**DOCUMENTATION TECHNICAL / DSI ProSoft**

**1. Introducing EasySave**

EasySave 3.0 is a Windows application with a graphical user interface (WPF) developed in C# on .NET 8.0. This new version introduces advanced management of parallel backups, guaranteeing optimized performance and real-time control of tasks in progress.

EasySave enables you to perform secure file backups on different types of media (local, external and network disks), while offering intelligent execution tailored to the needs of both professional and private users.

Thanks to its intuitive graphical interface and remote management console, EasySave 3.0 ensures smooth and efficient user experience, with advanced management of backup tasks.

**What's new in version 3.0**

WPF graphical interface: more ergonomic and accessible.

Choice of log format (JSON/XML) before execution of unlimited backups.

Improved file encryption management with encryption time tracking.

Optimized execution if an application is already running, blocking the interface.

Optimized logs and real-time status.

Can be used via an .exe executable.

Parallel backup with advanced task management.

Priority file management: processing before non-priority files.

Block simultaneous transfers of large files (configurable).

Automatic pause if business software is detected.

Remote interface for monitoring and interacting with backups via sockets.

Enhanced logging with real-time task tracking.

**Target users**

Professionals wish to secure their critical files.

Home users are looking for a simple, effective backup solution.

System administrators need a fast, automated tool.

**Prerequisites**

- System: Windows with .NET 8.0 installed.

- Access rights: Read/write on source and target directories.

- Disk space: Check available space before launching a backup.

**2. Installation and configuration**

1. Use the executable provided in the zip file “bin/Release/net8.0/Publisch.zip”.

2. Download and extract EasySave3.0.zip

3. Unzip the files in a directory of your choice.

4. Click on the EasySave3.0.exe application to start using it.

The application works immediately after installation!

**3. Using EasySave**

Creating a backup job

A backup job is a task stored in the software, enabling files to be copied from one location to another.

Each backup job is defined by the following elements:

- Backup name: A unique identifier used to identify the backup.

- Source directory: Folder containing the files to be backed up.

- Target directory: Destination where the files will be copied.

- Backup type:

**Full: Copies all files on each run.**

**Differential: Copies only files modified since the last full backup.**

**Priority extensions: certain files must be copied first (e.g. .txt, .docx)**

**Simultaneous transfer size limit: Sets the maximum size (in Kb) to prevent several large files from being sent at the same time.**

Running a backup

Choose log format (JSON/XML), files to be encrypted, priority, respected sizes.

Select backups for differential or sequential execution.

Launch parallel execution: Real-time monitoring via the interface.

Business software check: Backup is blocked if critical software is running.

Select backups to run.

Start execution: Real-time monitoring via the interface.

Encrypt files after backup (if enabled) according to dll (see CryptoSoft doc).

Display of backup and encryption logs (see Logger doc).

EasySave runs backup jobs created from the GUI via the command line, and supports several execution modes:

* To run a single job:

Enter the index of the backup to run, e.g. 1-3’ to automatically run backups 1 to 3:

1

à Launches backup **no.1 only.**

* To run several backups in sequence:

Enter the index of the backup to run, e.g. 1-3’ to automatically run backups 1 to 3:

1-3

à Runs backups **1, 2 and 3 sequentially.**

* To run several backups in parallel:

Enter the index of the backup to run, e.g. 1-3’ to automatically run backups 1 to 3:

1;3

à Simultaneously launches **backups 1 and 3.**

**4. File prioritization**

- Priority files (extensions specified in parameters) are backed up first.

- A non-priority file cannot be processed until a priority file has been backed up.

**5. Block simultaneous large files**

- If a file exceeds the maximum size set (e.g. 500 Kb), only one large file is transferred at a time.

- Smaller files can be copied while the larger file is being transferred.

**6. Automatic pause when business software is active**

- EasySave checks in real time whether any business software is active (configured list).

- If a program is running, all backups are paused.

- When the software is closed, backups resume automatically.

**7. Types of Backups**

* Full Backup

🔹 **Description**: Copies all files from the source directory to the target directory.  
🔹 **Advantage**: Easy to restore, ensures complete copy.  
🔹 **Disadvantage**: Longer and more disk space intensive.

* Differential Backup

🔹 **Description**: Copies only files modified since the last full backup.  
🔹 **Advantage**: Saves time and disk space.  
🔹**Disadvantage**: Requires a full backup to be restored correctly.

**8. Managing logs and reports**

Logs are managed according to the format selected just before execution!

Daily log file:

EasySave records all its actions in a JSON/XML log file updated in real time.

Information contained:

- Timestamp of each action.

- Name of the backup concerned.

- Source and destination address of files.

- Transfer size and duration (in milliseconds).

- Encryption time of selected copied files before execution.

- Any errors.

🔹 File format: JSON/XML  
🔹 Example file Name: backup\_log\_2024-02-10.json/xml

Real-time status file:

In addition to logs, EasySave generates a real-time status file containing the progress of backups.

Logged data:

- Backup name

- Last action timestamp

- Status (Active, Not Active)

- Progress: complete%, files remaining, size of remaining files

- Address of file being transferred

- Encryption time of selected copied files before execution.

🔹 File format: JSON /XML  
🔹 Example file Name: backup\_state.json/xml

**9. Remote interface (Remote Console)**

EasySave 3.0 includes a remote monitoring interface enabling real-time monitoring and control of backups from a user who first connects to the client and asks the server, pause, resume, stop celons sont envis.

**🔹 Communication via Sockets TCP**

**🔹 Available commands:**

**Pause** (PAUSE) → Temporarily stop a job

**Resume** (RESUME) → Restart a save job

**Stop** (STOP) → Immediately stop a job

**10. Best practices and recommendations:**

🔹 Avoid spaces in file paths to avoid errors.

🔹 Do not run backups at the same time as business software.

🔹 Daily log files are stored in: C:\ProgramData\CESI\EasySave\Logs

🔹 Real-time log files are stored in the project directory: bin/Relase/net8.0/Publish

🔹 The file in which the various backups created are saved is stored in the same directory as the project solution (.sln file). It is called “RegisteredBackups.txt”.

🔹 Check the available disk space on the target directory.

🔹 Check log files regularly to anticipate possible errors.

🔹 Check the list of priority extensions to ensure proper operation.

**11. Troubleshooting and FAQs**

Common problems and solutions

| **Problem** | **Solution** |
| --- | --- |
| **Backups won't start** | Check that no business software is running. |
| **CryptoSoft does not launch** | It is a single instance, close to the current instance. |
| **Encryption does not work** | Check that the file is one of the selected extensions. |
| **Files are not saved** | Check that the source and target directories exist and are accessible. |
| **The log file is empty or missing** | Make sure EasySave has written access rights. |