System programmation Project – Deliverable

- Deliverable 3: EasySave Graphical Version – UML Diagrams

Context of the project:

V1:

Your team has just joined the software publisher ProSoft.

Under the responsibility of the CIO, you will be responsible for managing the "EasySave" project which consists of developing backup software.

Like any software in the ProSoft Suite, the software will fit into the pricing policy.

- Unit price: 200 € HT
- Annual maintenance contract 5/7 8-17h (updates included): 12% purchase price (tacit renewal annual contract with revaluation based on the SYNTEC index)

During this project, your team will have to ensure the development, the management of the major and minor versions, but also the documentation (user and customer support).

V2:

EasySave v1.0 has been distributed to many customers.

Following a customer survey, the management decided to create a version 2.0 with the following improvements:

1- Graphical Interface
2- Backup works not limited.
3- Encryption of the backup data
4- Log file evolved.
5- Work software

V3 :

The changes requested for this new EasySave 3.0 version are:

1) Simultaneous backup

2) Managing priority files

3) Prohibition of simultaneous transfer of files over (user choice) kb

4) Real-time interaction with each work or all of them

5) Temporary break if the operation of a business software is detected

6) Graphical distant client version

7) The software must be Single-instance.

8) Multi-languages software

Summary of the document :

1- UML Diagrams v3
2- Annexs
3- User Documentation
4- Meeting reports

1- UML Diagram v3

The diagrams below have been realised before coding the new version of “EasySave” and have been built to get a good idea of the new specifications required by our customers.

Use case diagram v3:

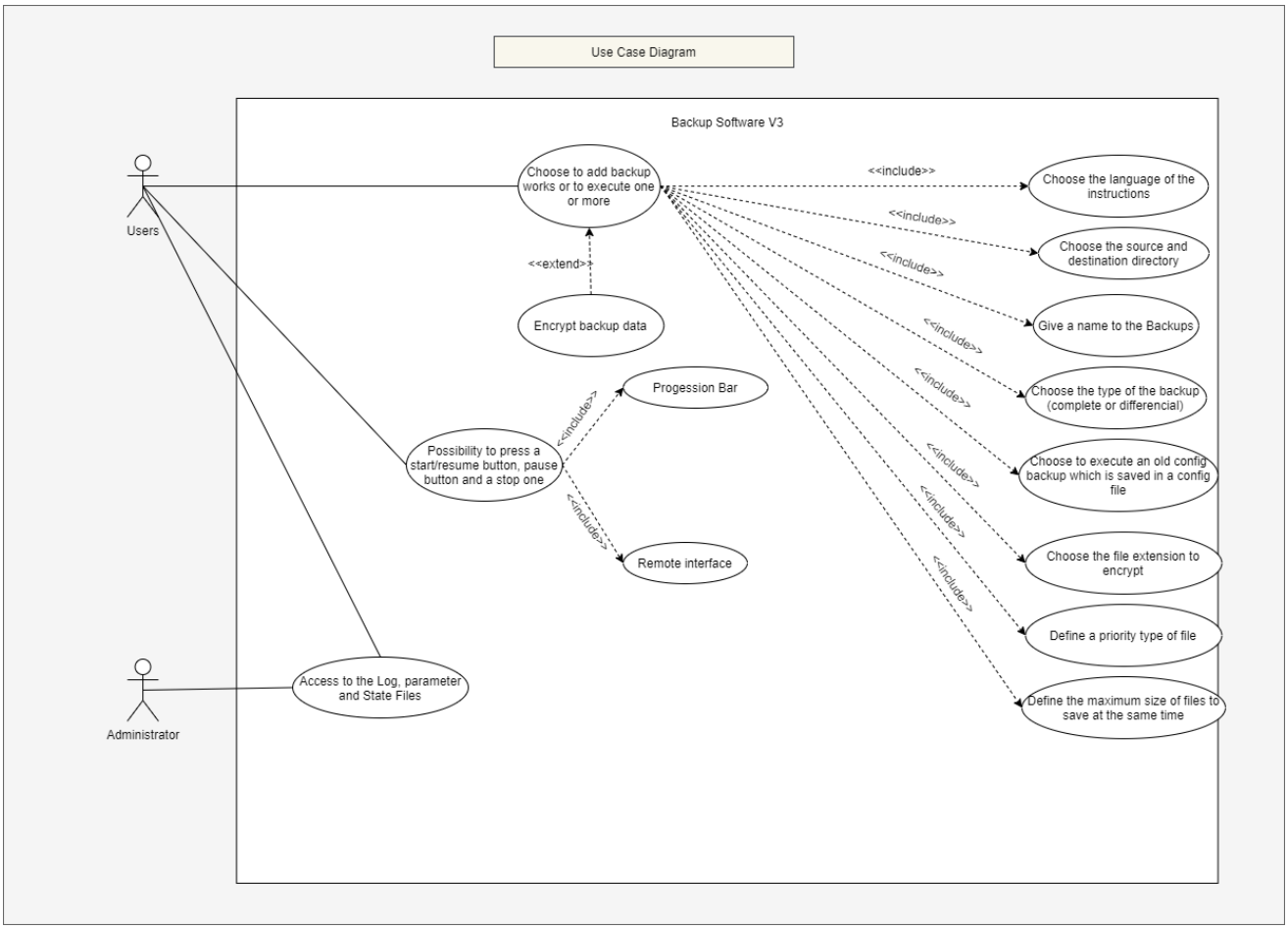

Figure 1 - Use Case Diagram v3

Sequences diagram v3:

