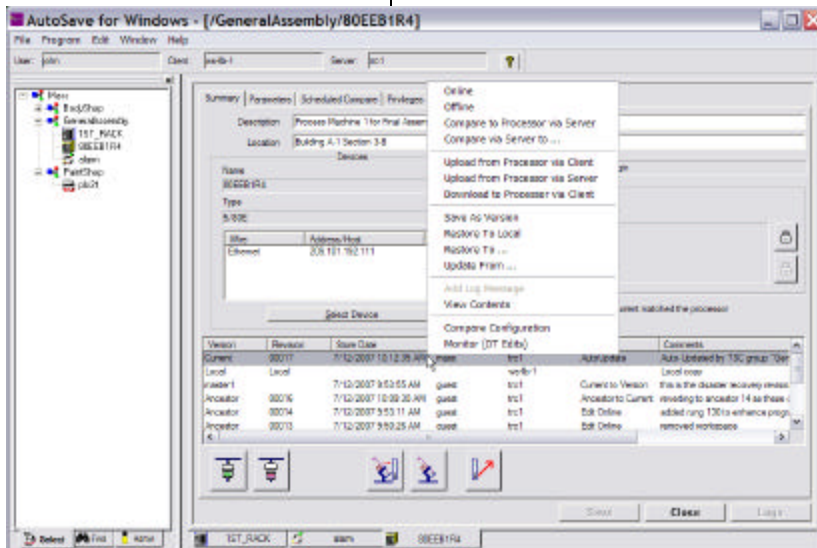


# AutoSave

## Automated Manufacturing Source Security and Change Control

MDT Software is the inventor of Industrial Automation Change Management software. Since 1987, we have delivered innovative and valuable solutions considered benchmarks of excellence in the industry. AutoSave is the industry's most advanced feature-rich change management software.



## REDUCE ERRORS & DOWNTIME

With AutoSave you can manage programmable device program and documentation changes made by multiple users from multiple locations. AutoSave increases productivity and reduces errors by providing a common central repository of all changes.

Managing changes dramatically increases efficiencies and ensures peak software and process performance. Analyzing historical changes allows you to identify bottlenecks and observe trends in programming practices.

## INCREASE PRODUCTIVITY

AutoSave is a source management solution providing a comprehensive suite of tools to protect, save, restore, discover, and track changes in industrial programmable devices and documents. It unifies plant automation software under one common user interface and results in a secure, well documented, controlled environment which dramatically reduces coordination constraints, wasted effort, and safety concerns.

Integrated with editor packages, AutoSave provides ? Archival Backups ? Change Detection ? Change Documentation ? Historical Tracking ? User and Workstation Security ? Disaster Recovery ? Controlled Editor Operations ? Automatic Change Notification.

## AutoSave product datasheet

## PROTECT USERS AND ASSETS

With AutoSave you are equipped to manage versions and ancestors of all automation project files, programs and documentation. This data and associated historical tracking and configuration information is stored in a central secured location.

## DISCOVER UNKNOWN MODIFICATIONS

The AutoSave Server periodically uploads programs from networked programmable devices, discovers differences, sends e-mail alerts of those changes, and (optionally) creates a new program ancestor. The e-mail message contains a hyper-link to the differences report.

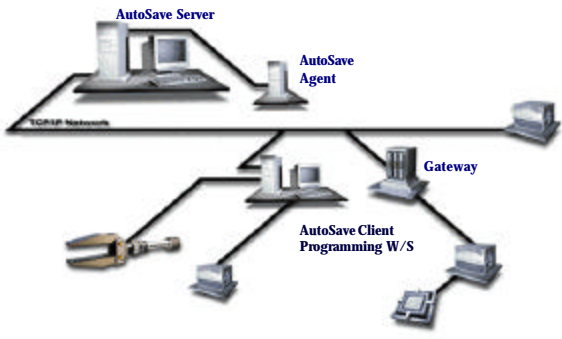
## SEAMLESS OPERATION

### Reliable Programs

The secured AutoSave Client captures and saves program updates to the AutoSave Server as they are edited. This provides not only access to the current program but also a history of program changes.

