

**Figure 1:** This example shows how Automation can be used to cross-probe between a Microsoft Excel spreadsheet and Expedition PCB.

### Major product benefits:

- Extends the functionality of the basic tools without depending on major software release schedules
- Provides the ability to customize many user interface items such as toolbars, menu items and keystrokes
- Increases productivity and reliability by creating scripts that perform repetitive tasks
- Automates the creation of all necessary output files for design fabrication

## Overview

No matter how many features or how much functionality is added to the Mentor toolset, there will always be cases where some customers need something more or something slightly different than what is currently available. Automation support has been developed to satisfy the immediate needs of these customers.

The functionality of the layout design tools, including selected library management and schematic capture tools has been exposed through an automation layer. This automation layer allows users to access and modify data in these tools by creating scripts in several different standard programming languages on different hardware platforms.

The scripts allow users to quickly and easily extend the functionality of the basic tools without depending on Mentor Graphics to enhance the product itself. This capability allows users to create functionality that may be specific to a design process. Additionally, users may create scripts that automate repetitive tasks that may be error-prone or time-intensive, thus resulting in a design process that is faster and more reliable.

### Automation Basic

In order to create customization that suits the needs of a particular design environment, users need to be able to access and modify design data. They also need access to the existing user interface so you can add custom commands or remove existing commands.

Expedition PCB™ is an example of a powerful tool with lots of functionality that can benefit from removing certain existing commands. If there are several people using Expedition PCB and many of them have different roles in the design process, there are numerous commands in Expedition that some users will never use.

For example, if a PCB design teams have specific members that are only concerned with parts placement, then a simplified Expedition menu is created that doesn't include all of the job setup, route, plane and output commands. This simplification

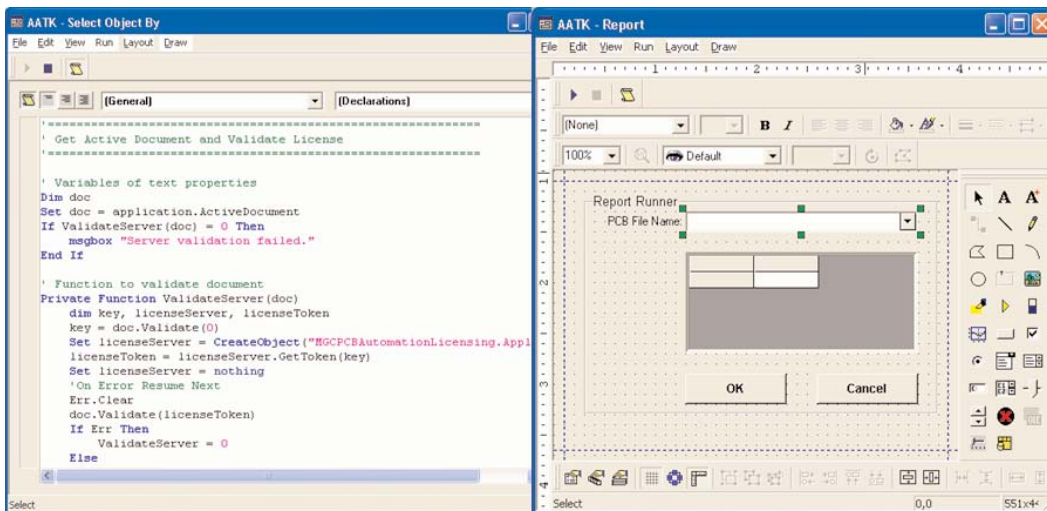


Figure 2: Automation Pro contains a forms builder that allows you to create custom dialogs.

allows the team members to focus on only those actions that are important in their roles.

Automation Basic allows users to get data from or put data into the running application. They can access every piece of data and existing functionality that is exposed. Users can also catch events such as mouse movement and mouse clicks. This capability allows them to create customized reports and cross-probe between different applications while an environment can be set up so scripts or forms are automatically loaded every time the application starts.

### Automation Pro

In addition to all of the same capabilities as Automation Basic, Automation Pro includes a forms builder that allows users to create custom dialogs. The forms builder also allows users to encrypt scripts and dialogs so they can run but not modify the scripts and dialogs. Additionally, Automation Pro allows access to the output engines, allowing users to automate the creation of all necessary output files for design fabrication. This functionality can greatly improve productivity and reliability as it provides a consistent, repeatable process.

### Product and Language Support

- Expedition PCB
- Board Station® RE
- Board Station XE
- FabLink™ XE
- FabLink XE Pro
- PCB Planner
- PCB Viewer

### Language Support

Scripting Language Platform Matrix				
Scripting Language	Win2K	Windows	Linux	Unix
VB Script	Yes	Yes	Yes	Yes
Visual Basic	Yes	Yes	No	No
VB .NET	Yes**	Yes	No	No
Jscript	Yes	Yes	Yes	Yes
Perl	Yes	Yes	No	No
Tcl/Tk	Yes	Yes	Yes	Yes
C++	Yes	Yes	No	No

\*\* Requires .NET Framework on each machine

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