ScriptWorX32 – Fast Multi-threading VBA Applications

APPLICATIONS NOTE

October 2013

Description: Guide to configure ScriptWorX32 to manage your scripts.
OS Requirement: Win 2000, XP Pro, Server 2003, Vista, Server 2008, Windows 7
General Requirement: General knowledge of VBA

Introduction

The main function of ScriptWorX32 is to manage and maintain scripts that perform different functions. It takes advantage of a new Visual Basic 6.3 feature called multi-threading. The use of multi-threading enables operating systems to run more efficiently because it assigns different tasks to different threads so that the CPU usage will be split up amongst these threads. This is very useful if you have a need or desire to run different tasks, which do not rely on each other, at the same time. This application note will give you a quick start on the principles and configuration of ScriptWorX32.

ScriptWorX32 Server

The server, which is not visible to the user, runs as a service in NT (or as a standard application) executing the compiled code from the VBA Editor at times and intervals configured in the User Interface.

ScriptWorX32 User Interface

The User Interface indicates what type of script is being created and how it will be executed. Table 1 shows the supported script types.

Table 1 - Supported Script Types

Script Types	Description
Global Scripts	Launches either manually from outside the application or upon entering runtime mode.
Periodic Scripts	Launches according to configured time settings
Event Scripts	Launches based on changes in values of OPC data, expressions, or local variables using the standard Expression Editor
Alarm Scripts	based on the same principle as Event Scripts

ScriptWorX32 VBA 6.3

The Visual Basic Editor is where the scripts will be created according to the configuration in the User Interface. All scripts are written in Visual Basic. Please refer to the Visual Basic documentation for more information.

Creating a script using the script wizard:

1. Open ScriptWorX32 by going to Start → Programs → ICONICS GENESIS32 → ScriptWorX32 → ScriptWorX32
2. Select **Global Script** and right mouse click to insert a new trigger.
3. In the right window pane, specify the Trigger Name, **Hello**, and Script Name, **HelloScript**. If desired, specify a VBA project name other than the default **Untitled**.
4. To have this configuration go into effect click on the **Apply** button.

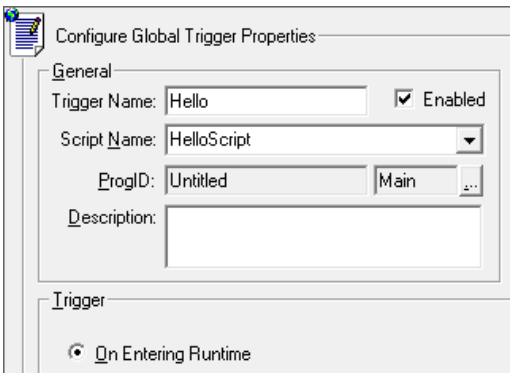

Figure 1 - Script Configuration Window

Now the script HelloScript is identified in ScriptWorX32, but the code still needs to be written. To create a script through the script wizard:

1. Select the **VBA Script Wizard** Button. Click "Yes".
2. For the Category select **General** and for the Scripts select **HelloICONICS**.
3. Click on the **Generate Script** button.
4. Select "**Yes**" to enter the VBA editor. You will see the created script and can make any modifications if necessary.
5. Now switch back to the ScriptWorX32 Configurator and save the configuration to **Untitled.swx** using the floppy disk icon in the ScriptWorX32 menu bar.
6. To run the script you can start the ScriptWorX32 Engine by clicking on the traffic light in the ScriptWorX32 Configurator.
7. You will see the popup window with 'Hello from ICONICS' message after entering runtime, since the script is configured to trigger on entering runtime. To manually start the script, select the Trigger Name and click on the Start command from Instance menu.
8. If you need to edit this script, stop the ScriptWorX32 Engine with the traffic light, and click Edit VBA.

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