

Foreword and context

U IT is young, innovative and independent company initially created to extend the services behind the SOFiE application. Our main expertise is to install and support complex automated SOFiE installations of large customers. After 8 years of activity and 11 years of expertise in the Legal Reporting domain, U IT served more than 350 customers and is known on the market for its high level of expertise and dedication.

This document presents and describes a set of tools U IT developed to enhance and complete a SOFiE Sort batched environment.

Helped by our deep understanding of the SOFiE application and many exchanges with our customers, this first version of the SOFiE ToolBox completes the workflows and error handling of SOFiE on the processing side. For the users or departments in charge of the reports, it brings a useful & time-saving reconciliation tool between all the sent reports and their respective feedback from the regulators.

Key aspects

1. What is SOFiE ToolBox

SOFiE ToolBox (STB) is a series of tools U IT developed to enhance the functionalities of the secure channel SOFiE Sort and facilitate the handling of the Legal Reporting for the users in charge. The tools can be split into 2 categories: the automated ones and the interactive ones. Both share the following main characteristics:

Enhance and strengthen the technical aspect of the legal reporting solution of the SOFiE Sort customers.

Offer new functionalities for the users to handle and verify the good sending and acknowledgment of the legal reports.

Runs on all Windows platforms, including the latest version of the OS.

Fast and efficient, using principally OS commands for the automated tools under a light scripting language.

Does not require the installation of a third party software, all the tools are portable and running from their directories.

Security and fault tolerance aspect were taken into consideration in order to avoid any unauthorized user access.

The source code is encrypted by default but can be delivered "in clear" to respond to transparency and security policies.

2. What does SOFiE ToolBox

Early 2018, the SOFiE Toolbox is now composed of 7 tools:

Automated tools:

Dispatcher, **Keeper** or **Synchronizer** are focussed on strengthening the technical solution with a series of new functions. The **Reporter** tool generates a daily reconciliation report, and the **Preparer** launched early 2018 perform pre-treatment operation on some kind of reports.

Interactive tools:

The **Informer** and the **Digger** tools are used interactively whether by the end-users or the IT department.

Their role is to furnish information to the SOFiE activity (real-time) or activity history.

3. Pricing and options

The solution is proposed under a yearly license contract and tools can be selected independently as per the needs. Price is indexed and yearly calculated based on the volume of reports sent and feedback reports received the previous year. The solution is by default coupled with our SOFiE Service & Maintenance contract but can be licensed independently under a series of verifications and updates to be performed by our team.

4. Support & guarantees

The SOFiE ToolBox is under continuous development in order to:

Stay compatible with any SOFiE update and modification performed by CetrelSecurities on the SOFiE Sort application. Respond to any new report or change in an existing report brought by the regulators.

Add new functionalities to the existing tools or develop new tools to cover all of our customer's collective needs.

Develop dedicated or "add-on type" enhancements of existing tools to respond to specific demands.

With the SOFiE ToolBox we target to facilitate all the technical aspects behind a SOFiE Sort installation and add any functionality which responds to a need, common or specific.



Detailed tools

Dispatcher

The Dispatcher is a simple and highly configurable tool. It takes care about the feedback reports (FBR/FDB/FBX) received from the regulators, analyses and moves them in the right directory for the right department or user(s), depending on their nature. The Dispatcher is fully configurable: you can sort all of the FBR reports by type in one single main directory, or decide to sort and dispatch any FBR to any department which sent the original report.

Features:

- Move the right FBR to the right location (department/user)
- Allow "full dispatch" which sorts all FBR by report-type
- Backup all received FBRs in single weekly or monthly archive
- Compatible with multi reporting entities and multi SOFiE Sort account installations

The Dispatcher only takes care of feedback reports. The Dispatcher is useful when the reports are sent by more than one department and/or when the confidentiality of some feedbacks has to be guaranteed and arrive in the hand of the right person.

Keeper

The Keeper ensures the good operating of a SOFiE Sort batch environment. It continuously verifies the SOFiE logs & activity and warns in case of any problem. The Keeper also performs verifications of the SOFiE profile integrity. It continues to evolve by monitoring the activity of other STB tools or warn for different type of events.

