Forte™ Developer 6
Software Suite

Just the Facts

Copyrights

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Positioning

Introduction

The Forte™ Developer 6 software suite is a comprehensive, integrated, competitively priced development environment that helps developers build high−performance, scalable, open, high−quality applications more rapidly and efficiently.

With more than 400,000 successful users, Forte Developer 6 software is an outstanding solution for software development on Solaris™ Operating Environment for both individuals and teams of software developers. Forte Developer 6 software products support the rapid development of graphical user interface (GUI), client−server, high−performance, and single− and multithreaded 32−bit or 64−bit applications. Forte Developer 6 software integrates the tools developers use on a daily basis including

- A professional GUI builder for the Java™ platform, Motif, and Microsoft Windows
- Productivity tools to browse, debug, and tune applications
- Run−time error checking and memory leak detection
- A fast, optimizing compiler language system with incremental linker
- Multithreaded development tools
- Forte TeamWare 6 software for software configuration management

New for This Release

Forte Developer 6 software is the new name for the Sun Workshop™ Development Tools suite. Forte Developer 6 software replaces the Sun WorkShop 5 products across the board. Products in this tool set include:

- Forte C++ 6 software (formerly Sun Visual Workshop™ C++)
- Forte C 6 software (formerly Sun WorkShop Professional™ C)
- Forte for High Performance Computing 6 software (formerly Sun Performance WorkShop™)
- Forte TeamWare 6 software (formerly Sun Workshop TeamWare™)

New features in this release include:

- New "Getting Started" wizards for the Forte Developer environment
- A new performance analysis tool for tuning code down to the thread level
- Debugging of optimized code
- Support for larger than 4−GB static arrays for 64−bit C code
- Support for member templates and partial specialization of templates (support for the new ISO and ANSI C++ standards)
- Interval arithmetic in FORTRAN 95
- OpenMP support in FORTRAN 95

Key Features and Benefits

Features	Benefits

New project wizards in the integrated development environment	Helps shorten the learning curve for developers new to Forte Developer software
Full support for the FORTRAN 95 standard	Extends language, helps improves portability
Interval arithmetic in FORTRAN	Offers user the ability to solve new kinds of complex problems such as non−linear, constrained resource optimization problems
OpenMP support in FORTRAN	Improves scalability of applications
Support for ANSI/ISO C++ standards	Provides portable, standards−compliant code
Tight, editor−centric tool integration	Works the way developers prefer for immediate productivity
Java platform, Motif, and Microsoft Windows GUI builder	Speeds development of cross−platform applications
Easy navigation through tools and code with hyperlinks	Ease of use for fixing source code errors
WorkSets and Picklists for quick access to files, build targets and programs from previous work sessions	Virtually eliminates cold starts so the user can pick up where work stopped
GUI capture and testing	Allows re−engineering of existing Motif applications and testing of new applications without a special test environment
HTML−based help and documentation	Provides ready access to the information needed when and *where* it is needed
Distributed make	Speeds development, increases productivity
Multithreaded debuggers for C, C++, and FORTRAN	Enables debugging of multithreaded applications
Debug optimized code	Offers higher quality, high−performance code
Auto−parallelization of C and FORTRAN	Enables scalability and high−performance run−time systems
Optimized code generation for SPARC™ and UltraSPARC™ processor systems	Leverages investment in high−performance Sun™ hardware
Run−time error and memory leak detection	Automatically catches hard−to−find memory errors
Choice of popular editors	Allows developers work with their editor of choice while tightly coupled with the debugger

Key Messages

This release of the Forte Developer 6 software product family includes the following features:

- **Integrated programming environment**: Unleashes the power in tools with the easy–to–use Motif user interfaces, integrating steps from GUI design and code generation to edit–compile–debug–tune.
  - **Choice of integrated editors** with hyperlinks for easy editing, error and source browsing, and referencing.
  - **Data visualization:** The debugger provides 3–D visualization capability; users can observe what happens to data while the program executes.
  - **Extensive on–line HTML format help**
  - **formance data to find and fix the real performance and scalability bottlenecks in the code.**
  - **Runtime error checking**: Improves application quality by catching hard–to–find memory access, leaks, and runtime errors before application is put in production.
  - **Incremental linker:** This feature dramatically shortens build times when only a few files have changed. This is particularly important with large files and large project teams.
- **Excellent compiler performance**: Compiler back–ends improve performance of applications on Solaris Operating Environment/SPARC processor (including UltraSPARC) architecture.
- **Visual GUI building capabilities** (for Forte C++ Enterprise Edition software)
  - Zero–to–application in seconds—quick generation of GUI application template with AppGuru
  - GUI testing or problem recreation tools
  - GUI re–engineering tool for leveraging existing Motif/Xt GUIs
  - Includes the cross–platform GUI development tools of the Java platform, Motif, and Microsoft Windows applications

Availability

The Forte Developer 6 software suite will be available starting May 19, 2000.

