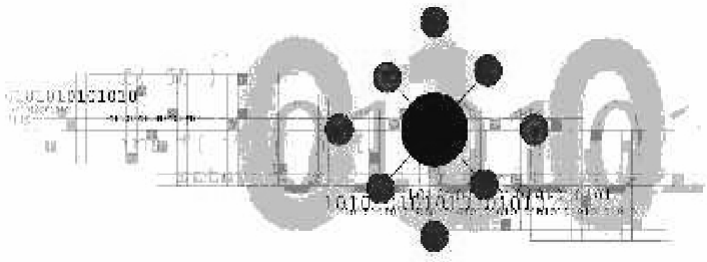
IRIX® 6.5.10 Update Guide



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November 2000

Dear Valued Customer,

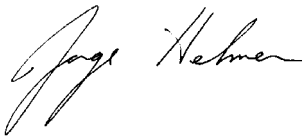
SGI is pleased to present the new IRIX 6.5.10 maintenance and feature release. Starting with IRIX 6.5, SGI created a new software upgrade release strategy, which delivers both the maintenance (6.5.10m) and feature (6.5.10f) streams. This upgrade is part of a family of releases that enhance IRIX 6.5.

There are several benefits to this strategy: it provides periodic fixes to IRIX, it assists in managing upgrades, and it supports all platforms. Additional information on this strategy and how it affects you is included in the updated *Installation Instructions* manual contained in this package.

If you need assistance, please visit the Supportfolio Online Web site at: `http://support.sgi.com` or contact your local support provider.

We thank you for your continued commitment to SGI.

Sincerely,



Jorge Helmer
Vice President & General Manager
Customer Support Division
SGI

Welcome to your SGI IRIX 6.5.10 update. This booklet contains:

- A list of key features in IRIX 6.5.10
- A list of CDs contained in the IRIX 6.5.10 update kit
- A guide to SGI Web sites

IRIX 6.5.10 Key New Features

The following features are in the core IRIX 6.5.10 overlays.

Hardware Supported

Introduced in IRIX 6.5.9:

- Support for the SGI 3000 series of servers, including the SGI 3200, SGI 3400, and SGI 3800 servers
- Support for the TVO digital video option board for Silicon Graphics Onyx2 systems
- Support for the QED RM7000 processor on O2 systems

Introduced in IRIX 6.5.8:

- Support initiated for VPro Graphics, the next generation graphics for Silicon Graphics Octane systems

Introduced in IRIX 6.5.7:

- Support for Silicon Graphics Onyx2 InfiniteReality3 systems
- R12000S CPU on SGI 2200, SGI 2400, SGI 2800, SGI 2100, and Origin 200

Introduced in IRIX 6.5.5:

- QLA2200 (copper and optical) is supported for FC-AL, FC-AL via the Emulex hub, or fabric attach via the Brocade Silkworm 2000 switches

Introduced in IRIX 6.5.4:

- 270-MHz processor for Silicon Graphics O2 and Silicon Graphics Octane visual workstations
- HDTV XIO Board for Silicon Graphics Onyx2 and SGI Origin 2000 systems (this now includes the former Cray Origin 2000 system)

Introduced in IRIX 6.5.3:

- Systems using the MIPS R12000 processor
- Digital Video Multiplexer option board (DPLEX) for Silicon Graphics Onyx2 systems
- Redundant Power Supply (RPS)
- 21" Monitor Support for O2 and Octane systems

Introduced in IRIX 6.5.2:

- Flat Panel Monitor for O2 systems
- 16-pipe Onyx2 InfiniteReality systems
- GSN network adapter

Introduced in IRIX 6.5.1:

- Gigabit Ethernet for Octane and SGI Origin systems
- 128p Metarouter for Origin 2000 systems (formerly known as Cray Origin 2000 systems)
- Dual Channel Display option for O2 systems
- Onyx2 InfiniteReality2 systems
- 225QC for SGI Origin 200 systems

Software

Feature Stream Only

- XVM installed with CXFS is now qualified on IP35 (Origin 3000) systems in addition to the existing qualification on the IP27 (Origin 200, Origin 2000, and Onyx2) and IP30 (Octane) systems.