### Optimized Processing

Another component of the AutoSave system is the AutoSave Agent. Agent technology moves compare functions to alternate computers in order to reserve the Server's resources for other critical needs. Multiple Agents can be deployed to provide parallel processing of the unattended upload and comparison functions.



### Integrated Technologies

AutoSave utilizes Plug-In extensions to the Server that interact directly and uniquely with each 3<sup>rd</sup> party editor. This provides a superior level of change control to other products on the market without the need to edit scripts with each new release of 3<sup>rd</sup> party software.

### Easy Upgrade - Scalability

Add new Plug-In modules for new editor coverage of all program files under a secure environment. When a new version of AutoSave or a Plug-In is released, AutoSave provides straightforward tools for easily upgrading the Server, Clients and Agents.

### Protect Your Investment

Your company has made a considerable investment in the development of your control software. AutoSave protects and secures this investment by reducing costly errors and equipping you with a comprehensive system to safeguard these automation assets throughout their lifecycle.

### Economic Justification

Return on investment with AutoSave is measured in terms of reducing unscheduled downtime, reducing errors, providing secure access to source code, managing and organizing all your automation programs to enable reuse of existing logic, and numerous other benefits that increase safety and productivity. Payback is usually achieved in less than one year.

## ARCHIVING

### On Demand Upload & Save

Programs are uploaded using the AutoSave Agent or Client. This function uploads the program from the device and saves all the files on the Server, creating a new current copy and making an ancestor of the older copy.

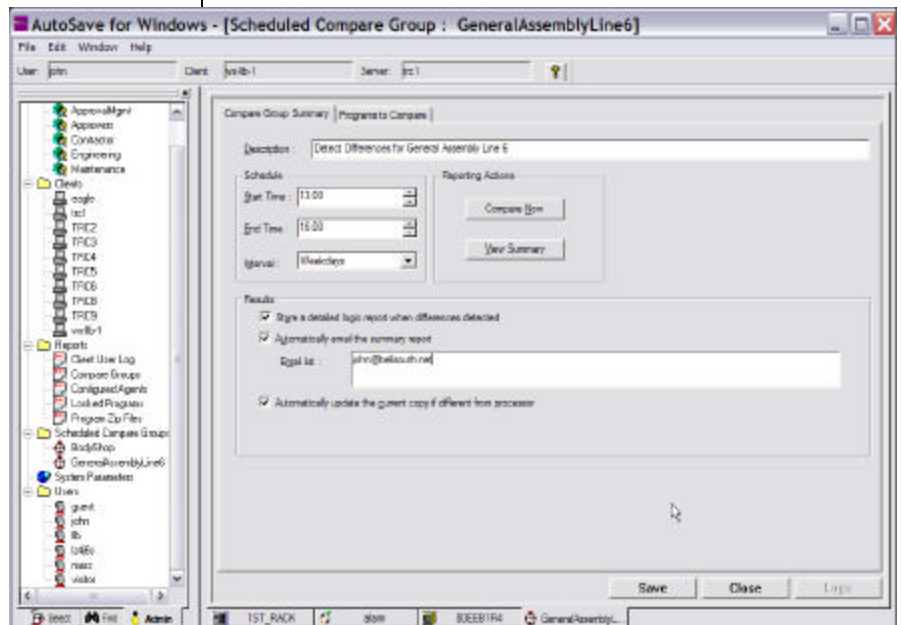
### On Demand Download & Recovery

AutoSave provides on-demand rapid recovery of failed devices with access to each one's master copies and other revisions.