Target Customers

Forte Developer 6 software is a set of power tools for serious developers. This includes independent software vendors (ISVs) targeting the server space and developers of in–house business applications at (primarily) large organizations.

This software is designed for technical and commercial software developers who need to:

- Build applications that maximize performance of the Solaris Operating Environment and SPARC and UltraSPARC processor–based systems

Improve developer and team productivity using well–integrated, well–supported tools; especially important to those with large projects to manage

Build Motif applications, or cross–platform Motif and Microsoft Windows applications

Create compute–intensive, performance–sensitive applications, leveraging multiprocessing (MP) workstations and servers

Market Value Proposition

With Forte Developer 6 software customers get a leading development environment for the leading server platform. This development environment allows users to write high–performance, scalable 64–bit applications for the Solaris Operating Environment/SPARC platform.

The Solaris Operating Environment is the number one UNIX® development environment, enabling developers to take advantage of true distributed networking and advanced technologies such as symmetric multiprocessing (SMP), 64–bit operating environments, and multithreading (MT) to increase productivity. It also offers an environment for object–based development, to leverage the benefits of distributed computing.

Sophisticated tools for maximizing performance

32–bit and 64–bit compilers, optimization, multithreading, and multiprocessing tools make it easy to maximize performance of the Solaris Operating Environment, SPARC processor, and UltraSPARC systems.

Investment protection—hardware and software

Mature, robust, scalable products are standards–based and well–suited to enterprise and mission–critical application development.

Investment protection—people

Powerful tools help serious developers maximize their potential building scalable, available, high–performance business applications that drive revenue.

The Forte Developer 6 product family closely integrates the complete set of tools that an individual or team of developers needs to build robust, high–performance, and scalable applications in mission–critical, client–server, intranet/Internet, Java technology, object–oriented, and high–performance computing. Sun's highly productive core development products support both individual developers and workgroups in the tasks software developers do most—debugging, browsing, inspecting, compiling, and tuning software applications. Close integration provides ease–of–use, productivity, and excellent value. Forte Developer 6 products include tools for extracting excellent performance from multithreaded applications running on single and multiprocessor SPARC and UltraSPARC processor–based systems.

Sun offers investment protection by complying with open industry standards in software including COSE, SVR4, ANSI for C, K&R for C, ANSI and ISO for C++ and FORTRAN, X Windows, Display PostScript™, and XPG. Sun provides application–binary compatibility across a wide range of SPARC hardware configurations and source compatibility across SPARC platforms and Intel architectures. Sun is committed to simplifying development for the enterprise so applications can be ported easily, scaled easily, and deployed quickly.

With more than 1000 prominent, third–party developer applications available, Sun offers customers the flexibility to choose the products that best suit their needs. On Sun systems, developers have one of the widest selection of solutions available in the UNIX marketplace.

Forte™ C++ Enterprise Edition 6 Software

Forte™ C++ Enterprise Edition 6 software is an integrated environment designed to speed software development for individuals and teams of developers. Forte C++ Enterprise Edition 6 software includes:

- Visual GUI builder for the Java™ platform, Motif, and Microsoft Windows to quickly develop graphical user interfaces
- Integrated programming environment to easily browse, edit, compile, debug, and tune applications
- Run−time error checking and memory leak detection to eradicate some of the most difficult to find bugs
- C++ and C language systems to build high−performance applications, with the Rogue Wave Tools.h++ libraries to jump start development
- Multithreading/multiprocessing development tools—automatic code threading, threaded libraries, and automatic parallelization make it easy to get the most performance out of the Solaris™ Operating Environment/SPARC™ processor systems.
- Software configuration management tools−to effectively and efficiently coordinate team development
- Debug optimized code to build high−quality, highly optimized applications
- Performance analyzer to find and fix bottlenecks—even at the thread level

Quickly Develop and Test Graphical User Interfaces (GUIs)

Without the proper tools, creating GUIs is a laborious and error−prone process. With Forte C++ Enterprise Edition 6 software, users can quickly and easily build sophisticated GUI applications. The highly graphical, professional GUI designer allows users to build interfaces by just pointing and clicking on predefined widgets on the palette and snapping them together in a construction area. The GUI provides an instantaneous display of the design as it is being built and changed. The extensible palette supports both custom and third−party widgets for easy component reuse.

Once finished, a built−in code generator automatically generates portable Java software code, C, or C++ code at the touch of a button. Resulting interfaces are fully compatible with the Java 2 environment, OSF/Motif, and portable to Microsoft Windows.

