

According to Hoyle...

Cross-Platform Software Development from a Macintosh Perspective: Basic Compilers (Part II)

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Since last fall, we have been examining various cross-platform software development options for Macintosh developers, including:

- **Intro:** http://www.maccompanion.com/archives/september2005/Columns/According_to_Hoyle_1.htm
- **Qt:** <http://www.maccompanion.com/archives/october2005/Columns/AccordingtoHoyle.htm>
- **wxWidgets:** <http://www.maccompanion.com/archives/november2005/Columns/AccordingtoHoyle.htm>
- **CPLAT:** <http://www.maccompanion.com/archives/december2005/Columns/AccordingtoHoyle.htm>
- **REALbasic:** <http://www.maccompanion.com/archives/january2006/Columns/AccordingtoHoyle.htm>
- **Runtime Revolution:**
<http://www.maccompanion.com/archives/february2006/Columns/AccordingtoHoyle.htm>
- **AMPC:** <http://www.maccompanion.com/archives/march2006/Columns/AccordingtoHoyle.htm>
- **Java compilers:** <http://www.maccompanion.com/archives/april2006/Columns/AccordingtoHoyle.htm>

We are now reviewing of Basic compilers on the Macintosh. In last month's column, we detailed the history of Basic on the Mac:

- **Basic compilers (Part I):**
<http://www.maccompanion.com/archives/may2006/Columns/AccordingtoHoyle.htm>

Now having thoroughly examining the past, this month's column will look at the present and the future of Mac Basic compilers.

REALbasic 2006

<http://www.realbasic.com>

Price: \$99 USD Standard/\$399 USD Professional. Annual Renewal: \$49 USD Standard/\$199 USD Professional.

As shown above, a dedicated review of *REALbasic* is available in the January 2006 column link. Without repeating that article in great detail, we can sum it up with: *REALbasic* is the most powerful Basic compiler available on the Macintosh, with rapid application development capabilities and has the largest marketshare in the Mac Basic field. Furthermore, the Professional Edition is fully cross-platform. With that said, the natural question is: why bother considering any other Basic compiler? The answer is simply that there are features available in competing products which are not available in *REALbasic*, and these features may be critical to you. Consider the following:

1. Although the \$399 Professional Edition is cross-platform, the \$99 Standard Edition is not. There are other cross-platform Basics which are much less expensive.
2. *REALbasic* no longer supports 68K, whereas some other products do.
3. The *REALbasic* Standard Edition does not allow you to create console applications. And although Professional Edition allows you to create them on Mac OS X, no version of *RB* creates console apps in Classic (whereas virtually every other Basic compiler does).
4. *REALbasic* costs money.

With this in mind, we will review other Basic environments relative to what *REALbasic* offers.

FutureBASIC 4

<http://www.stazsoftware.com>

Price: \$169 USD new license, \$99 USD annual license renewal.

The first and foremost alternative to *REALbasic* is *FutureBASIC* from Staz Software. Although not cross-platform, its support of the Macintosh is very strong. Not only does it fully support both native Mac OS X and Classic PowerPC compilations, *FutureBASIC* continues support for 68K compilations, the only commercial compiler that I know of which still does. Moreover, it even supports building apps that will run on pre-System 7 machines! The same project can be used to build an app to run on a Mac Plus running System 6.0.5 or as one to run on a Power Mac G5 running Mac OS X 10.4 Tiger. That's dedication, man.

While *REALbasic* enforces an *object-oriented coding* paradigm, *FutureBASIC* allows for more *structured programming*, a simpler and more common approach for most Basic programmers. For those who need to be jump started, *FB* also includes a rather large number of sample projects to start you off with. Although *FutureBASIC's* pricing may appear higher than that of *REALbasic*, *FB* is in fact cheaper over time. Both are subscription based, but a new \$99 *REALbasic* license is only good for 6 months (thus \$16.50/month), whereas a new \$169 *FutureBASIC* license is good for a full year (and thus about \$14/month). It is only when you move onto *REALbasic's* cheaper license renewal plan does the monthly price swing back into *RB's* favor.

Chris Stasny, head of Staz Software, was kind enough to talk with me about *FutureBASIC*. This past year has been an exceedingly difficult one as Staz Software was directly hit by Hurricane Katrina, knocking them out of business for three full months (ouch). Even today, phone lines remains down and internet access is sketchy. Despite this, he was still able to deliver Release 3 of *FB4* in April, a significant accomplishment. Chris says that he definitely plans to support universal binaries in a future release, but (understandably) could not state exactly when this would be delivered.

When I first went into researching this article, I was admittedly pretty skeptical about *FutureBASIC*. However, after thoroughly reviewing the product, I have come away very impressed. For those looking for an viable alternative to *REALbasic*, this author recommends *FutureBASIC*.

