

The NCBI C++ Toolkit

Book Information

Contributing Authors

For list of contributors, see Table 1.

Table 1

List of Contributors

Full-time developers NOTE: This table is always a draft and virtually never up-to-date. Last updated: 19 Sep 2013	
Special thanks to Jim Ostell	Established the biological and bibliographic data model supported by the C++ Toolkit. He also established the overall design, priorities, and goals for C++ Toolkit based on experience building and using the NCBI C Toolkit which preceeded it. He continues to cheer on the list of talented software developers and scientists below who are primarily responsible for making the C++ Toolkit a reality and for introducing most of its nicer features.
Denis Vakatov (since Oct 1998)	Fathered the Toolkit. Coordinate all works on the portable (core, non-internal) projects of the Toolkit, actively participate in the design (and sometimes implementation details) of all core APIs. CONFIGURE -- orig.author and eventual supporter. CORELIB -- orig.author of many modules and active supporter/developer. CGI -- orig.author of "CGI Request" and "CGI Application". DBAPI -- a massive code and API revision on incorporating DBAPI into the Toolkit (with the orig.author, V.Soussov); participate in the core (exception, diagnostic, driver manager) code support and development. CONNECT -- orig.author of the core, abstract connection(CONN) and portable socket(SOCK) APIs, and FW-daemon. GUI -- helped setup the project structure, namespace and common definitions. DOC -- "Reference Manual", "FAQ", mailing lists; snapshots, announcements.
Eugene Vasilchenko (Nov 1999 - Feb 2001) (Aug 2002 - current)	CORELIB -- "CObject, CRef<>", multi-threading CGI -- orig.author of "CGI Response", "Fast-CGI module" HTML -- orig.author SERIAL -- orig.author DATATOOL -- orig.author OBJMGR -- taking over the client-side "loader" code; revising some "user" APIs
Anton Lavrentiev (since Mar 2000)	CONNECT -- <i>[principal developer]</i> author of "NCBI Services": network client API, load balancer, service mapper, dispatcher and launcher; daemons' installation, configuration and monitoring. CTOOLS -- <i>[principal developer]</i> connectivity with the NCBI C Toolkit. MSVC++ project mutli-configuration <i>[principal developer]</i> . Help with the internal wxWindows installations on Windows and Solaris. DOC -- documentation on all of the above Tune-up of online docs and source browsers.
Aleksey Grichenko (since Jan 2001)	CORELIB -- orig.author of the thread library SERIAL -- support and further development DATATOOL -- support and further development OBJMGR -- <i>[principal developer]</i> client-side API and implementation Incorporation of MT-safety and "safe-static" features to all of the above
Aaron Ucko (since Aug 2001)	ID1_FETCH -- <i>[principal developer]</i> developed from a test/demo application to a real client. CONFIGURE -- <i>[principal developer]</i> ; active support and development of the Unix building framework CORELIB -- generalized error handlers, implemented E-mail and CGI/HTML ones UTIL,CONNECT -- blocking-queue; multi-threaded network server API OBJECTS -- adding new functionality, QA'ing other people's additions ALNMGR -- participated in the design PubMed (internal) -- <i>[principal developer]</i> developing C++ bio-sequence indexer framework Toolkit builds on Unix'es (internal) -- support of the building and installation framework
Andrei Gourianov (since Nov 2001)	CORELIB -- major revamp of the exception API -- structure, standartize. OBJMGR -- client-side API, implementation, and docs. DATATOOL -- adding DTD/XML support for the code generator
Vladimir Ivanov (since Apr 2001)	HTML -- further support and development CORELIB, UTIL -- porting of some very platform-dependent extensions Tune-up of online docs and source browsers. Internal wxWindows installations on Windows and Solaris.

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David McElhany (since Jan 2009)	DOC -- Toolkit book
Victoria Serova (since Dec 2005)	DOC -- Toolkit book
Diane Zimmerman (2000 only)	DOC -- "Programming Manual"
Chris Lanczycki (summer 2002 only)	DOC -- major reorganization of the docs structure and appearance
Major contributors	
Anton Butanaev	OBJMGR -- helped to implement ID1 loader DBAPI (in progress) -- driver for MySQL
Cliff Clausen	OBJECTS -- ported various bio-sequence related code and utilities (from C Toolkit)
Mike DiCuccio	GBENCH -- (in progress) extendable C++ FLTK/OpenGL based GUI tool for the retrieval, visualization, analysis, editing, and submitting of biological sequences
Jonathan Kans	OBJECTS -- helped port seq. validator (from C Toolkit). Provide MAC platform support. Contributed code (which sometimes other people ported) for fast sequence alphabet conversion and for translation of coding regions. Also writing the 5-column feature table reader.
Michael Kholodov	DBAPI -- author of the "user-level" database API based on Vladimir Soussov's portable "driver-level" API. SERIAL, DATATOOL -- provided eventual support of (in the beginning of 2001)
Michael Kimelman	OBJMGR (in progress) -- server-side API and implementation, client-side loader (both generic and its implementation for ID)
Vladimir Lebedev	GUI_SEQ -- the first FLTK/OpenGL based GUI widgets for bio-seq visualization. Provide MAC platform support.
Peter Meric	GBENCH (in progress) -- extendable C++ FLTK/OpenGL based GUI tool for the retrieval, visualization, analysis, editing, and submitting of biological sequences and maps (eg. MapViewer data)
Vsevolod Sandomirskiy	CORELIB, CGI -- draft-authored some application- and context- classes
Victor Sapojnikov	DBAPI -- participated in the implementation of the Microsoft DBLIB driver on Windows; (in progress) multiplatform "network bridge" driver
Vladimir Soussov	DBAPI -- <i>[principal developer]</i> author of the portable DB driver API and its implementations for CTLIB(Sybase for Unix and Windows), DBLIB (Sybase and Microsoft), FreeTDS and ODBC
Kamen Todorov	ALNMGR -- library to deal with bio-sequence alignments
Paul Thiessen	APP/CN3D -- Cn3D: graphical protein and alignment viewing, editing, and annotation. ALGO/STRUCTURE/STRUCT_DP -- Block-based dynamic programming sequence alignments. OBJTOOLS/CDDALIGNVIEW -- HTML sequence alignment displays.
Charlie (Chunlei) Liu, Chris Lanczycki	ALGO/STRUCTURE/CD_UTILS -- These contain numerous algorithms used by the structure group and the CDD project.
Thomas Madden, Christiam Camacho, George Coulouris, Ning Ma, Vahram Avagyan, Jian Ye	BLAST -- Basic Local Alignment Search Tool
Greg Boratyn, Richa Agarwala	COBALT -- Constraint Based Alignment Tool

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Jonathan Kans	5-column feature table reader; Defline generator function; GenBank flatfile generator; Basic and Extended sequence cleanup; Sequence record validator; Alignment readers; Various format readers (e.g., BED, WIGGLE)
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Location: include/dbapi/driver/odbc/unix_odbc

Authors: Peter Harvey and Nick Gorham

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