Communication parameters are also stored on the Server. If a device fails, the correct program can be restored quickly. Whether a plant has 5 devices or 5,000, AutoSave reduces unscheduled downtime and provides an infrastructure for rapid recovery of the RIGHT version of the program.

### Automated Update

The system can be set to periodically check for differences between the device and the current copy of a program stored in AutoSave. If the versions are different, the program in the device can be automatically saved. This ensures the most up-to-date program version is always in use at each workstation and a current backup is readily available.



## CHANGE TRACKING

### Historical Tracking

Programming changes are captured and a detailed history of each revision is maintained. Client activities are logged and stored on the Server, enabling verification of each change. A revision history report lists the date and time of changes to the program and includes which Client was used, who made the change, the date and timestamp, the method of change, and user comments. Activity Logs track transactions relating to programs, such as edit sessions, comparisons, and configuration changes.

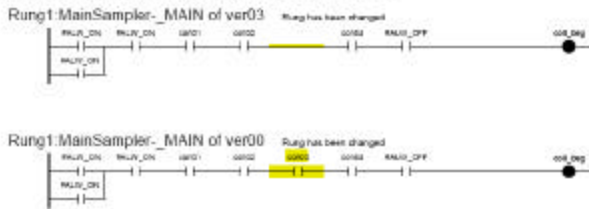
### On Demand Compare

Any two copies of a program, such as current, local, ancestor, or version, can be compared to each other or to the processor. This comparison is done on demand and may be performed from any Client with access to the device program.

### Scheduled Compare

Comparisons can be scheduled and automatically performed. Automatically comparing the program in the device and a program stored in the AutoSave library can detect and identify changes between the program that may have been unknown or unauthorized, thus protecting your process, people, and equipment.

#### Compare Report for program 'sampler\_fldr'



### Automatic Change Notice

When a change is made to a program, designated users are immediately notified via e-mail. Detailed comparison reports are generated and users are notified of differences via email. These e-mailed results are viewed via a Web browser that features hypertext links to graphical, ladder, or text-based details.

## SOURCE WAREHOUSE

### Centralized Version Control

Version control maintains accurate records of which software version is in use, when changes were made and who made the changes. The secured central repository for all revision file sets enables users to share files and know immediately the state of changes.

Version	Revision	Store Date	User	Client	Method	Comments
Current	00017	7/12/2007 10:12:35 AM	mess	trc1	Auto Update	Auto-Updated by TSC group
Local	Local			svs-ib-1		Local copy
master1		7/12/2007 9:53:55 AM	guest	trc1	Current to Version	this is the disaster recovery revision
Ancestor	00015	7/12/2007 10:09:30 AM	guest	trc1	Ancestor to Current	reverting to ancestor 14 as these c
Ancestor	00014	7/12/2007 9:53:11 AM	guest	trc1	Edit Online	added rung 130 to enhance progr
Ancestor	00013	7/12/2007 9:50:25 AM	guest	trc1	Edit Online	removed workspace

### Numbered Ancestor Copies

AutoSave retains a designated number of previous copies. For example, using a setting of "4" maintains the Current Copy and three preceding copies. When a change is made, a new Current Copy is saved and the oldest copy is marked for later deletion. To ensure all copies are retained for as long as needed, a minimum amount of time during which Ancestors will be maintained is established for the facility.

### Named Version Copies

For optimum security, user-saved, master copies are not created automatically. Each Version must be created and described by authorized users with appropriate privileges. A maximum number of desired Versions can be specified for a program or device.

### Fast Transfer and Compressed Storage

All programs, files, and documents are managed as compressed objects using ZIP technology. Programs with multiple files are all contained in the single object. This allows the transfer of the file set from the Server to the Client quickly and enables efficient backup to other media and easy recovery of the program.