Introduced in IRIX 6.5.9:

- CXFS supports the use of hierarchical storage management (HSM) products through the data management application programming interface (DMAPI). An example of such a product is SGI's DMF.
- CXFS and IRIS FailSafe 2.1 can be installed and run on the same system, which is known as coexecution. This provides application-level high availability and a clustered filesystem with nodes that support CXFS services, FailSafe services, or both.

  Note: The CXFS and FailSafe coexecution feature is not available in the IRIX maintenance stream. IRIS FailSafe 2.1 is an independently shipped product and is not shipped with IRIX.
- Support for the Scheduled Transfer Protocol (STP). STP is a new lightweight network protocol that uses Direct Memory Access (DMA) to read or write data into user space from a network interface. This lets high bandwidth devices, such as Gigabyte System Network (GSN) and Gigabit Ethernet (GigE), perform at network speeds with

minimum interrupt overhead. For more information, see the stp(7P) man page or http://www.hippi.org.

- Support for disk quotas that can now be set by project ID. Disk quotas let you limit the amount of space a user or project can occupy and the number of files (inodes) that each user or project can own. You can implement hard or soft limits; hard limits are enforced by the system and soft limits only remind the user to decrease disk usage.

  For more information on disk quotas and their administration, see IRIX Admin: Disks and Filesystems, which now includes information about project quota administration. For more information on project IDs, see IRIX Admin: Backup, Security, and Accounting. For more information on the administration of disk quotas by project, see the edquota(1M), find(1M), quota(1M), repquota(1M), and fstab(4) man pages.

- Support for the waitjob feature, which includes the new functions setwaitjobpid() and waitjob(). These functions let the batch schedulers query job information following job termination. When a batch scheduler launches a job, it calls setwaitjobpid() to tell the new job what pid is waiting for information upon termination. When the job terminates, it remains as a zombie until either the batch scheduler calls waitjob() to retrieve the job's termination information or the waiting pid no longer exists. The information returned includes the job start time, usage information, and reason for termination.

For more information, see IRIX Admin: Resource Administration and the waitjob(1M) and setwaitjobpid(1M) man pages.

Introduced in IRIX 6.5.8:

- Support for Comprehensive System Accounting (CSA). CSA is a set of user and administrative C programs and shell scripts that provide methods to collect per-process resource usage data, monitor disk usage, and charge fees to specific login accounts. CSA uses this per-process accounting information and combines it by job identifier within the system boot uptime periods. CSA provides the following features that are not available with any other IRIX accounting package:
  - Per-job accounting
  - Daemon accounting (tape and Network Queuing System (NQS))
  - Flexible accounting periods (daily and periodic accounting reports can be generated as often as desired and not restricted to once per day or once per month)
  - Flexible system billing units (SBUs)
  - User exits for site specific customization of daily and periodic accounting
  - Configurable parameters within the `/etc/csa.conf` file
  - User job accounting (`ja` command)
  - For more information, see *IRIX Admin: Resource Administration* and the `csa`(1M) man page.

Introduced in IRIX 6.5.7:

- Support for job limits

  Job limits allow system administrators to manage user access to system resources by setting limits on different system usage parameters. This can result in improved system throughput and utilization. For more information on the usage of the different system usage parameters, see the *IRIX Admin: Resource Administration Guide* and the following man pages: `jstat`(1), `jlimit`(1), `genlimits`(1M), and `showlimits`(1).

- Support for the CXFS product

  CXFS provides a cluster file system that allows file sharing between machines. CXFS includes the following capabilities: high resiliency and availability, reduced storage costs, and scalable high performance. The initial version of CXFS was introduced with IRIX 6.5.6.

  CXFS requires a new volume manager, XVM. XVM installed with CXFS is currently qualified only on IP27 (Origin 200, Origin 2000, and Onyx2) and IP30 (Octane) systems. The base cluster XVM software is packaged with IRIX 6.5.6f and above. Optional XVM features will be separately licensed and are targeted to release in the IRIX 6.5.10f and above time frame.