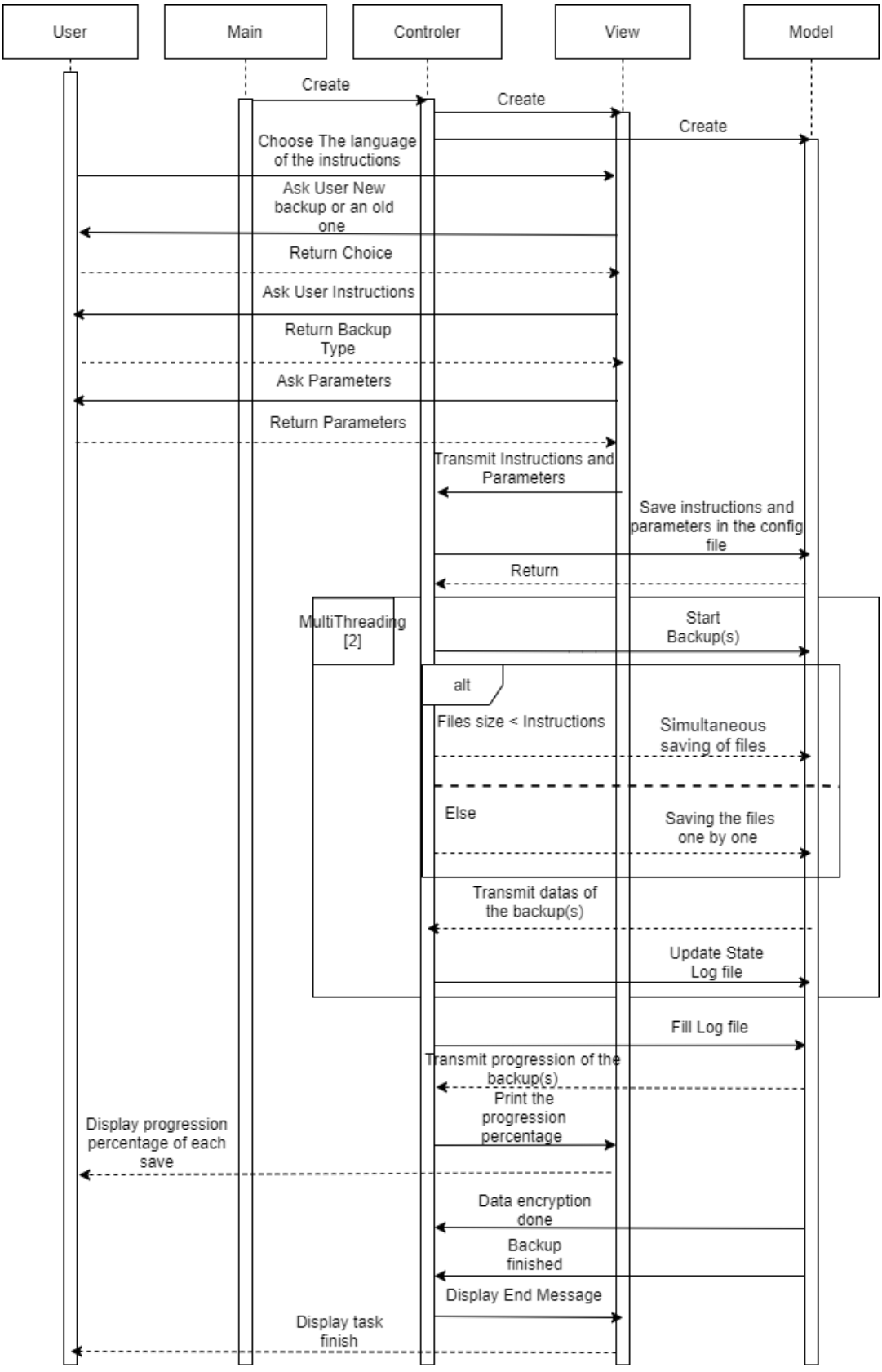

Figure 2 - Sequences diagram v3

Activities diagram v3:

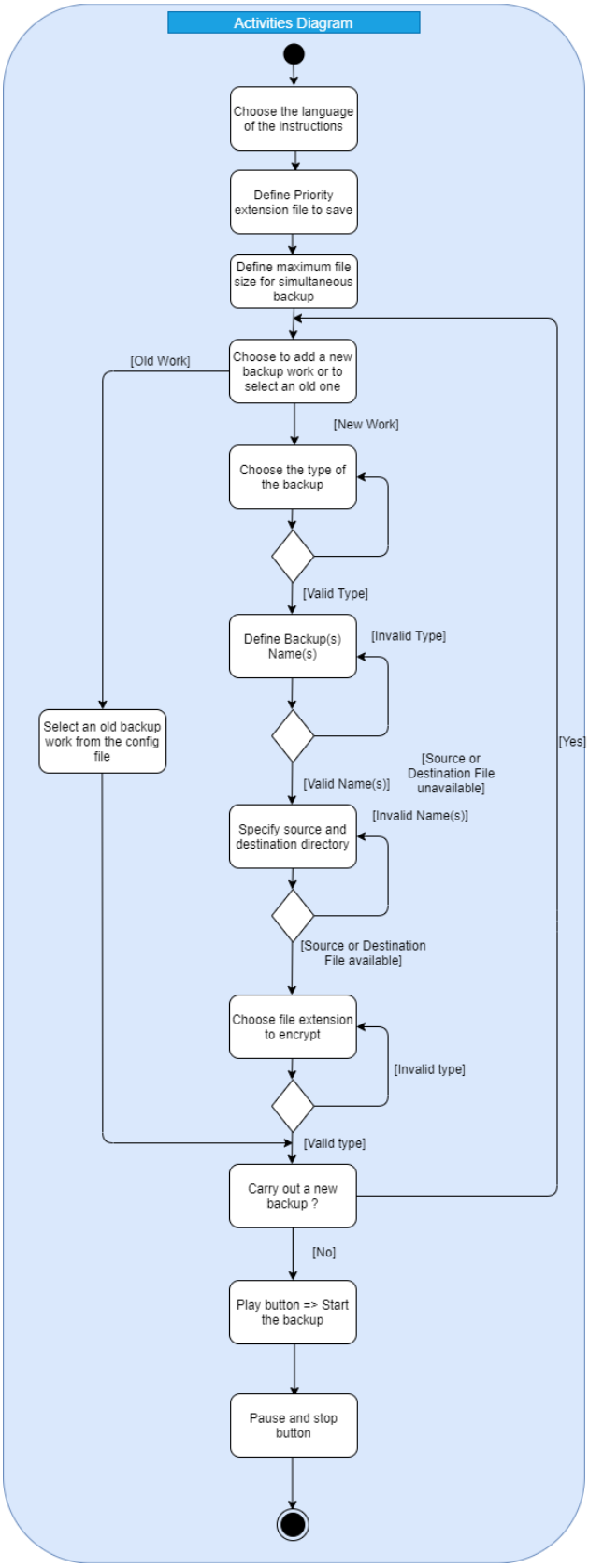

Figure 3 - Activities Diagram v3

Classes diagram v3:

The classes diagram will be join to this file in Microsoft Teams cause the picture has a big size and can't be read properly in a .pdf document

Cf. MicroSoft Teams : Deliverable 3

Components diagram v3:

