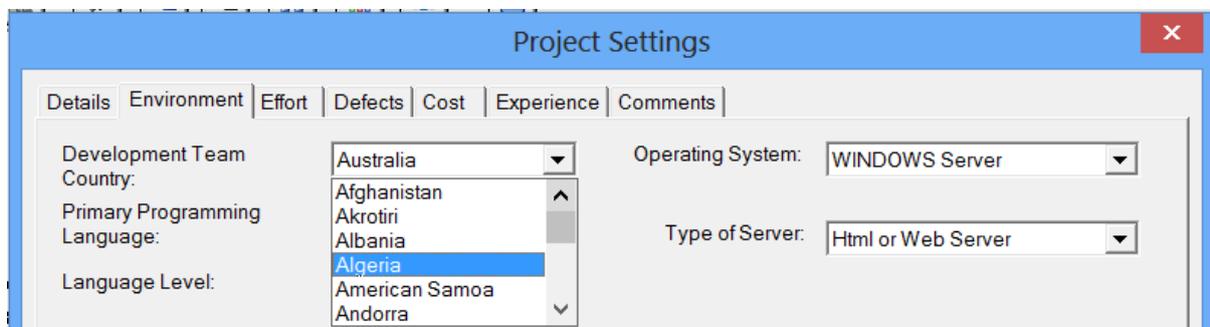


Figure 8 - **SCOPE 4.1**, once specified there is no option to un-specify the "Development Team Country".

Data-group Folders - disable un-editable text

Data-group folders are implemented by **SCOPE** as a special configuration of data elements.

SCOPE 5 disables editing of the values associated with data group folders. For instance, via the details screen it is no longer possible to edit the complexity of a data-group folder.

Small user interface changes

There have been several small user interface changes:

- a) The “Options Screen” has changed so that long text, such as Nederlandse text, is no longer truncated.
- b) Pressing the tab key moves the cursor around the screen as expected.
- c) Escape binds to cancel more consistently. Pressing the escape key is equivalent to pressing the cancel button on an extra 30 screens.
- d) The keyboard shortcuts introduced in **SCOPE 4.1** have been altered to work more reliably.
- e) The redundant “Window” menu no longer appears in the count session window.
- f) Multi-selecting to print reports from the “Application and Project List” now works reliably.
- g) Linking count sessions to projects more reliably updates the user interface.

Database

SCOPE 5 has a slightly different database structure to **SCOPE 4.1**. As per previous upgrades, **SCOPE** will, with users’ permission, convert **SCOPE** databases to version 5 when they are first opened. The changes to **SCOPE 5**’s database are primarily to improve referential integrity. In particular, a release ID column has been added to several tables which previously lacked it.

SCOPE 4.1 uses the Microsoft JET database engine for data storage. **SCOPE 4.1** stores data in the Microsoft Access file format (Access), and uses Access for two different purposes.

First, the configuration database stores all the text that is displayed in the **SCOPE** application. No customer data is stored to this database. **SCOPE** can be configured to present in several languages. It’s the configuration database that stores all of the translations of the menu items, and alert messages. The configuration database is installed to users’ “My Documents\Total Metrics” folder and is called “config.mdb”.

Second, the user database (.FPA file) stores three distinct types of objects (1) the function point and benchmarking data tables (data tables) (2) the definitions of the reports, and (3) temporary reporting tables. In **SCOPE 4.1**, each FPA file contains all three types of objects.

SCOPE 5 brings more flexibility. **SCOPE 5** users have the option to store the data tables in Microsoft SQL Server 2012. The other two types of object, reporting definitions and temporary tables, still remain in Access. The data tables are read from SQL Server, via Microsoft Access by using “linked tables”. The Access database is configured via its “linked table manager” with the location of the SQL Server database. In such a configuration, the SQL Server database contains

all of the tables in **SCOPE 4.1's** FPA file except for temporary reporting tables – those with a name which begins with "TempQ".

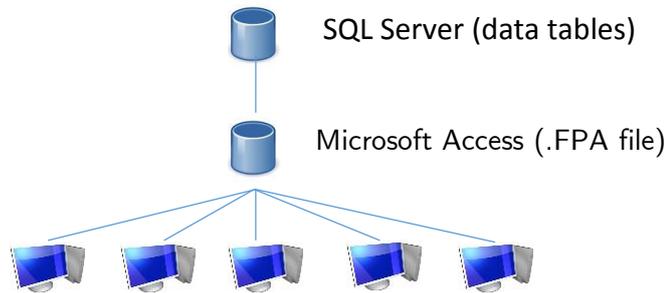


Figure 9 - SCOPE 5. SCOPE 5 desktop users connect to an FPA file stored on a file server. The FPA file does not contain the data tables, which are stored in the Microsoft SQL Server database. Microsoft Access transparently requests data from Microsoft SQL Server as needed.

The most substantial change is that when using **SCOPE 5** with Microsoft SQL Server, there is no longer the need to save data. Changes to data are written through to Microsoft SQL Server and automatically saved.

Using **SCOPE 5**, it is still possible to use an FPA file which contains all three types of objects (see Figure 10).

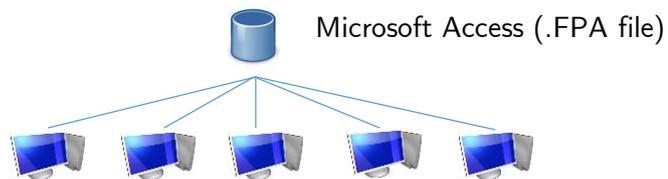


Figure 10 – SCOPE 4.1 and SCOPE 5. All three types of objects are stored in an FPA file.