The IRIX 6.5.7 release version of CXFS contains metadata server recovery. See the *CXFS Software Installation and Administration Guide* for the administrative shutdown procedures and additional troubleshooting information.

See the “New for 6.5.7 (or above): Caveats before you Install” section at the “Caveats to Read Before You Upgrade“ link at `http://support.sgi.com/6.5/start_here/doc657/precaveats.html` for known dependencies or limitations before installing CXFS with XVM. Also, the "Caveat and Release Note Updates" link at `http://support.sgi.com/6.5/caveat_updates.html` should be checked periodically for information on the latest CXFS and XVM patches, descriptions of implemented CXFS and XVM features, updated Release Notes, or any late-breaking caveats.

Introduced in IRIX 6.5.6:

- Support for the Scheduled Transfers (ST) protocol. The ST protocol is an ANSI standard level two through four protocol suite designed to support extremely high performance data movement. ST provides a socket-based interface to applications, which lets you directly port the existing networking applications to ST. ST also supports the OS Bypass mode of operation, which allows smaller messages to be sent and received with extremely low latencies. In this initial release of ST, only the Gigabyte System Network (GSN) network adapter is supported.

Introduced in IRIX 6.5.2:

- Motif 2.1/IRIS ViewKit 2.1
- IRIX Oplock support
- Support for non EUC encoding and locales (sjis/big5/gbk/utf8)

Maintenance and Feature Streams

- Support for point-to-point connections between the QLogic 2200 fibre channel controller and the Brocade switch. This type of connection lets the QLogic 2200 controller perform full duplex transfers with the switch offering a potential increase in bandwidth. This capability was enabled by changing the value assigned to the qlfc_use_connection_mode variable (in /var/sysgen/master.d/qlfc) to 2. The previous value was 0. This change does not impact loop operation.
- Support for the IRIX SCSI tape driver (TPSC) enhancements that let system administrators and privileged applications specify a persistent reservation on shared tape drives. After the reservation has been established, the shared tape drive cannot be accessed by another host until the reservation has been released. For more information, see the mt(1) and mtio(7M) man pages.
- Support for the new Fortran, C++, and base compiler runtime libraries packaged under the ftn_eoe, c++_eoe and compiler_eoe overlay images. These libraries are based on the MIPSpro 7.3.1.2m

compilers and contain new interfaces released under the MIPSpro 7.3 compilers. The libraries are backward compatible with the libraries that were released in previous versions of IRIX 6.5. For more information, see the ftn_eoe, c++_eoe, and compiler_eoe release notes.

Introduced in IRIX 6.5.9:

- Support for Embedded Support Partner 2.0 (ESP2.0). This release supercedes patch 3895 and includes these additional major features as follows: Support for Embedded Support Partner 2.0 (ESP2.0). This release supercedes patch 3895 and includes these additional major features as follows:
  - Fixes to the System Group Manager for secure interconnectivity between group members and the group manager
  - Support for an unlimited number of group members to the System Group Manager
  - Multiple ESP user support with page privileges
  - ESP logbook for electronically logging and tracking support activities locally on the system

  The migration from ESP1.0 to ESP2.0 is done seamlessly when upgrading from previous versions of IRIX to IRIX 6.5.10.

The Embedded Support Partner Overview and the Embedded Support Partner User Guide have been combined. The new document is called the Embedded Support Partner User Guide and will contain overview and usage information for the ESP 2.0 command line and graphical user interfaces.

- Support for the SCSI Enclosure Services (SES). A new subsystem that manages the Fibre Channel drive enclosures has been added. The new daemon, sesdaemon, supports the Xyratex 12-slot enclosure and the Clarion 10-slot enclosure. The new client application, sesmgr, uses a command set similar to the set used by the previous fcagent/fccli subsystem. For more information, see the sesdaemon(1M) and sesmgr(1M) man pages.
- OpenGL Performer Runtime 2.2.9 overlay incorporates the latest fixes. The Performer 2.2.9 overlay can be installed from the `/CDROM/dist/` directory of the IRIX 6.5.10 Overlays CD (3 of 3), November 2000

