
Subject: Re: MatLab vs Interactive Data Language
Posted by [David Ritscher](#) on Sat, 10 May 1997 07:00:00 GMT
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> Anyone know of a good comparison of IDL vs MatLab? Or have their
> own opinion? I've posted this on the Mathworks group and am getting
> info from there.

The answer to this question is quickly changing. Traditionally, MATLAB was the mathematics program with great signal processing functionality and great toolkits in areas like control. It was, however, not very useful as something approaching a programming language, since it lacked important features, such as data types other than float or complex, and had somewhat limited control commands. IDL/PV-Wave were traditionally the packages with advanced graphics, designed to be a full programming environment (where modules you write are 'precompiled', but in the end, always interpreted. IDL/PV-Wave are more image-processing oriented, MATLAB more matrix oriented.

The three languages keep trying to converge. MATLAB has recently added some key things such as the normal data types (byte, integer, etc.); multidimensional arrays; advanced data types (structures, etc.). Where MATLAB is now dramatically pulling ahead is through introduction of their C compiler (it changes MATLAB .m files into C or C++ files) and the MATLAB math library, which allows one to call MATLAB functionality from external standalone programs without needing need the MATLAB interpreter. IDL and PV-Wave always need the main program to be running. A BIG catch with MATLAB - the graphics functions aren't included yet! This means, if your program needs to display something, you have to use some other graphics library or call up the MATLAB interpreter.

The PV-Wave folks are making some bold steps with the introduction of products for integrating Java and PV-Wave.

There is a great selection of toolkits available for MATLAB. Since MATLAB is better known, it is better supported, in the sense that there are many third party books and products for it.

IDL/PV-wave have traditionally been better optimized than MATLAB, but I can't give a current estimate as to whether the gap is narrowing.

These are just a few quick comments. The derivative is in favor of MATLAB. I'm waiting to see who first takes a serious move in the direction of providing object-oriented capabilities.

Hope this helps,

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