

active windows integrator - awi^{SX}



Product Description

Outline Description

awi^{SX} is a software development tool which provides a means to automatically drive Windows-hosted applications in order to:

- Share information across different software applications, including both front- and back-office systems
- Automate updating of software applications when new data is input to another application
- Remove the need for manual duplicate data entry and prevent keying errors
- Achieve administrative efficiencies and automate repetitive tasks
- Provide a one-stop alternative to multiple disparate vendor APIs

awi^{SX} allows you to develop code which acts like a robotic user – running and operating software applications just as a human operator would but without user intervention. awi^{SX} drives a target application using the application's existing user interface so you don't need to reinvent the business logic, guaranteeing the data integrity of each transaction.

Your awi code can be developed as a Script, e.g. using ASP, or as an executable, using a language such as Visual Basic. awi^{SX} provides an ActiveX Control containing a library of functions to use to automate your target applications and also a development environment enabling quick and easy automation and integration of any of your existing (or future) applications. You can also use awi in conjunction with any other development environment capable of supporting ActiveX Controls and you can add extra functionality around your awi code, e.g. creating a web-based application to act as a front-end to multiple back-office systems, allowing data for more than one application to be entered on a single screen and then used to update the various back-office systems appropriately.

awi^{SX} is a server-based solution, typically running the awi software and the target applications on a single server, although you can run your target application clients remotely, if you prefer.

Main Features

- Rapid development of awi Scripts/executables using the awi Workbench and Profile Editor
- Designed to be used with ASP, ASP.NET, Visual Basic, VB Scripting and VB.NET but can also be used with any programming language which can reference ActiveX controls, such as C++ or C#, although not all the 'rapid application development' features may be available with these languages (e.g. the awi Workbench)
- Can automate any application capable of running under Windows, including browser-based applications running in Internet Explorer
- Interfaces to target applications by directly accessing Windows controls or browser document object models, via defined screen areas and built-in OCR technology and by simulating keyboard and mouse input
- Data is extracted and input via a target application's standard user interface, avoiding the need to re-invent or bypass business logic and data validation or to have a knowledge of underlying database structures
- Option to encrypt data passing between awi Server and target applications
- Includes Web Service interface to allow external front-end applications, such as CRM systems, to post data to awi Scripts to update back-office systems
- Includes awi^{QX} Queue Manager to queue transactions, reducing the number of target application client licences required and protecting data from system failures

awi^{SX} Components

awi ^{SX} Server	Central server component which provides and load balances the connections to the target application client(s).
awi OCX control	Programming library of functions used to drive target applications.
awi Profile Editor	Used to describe target applications to awi - identifies the windows, popups, controls (buttons, text boxes, etc.) and specified screen areas you want to access within a target application.
awi Workbench	awi development environment, allowing you to quickly and easily develop your awi code using the <i>awi OCX Control</i> functions. Includes predefined code fragments. Designed to work with ASP, ASP.NET, VBScript, VB and VB.NET, includes ability to import code segments from the Workbench into other development environments, e.g. Microsoft's Visual Studio.
awi Client	Client component which runs within each target desktop environment (e.g. PC, virtual machine, terminal services client etc.) running a copy of a target application client. Drives the target application, via a local copy of the <i>awi OCX Control</i> , using instructions received from the <i>awi^{SX} Server</i> and returns data read from the application back to the Server to be processed.
awi Console	A monitor that shows which target application sessions are in use and how many transactions have been processed. Also allows configuration of the target application clients and their location. Provides central auditing information and tracing analysis of awi activities from <i>awi Clients</i> .
awi Web Service	Allows front-end applications, either third-party or in-house, to exchange information with awi ASP/ASPX scripts via a generic web service. XML Data can be sent to an awi script using HTTP Post or SOAP. Allows multiple front-end applications to target a single awi entry point, with awi directing transactions onwards to the relevant ASP script.
awi ^{QX}	Queuing utility which allows you to queue transactions, potentially reducing the number of target application clients required and protecting data in the event of system failures.

Product Environment

awi^{SX} requires a server, either physical or virtual, running Windows Server 2003 (SP1 or above) or Windows Server 2008, with IIS installed and enabled for use with ASP. For a physical server, we recommended a minimum P4 2GHz processor, 1Gb RAM and 10Gb disk space PLUS, if running the target applications in virtual machines (VMs) hosted on the same server then a minimum 512Mb RAM and 10Gb disk space more per VM is recommended. Alternatively, if running awi^{SX} within a virtual server (VS) the organization's minimum specification for a VS should be sufficient. Access to Microsoft SQL Server 2008 or SQL Server 2005 (or equivalent Express editions) is also required. This could be run locally on the awi^{SX} Server or remotely, e.g. a centralised corporate version, providing the awi^{SX} Server is able to connect to it.

Target applications are generally run under Windows XP (SP1 upwards) or Windows Vista, however reference to the author's requirements for each target application is recommended. Target application clients can also be run within Terminal Services sessions, in which case a suitable specification for each Terminal Services session will need to be determined, based on the requirements of each target application.

The awi^{SX} development environment can run under Windows Vista, Windows XP, Windows Server 2003 or Windows Server 2008, with target applications being run on the same PC as the development tools, in virtual PC(s) if preferred, or in external virtual machines or Terminal Services sessions.

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