### File Locking

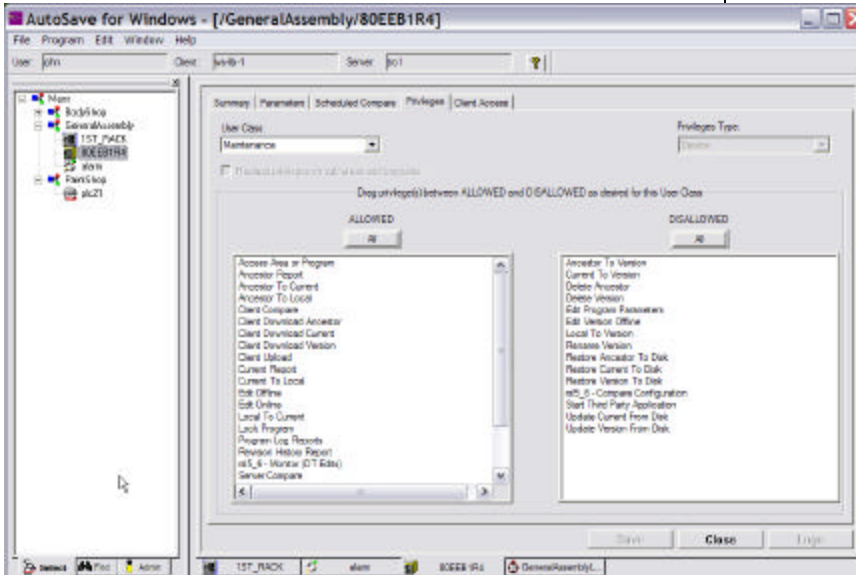
When a user opens a program, the file is locked and other users see an indication of who has the file locked. The system can deny access to others while the program is in use or to allow a read-only copy. When the user completes editing and saves the changes, the file is automatically unlocked. Users with appropriate privileges may manually lock a file.

### Current Working Program

In the AutoSave Client/Server environment, the Server stores a compressed version of the program files in their native file format. When the Client requests a program from the Server, a copy of the complete file set is sent to the programming editor for use by the Client. Since the Current Copy is stored on the Server, authorized users can access the latest copy, enhancing productivity and safety. When a device program is downloaded, all users can be sure they are downloading the most recent "known" version.

## Local Workstation Copies

Many change management plans call for all programs to be readily available in case of network outages or standalone emergency workstations. This is accomplished by configuring AutoSave to keep the latest working copy on a specific local workstation as well as securely stored in the Server Library. Another AutoSave feature can quickly store program copies to any other networked location selected by the user.



## SECURITY

### User Access Protection

Only authorized users are able to access programs and make changes. Access is controlled by logins and passwords, which authenticate privileges according to the class of the user (e.g., maintenance, engineering). Privileges are designated by area and/or by device for each user class.

### Line of Site/Location Protection

Client computer workstations can be configured to accept or inhibit access to a program or area of the plant. This ensures that only specified programming workstations can be used for editing purposes. Safety is of paramount concern when downloading or editing a control device online. Line of sight programming is achieved with AutoSave Client Access features.

## CENTRAL SERVER

The AutoSave Server acts as the master control center, coordinating all security, versioning, and change-related activities from one central and secure location.

### Server Management

All scheduled events such as Scheduled Compare, AutoUpdate, and change notification are managed by the Server.

### System Security

Each time an AutoSave Client logs in, the Server determines the level of privileges and authorization for the user and workstation.

### Version Control Library

Program files are stored and managed in a standard Microsoft Windows directory which can be secured using appropriate network IT/IS security methods.

### Flexible Network Communications

AutoSave supports standard plant networking protocols, drivers, and devices. AutoSave uses the same communications you enjoy with your programming editor.

### Comprehensive Plant-wide Support

In many plants, programming changes are made by multiple users on multiple PCs. There can be numerous disks and laptops located throughout the plant, each containing different program and documentation versions. Inefficiencies are inevitable, costly and even dangerous. Effectively managing this situation is a growing challenge. AutoSave eases your management burden and helps you gain plant-wide control of your automation environment.