Testing the GUI applications or recreating problems is just as easy, with no special test environment required. Old Motif applications can be reinvigorated by capturing these legacy GUIs and updating with Forte C++ Enterprise Edition 6 software, thus easing the pain of software maintenance. These tools can also be helpful in building tutorials and demonstrations.

Boost Programming Productivity and Application Quality

The Forte Developer 6 integrated programming environment for Visual C++ is easy to use, yet is designed to meet the demands of the most sophisticated development teams. New Getting Started wizards have been added to allow developers new to the Forte Developer integrated development environment to quickly get up to speed on all of the productivity boosting features.

Forte Developer 6 software's integrated editors and browsers help users write and understand programs more quickly. Developers can easily traverse build errors in source code via hyperlinks, or be more productive writing code with a choice of integrated editors.

Debugging is just as easy with its graphical user interface. From basic to advanced features, developers can significantly boost productivity. Set breakpoints, examine variables, navigate the call stack—all via the debugger’s convenient menus and buttons. Slash turnaround time of fixes and achieve greater debugging productivity with Fix and Continue.

For improving application quality, advanced features, such as run−time error checking, help catch hard−to−find bugs like memory access violations and memory leaks before putting the application into production. Developers can also tune for best application performance with an array of sophisticated performance analysis tools.

Turbo−Charge Applications with Multithreading/Multiprocessing Technology

Achieve higher performance, throughput, and responsiveness with multithreaded applications! Users can effectively build these powerful applications with our comprehensive multithreading solution using capabilities such as auto−parallelization of C code, deadlock detection, data races, or profiling information (both prof and gprof reports) at the thread level. Our multiprocessing tools optimize for multi−CPU systems, automatically detecting loops and generating code that will execute across multiple processors.

Take Advantage of 64−bit Sun Hardware And Software

Forte Developer 6 software includes 32−bit and 64−bit C, C++, and FORTRAN compilers. Customers can choose to write applications as 64−bit or 32−bit applications depending on their requirements for portability, performance, and scalability.

Coordinate Team Development Efficiently and Effectively

Forte TeamWare 6 software configuration management tools facilitate the management of a team’s software development activities even when distributed among multiple sites. Sun provides automated tools that improve a team’s productivity by allowing team members to work in parallel, coordinate, integrate, and build a product. These tools are easy to learn, easy to use, easy to administer, and completely scalable. (See separate listing below.)

Forte C++ Enterprise Edition 6 Software Features

- Integrated programming environment—easy to use and accessible
  - Boosts developer productivity and application quality
  - Choice of integrated editors
  - Motif user interfaces
  - WorkSets and Picklists for quick access to files, build targets, and programs used in previous sessions
- Visual GUI builder capabilities
  - Zero−to−application in seconds with AppGuru
  - GUI capture for re−engineering of legacy Motif applications
  - GUI testing with no special test environment required
- Distributed make slashes build time using multiple processors over the network
- 3−D data visualizer to see and debug complex data arrays
- Improved performance and optimization for C and C++ compiler systems

- Rogue Wave Software’s Tools.h++ 7.0 class library included
- Performance analyzer
- Debug optimized code
- Getting Started wizards and on–line tutorial to reduce learning curve
- Extensive, on–line, context–sensitive help featuring HTML–based documentation for easy browsing

Forte for High Performance Computing 6 Software

Forte for High Performance Computing 6 software enables individuals and teams of developers to produce outstanding quality code very rapidly. Benefits include:

- Integrated programming environment to easily browse, edit, compile, debug, and tune r applications
- Run–time error checking and memory leak detection to eradicate some of the most difficult to find bugs
- Multithreading/multiprocessing development tools—automatic code threading, threaded libraries, and automatic parallelization make it easy to get the most performance out of the Solaris Operating Environment/SPARC processor systems
- Get the maximum performance from FORTRAN 90/95, FORTRAN 77, C, and C++ applications using the optimized compilers and tuned performance libraries
- Visually check algorithm correctness with interactive 3–D data visualization
- Software configuration management tools to effectively and efficiently coordinate team development
- OpenMP support for open, scalable applications
- Interval arithmetic support allows users to solve new types of problems with a defined level of accuracy

Boost Programming Productivity and Application Quality

The Forte Developer 6 integrated programming environment for FORTRAN is easy to use, yet is designed to meet the demands of the most sophisticated development teams.

Forte Developer 6 software’s integrated editors and browsers help users write and understand programs more quickly. Browsing source code and debugging binaries is seamlessly merged with editing through the tightly integrated Emacs and vi editors. Compilation is performed with a few simple mouse clicks in the integrated build system, and compilation errors provide hypertext links into the source editor for the fastest possible correction times.

Debugging is just as easy with its graphical user interface. From basic to advanced features, developers can significantly boost productivity. Set breakpoints, examine variables, navigate the call stack—all via the debugger’s convenient menus and buttons. Slash turnaround time of fixes and achieve greater debugging productivity with Fix and Continue.

