# Objeck Programming Language

v4.1.0; September 20, 2018

## Release notes

Added support for 2D game development.

Highlights of this release include the following:

1. Support for 2D game development
2. Encryption support upgraded from OpenSSL 1.0.x to 1.1.x
3. Bug fixes and general enhancements
   1. Faster VM startup
   2. Fixed float to string issues
   3. Resolved bug in ‘all paths return’ compiler check

Please refer to the [project website](http://www.objeck.org) for additional information about the language. The Programmer’s Guide is located the “doc” directory. Additional examples are available on the [Rosetta Code website](http://rosettacode.org/wiki/Category:Objeck). Please submit bugs to [objeck@gmail.com](mailto:objeck@gmail.com), bug reports are greatly appreciated!!

## Package directories

bin/ – compiler, debugger and VM

doc/ – general documentation

doc/api/ – class library documentation

doc/syntax – files to enable syntax highlighting for supported editors

examples/ – source code examples

lib/ – native runtime library support for add-on packages

## Compiling and executing programs

In order to compile programs outside of the “bin” directory the “OBJECK\_LIB\_PATH” environment variable must be set. When this variable is set all library files must be in the directory specified.

If the Windows installer is used these variables will be automatically set after the system is restarted. For Debian and Ubuntu the location of the files is fixed by the installer so no variables are needed.

To manually setting the environment paths in Windows:

1. set OBJECK\_LIB\_PATH=C:\Users\<account>\objeck-lang\lib
2. set PATH=%PATH%;C:\ Users\<account>\ objeck-lang\bin; C:\ Users\<account>\ objeck-lang\lib\sdl

Simple compile/execute:

1. obc -src ..\examples\hello.obs -dest hello.obe

–OR-

1. obc -src 'C:\Program Files\Objeck\objeck-lang\examples\encrypt.obs' -lib encrypt.obl -dest hello.obe

2. obr hello.obe

Compile/execute for code that has library dependencies:

1. obc -src ..\examples\xml\_path.obs -lib collect.obl,xml.obl -dest xml\_path.obe

2. obr xml.obe

For OS X (10.9 or greater), you’ll need to install OpenSSL in order to use encryption APIs as well as iODBC to enable database support. Please refer to the following [link](http://mac-dev-env.patrickbougie.com/openssl) for OpenSSL directions and this [link](http://www.iodbc.org/dataspace/iodbc/wiki/iODBC/ODBCMacOSX) for about ODBC support.

## Source code

The Objeck source repository is located [here](http://github.com/objeck/objeck-lang) and the source can be fetch using the following command GIT command:

* mkdir objeck
* cd objeck
* git init
* git clone https://github.com/objeck/objeck-lang.git

## Known bugs and limitations

* On 32-bit Windows, the ODBC driver must be a 32-bit for [compatibility](http://stackoverflow.com/questions/1134827/how-do-i-use-a-32-bit-odbc-driver-on-64-bit-server-2008-when-the-installer-doesn).
* The XML parser class does not support DTDs or DOCTYPE tags
* By design, the regular expression class performs greedy pattern matching.
* All unit tests executed successfully but I'm sure there are some bugs. Send an [e-mail](mailto:objeck@gmail.com) we’ll get them sorted.