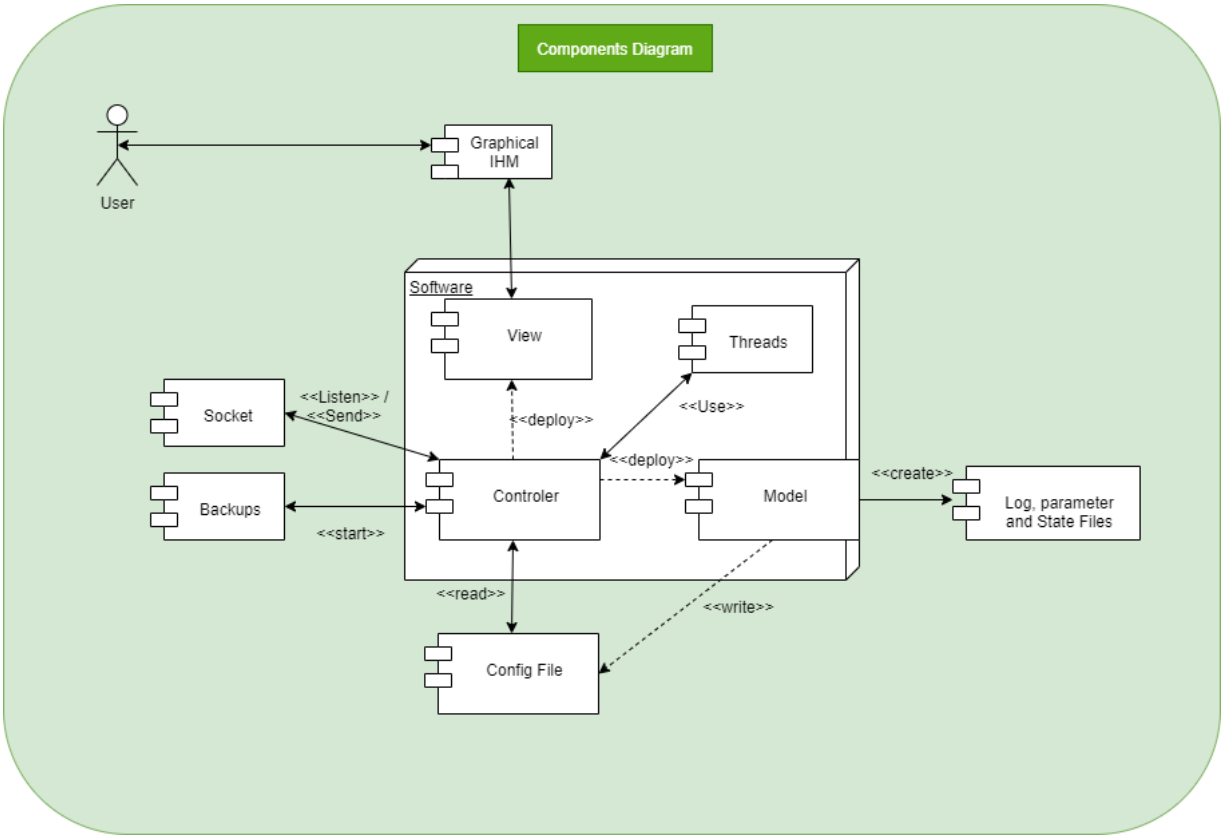

Figure 4 - Components Diagram v3

2- User Documentation v3.0 :

Finally! The version v3.0 of EasySave is available for all our customers! In this User documentation, I will present you how to use the version v3.0 and the multiple functionality available with our software.

In this version there is a brand-new functionality! A client interface to start your backup remotely! We will see all of that in few seconds.

Let us start!

In a first time, I will show you the source repertory that we want to save and the destination one where we want to save it.

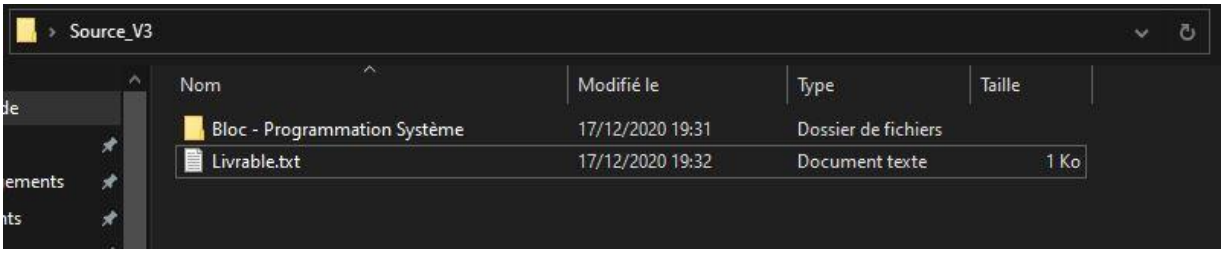

Figure 5 - Source Repository

I have created a text file to encrypt and I have added a folder with the file. Below you can see the content of the file.

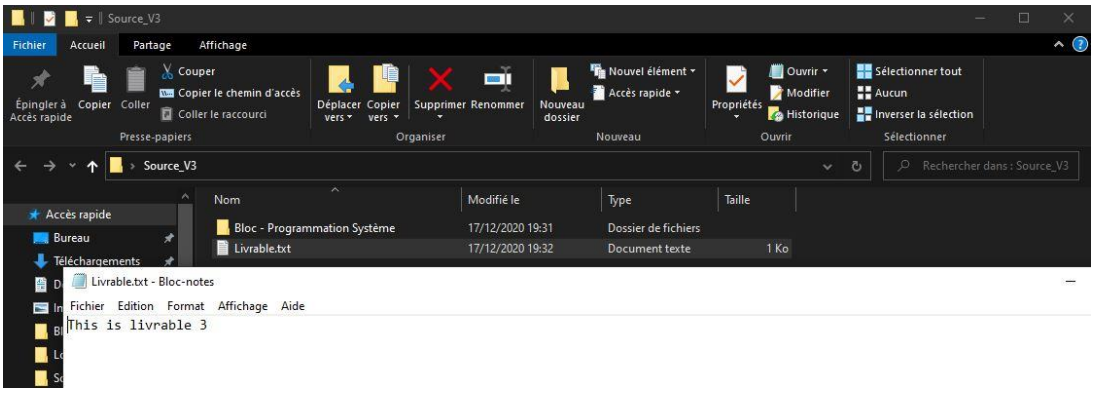

Figure 6 - Source Repository 2

And now let us check if the destination file is empty.

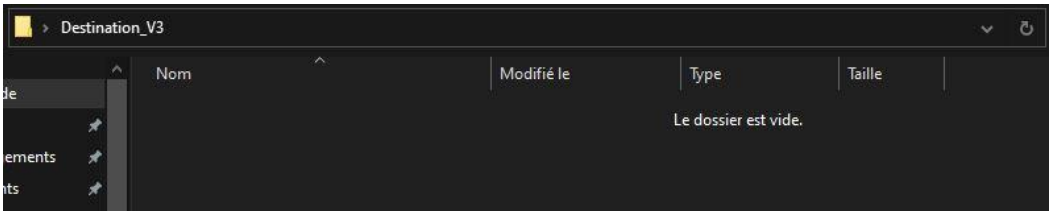

Figure 7 - Destination Repository

Below you will be able to see the graphical interface of EasySave and the Client.