For improving application quality, advanced features, such as run–time error checking can help catch hard–to–find bugs like memory access violations and memory leaks before putting the application into production. Developers can also tune for best application performance with an array of sophisticated performance analysis tools.

Performance Library

Performance Library consists of highly tuned, floating–point math libraries that help ensure that the most complex numerical code will execute efficiently. The library includes optimized and parallelization implementations of the standard LAPACK, BLAS levels 1, 2 and 3, FFTPACK, VFFTPACK, and LINPACK libraries of numerical algorithms.

The Performance Library is based on the latest versions of seven of the most widely used standard mathematical subroutine libraries. The subroutines in the Performance Library are used as the computing engine for thousands of programs in structural analysis, computational fluid dynamics, reservoir modeling, simulation, and other computationally demanding fields. The library keeps all of the functionality of the standard library and adds a significant performance boost by optimizing for the SPARC architecture.

This combination of high performance and use of widely accepted standards means that Performance Library can increase the speed of existing applications by a factor of two or more without requiring any source code changes. If users have an MP system, then speed ups can be much higher. And because the parallelization is built into Performance Library, users get the performance benefits of their MP system without the expense and effort of modifying applications.

Take Advantage of Multiprocessor Hardware

Forte Developer 6 software’s multithreading development tools and Performance Library allows users to harness the power of multiprocessing systems. Forte for High Performance Computing 6 software enhances the compilers with powerful capabilities to automatically parallelize existing code. During optimization, loops are automatically detected and code generated that will execute across multiple processors, if they are available.

Performance Library provides threaded versions of popular basic scientific routines, complementing multithreaded applications or allowing single−threaded applications to realize the performance benefits of threading.

OpenMP is the industry standard for programming multi−threaded applications.

Visually Check Algorithm Correctness with Interactive Data Visualization

Examining the contents of a large data array is very difficult using a traditional, text−oriented interface. The debugging subsystem of Forte for High Performance Computing 6 software provides a data visualization capability, which allows users to graphically see the contents of an array at any breakpoints. Algorithmic errors can be quickly detected and, using the Fix and Continue feature, corrected in the same debugging session. The result is shorter development cycles and virtually error−free applications.

Coordinate Team Development Efficiently and Effectively

Forte TeamWare 6 software configuration management tools facilitate the management of a team’s software development activities even when distributed among multiple sites. Sun provides automated tools that improve a team’s productivity by allowing team members to work in parallel, coordinate, integrate, and build a product. These tools are easy to learn, easy to use, easy to administer, and completely scalable. (See separate product listing below.)

Features of Forte for High Performance Computing 6 Software

The integrated programming environment is easy to use and highly accessible

Boosts developer productivity and application quality

Choice of integrated editors

Motif user interfaces

WorkSets and Picklists for quick access to files, build targets, and programs in previous sessions

Distributed make slashes build time using multiple processors over the network

3−D data visualizer to see and debug complex data arrays

Improved global program checking support for libraries (allows ISVs to ship debug enabled "fat.o" files)

Performance analyzer

Debug optimized code

Getting Started wizards and on−line tutorial to help reduce learning curve

Extensive, on−line, context−sensitive help featuring HTML based documentation for easy browsing

Forte TeamWare 6 Software

Forte TeamWare 6 software provides a powerful software configuration management toolset for development teams. Forte TeamWare 6 software helps users:

More easily manage the team's software development activities

Increase team productivity immediately

Improve product quality

Get the product to market faster

Enhance team coordination

Distribute and grow the team more easily

More Easily Manage The Team's Software Development Activities

Creating quality software is more of a challenge today than ever before. With technologies such as client−server, object−oriented programming, multiplatform deployment, and multi−language interoperability, software development is more complex. Software developers work in groups rather than individually and share information, data, and responsibilities. With team development there is greater opportunity for duplicate efforts, team members working at cross purposes, lost changes, and so on, resulting in lower productivity and poor product quality.

Forte TeamWare 6 software provides a development team with software configuration management, version control, change control, build management, integration, and release support that will help improve the team's productivity and the product's quality. Forte TeamWare 6 software is completely scalable and can be used effectively by teams that are centrally grouped or remotely dispersed. Team members will like it because it fits seamlessly into their present development environment and is easy to use.

Increase Team Productivity Immediately

Forte TeamWare 6 software enables the team to work effectively and concurrently on files, configurations, and releases. Forte TeamWare 6 software does not require lengthy setup, time−consuming education, or separate administration. Productivity can also come from Sun's distributed make facility, where users can slash lengthy build time by utilizing multiple processors available on the network.

