GT 6.0 Release Notes: C Common Libraries

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1. Component Overview

The C Common Libraries provide an abstraction layer for data types, libc system calls, and data structures used throughout the Globus Toolkit and useful for applications that use the Globus Toolkit.

2. Feature summary

- Globus Callback - Portable event handling layer for signal handling and periodic and one-shot events in a single-more multi-threaded environment.

- Globus Error - An abstraction for providing context-specific information in error response in C.

- Portable Threading API for POSIX and Windows

- URL String Parser

- Configuration handlers for command-line, environment-variable, and configuration file based application configuration.

3. Summary of Changes in C Common Libraries

3.1. New Features: C Common Libraries

None.

3.2. Improvements: C Common Libraries

- Update of build system to enable parallel builds, cross-compiling, and easier testing

4. Fixed Bugs for C Common Libraries

- GT-390[1]: globus_callout loader fails load plugins on systems with broken libtool-ltdl

- GT-470[2]: Globus IO reports timeout error as cancellation

5. Known Problems in C Common Libraries

- GT-108[3]: --libdir is being ignored

- GT-114[4]: i18n rules in installer don't work

- GT-360[5]: signals ignored by subprocesses

- GT-452[6]: autoconf macros for globus-core can't handle absolute path in CC variable (e.g. CC=/usr/bin/gcc)

- GT-470[7]: Globus IO reports timeout error as cancellation

6. Technology dependencies

C Common Libraries only depend on the globus_core module.

7. Tested platforms

The C common libraries have been tested on the following platforms

Table 1. Tested Platforms

Operating System	Distribution	Version(s)	Architecture(s)
	CentOS	5	i386, x86_64
	Fedora	18, 19	i386, x86_64
	Red Hat Enterprise Linux	5, 6	i386, x86_64
	Scientific Linux	5, 6	i386, x86_64
	Debian	6, 7	i386, amd64
	Ubuntu	10.04LTS, 12.04LTS, 12.10, 13.04, 13.10	i386, amd64
Mac OS X		10.8 (Mountain Lion)	x86_64
Solaris		11	x86_64

8. Backward compatibility summary

API changes since GT version 5.2.5

None.

All of the GT 3.2 API is still functional in GT 6.0.

9. Associated Standards

There are no standards implemented by the C common libraries.

10. For More Information

See the <u>C API pages</u>[1] for more information about this component.

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[1] http://www.globus.org/api/c-globus-6.0/