Introduced in IRIX 6.5.8:

- Embedded Support Partner (ESP) patch 3895 migrates ESP 1.0 to ESP 2.0. This patch release includes new features and bug fixes. The major features are as follows:
  - Automatic Call Logging to the SGI call centers for Mission Critical Supported customers
  - Loading of specific event profiles for monitoring

  - A new command line interface to setup and use ESP
  - A new user interface with a high level of usability and navigational features
  - Fixes to the System Group Manager

  The Embedded Support Partner Overview and the Embedded Support Partner User Guide will be combined. The new document is called the Embedded Support Partner User Guide and will contain overview and usage information for the ESP 2.0 command line and graphical user interfaces.

- Support for 32-bit direct mapping to any node on the system. This feature lets the system administrator change the 32-bit direct mapping node for a specific Peripheral Component Interconnect (PCI) bus. It also provides a new interface, `pcibr_get_dmatrans_node()`, that lets a device driver obtain the node ID. For more information, see the *IRIX Device Driver Programmer's Guide* and the `pcibr_get_dmatrans_node`(D3) man page.
- Support for the cpuset programming interface (previously known as miser_cpuset). This interface is provided in the form of a Dynamic Shared Object (DSO). You can use this programming interface to create cpusets, remove cpusets, and attach processes to cpusets. You can use the cpuset programming interface in areas where the cpuset command is inappropriate. For example, if a batch system needs to

use the cpuset capability in IRIX, the programming interface will provide a more flexible and robust solution than the cpuset command. For more information, see *IRIX Admin: Resource Administration* and the `cpuset`(5), `cpusetAllocQueueDef`(3x), `cpusetAttach`(3x), `cpusetCreate`(3x), `cpusetDestroy`(3x), `cpusetDetachAll`(3x), `cpusetFreeCPUList`(3x), `cpusetFreeNameList`(3x), `cpusetFreePIDList`(3x), `cpusetGetCPUCount`(3x), `cpusetGetCPUList`(3x), `cpusetGetName(`3x), `cpusetGetNameList`(3x), and `cpusetGetPIDList`(3x) man pages.

- Support for new Miser cpuset options. These options allow the creation of restrictive memory pools from the nodes that contain the CPUs listed in the configuration file.

  Processes that exceed the available memory on those nodes may be terminated or paged (selectable). For more information on these options, see the `cpuset`(4) man page.

- OpenGL Performer Runtime 2.2.8 overlay incorporates the latest fixes. The Performer 2.2.8 overlay can be installed from the `/CDROM/dist` directory of the IRIX 6.5.8 Overlays CD (3 of 3), May 2000.

- Documenter's Workbench with the latest Y2000 bug fixes can be installed from the `/CDROM/dist/unbundled` directory of the IRIX 6.5.8 (or above) Overlays CD (2 of 3), May 2000.

Introduced in IRIX 6.5.7:

- Updating sendmail to version 8.9.3

  The version of the IRIX sendmail mail system supplied on this release and previous IRIX 6.5.*x* releases is based on sendmail version 8.8.8. Due to customer demand, the current sendmail.org release, sendmail version 8.9.3 (see `http://www.sendmail.org`), will be supplied via patch 3865 or its successor. Check the "Caveat and Release Note Updates" link at `http://support.sgi.com/6.5/caveat_updates.html` for the IRIX 6.5.7 late breaking caveats to determine the availability of this patch on Supportfolio. SGI intends to support sendmail 8.9.3 (or above) as the standard released sendmail in a future IRIX release, target 6.5.10.

  There are many differences between IRIX sendmail version 8.8.8 and version 8.9.3.

  – The major difference is their configuration files. The configuration file in sendmail version 8.9.3 is configured with the `sendmail.mc` file which is processed using the m4 macro processor to create the `sendmail.cf` file.

  - A new version of configmail configures the `sendmail.mc` file and provides features similar to the configmail utility in previous versions of IRIX. This version of configmail also processes the `sendmail.mc` file into `sendmail.cf` by using the m4 macro processor.
  - One of the new features included in version 8.9.3 and in great demand by IRIX users is the anti-relay features which can be used to control spam messages.

