

## SOS - Design Data Collaboration Platform

SOS is the leading data collaboration platform for hardware design teams. Its capabilities include multi-site collaboration, version control, workarea management, release management, design reuse, and project control. SOS seamlessly streamlines the design process by enhancing communication and facilitating efficient and accurate sharing of design data from concept through tapeout. This significantly improves design team productivity and dramatically reduces chances of requiring a mask re-spin due to configuration errors.

SOS solves many design data management needs with one integrated platform that is non-intrusive to the design flow. Its architecture and interface enables design teams dispersed across multiple time zones to collaborate efficiently on the same project. Its extensibility and API allows easy integration with design tools and processes. Support for different work models makes it suitable to manage all design data from RTL to GDSII.

The SOS design data collaboration platform is seamlessly integrated with several design flows including Cadence® Virtuoso®, Synopsys® Custom Designer™, Mentor Graphics® HDL Designer and SpringSoft Laker™.



SOS Client Graphical User Interface

### Key Features of the SOS Platform

#### Design Aware Integrations

- ✓ Global Collaboration
- ✓ Design Reuse
- ✓ Authentication & Access Controls
- ✓ Integrated with Issue Tracking
- ✓ Release & Derivative Management
- ✓ Version Control for Files & Directories

*"DALSA uses ClioSoft's SOS Design Collaboration Platform to help us manage shared design data among design teams world-wide. The product has definitely helped our productivity as we design, develop, and manufacture digital imaging products and solutions, and the level of support from ClioSoft has been excellent."*

**Martin Kiik,**  
**DALSA Corporation**

*"We continue to be extremely happy with the quality of support we receive from ClioSoft. Fast, efficient, simple and above all effective. None of the many other EDA vendors I deal with does support better."*

**Bengt-Erik Embretsen,**  
**Zarlink Semiconductors**

## SOS – Features and Benefits

Version Control	
Version Control of Files	Ready backup of previous file revisions to identify and recover from errors or to recreate previous releases.
Version Control of Directories	Tracks file renames, deletes and moves. Recreates the exact directory structure for any release. Provides true configuration management.
Composite Object	Multiple physical files that make up a logical design unit can be maintained as a single composite object, ensuring that DM operations on the design unit are atomic and efficient.
Concurrent Checkout, Branch and Merge	Multiple locks, named branches, unmerged branch alerts, automatic merge, and graphical compare make it easy to do concurrent development on the same files.
Tag	Attach symbolic names to revisions to easily identify, communicate and retrieve the right set of revisions.
Snapshot	Take a snapshot of the design to record any milestone so the exact configuration can be recreated anytime.
Workarea and Release Management	
Copy Workarea	Work in a sandbox with copies of files isolated from changes being made by other designer on the project. Continue work even if the network goes down.
Linked Workarea	Avoid duplication, optimize use of disk space and improve synchronization speed by using workareas with symbolic links to Smart Cache.
Isolated or Shared	Each user has the choice of using an isolated model or working together with other team members in a common shared workarea. Four different levels of sharing are supported.
Revision Search Order	Create workarea by defining rules based on tags/snapshots/branch names and time. Provides flexibility in setting up workareas and defining work flows.
Rollback Changes	Undo and identify accidental errors by exactly recreating a workarea with any revision search order for any time in the past. Project team can continue working even if some erroneous changes have been checked in.
Hierarchical Reference and Reuse	Reference design libraries or design objects in other projects across the corporate WAN. Easily reuse IP or partition projects.
Architecture	
Client-Server Architecture	Geographically dispersed teams can work and collaborate on the same project just as easily as teams located at one site.
Remote Cache Server	Recently used versions of files are cached at the remote sites and managed by the cache servers. Reduces network traffic and improves performance for multi-site design teams.
Smart Cache Technology	Automatically share common versions between the engineers. File versions are automatically purged when no user workarea is linking to it. Disk resource is used optimally, bandwidth usage is minimized and performance is maximized.
Push & Pull Updates	User workareas and remote caches can each be set up to update on demand, at regular intervals, or immediately on change using our push technology.
Repository	Manage ASCII and binary files in a safe repository without the fear of destroying it accidentally.

User Experience	
Graphical User Interface	Intuitive graphical interface modeled after the Mac file browser and extended to display file revision history in one integrated browser. Makes SOS very easy to use and provides unprecedented visibility into the project.
Command Line Interface	Invoke SOS commands from any shell, script, or Make file. Dial-in from home without invoking the GUI. Easily integrate SOS with other design tools.
Web Interface	Access data and perform DM operations from any web browser without installing software.
Non Intrusive	SOS is easy to use, deploy and administer thereby reducing training and administrative costs.
Production Tested	The SOS DM platform has been in production use for several years across America, Europe, and Asia. Get the quality and usability from years of customer feedback.
Communication and Collaboration	
Collaboration Icons	Keep up to date on project status and enhance communication. Avoid errors and create reliable tapeouts.
Triggers	Automatically execute scripts or programs before or after any SOS command to record attributes, do lint checks, send email notifications, cleanup, etc.
Audit Trail	Track every project activity and generate useful reports. Especially useful for project leads and tool administrators.
Attributes and Metrics	Define and track attributes and metrics to monitor project status and progress. Plot metrics over time to determine trends.
Administration	
Simple & Non Intrusive	Easy to use, deploy and administer. Reduce training and administrative costs. User interface helps administer and monitor the servers.
Access Controls	Comprehensive read and write access controls for owner, group, and world. Security and protection against unauthorized changes.
Project Configuration	Customize to meet the unique needs of any project. Setup administrators, user groups, triggers, and UI customizations for each project.
Seamless Integration	
Cadence Virtuoso	Manage Cadence IC libraries directly from the Cadence IC Platform. Manage cell views without worrying about the physical files that make up these design units.
Synopsys Custom Designer	Manage Open Access libraries directly from Custom Designer.
Mentor HDL Designer	Manage Mentor's HDL Designer Series libraries directly from Mentor's Design Browser.
SpringSoft Laker	Design Browser allows easy navigation of libraries and provides convenient access to DM features from Laker.
C API	A complete C programming interface to integrate any in-house tools with the SOS data collaboration platform. Readily available multi-site DM support in all tools
Supported Platforms	
Solaris®, Linux®, Windows®	