Developing PRO/5 Code in Eclipse

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If you are a PRO/5© developer thinking about moving your code to BBj©, but don't think that you're quite ready to make the move but would love to leverage all that the Eclipse IDE has to offer, there is a new option for you. Try using Eclipse and the Business BASIC Development Toolkit (BDT) plug-in to edit your PRO/5 programs. Since PRO/5 code is a subset of BBj code, your PRO/5 code is already "legal" BBj - just use BDT's import function to list your tokenized PRO/5 program and you can begin editing an ASCII version of it. BDT's CodeEditor gives you syntax coloring, problem markers, outline viewing, and a number of other helpful development features. And now, with the newest BBjUtils plug-in for Eclipse, you can even compile your PRO/5 source code into PRO/5 tokenized code - and see the pro5cpl output.

What else do you get by using Eclipse and BDT? Eclipse supports a number of useful plug-ins, such as third party industry standard code versioning plug-ins. The BBjUtils plug-in from BASIS also gives you access to utilities such as the performance analyzer and language keyword help to dynamically deliver online documentation as you code.

The new PRO/5 Compiler Plug-in for Eclipse is installed as part of the BBjUtils plug-in. It is available for download and immediate use. The plug-in uses the pro5cpl executable from any PRO/5 installation, regardless of the operating system. It displays pro5cpl's command line output, and even places the compiled files in an output folder of your choice.

But wait! There's more… With the BDT, you can start exploiting BBj's enhanced functionality by developing new code in BBj and execute it via the PRO/5 XCALL verb. And, when you are ready to move your programs to BBj, you will find that you are well on your way. The BBj Projects that you create to help manage code for the pro5cpl compiler are also ready to help you develop your code in BBj. Read on for an overview of the PRO/5 Compiler Plug-in for PRO/5 developers who want some of the productivity enhancements offered by the BDT for BBj development.

The PRO/5 Compiler Plug-in

The PRO/5 Compiler Plug-in helps you edit and compile your PRO/5 code within BDT and the Eclipse Integrated Development Environment (IDE). BDT provides the BBj CodeEditor, the closest thing to a PRO/5 editor in Eclipse.

Once you have the Eclipse, BDT, and PRO/5 Compiler Plug-ins installed on your development computer, you are ready to list your programs into Eclipse, edit your source code files, test them with the BBj interpreter, and run the pro5cpl compiler to create your tokenized PRO/5 programs. The IDE offers you assistance in each of these phases. For full details on reaching this point, see the *PRO/5 Compiler Plug-in Tutorial* help page. For now, we'll give you a taste of the experience of editing and compiling.

Editing and Compiling

Editing your PRO/5 source code file is easy - simply find the file in the BDT Explorer view, and double-click it. This opens a BBj CodeEditor displaying the listed code. You are free to edit this code as you would in any text editor, and save your changes. Once you have done so, simply click the PRO/5 "Compile" toolbar button in Eclipse's main menu to compile it.