  For more information on the 8.9.3 version of sendmail, see the *IRIX Administration: Networking and Mail Guide* provided with the patch. For more information on how to configure sendmail 8.9.3, see `http://www.sendmail.org/m4/readme.html`.

- Open Inventor Runtime 2.1.6 overlay incorporates fixes included in versions 2.1.4 and 2.1.5. The Inventor 2.1.6 overlay can be installed from the `/CDROM/dist/unbundled` directory of the IRIX 6.5.7 Overlay CD 2 of 2. This overlay requires that the base Inventor 2.1.4 image be installed already, or with the overlay during the same install session. The Inventor 2.1.6 overlay can be installed on IRIX 6.5.5 and later.
- OpenGL Performer Runtime 2.2.7 overlay incorporates the latest fixes. The Performer 2.2.7 overlay can be installed from the `/CDROM/dist/` directory of the IRIX 6.5.7 Overlays CD (2 of 2), February 2000.

Introduced in IRIX 6.5.6:

- Support for a multi-threaded version of the automatic filesystem mount daemon `autofsd`. This enhanced functionality allows for simultaneous multiple automounts. If a particular server for an automounted filesystem is not running or is slow to respond, one `autofsd` thread can wait for that server while other `autofsd` threads mount filesystems from other servers. This capability improves the automount performance and simultaneously provides longer wait times for downed servers, which should lead to a decrease in automount failures.

Introduced in IRIX 6.5.5:

- Embedded Support Partner, which is an integral part of the IRIX operating system, provides system administrators with a way to monitor various events (such as system events, changes in system hardware and software configuration, and system performance) on their systems. Embedded Support Partner is a set of daemons that perform the monitoring activities. These include an event monitoring daemon (`eventmond`), an event management daemon (`espemd`), and a database daemon (`espdbd`). Embedded Support Partner provides single-system monitoring capabilities as a standard part of IRIX. Optionally, Embedded Support Partner can be configured to receive event and system configuration data from all systems contained within a system group. Embedded Support Partner is controlled through a Web browser that is connected to the

Configurable Web Server, which is included in the Embedded Support Partner package. For more information, see the *Embedded Support Partner Overview*, the *Embedded Support Partner User Guide*, and the Embedded Support Partner man pages.

- Support for the version 2 XFS directory format; this format lets you choose a filesystem block size to match the distribution of data file sizes without adversely affecting directory operation performance. The directory format is specified with the `-n` parameter of the `mkfs` command. For more information, see *IRIX Admin: Disks and Filesystems* and the `mkfs_xfs`(1M) man page.
- Support for the math and scientific library SCSL 1.3. SCSL 1.3 will replace *Challengecomplib* on all supported system platforms at the time of the next major IRIX Release.

  SCSL provides support for the math and scientific libraries and is widely used in scientific and technical compute-intensive applications. SCSL 1.3 incorporates all the current *Challengecomplib* 3.1 features and will be distributed as a separately packaged product until the next major IRIX release.

  SCSL 1.3 can be downloaded from the SGI "Download Cool Software" Web page at `http://www.sgi.com/Products/Evaluation`. If you do not have Web access and are a current support customer, you can request

CD media free of charge through your local support center. Non-contract customers can contact their sales representatives to order SCSL 1.3.

New features introduced in addition to the *Challengecomplib* functionality since the release of SCSL 1.1 are:

- Added convolution/correlation and filter routines to the signal-processing functionality (formerly available only in *Challengecomplib*)
- Improved ordering techniques for the sparse linear solvers
- Performance enhancements for the MIPS R12000 processor
- Bug fixes from SCSL 1.1 and 1.2

Challengecomplib entered maintenance mode with the release of IRIX 6.5.5. No new features or enhancements will be incorporated.