True BASIC

<http://www.truebasic.com>

Price: \$39 USD Bronze/\$195 USD Silver/\$495 USD, Gold/\$19 USD Student Edition (same as Bronze).

True BASIC is written and sold by John G. Kemeny and Thomas E. Kurtz, the professors at Dartmouth College who invented the Basic Programming Language. That's right, these guys invented the actual language itself; furthermore, they have been selling *True BASIC* for more than two decades. Plus it's cross-platform, supporting the Mac, PC and Linux. That's one hell of a track record.

Unfortunately, that's the best that can be said about this product. *True BASIC*, particularly for the Mac, has been languishing for years without updates. It doesn't even support Mac OS X, running only in Classic mode. It is also ridiculously priced. The \$39 Bronze version is essentially only an interpreter. To compile a standalone application, you have to use their *BIND* tool which comes starting with the \$195 Silver Edition. *True Basic* contains only minimal set of GUI elements for building apps, as it appears to be marketed toward the educational community. While proficient as a "How to Learn to Program in Basic" tool, it succeeds in very little else.

Despite repeated attempts to contact True Basic, Inc., my emails have gone unanswered. Its web site does not appear to be updated in at least two years, as their *What's New* section describes a special upgrade price available "from now until 6/30/2004". The demo can still be downloaded, but since it is a Classic application, you will not be able to use it on an Intel-based Mac. And despite the web site's assurances that "a native version of True BASIC for Mac OS-X [sic] will be available in the future", this author believes that no such update will ever be seen.

True BASIC was a great application a decade or two ago, but it is not viable product today. Even the freeware *Chipmunk Basic* (see below) is preferable. Unless you plan to be a museum curator of historical software curiosities, I cannot recommend *True BASIC*.

Chipmunk Basic

<http://www.nicholson.com/rhn/basic/>

Price: Free

Chipmunk Basic is self described as *an old-fashioned Basic interpreter which runs on almost all Macs*. This is no exaggeration, as there are versions of this compiler available going back to System 6.0.7 on a Mac 512KE. There is also a version of *Chipmunk Basic* available for Linux x86, and one under development for Windows XP. Despite considering itself *old fashioned*, this product has an impressive array of modern technology, including use of QuickTime and AppleScript.

Although lacking a sophisticated GUI, *Chipmunk Basic* remains a very solid compiler. The user has a choice to launch *Chipmunk Basic* either through a command line scrolling window in the Finder, or as a console application within the Terminal window. The command line interface is not the nicest of interfaces for Macintosh users, so it is recommended that you use an external text editor, such as *TextEdit* or *BBEdit*. The documentation is also surprisingly good for a freeware product such as this.

For those not afraid of the command line interface and are looking for a free Basic environment, I recommend *Chipmunk Basic*.

The Future of Basic for Mac OS X

Now that we have reviewed the past and the present states for Basic on the Macintosh, the obvious next question is: What does the future hold? To answer that, I would like to mention three new cross-platform Basic environments showing the most promise:

The first is *ExtremeBasic* [<http://www.extremebasic.com/>] by Andrew Barry, the genius behind (and original author of) *REALbasic*. When Geoff Perlman discovered the product (then called *CrossBasic*), he invested in it, changed its name and *REALbasic* was born. In 1999, Andrew left REAL Software to start off on his own again, and *ExtremeBasic* is his current project. *ExtremeBasic* is still under development, with alpha versions available to download and try out. Despite its recent origins, *ExtremeBasic* has shown surprising growth, and I expect it to become a major player in the marketplace someday.

The next is *wxBasic* [<http://wxbasic.sourceforge.net/>], an open source Basic compiler written with links to the *wxWidgets* toolkit. Although currently available only on Windows and Linux, some work has begun for compiling Mac OS X version [see <http://wxbasic.sourceforge.net/phpBB2/viewtopic.php?t=896&highlight=mac>]. Since *wxBasic* is an open source project, it seems that it is only a matter of time before a native Mac OS X version will be completed by some enterprising young programmers. If and when that happens, *wxBasic* will be poised to be one of the most powerful cross-platform Basic compilers available.

Finally, *KBasic* [<http://www.kbasic.com/>] is a Basic compiler with VB 6 syntax and linking to the *Qt* toolkit. It is an object oriented and event controlled programming environment, which supports Windows, Linux and now Mac OS X. *KBasic* comes in two flavors: the free Personal version (not available on the Mac), which is essentially just the interpreter, or the \$25 Professional version (which is available on the Mac), which can compile standalone application. Thus, you can get the Mac OS X, Windows and Linux compilers all for a combined price of \$75, far cheaper than even *REALbasic's* Standard Edition.

As these three young products mature, the face of the Basic market on the Mac is sure to change. As I believe that competition is a good and healthy impetus to any industry, I am very optimistic for the future of Basic on the Mac.

Next Month: Converting Legacy Frameworks. See you in 30!