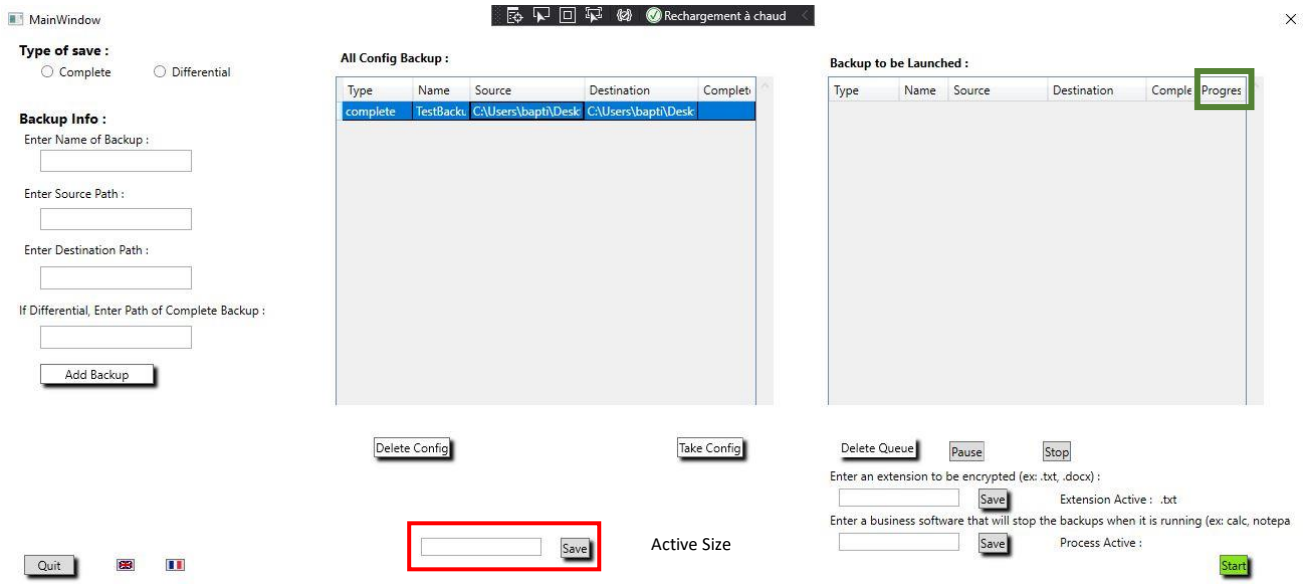

Figure 8 - EasySave Interface

The new functionality that you can interact with is: You can define a file size that we do not want to exceed when we save simultaneous file which are above of this size. You can define it in the red block.

There is another new thing: the progression of the backup. You will be able to follow the advancement of the backup of 0 to 100%. (Green block)

Now you can see the Client Interface:

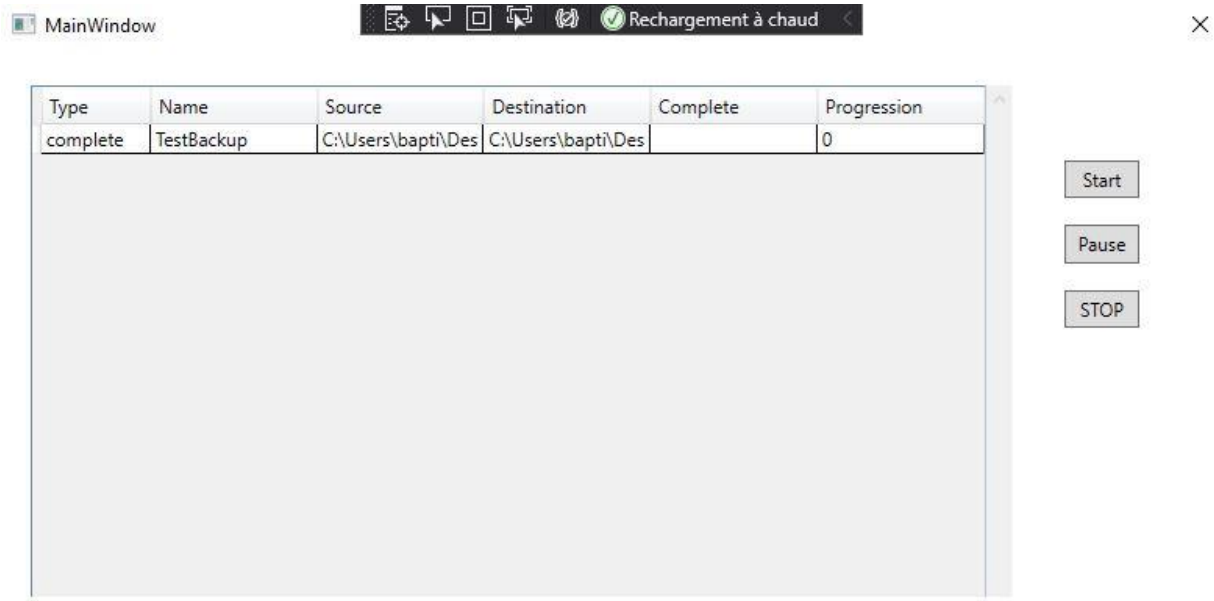

Figure 9 - Client Interface

On this client you will be able to Start, Pause or stop one backup which is in the config file that you can see on the picture.

