



Ada and Software Engineering Library Version 2 (ASE2)

LIBRARY VERSION 2 (ASE2)
ADA AND SOFTWARE ENGINEERING

About the ASE2 Library

What is the ASE2 Library?

The ASE2 Library is an organized collection of software, documents, courseware, and resource links assembled through a collaboration with hundreds of organizations. All material in the ASE2 Library is either freeware or shareware, and it is available through two websites and a commercial CDROM publication. Distribution of the material is unlimited, and, with the exception of the small number of shareware assets, use of the material is not generally restricted (see each asset for license details). Users are invited to set up their own versions of the ASE2 Library as a website for corporate, academic, or personal use. Websites:

<ftp://ftp.freesoftware.com/pub/ase/index.htm>
or <http://unicol.kennesaw.edu/ase/>
CDROM Publisher – <http://www.cdrom.com/>

What is in the ASE2 Library?

The ASE2 Library is composed of over 370 distinct assets that take up over 1.1G bytes of disk space (in their compressed form - over 10G bytes of disk space when unpacked). The web-based ASE2 Card Catalog documents all assets in the library. The ASE2 Library is on two CDROMs:

ASE02_01 (620M+ bytes, 3,880+ files in 327 folders) contains:

- ✓ The ASE2 Bookcase:
 - Ada User's Bookshelf
 - Software Engineer's Bookshelf
 - Reference Bookshelf
 - Special Reports Bookshelf
- ✓ Over 90 Programming, Software Development, and Software Engineering Courses
- ✓ Over 1,000 documents on Software Development and Engineering topics

ASE02_02 (610M+ bytes, 1,090+ files in 293 folders) contains:

- ✓ Compilers for Ada83, Ada95, C, C++, Objective C, and FORTRAN 77 for Microsoft Windows, Sun Solaris, and other platforms
- ✓ Interpreters for Perl and TCL/TK for Microsoft Windows
- ✓ A simulator for VHDL for Sun Solaris
- ✓ Software development tools for Ada, C, C++, Java, and VHDL
- ✓ Many Ada reusable components
- ✓ Ada benchmark and evaluation suites
- ✓ Ada bindings to over 15 standards, such as POSIX, X11, and Microsoft Windows

Some ASE2 Library Assets:

- ✓ Ada Reference Manual with Technical Corrigendum 1, ISO/IEC Standard 8652:1995(E) with COR 1:2000
- ✓ GNAT 3.12p and 3.13p Ada95/Ada83/C compiler and environment with GNATCOM 1.3p, GLADE 3.13p, GLIDE 1.13p, GTKAda 1.2.8, and ASIS 3.13p
- ✓ JGNAT 1.1p Ada95/Ada83 compiler
- ✓ Aonix Special Edition 7.2 Ada95 compiler and environment
- ✓ MINGW32 C++ compiler
- ✓ GRASP 6.32 (Graphical Representation of Algorithms, Structures, and Processes), pcGRASP 6.2.17, and JGRASP 1.1.7 (runs on the Java Virtual Machine) for Ada, C, C++, Java, and VHDL software development
- ✓ AdaGIDE 6.26 (editor, pretty printer, and compiler interface) for Ada software development



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Some ASE2 Library Assets (cont):

- ✓ Ada Conformity Assessment Test Suite (ACATS) / Ada Compiler Validation Capability (ACVC) 2.3
- ✓ Ada Compiler Evaluation System (ACES) 2
- ✓ Performance Issues Working Group (PIWG) Benchmarks 1.1
- ✓ Software Engineering Body of Knowledge (SWEBOK) Stone Man 0.7
- ✓ Capability Maturity Models - CMMI (1.0), Software CMM, Systems Engineering CMM, People CMM, Software Acquisition CMM, and Systems Security Engineering CMM
- ✓ The "Little Red Book" - the COTS Revolution
- ✓ Best Practices for Software Engineering, including "16 Practices for Improving Software Project Success" and "16 Critical Software Practices for Performance-based Management"
- ✓ Reports and Presentations on Microsoft Technologies - Windows 2000, Millennium, and CE; the Pocket PC; Electronic Books and the Microsoft Reader; much more
- ✓ 3 courses in Ada83
- ✓ 21 courses, tutorials, and workbooks in Ada95
- ✓ 2 courses in C++, 1 course in C
- ✓ 1 course in Visual Basic, 1 set of Visual Basic exercises
- ✓ 8 Software Engineering courses
- ✓ 4 Software Reuse courses
- ✓ 2 courses in Object-Oriented Design and Programming
- ✓ 2 courses in Web Publishing
- ✓ A mix of courses in:
 - Software quality assurance
 - Configuration management
 - Concurrent programming
 - Safety-critical systems
 - Formal methods
 - Information protection and intellectual property
 - Life cycles and processes
 - Risk management
 - Real-time programming
 - Requirements and specifications
 - Software safety
 - Process improvement
 - Project management
 - Software product evaluations
 - Software verification and validation
 - Systems engineering
- ✓ Generic Web-based Reuse Library (GWRL) Build 6 (the web construction tool used to build the ASE2 Library website and CDROM set, including its Card Catalog)
- ✓ All issues of the "Crosstalk - the Journal of Defense Software Engineering" through September 2000
- ✓ All reports and papers issued to the public by the Software Engineering Institute from 1986 through Sep 2000
- ✓ A large collection of documents on topics such as:
 - Ada advocacy
 - Ada83/Ada95 compatibility
 - National Research Council on Ada
 - Ada Reference Manual (in both conventional and annotated forms) and Rationale for the Design of Ada
 - Ada Style Guides
 - Reuse Library frameworks
 - Reuse guidelines and standards, including NATO Reuse Standards
 - Design for Reuse
 - Reuse repositories and standards for repository deliverables
 - Evaluation of reusable assets
 - Reuse Adoption Guidebook
 - Reuse-Driven Software Processes Guidebook
 - Reuse-based Spiral Lifecycle
 - Reuse Strategies and Institutionalization
 - BNF for Ada
 - Software Acquisition Handbook
 - Software Engineering handbooks
 - Software Library Development Handbook
 - Cleanroom Engineering
 - Designing Distributed Computing Platforms
 - Domain Engineering
 - Policy Management
 - Personal Software Process and Team Software Process
 - Process Definition and Modeling, Process Engineering, Process Improvement
 - Requirements Engineering
 - SGML and HTML
 - Technology Transfer and Technology Reports
 - User Interface Design
 - Gray's Turing Lecture on IT
 - 2167A, 498, and SDD Standards