Features:

- Monitor SOFiE logs and send warnings in case of issues
- Move any SOFiE error log to a specific location
- Perform integrity check of SOFiE on a daily and intraday basis
- Compatible with multi reporting entities and multi SOFiÉ Sort account installations

New features for future releases:

- Error interpreter: solve common encryption or sending SOFiE issues
- Verify access rights, communication port, SOFiE server availability
- Archiving and logs clean-up
- Backup SOFiE profile key files
- Warn when a specific type of feedback is received, or when a feedback contains an error that needs to be verified

Reporter

The Reporter tool reconciles, on a daily basis, all the sent reports with the feedback reports sent by the regulators (FBR/FDB/FBX). It generates, at the end of each business day, a daily report which is available for all the users (or departments) who are in charge of sending these reports. The primary objective of the Reporter is to automate these verifications and help our customers to save time by removing this daily task. The reports generated are also valid and substantial technical documents for audit purposes.

Features and advantages of the Reporter:

- Automate the verification of sent/received reports through the generation of a daily report
- Ensure and keep trace of the good delivery of all reports
- Reports can be generated in multiple formats (PDF, HTML, CSV, TXT)
- Compatible with multi reporting entities and multi SOFiE Sort account installations

New features for future releases:

- Grant weekly and monthly reconciliation report generation (optional feature)
- Propose "on-user-demand" intraday report sending confirmation (Informer: new tool for user)
- Parse and interpret specific feedback reports (COFFBX, others) and provide with relevant information
- Export the Reporter collection of information to a usable format (optional feature)



Synchronizer

The Synchronizer is used only in a "two servers mode" type of installation. Referring to the CSSF circular 08/338, the Synchronizer takes care of the communication between the SOFiE Crypt and Transport servers. It's important to notify that UIT is opened to adapt the tool to any specific command line utility that the IT security department would allow or recommend, and that we are open the same regarding the monitoring and error-handling method to use or put in place in case of problems.

Features:

- Synchronizes input/output folders of the SOFiE Crypt and Transport distinct servers.
- Full activity log.
- Send warning when problem
- Scan SOFiE Transport's activity log and retrieve back to the Crypt server the "good sending" technical confirmations.
- Can be adapted for any required/custom secure copy utility
- Can be adapted to any custom monitoring system

New 2017 Informer

First Add-on of the Reporter, a real-time monitoring tool.

The Informer is a tool for the users; it allows to verify the intraday status of the legal reporting activity. It can be refreshed automatically or manually. The informer scans the SOFiE activity and the list of sent reports and received feedbacks. On a security level, the application has to have direct read access to the SOFiE's activity log or a real-time copy of it.

> The informer is not actually compatible with a 2 servers mode configuration as the activity log of the Transport server, needed for the "good sending confirmation", would be unreachable – see New features)

Features:

- Displays the current's day SOFiE activity: encrypted & sent reports and received and decrypted feedbacks.
- Browse and open the daily reconciliation reports from the Reporter (including TRMID CSSF procedure feedbacks)
- Refreshed automatically, manually or both.

New features for future releases:

Compatible with a two servers mode configuration.

New 2017 Digger

The digger is the second Add-on of the Reporter, an historic search tool.

The Digger is a tool for the users which allow them to search for any report or list of reports sent in the past. The user selects a date range, eventually a specific search string (search for reports with a specific date pattern, of a family or reports send during a defined period). The Digger can search in the historic of SOFiE sent reports of any SOFiE Sort installation and returns the list of reports which are confirmed to be sent (the Digger confirms that a report well left the network toward the SOFiE server).

Features:

- Search in the SOFiE historic and displays the list of reports based on a date range and an optional search string.
- Save search results in CSV.
- Compatible with a 2 servers mode configuration.

New features for future releases:

- Allow to retrieve data from pre-defined queries and generate clear and compiled reports for audit purposes.
- Allow to verify if a specific sent report received the official acknowledgment feedback from the regulator.



New 2018 **Preparer**

The Preparer can be used manually or automatically.

The initial function of the Preparer is to create a CSSF procedure from a MiFIR (MiFID II) TAF report, whether automatically or manually. In the future, more CSSF reports will be handled by the tool. For SOFiE Sort users in BATCH mode, the tool maintains a 100% automated workflow. For users in manual (GUI) mode, the tool is easy to use and can even be configured to perform its job in 1 single click.