Improve Product Quality

Forte TeamWare 6 software automates software development's most error−prone process, change integration. It keeps track of conflicting changes and automates the resolution of the changes to help eliminate costly integration errors. With the complete history of all changes made to the software provided by Forte TeamWare 6 software, users can easily identify areas where product quality can be improved.

Get The Product to Market Faster

With Forte TeamWare 6 software a team can achieve shorter development schedules by providing a structure as well as automated functions that allow the team to work in parallel, coordinate, integrate, and build a product.

Distribute and Grow The Team More Easily

The Forte TeamWare 6 software architecture is flexible so that it enhances rather than changes the way a team works. Since Forte TeamWare 6 software does not enforce its own development process, a team can use its own. Forte TeamWare 6 software concepts are easy to learn and use. The Forte TeamWare 6 software copy–modify–merge paradigm enables developers and groups to work independently and projects to be distributed easily among multiple sites. With Forte TeamWare 6 software, changing the team does not mean changing tools.

Features of Forte TeamWare 6 Software

Motif user interfaces
Distributed make slashes build time using multiple processors over the network
Extensive, on–line, context–sensitive help featuring HTML–based documentation for easy browsing

Requirements and Configuration

Product System Requirements

Operating Environment

The Forte™ Developer 6 tools suite is supported on the Solaris™ 2.6, 7, and 8 Operating Environment on both SPARC™ processor and Intel platforms.

SPARC Platforms

Supported platforms include the following:

Solaris 7, 8 Operating Environment	Solaris 2.6 Operating Environment
Recommended: Any UltraSPARC™	Recommended: SPARCstation 5/170 MHz
Minimum: SPARCstation™/50 MHz	Minimum: SPARCstation/50 MHz

Intel Platforms

Solaris 7, 8 Operating Environment	Solaris 2.6 Operating Environment
Recommended: Any UltraSPARC	Recommended: Pentium/233 MHz
Minimum: SPARCstation/50 MHz	Minimum: Pentium/133 MHz

Licensing

Forte C++ Personal Edition is a node−locked licensed product. Forte C++ Enterprise Edition, Forte C, Forte FORTRAN Desktop Edition, and Forte for High Performance Computing software are floating license products.

Relevant Standards Supported

Forte C++, Forte C, and Forte FORTRAN HPC software follow ANSI and ISO language standards. There are six basic configurations for Forte Developer 6 software.

Forte C++ Enterprise Edition 6 software is a floating license product best for environments with several developers. It should be purchased on a per−concurrent−user basis.

Forte C++ Personal Edition 6 software is a node−locked license that is only suitable for single developers and should be purchased on a one−per−developer basis. Shops with multiple developers will quickly become frustrated with the usage limitations of the node−locked license.

Forte for High Performance Computing 6 software includes C, C++, and FORTRAN and is for the serious High Performance Computing developer. It is a floating license, and it includes support for deploying, parallel, high−performance applications on large, multiprocessor servers.

Forte FORTRAN Desktop Edition 6 software includes C and FORTRAN and is node−locked. It is suitable for single FORTRAN developers who do not need support for multiprocessor deployment.

Forte C 6 software is for developers who only use the C language. It is a floating license.

Forte TeamWare 6 software is sold on a floating license.

Ordering Information

Below are part numbers and product descriptions for the Forte™ Developer 6 product configurations.

Forte C++ Enterprise Edition 6 Products

Part Number	Description
FCED9−600−T999	Forte C++ Enterprise Edition 6 documentation set (one complete set of printed manuals for all platforms)
FCEIS−600−T999	Forte C++ Enterprise Edition 6 software, 1−user Slim Kit for the SPARC™ platform includes software, on−line documentation, and specified number of user licenses
FCEXS−600−T999	Forte C++ Enterprise Edition 6 software 10−user Slim Kit for the SPARC platform includes software, on−line documentation, and specified number of user license
FCEYS−600−T999	Forte C++ Enterprise Edition 6 software 25−user Slim Kit for the SPARC platform includes, software, on−line documentation, and specified number of user licenses
FCEIS−600−TL99	Forte C++ Enterprise Edition 6 software 1 RTU, ESD electronic license only for the SPARC platform
FCEBS−600−TD99	Forte C++ Enterprise Edition 6 software Try n' Buy
FCEII−600−T999	Forte C++ Enterprise Edition 6 software 1−user Slim Kit for Intel, includes software, on−line documentation, and specified number of user licenses
FCEXI−600−T999	Forte C++ Enterprise Edition 6 software 10−user Slim Kit for Intel, includes software, on−line documentation, and specified number of user licenses
FCEII−600−TL99	Forte C++ Enterprise Edition 6 software 1 RTU, ESD for Intel
FCEBI−600−TD99	Forte C++ Enterprise Edition 6 software Try n' Buy for Intel