For more information on SCSL, see `http://www.sgi.com/software/scsl.html`

- Support for Automated Performance Monitoring. Together with Embedded Support Partner, the base performance monitoring services in the *pcp_eoe* product have been extended to include an inference engine for evaluating rules about system-level performance and raising alarms. Also provided is a parameterized set of standard rules that can be selectively enabled and tuned to meet local requirements and to choose alternative alarm notification mechanisms. These features are of most value to operations staff

running production IRIX systems. For more information, see the `pmie`(1) and `pmieconf`(1) man pages, and the *Performance Co-Pilot IRIX Base Software Administrator's Guide*.

- Two new options were added to the `miser_create_cpuset` command. These options allow additional restrictions on memory assignment for processes running on a CPU set. These options are documented in the `miser_cpuset`(4) man pages.

Introduced in IRIX 6.5.4:

- Support for the Miser queue repack policy. When a job finishes execution before the end of its schedule, the system resources it was using are released. This policy attempts to reschedule the jobs using earlier start and end times to take advantage of these released system resources. The order of the scheduled jobs will be maintained. This feature can be used by all Miser users running IRIX 6.5.4m or f and later releases. For more information, see the `miser`(4) and `miser`(5) man pages, and *IRIX Admin: System Configuration and Operation*, Chapter 7 "Managing User Processes."
- Distributed Computing Environment (DCE) Client for accessing shared resources in distributed computing DCE/DFS serving environments
  - Kernel libraries only
  - Requires installation of DCE/DFS 1.2.2a software for full functionality

Introduced in IRIX 6.5.3:

- (Octane systems only) The worst-case interrupt response time is guaranteed to be less than one millisecond on properly configured Octane systems
- Support for the X security and appgroup extensions (combined with a new Netscape plug-in, these allow the embedding of X applications in Web pages)
- Support for European fonts, including the Euro currency symbol
- New Software Manager and Inst commands to simplify selections for upgrades
- New Software Manager and Inst configuration variable to more easily handle cases where configuration files are upgraded. See the *smart_config_handling* preference in *inst* or *swmgr* for more information.
- Support for LDAP 3.0

Introduced in IRIX 6.5.2:

- AutoFS extended to use UNS for map information
- Support for DCShare application sharing extension
- Fibre channel support to Dmnet
- Three new HP printer drivers: HP4000, HP5000 and HP4500 (Color LaserJet 4500DN)

Updated Documentation

The documents below have been revised for the features listed:

- *IRIX Admin: System Configuration and Operation*
  - Updated PROM information in Chapter 9
  - Updated Chapter 7, Defining and Managing Cpusets, as the cpuset command is used instead of the miser_cpuset command
  - Removed a general tunable parameter vnode_free_ratio from Appendix A that is no longer supported
- *IRIX Admin: Resource Administration*
  - Additional changes for CSA, create API for cpusets, memory limits in cpusets, and physical memory limit restrictions
  - waitjob system call for job limits
  - bug fix for Miser and miser_submit

Applications CD with IRIX 6.5.10

- IRIX® Interactive Desktop, IRIX® Interactive Desktop Tools, IRIX® Interactive Desktop System Administration, IRIS® InSight Viewer, IRIS® InSight Developer, and IRIS® InSight Dynaweb Server have been updated with bug fixes.
- Cosmo Player 2.1.4 release has added support for the Netscape N32 plugin.
- CustomerLink Client Software will no longer be supported. Its key features have been migrated to the SupportFolio Online site (http://support.sgi.com).
- Customer Support Services Base Software will no longer be supported. Its key features have been migrated to the SupportFolio Online site (http://support.sgi.com).
- Impressario 2.6.5 has added 1000 new PPD files to the /usr/spool/lp/PPD_untested/ directory. The README file in this directory contains details on how to use the new drivers. The new PPD files include printers from the following manufacturers:

  3M, Adobe, Agfa, Apple, Autologic, Canon, Dataproducts, Epson, FujiPhotoFilm, Hitachi Koki Co., Ltd., Hewlett-Packard, IBM, Kodak, Konica, Linotype, MGI, Mitsubishi, OKI, Optronics, PrePress, QMS, Ricoh, Samsung, Scitex, Shinko, Sony, Splash, Topmax, Tektronix, Xante, Xerox

