# Objeck Programming Language

v5.3.8 (August 8, 2020)

## Release notes

Bug fixes.

Highlights:

1. Fixed type checking bugs for generics (bug)

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, bug reports are greatly appreciated!](mailto:objeck@gmail.com)

## Getting Started

New developers please refer to [getting starting guide](https://www.objeck.org/getting_started.html).

## Package directories

bin/ – FastCgi VM

apps/ – source code examples

lib/ – supporting language libraries

lib/native/ – native OS shared libraries

## Release notes

Minor improvements.

Highlights of this release include the following:

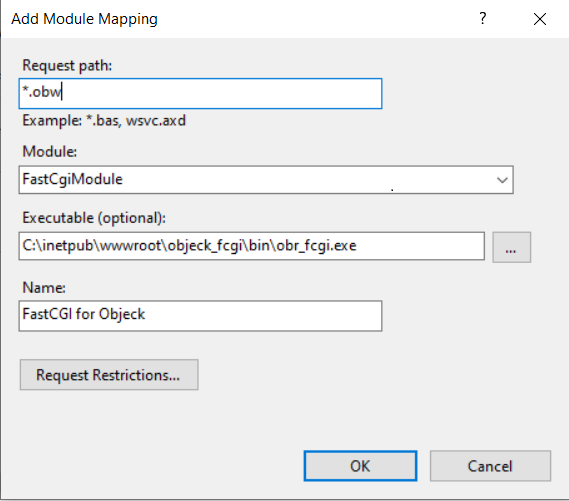
1. Updates to the HttpClient and HttpsClient classes
2. Added 'GetCert' method to the TCPSecureSocket and HttpsClient classes

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### FastCGI for Windows IIS (Windows 10):

Steps:

* Install IIS with the following modules:
  1. Defaults
  2. Application Development Features / CGI
  3. Application Development Features / ISAPI Extensions
  4. Application Development Features / ISAPI Filters
* Copy the Objeck “objeck\_fcgi” directory to IIS “inetpub\wwwroot”
* Copy \*.obw to “inetpub\wwwroot \objeck\_fcgi\apps”
* Open “IIS Manager”
  1. Click on “FastCGI Setting” and “Add Application”
     1. Add “obr\_fcgi.exe”
     2. Click on “Endowment Variables” and “Add”
     3. Set FCGI\_CONFIG\_PATH to the location of the web app (\*.obw)
* On the right navigation click on “Sites”, “Default Web Site”, “Handler Mapping”
* Click on “Add Module Mapping”



* Click on “Request Restrictions”, “Access” and “None”
* Exit and click on “Yes”
* Restart IIS

### FastCGI for Ubuntu using Apache:

Steps:

* Install Apache and FastCGI:
* sudo apt-get install libapache2-mod-fastcgi apache2-MPM-worker libfcgi-dev uuid-dev
* Add the entry below to the: “/etc/apache2/mods-enabled/fastcgi.conf” file:

|  |
| --- |
| <IfModule mod\_fastcgi.c>  AddHandler objeck-lang .objk  FastCgiServer /var/www/html/objeck\_fcgi/bin/obr\_fcgi -initial-env FCGI\_CONFIG\_PATH=/var/www/html/objeck\_fcgi/hello.obw -idle-timeout 60 -processes 1  ScriptAlias /objk "/var/www/html/objeck\_fcgi/bin/obr\_fcgi"  </IfModule> |

### Tips

Few tips to make FastCGI easier to work with:

* Use the “Sytem.IO.File.Logger” class for debugging
* If you’d like your web app to connect to a database using ODBC setup a 32-bit ODBC data source as admin.

For OS X (10.9 or greater), you’ll need to install OpenSSL in order to use encryption APIs as well as ODBC 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 Windows, the ODBC driver must be a 32-bit driver 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).
* Some Redhat based Linux distributions may report errors about heap buffer execution. This is triggered by the JIT compiler’s execution of generated machine code. To resolve this issue please consult the Fedora error console.
* 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.