Forte C++ Personal Edition 6 Products

Part Number	Description
FCPIS−600−T999	Forte C++ Personal Edition 6 software One−user Slim Kit for the SPARC platform, includes software, on−line documentation, and specified number of user licenses
FCPIS−600−TL99	Forte C++ Personal Edition 6 software 1 RTU, ESD, electronic license only for the SPARC platform
FCPBS−600−TD99	Forte C++ Personal Edition 6 software Try n' Buy for the SPARC platform
FCPII−600−T999	Forte C++ Personal Edition 6 software 1−user Slim Kit for Intel, includes software, on−line documentation, and specified number of user licenses
FCPII−600−TL99	Forte C++ Personal Edition 6 software 1−RTU, ESD, for Intel electronic license only
FCPBI−600−TD99	Forte C++ Personal Edition 6 software Try n' Buy for Intel

Forte for High Performance Computing 6 Products

Part Number	Description
FFHD9−600−T999	Forte For High Performance Computing 6 documentation set (1 complete set of printed manuals for all platforms)
FFHIS−600−T999	Forte for High Performance Computing 6 software 1−user Slim Kit for the SPARC platform includes software, on−line documentation, and specified number of user licenses
FFHXS−600−T999	Forte for High Performance Computing 6 software 10−user Slim Kit for the SPARC platform includes software, on−line documentation, and specified number of user licenses
FFHYS−600−T999	Forte for High Performance Computing 6 software 25−user Slim Kit for the SPARC platform includes software, on−line documentation, and specified number of user licenses
FFHIS−600−TL99	Forte for High Performance Computing 6 software 1−RTU, ESD, electronic license only for the SPARC platform
FFHBS−600−TD99	Forte for High Performance Computing 6 software Try n' Buy for the SPARC platform

Forte FORTRAN Desktop Edition 6 Products

Part Number	Description
FFDIS–600–T999	Forte FORTRAN Desktop Edition 6 software 1–user slim kit for the SPARC platform includes, software, on–line documentation and one user license
FFDIS–600–TL99	Forte FORTRAN Desktop Edition 6 software 1 RTU electronic license only for the SPARC platform
FFDBS–600–TD99	Forte FORTRAN Desktop Edition 6 software Try n' Buy

Forte Professional C 6 Products

Part Number	Description
FC9D9–600–T999	Forte C 6 documentation set (1 complete set of printed manuals for all platforms)
FC9IS–600–T999	Forte C 6 software 1–user Slim Kit for the SPARC platform includes, software, on–line, documentation, and specified number of user licenses
FC9XS–600–T999	Forte C 6 software 10–user Slim Kit for the SPARC platform includes, software, on–line, documentation, and specified number of user licenses
FC9IS–600–TL99	Forte C 6 software 1 RTU, ESD, electronic license only for the SPARC platform
FC9BS–600–TD99	Forte C 6 software Try n' Buy for the SPARC platform
FC9II–600–T999	Forte C 6 software 1–user Slim Kit for Intel, includes software, on–line documentation, and specified number of user licenses
FC9XI–600–T999	Forte C 6 software 10–user Slim Kit for Intel, includes software, on–line documentation, and specified number of user licenses
FC9II–600–TL99	Forte C 6 software 1 RTU, ESD, electronic license only for Intel platform
FC9BI–600–TD99	Forte C 6 software Try n' Buy for Intel

Forte TeamWare 6 Products

Part Number	Description
FTWD9–600–T999	Forte TeamWare 6 documentation set (1 complete set of printed manuals for all platforms)

Part Number	**Description**
FTWIS–600–T999	Forte TeamWare 6 software 1–user Slim Kit for the SPARC platform, includes software, on–line documentation, and specified number of user licenses
FTWXS–600–T999	Forte TeamWare 6 software 10–user Slim Kit for the SPARC platform includes software, on–line documentation, and specified number of user licenses
FTWIS–600–TL99	Forte TeamWare 6 software 1–RTU, ESD, electronic license only for the SPARC platform
FTWBS–600–TD99	Forte TeamWare 6 software Try n' Buy for the SPARC platform
FTWII–600–T999	Forte TeamWare 6 software 1–user Slim Kit for Intel, includes software, on–line documentation, and specified number of user licenses
FTWII–600–TL99	Forte TeamWare 6 software 1–RTU, ESD, electronic license only for Intel
FTWBI–600–TD99	Forte TeamWare 6 software Try n' Buy for Intel

Forte Developer 6 Media Kits

Part Number	**Description**
FMKMS–600–T999	Forte Developer Media Kit 6 software 1 media kit only for the SPARC platform
FMKMI–600–T999	Forte Developer Media Kit 6 software 1 media kit only for Intel

Ordering Notes

There are no major changes in Sun Visual WorkShop™ software except for the name change to Forte C++ Enterprise Edition 6 software. These are the same products and configurations as in the Sun Visual WorkShop 5.0 release.