- Netscape Communicator 4.75; by default, version 4.75 will install the new N32 version of the browser. Any existing third-party plugins for the browser that are O32 will no longer function. Support for the Macromedia Flash plugin is also included. For more information, see http://home.netscape.com/communicator/v4.5/tour/index.html
- Netscape FastTrack Server 3.03 contains an updated version of the Administration Server 3.52 (initially added in 6.5.5)
- Demonstration Programs, Octane2 demos added
- Runtime Plug-in for IRIX, Java™ Edition 1.1.1a has added support for the Netscape N32 plugin
- SGImeeting Collaboration Environment with Extensions, 2.0, Net-based data-conferencing, application-sharing software. A 30-day evaluation license is included. SGImeeting 2.0 is an update release to SGImeeting 1.4. Key new features includes:
    - Support for Microsoft NetMeeting 3.0.

      Enhanced NetMeeting 3.0 interoperability - enables offline selection of compatibility for sharing applications supported by NetMeeting 3.0. For more information, see the SGImeeting Help and User's Guide.
    - Improved application sharing performance - up to 80% from SGIMeeting 1.4 depending on your hardware configuration and internet connection. 80% improvement was achieved with 128MB, 180Mhz, R5000 O2 host talking to a 128MB 175Mhz

R10000 Octane client over 100baseT ethernet sharing a maximized 1280x1024 solidview demo window.

- Speed dialing - enables creation of .cnf files and initiates calls from the command line
- Background operation - provides selections for SGImeeting to minimize, remain actively connected in the background, and pop up when you receive a call
- Grouped window sharing - enables selecting all windows with a specific X class name to be treated as a single application and shared as a group
- Includes the SGIMeeting extensions (first included with SGIMeeting 1.4)

  The SGImeeting Extensions offer additional whiteboard tools as "plugins" that appear on the whiteboard tool palette. These tools are ideal for group discussions in CAD and image intensive industries. The following extensions are available:

  - A screen capture tool for dynamic or still whiteboard input
  - A video capture tool for dynamic or still whiteboard input
  - Customizable arrows and dimension markers for easy discussion pointing

        - Symbol palette for drag and drop images
        - SmartClear for clearing annotations when captured images update
        - For more information on SGImeeting, see http://www.sgi.com/software/sgimeeting. For additional assistance, contact your local SGI sales representative.
    - *A time-limited demo is included with IRIX 6.5.10, contact your local SGI sales representative to purchase permanent licenses.
- Xinet Macintosh Connectivity Software, also referred to as Xinet Appletalk, now includes K-AShare, K-FS, and K-Spool software. These products provide enhancements for Macintosh file sharing, file serving, and printing connectivity with IRIX systems. These Xinet products were updated to version 10.02 in the IRIX 6.5.9 release. Version 10.02 is only the demonstration version; no license is included. Any licenses from previous versions of Xinet software will not work with version 10.02. For more information on Xinet products, see http://www.xinet.com. For technical or sales questions, please contact Xinet at sales@xinet.com or 1.510.845.0555.

For more information about the bundled software that is included with this release, see CD Contents and the Bundled Software and Licenses web page that you can access from the Welcome web page.

Changes with IRIX 6.5.9:

- Accessx, Acrobat, Appletalk, Cosmoplayer, IRIX Interactive Desktop System Administration, Impressario Insight, and Java have been updated with bug fixes.
- SGIMeeting 1.4 has been added back to the Apps CD and is provided with a 30 day Evaluation License that allows a demo collaborative session to run for 10 minutes.

  Here are some key changes for the 1.4 release:

  – The single sgimeeting image incorporates the prior base (sgimeeting) and extensions (sgimeeting_ext) functionality
  – Bug fixed since the 1.1 release are included
  – Purchased as an unbundled software product
  – Licensing is now required: available as a single license or a 5 license volume pack

  For more information on SGImeeting, see http://www.sgi.com/software/sgimeeting. For additional assistance, contact your local SGI sales representative.