Eclipse offers multiple views to help you work with the pro5cpl output. When you compile, it automatically opens the PRO/5 Compiler Output view, listing the pro5cpl output text. In **Figure 1**, we have just compiled a PRO/5 source file "_keyword" by clicking Eclipse's PRO/5 toolbar button. The file contains code with errors in order to demonstrate the features of the plug-in:
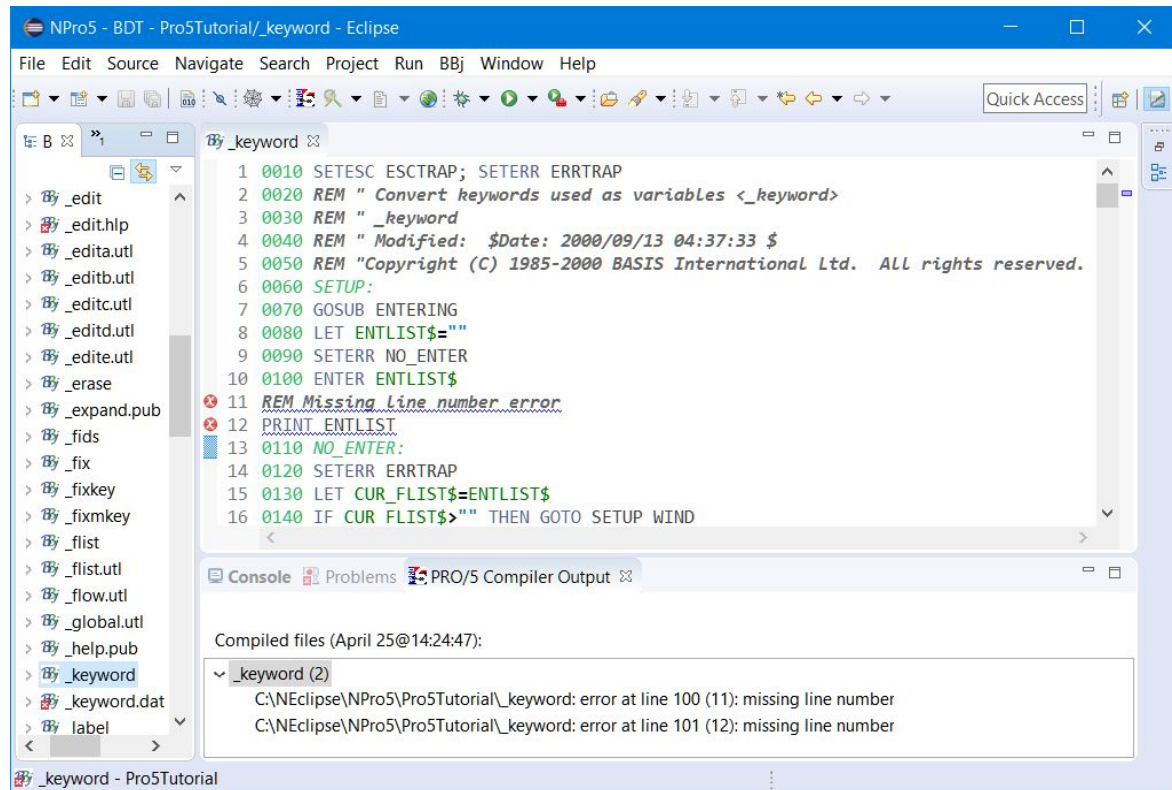
Figure 1. The BBj CodeEditor and PRO/5 Compiler Output View

Our file has several problems reported by pro5cpl. Each error or warning reported appears in both the editor and the results view. In **Figure 1**, the small red circles on the far left are error problem markers, and the line of text is underlined in blue. Similarly, small yellow triangle would be warning problem markers, where the line of text would be underlined in yellow.

Double-clicking a problem in the PRO/5 Compiler Output View will open a BBjEditor if one is needed, and it will then scroll to, and select, the offending line. Also, hovering over a problem marker displays the text of the error as seen in the results listing.

Benefits of the PRO/5 Compiler Plug-in

The PRO/5 Compiler plug-in is simple to configure, compile your source code, and use as you work to resolve any problems it reports. Although it is not a fully integrated PRO/5 interactive development environment, it provides you with a great deal of functionality for developing or even migrating PRO/5 code to BBj and the Eclipse IDE.

And because it is part of the Eclipse IDE and uses features from the BDT such as the BBj CodeEditor, you are already well on your way to more productive program development. The editor offers a wide array of helpful features such as code completion assistance (valid language constructs and BBj classes/methods to help you write code more efficiently and quickly).

Regardless of which benefit of the PRO/5 Compiler Plug-in is most valuable to you, you can get started quickly by checking out the full tutorial accompanying this document (at the *PRO/5 Compiler Plug-in Tutorial* help page).

Make the move and leverage your PRO/5 investment today!