To show you how it works we will now add one backup on the EasySave interface and start it on the Client Interface.

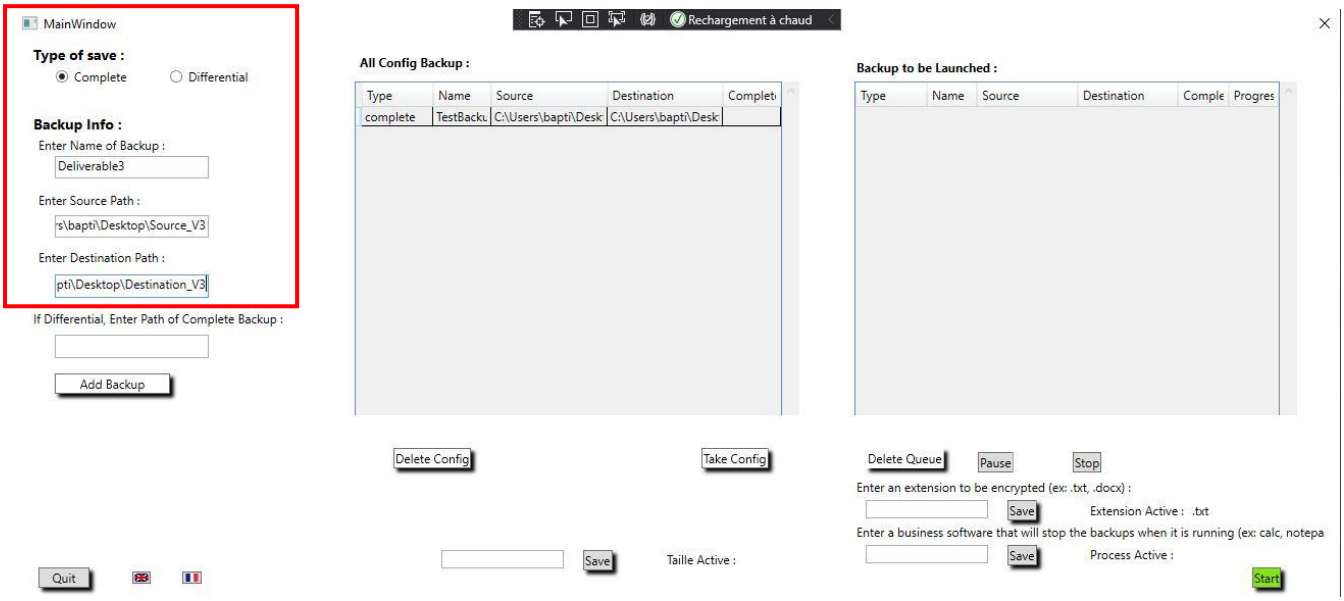

Figure 10 - Create Backup

Now that we have define the type, the name, the source directory, and the destination we can add the backup to the config file:

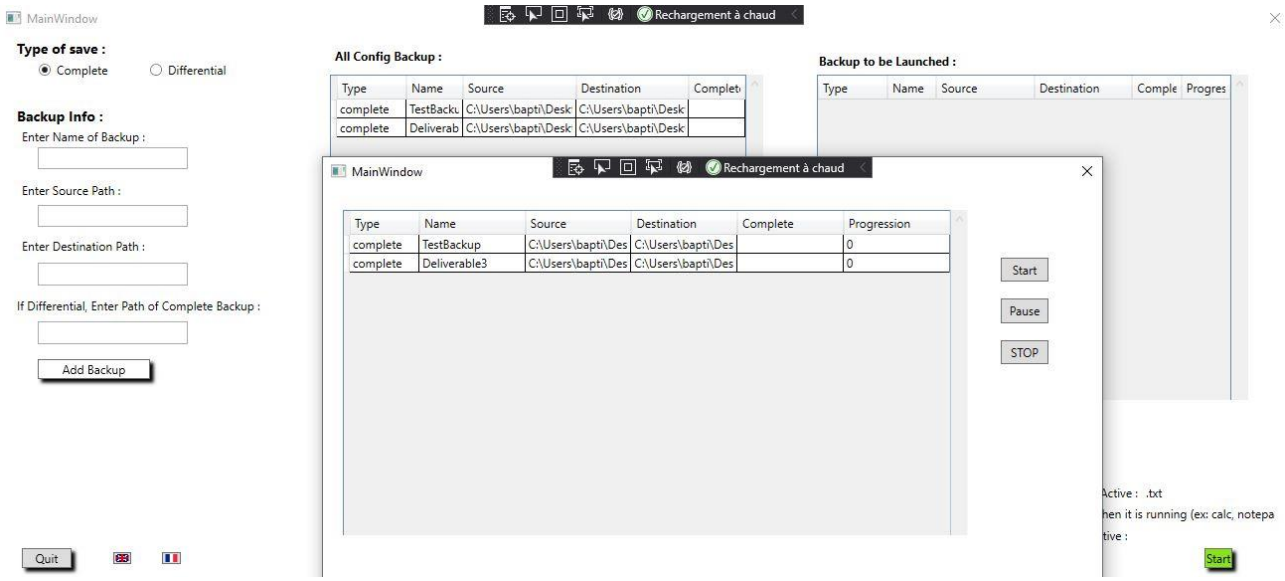

Figure 11 - Backup Added

As we can see the backup as been added on both interfaces and can be launched on the Client.