Changes with IRIX 6.5.8:

- No major feature or enhancements for this release
- Accessx, Desktop Runtime, Impressario, Infosearch, Insight, License Runtime, Sysadmin Desktop updated with bug fixes

Changes with IRIX 6.5.7:

- SGImeeting and SGImeeting Extensions are now both licensed products and are no longer available on the Applications CD. Future revisions of the base SGImeeting product and the Extensions will be distributed on separate CDs and licensed separately. For additional information or assistance, contact your local SGI sales representative.
- Netscape 4.7A provides additional localization and the Flash plug-in since the 4.7 release.

Introduced with IRIX 6.5.6:

- Upgrade to Netscape Communicator 4.7; for details, see `http://home.netscape.com/communicator/v4.5`.

  Note: Netscape Radio is implemented only for systems with the G2 player installed.

Introduced with IRIX 6.5.5:

- WebViewer Library Execution Only Environment 3.0

Note: Applications take two forms: full images and overlays. The base versions of each can be found on the Applications CD. When full images are updated, new versions are placed on the Applications CD. Upgrades of overlay products, however, are located on the Overlay.

Bundled Applications (ASE/AWE)

Changes with IRIX 6.5.10:

- EnlightenDSM is no longer included with IRIX 6.5 ASE and AWE

  SGI will no longer bundle EnlightenDSM with IRIX 6.5 ASE or AWE. The same software is now downloadable for FREE for all SGI customers from the Enlighten Software Solutions web site, www.enlightendsm.com/freedsm.html. The version of EnlightenDSM bundled with IRIX 6.5 was the basic functionality. Please contact Enlighten with any product questions www.enlightendsm.com.

Changes with IRIX 6.5.8:

- Syntax TAS and CA Unicenter TNG Framework no longer included with IRIX 6.5 ASE

  SGI no longer bundles the Syntax TAS software with Origin systems as of June 2000. For interoperability solutions with PCs, Macintosh, and other systems, customers can contact Syntax at www.syntax.com or evaluate some of the solutions from SGI such as Samba (SC4-SAMBA-2.0.7). For Macintosh interoperability, SGI offers a demo version of Xinet's KAShare (Appletalk) product (www.xinet.com) on the IRIX Applications CD.

- SGI no longer includes CA Unicenter TNG Framework with IRIX ASE. A free CD of CA Unicenter TNG Framework is now available from www.ca.com/fw_reg.htm.

IRIX 6.5.10 Update Kit Contents

The IRIX 6.5.10 Update Kit contains the following items for both server and workstation system configurations:

- CD Name:
  1. IRIX 6.5.10 (1 of 3) Installation Tools & Overlays CD, November 2000
  2. IRIX 6.5.10 (2 of 3) Installation Tools & Overlays CD, November 2000
  3. IRIX 6.5.10 (3 of 3) Overlays CD, November 2000
  4. IRIX Applications for 6.5.10, November 2000
- The IRIX CD booklet *Installation Instructions: Installing an Intermediate (Overlay) Release*, *Installing Applications*, *Installing Software Licenses*

SGI Web Sites

IRIX 6.5-Related Web Sites

- SGI product information

  `http://www.sgi.com/products`
- IRIX 6.5 datasheet

  `http://www.sgi.com/software/irix6.5/datasheet.pdf`
- Start Here: Installing IRIX 6.5.10

  `http://support.sgi.com/6.5/installing.html`
- To view all qualified applications compatible with IRIX 6.5 releases, see `http://support.sgi.com/6.5/spk`

Services

- Customer Education Services

  `http://www.sgi.com/support/custeducation.html`
- Professional Services

  `http://www.sgi.com/services`

Online Tools

- Customer Registration
  `http://www.sgi.com/support/custreg.html`
- Software Licensing/Key-O-Matic
  `http://www.sgi.com/Support/Licensing`
- Supportfolio Online
  `http://support.sgi.com`
- Online documentation —Technical Publications Library
  `http://techpubs.sgi.com`

Year 2000 Compliance

- Information about the SGI Year 2000 Program
  `http://www.sgi.com/tech/year2000`

Other Sites

- Download Cool Software
  `http://www.sgi.com/Products/Evaluation`
- Free Software
  `http://freeware.sgi.com`

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