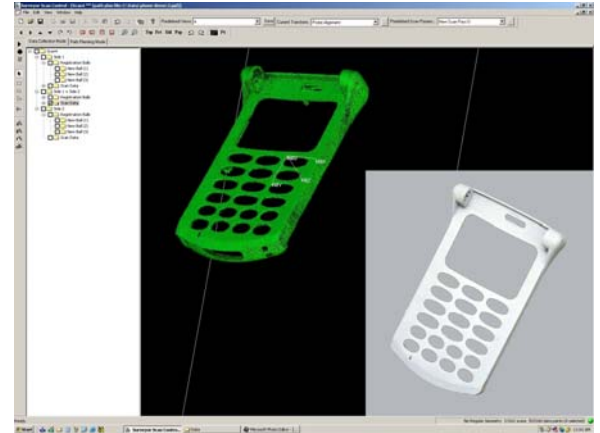


SURVEYOR[®] SCAN CONTROL

www.laserdesign.com

The Leader in 3D Laser Scanning Since 1987

- Fully integrated with Laser Design's Laser Probes
- Easy to use and learn Windows interface
- Manages entire 3D scanning process with capability to handle very large point cloud files
- Wizards and macros to aid with common tasks
- Motion control for up to 6 axes of motion (3 linear, 3 rotary) for automated scanning functions



Laser Design's Surveyor Scan Control (SSC) software is the industry's leading 3D scanning software program, both in terms of power and ease of use. SSC is tightly integrated with our full line of laser probes. It also provides motion control capability for our broad range of Surveyor 3D scanning systems and guides the user through the entire 3D scanning process.

SSC's main function is the collection of data from three-dimensional laser scans. It includes an advanced noise and spike suppression feature to eliminate problematic data. With the power to easily handle massive point cloud files containing millions of points, Surveyor Scan Control is ideal for scanning parts of all sizes. SSC easily manages all automated or manual scanning functions and controls up to 6 axes of Computer Numeric Control (CNC) servo or stepper motion. Programmable automated scanning is made easy, and manual continuous scanning (operator-generated movement of laser) is also supported. SSC was designed to work with Windows 2000 and Windows XP. Surveyor Scan Control was created using the latest Microsoft development tools and has the ability to take advantage of today's most powerful personal computers. It features a multi-threaded architecture for taking advantage of PC's with multiple CPUs.

With Surveyor Scan Control, alignments and calibrations that once required complicated adjustments are made easy with the help of friendly wizards that guide the operator through the process. One such wizard aids the operator with the common task of aligning the laser probe. Other scan control programs require the operator to complete a lengthy procedure to complete this crucial task. Because of the frequency that laser probe alignment is required (approximately every other day), a large amount of time is wasted undertaking this step using other scan control software. However, with SSC, this step is quick and easy. User interaction time required to complete this step is less than one minute.

SSC's scan files are optimized for use with popular 3D data processing software programs such as Raindrop Geomagic's Studio and Qualify. These additional software programs are used to apply surfaces to the Surveyor Scan Control point cloud, create STL files, or analyze the collected data for quality control purposes. Analysis programs for both comparison to CAD (color error map) and discrete dimensional measurements are available.

On-screen instructions aid new operators with common tasks. Extensive help menus are also available should the user have any questions. Surveyor Scan Control even features a handy macro function that allows users to "remember" common scan paths that were previously programmed manually. Laser Design's training gets the user on the right track so that they can take full advantage of SSC's power and versatility. A comprehensive SSC training course is available either at our Minneapolis, MN headquarters or at one of our many international locations throughout the world.

Surveyor Scan Control is powerful 3D scanning software that can be used by CAD experts and novices alike. Whether used with Laser Design's fully integrated scanning systems or with an existing Coordinate Measurement Machine (CMM) upgraded with laser scanning technology, SSC is the only 3D scanning software you'll ever need.

Surveyor Scan Control Features

Motion Control Functions

- CNC Servo or Stepper Control of up to 6 axes (3 linear and 3 rotary stages)
- Manual / Servo Scanning control – programmable scanning motions
- Direct connection to linear scales for Continuous Scanning Motions (Dynamic) or Point to Point (Static) Scanning
- Manual Continuous Scanning with operator generated movement of the laser over the part
- Supports standard USB windows joystick

Scan Data Collection Functions

- In-line and Post Scan Data Filtering – to reduce overall data file size without loss of shape definition
- User defined Intensity Filtering
- User defined Cross Sectioning of point clouds
- Optical noise tolerance filters
- Coordinate System definition – 0,0,0 home orientation or user defined position
- Scan Setup Wizards to guide user through scan setup process
- Part Registration using sphere locations allows for parts of all shapes and sizes to be scanned and merged within software

User Friendly Interface

- Easy to use Window interface
- Customizable view and toolbars
- SurveyorEZ- Designed specifically for two-click scanning of common scan jobs
- Easy to understand status bar
- Geomagic Capture Integration
- Easy to use viewing capabilities including mouse control, Spaceball support, keyboard commands, and quick buttons
- Joystick is programmable for common manual scanning functions
- Keyboard and mouse shortcuts for common functions
- Window specific right click menus
- Predefined Scanning Parameters for easy scanning
- Easy to follow Wizards to guide user through common scanning and setup tasks
- Automatic reminders for system calibration
- Optional display settings for minimizing system resources

User Friendly Path Plan Creation and Editing

- Live Scan View allows for easy path plan creation
- Drag and Drop path plan adjustment
- Single or Group path plan editing
- Spreadsheet viewing and editing also available
- Automatic path plan generation for Rotary Scanning
- Safe move features minimize crash possibilities

- 'Tracking' Feature for objects with extreme height variations
- Auto Exposure allows for software to find appropriate probe exposure (brightness) for object surface
- Software can automatically apply desired linear spacing for rotary scanning
- Ability to optimize groups of path plans to minimize scan time
- Ability to save and reuse path plans
- Ability to show current position allowing users to easily fill missed data sets

User Friendly Data Editing and Processing

- Multiple selection tools available for user preference
- Ability to orient scan data to any plane
- Allows repeatable fixturing to automatically apply saved orientations matrices
- Ability to import and export scan data between different .ssc files

Data Output

- Supported Formats:
 - o asc: ASCII (generic) point cloud
 - o .lda: ASCII (Imageware) point cloud
 - o .scn: DataSculpt compressed point cloud
 - o Users can also create their own custom data output format using SSC scripting functions
- Users can export entire scan files or specific sections
- Data sets can be saved in various different units independent of what it was collected at

User Support

- Complete Help File
- Context Sensitive Help
- Easy to follow Wizards for routine tasks
- Popup windows warn of possible user errors
- Live Update Service – Official Software Releases every 3-6 months, beta releases every 1-2 weeks.
- Complete trace files available for debugging system problems
- Autorecovery feature for unforeseen difficulties
- Undo/Redo functions for all actions
- World Wide distributor network
- Telephone and email support available
- Monthly QuickStart training available

PC Requirements

- Windows 2000 or XP recommended (Microsoft supplied language translation tools)
- 2 GB RAM recommended
- 100+ GB Hard Drive recommended
- One ISA slot for Laser Board installation (USB connection expected in mid-2003)
- High-end AGP graphics and fastest available Intel CPU