Features in BATCH mode:

- Allow to maintain a 100% fully automated workflow with no user interaction required
- Create a valid CSSF procedure from a TAF report and deposit it in the standard SOFiE input folder
- Allow multi-users using multiple envelope profiles combined with multiple input directories
- Can be executed and piloted by one other application as a command line utility

Features in MANUAL (GUI) mode:

- Clear and intuitive interface which allows users to generate the procedure file rapidly
- Drag & drop the report on the interface to automatically create the right CSSF procedure
- Can be configured to be launched with one click to perform the operation

Common features:

- Allow to create up to 5 profiles for multi-user/senders need
- Verify and validate the report's file naming
- Portable application, compatible with all Windows OS, fast installation
- Can be installed on multiple systems with no extra costs
- 100% offline and standalone application
- Configure all BATCH or MANUAL settings through the interface
- Optimized debug log classified by month + clear activity log



U IT innovative approach

Nothing else?:

U IT is willing to enhance the SOFiE ToolBox set of tools : adding new tools or strengthening the existing ones.

Our approach is to regularly discuss with our customers and determine if they are satisfied by the current features of our tools. If we receive a common request, we'll develop to respond to the demand. If it's a small change request which does not require much development time, we'll do the necessary to respond to it. No costs will be associated to such developments, but depending on the change, if this represents a new tool or a new feature of an existing tool, it'll be added as an optional new add-on to the STB licenses price matrix.

If you need a "very" specific feature, a conference call or a meeting is all considered.

Tools or add-ons in development:

List of new tools to add to the STB + concepts and ideas regarding new potential tools to develop.

ToolBox

Type: STB BATCH tools configuration utility for IT application owner.

Role: interactive utility to display and modify the STB main parameters and options + verify the version of the installed tools.

Status: in development - release date: end 2018.

Axis

Type: Managing tool.

Role: Axis will merge all the actual manual tools in a single one. The application will manage its own DB and will allow users to

benefit from an application which handles all the legal reporting activity of the company.

Status: in development – release date: 3Q or 4Q 2018.



Practical information

Eligibility:

The SOFiE ToolBox set of tools are by default available on a SOFiE Sort (batch or GUI) environment installed by UIT.

It remains possible to install and use the STB under the following situations & conditions :



Existing batched installation

U IT will first need to analyze and probably reconfigure some parameters in order to :

- Correct any misconfiguration and optimize the processes and workflows.
- Clean and purge the SOFiE profile(s) of any unnecessary files & folders.
- Validate the updated configuration.



GUI installation

U IT will first need to analyze and probably reconfigure some parameters in order to :

- Correct any misconfiguration.
- Clean and purge the SOFiE profile(s) of any unnecessary files & folders.
- Validate the updated configuration.

Only the Reporter, Preparer, Digger and Informer tools are available for a GUI/interactive configuration

Costs parameters :

The yearly STB license base cost is calculated as per the tools selected and licensed by the customer. The base price is indexed according to the volume of reports exchanged the previous full year (category) This cost can be furthermore adapted due to:

- additional SOFiE accounts (Sort or Business).
- merge with the SOFiE Sort Batch Service Contract.
- extended license to other dedicated developed tools.

In order to determine the category, please contact CetrelSecurities (*) to receive the following statistics:

- Last year total in/out of all the SOFiE account involved, sorted by account
- Variable : if available and depending on date, the current year first 3, 6 or 9 months
- * U IT can handle this task on demand

Links & other documents:

SOFiE ToolBox main page : Informer Overview Digger Overview Preparer specs & pricing SOFiE ToolBox offer + price matrix table http://www.uit.lu/pr STB en.php http://www.uit.lu/docs/Informer Overview.pdf http://www.uit.lu/docs/Digger Overview.pdf http://uit.lu/docs/STB Preparer Specs-and-Pricing.pdf on demand

Linked products & services information:

For more details and explanations of the advantages of a SOFiE Sort batch environment, consult the following document : http://www.uit.lu/docs/SOFiESort_Batch_Detailed_en.pdf

For more information on our SOFiE Sort batch installation offer :

http://www.uit.lu/docs/UIT_SSortBATCH_InstallationOffer.pdf

For more information on our service contract offers, visit the following link :

http://www.uit.lu/s en Ir SSB.php