The Sun Performance WorkShop™ software has been split into two products: Forte for HPC and Forte FORTRAN Desktop Edition. Forte for HPC is the traditional Sun Performance WorkShop software with the C++ compiler as an additional component. Forte FORTRAN Desktop Edition software is an entry–level product that is the same as the current Sun Performance WorkShop Personal Edition product, but without the ability to create parallel programs in FORTRAN.

FORTRAN for Intel is no longer available.

Forte FORTRAN Desktop Edition, the rough replacement for Sun Performance WorkShop Personal Edition software, is no longer node–locked.

Try and Buys will be available as downloads and as physical product.

Compiler−only configurations will no longer be available. Customers upgrading from compiler−only configurations will be able to buy a low−cost upgrade to the full suite.

Upgrades

Forte Developer 6 upgrade products are available for customers who currently own Sun WorkShop 5 software or earlier products.

Upgrade Ordering Notes

Upgrade from Sun Visual WorkShop C++ to Forte C++ Enterprise Edition 6 software

Upgrade from Sun Performance WorkShop FORTRAN Personal Edition to Forte FORTRAN Desktop Edition 6 software

Upgrade from Sun WorkShop Professional™ C to Forte C 6 software

Upgrade from Sun WorkShop TeamWare™ to Forte TeamWare 6 software

Upgrade from Sun Performance WorkShop FORTRAN to Forte High Performance Computing 6 software

Upgrade from Sun Visual WorkShop C++ Personal Edition to Forte C++ Personal Edition 6 software

Forte C++ Enterprise Edition 6 Product Upgrades

Part Number	**Title and Description**
FCEIS−600−T9U9	Forte C++ Enterprise Edition 6 software upgrade, 1−user Slim Kit for the SPARC platform includes software, on−line documentation, and specified number of user licenses
FCEXS−600−T9U9	Forte C++ Enterprise Edition 6 software upgrade 10−user Slim Kit for the SPARC platform includes software, on−line documentation, and specified number of user licenses
FCEYS−600−T9U9	Forte C++ Enterprise Edition 6 software upgrade 25−user Slim Kit for the SPARC platform includes software, on−line documentation, and specified number of user licenses
FCEII−600−T9U9	Forte C++ Enterprise Edition 6 software upgrade 1−user Slim Kit for Intel, includes software, on−line documentation, and specified number of user licenses
FCEXI−600−T9U9	Forte C++ Enterprise Edition 6 software upgrade 10−user Slim Kit for Intel, includes software, on−line documentation, and specified number of user licenses

Forte C++ Personal Edition 6 Product Upgrades

Part Number	Description
FCPIS–600–T9U9	Forte C++ Personal Edition 6 software upgrade 1–user Slim Kit for the SPARC platform
FCPII–600–T9U9	Forte C++ Personal Edition 6 software upgrade 1–user Slim Kit for Intel

Forte for High Performance Computing 6 Product Upgrades

Part Number	Description
FFHIS–600–T9U9	Forte for High Performance Computing 6 software upgrade 1–user Slim Kit for the SPARC platform
FFHXS–600–T9U9	Forte for High Performance Computing 6 software upgrade 10–user Slim Kit for the SPARC platform

Forte Desktop Edition 6 Product Upgrades

Part Number	Description
FFDIS–600–T9U9	Forte FORTRAN Desktop Edition 6 software upgrade 1 User Slim Kit for the SPARC platform

Forte C 6 Product Upgrades

Part Number	Description
FC9IS–600–T9U9	Forte C 6 software upgrade 1–user Slim Kit for the SPARC platform includes software, on–line documentation, and specified number of user licenses
FC9XS–600–T9U9	Forte C 6 software upgrade 10–user Slim Kit for the SPARC platform includes software, on–line documentation, and specified number of user licenses
FC9II–600–T9U9	Forte C 6 software upgrade 1–user Slim Kit for Intel, includes software, on–line documentation, and specified number of user licenses
FC9XI–600–T9U9	Forte C 6 software upgrade 10–user Slim Kit for Intel, includes software, on–line documentation, and specified number of user licenses

Forte TeamWare 6 Product Upgrades

Part Number	Description
FTWIS−600−T9U9	Forte TeamWare 6 software upgrade 1−user Slim Kit for the SPARC platform
FTWII−600−T9U9	Forte TeamWare 6 software upgrade 1−user Slim Kit for Intel

Service and Support

The SunSpectrum℠ program is an innovative and flexible service offering that allows customers to choose the level of service best suited to their needs, ranging from mission−critical support for maximum solution availability to backup assistance for self−support customers. The SunSpectrum program provides a simple pricing structure in which a single fee covers support for an entire system, including related hardware and peripherals, the Solaris™ Operating Environment software, and telephone support for Sun™ software packages. The majority of Sun's customers today take advantage of the SunSpectrum program, underscoring the value that it represents. Customers should check with their local Sun Enterprise Services representatives for program and feature availability in their areas.

