

## AutoBackup – Project Overview & Functional Summary

### 1. Core Purpose

AutoBackup is a scheduled + manual automated backup system designed to zip, encrypt, store, email, and optionally upload backups via FTP. It works in both GUI and Silent (Task Scheduler) modes, providing reliability for business environments.

### 2. Operating Modes

GUI Mode – user-initiated backup with visible status, folder list, and reminders.

Silent Mode – scheduler-based execution with logs, email alerts, and auto-exit behavior.

### 3. Backup Processing Logic

Per-folder backup execution with:

- availability check
- optional file-extension filtering
- timestamped ZIP creation
- optional AES-256 encryption

Each folder generates an independent backup zip file.

### 4. Backup Result Status Categories

- SUCCESS – all folders processed successfully
- PARTIAL – some succeeded, some failed/missing
- FAILURE – all failed
- UNKNOWN – undefined/no action

Stored values:

LastBackupStatus, LastBackupTime, LastBackupError, ConsecutiveFailures

### 5. Email Notification System

Email alerts include:

- machine name
- timestamp + mode (GUI / Silent)
- final backup status
- folder-level results
- optional attachment or download link

Behavior is fault-tolerant and skips sending if SMTP unavailable.

### 6. FTP Upload Handling

Supports upload to FTP with optional delete-after-upload behavior and combined Email+FTP workflows.

### 7. Folder Filters Framework

- Global filters apply to all folders by default
- Per-folder filters override global rules
- Clearing a folder filter reverts to global filter
- Stored safely in INI using “||” delimiter

## 8. Folder List UX & Reliability Enhancements

- Drag-drop folder add
- Duplicate prevention
- Missing folders preserved in list
- Missing entries highlighted in Orange-Red
- Partial backups continue operating safely

## 9. License & Trial Enforcement

- Trial backup limits
- 7-day / 15-day advance reminders
- Trial/unregistered mode behavior clearly visible and logged
- Silent-mode trial backups send awareness alerts

## 10. Logging & Diagnostics

Backup log records:

- start-end timestamps
- file processing activity
- encryption state
- email/FTP events
- reminder triggers
- final backup result state

## 11. Design Principles

- Never silently delete or hide risk conditions
- User-visible transparency
- Scheduler + GUI consistency
- Production-safe behavior
- Strong support & audit traceability

## 12. System Maturity

AutoBackup now functions as a stable, enterprise-grade backup automation platform designed for real-world operational environments.