Let us do it now.

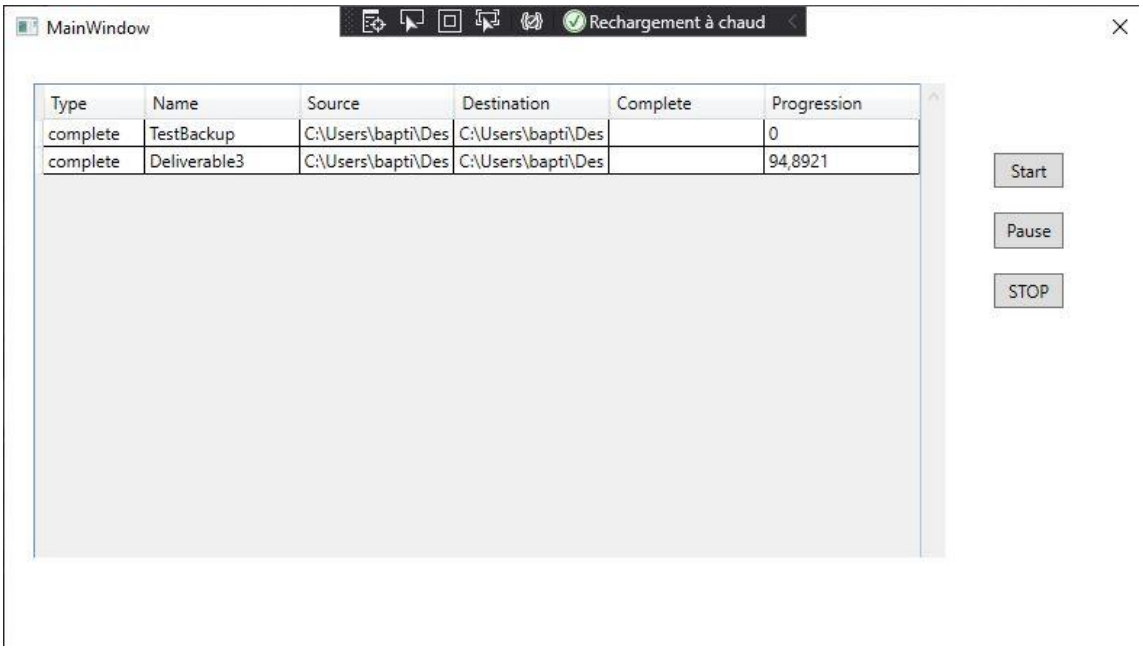

Figure 12 - Backup Started

We can see the progression percentage is changing so the backup has been started and is in progress, biggest is the size of the file longer will be the progression of the backup. When the percentage is 100% we can check the result.

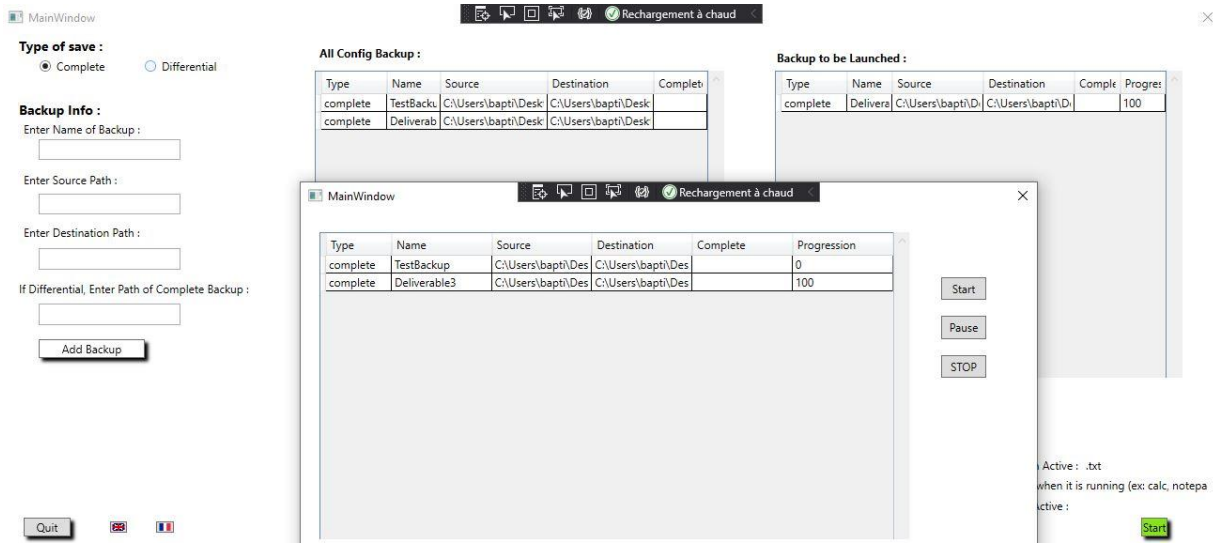

Figure 13 - Backup Finished

You can see the percentage 100% on both interfaces, the discussion between the two interfaces Is well put in place.