FEATURE	SUNSPECTRUM PLATINUM℠ Mission−critical Support	SUNSPECTRUM GOLD℠ Business−critical Support	SUNSPECTRUM SILVER℠ Systems Support	SUNSPECTRUM BRONZE℠ Self Support
Systems Features				
Systems approach coverage	Yes	Yes	Yes	Yes
System availability guarantee	Customized	No	No	No
Account Support Features				
Service account management team	Yes	No	No	No
Local customer support management	No	Yes	No	No
Personal technical account support	Yes	Yes	Option	No
SunStart℠ installation service	Yes	No	No	No
Account support plan	Yes	Yes	No	No
Software release planning	Yes	No	No	No
On−site account reviews	Monthly	Semiannual	No	No
Skills assessment	Yes	No	No	No
Site activity log	Yes	Yes	No	No
Coverage / Response Time				
Standard telephone coverage hours	7 day/24 hour	7 day/24 hour	8 a.m.–8 p.m., Monday–Friday	8 a.m.–5 p.m., Monday–Friday
Standard on−site coverage hours	7 day/24 hour	8 a.m.–8 p.m., Monday–Friday	8 a.m.–5 p.m., Monday–Friday	N/A
7−day/24−hour telephone coverage	Yes	Yes	Option	Option
7−day/24−hour on−site coverage	Yes	Option	Option	N/A
7−day/12−hour on−site coverage	No	Option	No	No
5−day/24−hour on−site coverage	No	Option	No	No

FEATURE	SUNSPECTRUM PLATINUM℠ Mission–critical Support	SUNSPECTRUM GOLD℠ Business–critical Support	SUNSPECTRUM SILVER℠ Systems Support	SUNSPECTRUM BRONZE℠ Self Support
Coverage / Response Time (cont.)				
Customer–defined priority setting	Yes	Yes	Yes	Option
• Urgent (phone/on site)	Live transfer/ 2 hour	Live transfer/ 4 hour	Live transfer/ 4 hour	4 hour / N/A
• Serious (phone/on site	Live transfer/ 4 hour	2 hour/next day	2 hour/next day	4 hour / N/A
• Not critical (phone/on site)	Live transfer/ customer convenience	4 hour/ customer convenience	4 hour/ customer convenience	4 hour / N/A
2–hour on–site response	Yes	Option	Option	N/A
Additional contacts	Option	Option	Option	Option
Premier Support Features				
Mission–critical support team	Yes	For urgent problems	No	No
Sun Vendor Integration Program (SunVIP℠)	Yes	Yes	No	No
Software patch management assistance	Yes	No	No	No
Field change order (FCO) management assistance	Yes	No	No	No
Hardware Support Delivery				
Replacement hardware parts	On–site technician	On–site technician	On–site technician	Courier
Two day parts delivery	N/A	N/A	N/A	Yes
Overnight parts delivery	N/A	N/A	N/A	Option
Same–day parts delivery	Yes	Yes	Yes	Option
Remote Systems Diagnostics				
Remote dial–in analysis	Yes	Yes	Yes	Yes
Remote systems monitoring	Yes	Yes	No	No
Remote predictive failure reporting	Yes	Yes	No	No
Software Enhancements and Maintenance Releases				
Solaris Operating Environment enhancement releases	Yes	Yes	Yes	Yes
Patches and maintenance releases	Yes	Yes	Yes	Yes
Sun unbundled software enhancements	Option	Option	Option	Option
Internet and CD–ROM Support Tools				
SunSolve℠ license	Yes	Yes	Yes	Yes
SunSolve EarlyNotifier℠ Service	Yes	Yes	Yes	Yes

Warranty

Standard Sun Software warranty.

Materials Abstract

All materials will be available on SunWIN except where noted otherwise.

Collateral (cont.)	Description	Purpose	Distribution	Token # or COMAC Order #
PowerPack				
– *Forte™ Developer 6 Tool Suite, Just the Facts*	Reference Guide for Forte Developer 6 Software (this document)	Training Sales Tool	SunWIN, Reseller Web	121364
– *Sun Customer Presentation Forte Developer 6 Software*	Customer Presentation for Forte Developer 6 Software	Sales Tool	SunWIN, Reseller Web	119103
References				
– *Sun Software Development Products*	Quick Reference Card	Sales Tool	SunWIN, Reseller Web	24505
External Web Site				
– *General Information About Sun's Desktop Product Line*	`http://www.sun.com/forte`			