Now let us check the result of the backup:

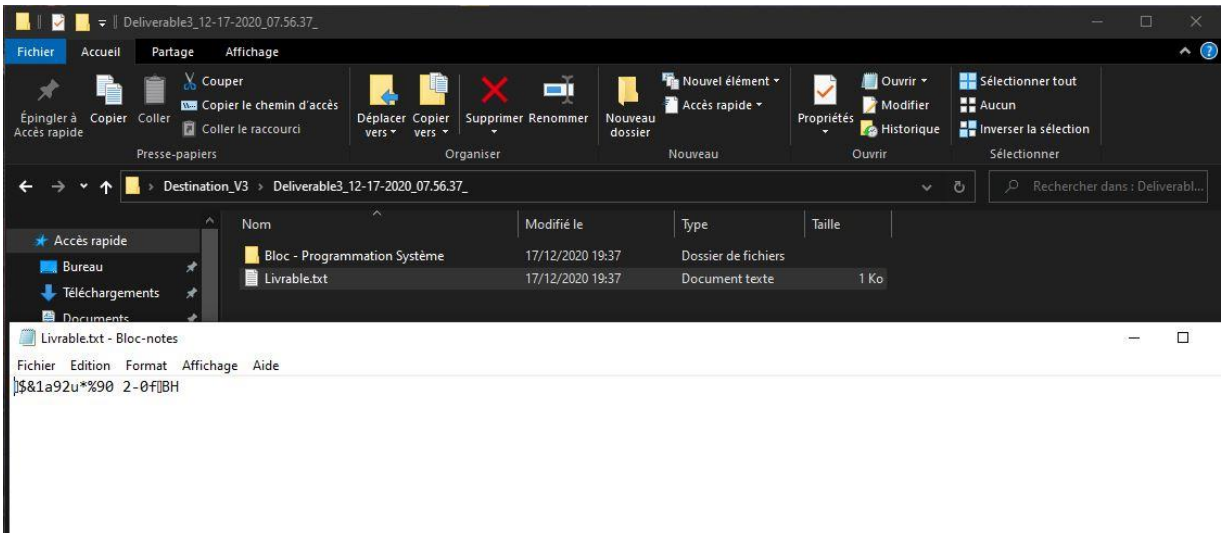

Figure 14 - Result Backup

We can see that the backup is finished, the encryption of the file work, and the other directory is there too. The backup is finished!

You can find the log, state and parameter file on your root of your hard disk:

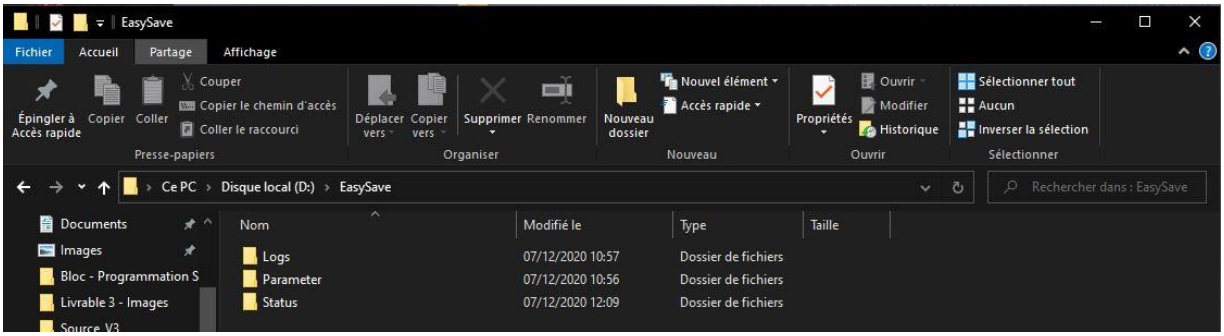

Figure 15 - Log, State and Parameter file

Thank you for using EasySave! I hope our software is useful to you or your company and we hope that you will keep using our application!

EasySave Team.

Annexes:

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HIBERT Florian – FAVIER Paulin – GUILLEMET Baptiste

Meeting reports :

Meeting Report 1

Participants : FAVIER Paulin, HIBERT Florian et GUILLEMET Baptiste

Date et Horaire de réunion :

Lundi 14/12/2020 : 9h00 – 11h00

Sujet abordés :

Lors de cette réunion, nous avons mis en commun les tâches a réalisées ainsi que le travail déjà effectué lors de cette première phase du livrable 3.
Le travail étant assez conséquent nous avons décidé de diviser nos tâches en plusieurs parties :

- Partie Multithread – Gestion des priorités, des tailles de fichiers, Pause/Stop/Play
- Partie Socket et thread – Synchronisation entre « EasySave » et le « Client »
- Réalisation des diagrammes
- Mise en place d'un interface à distance dit « Client »
- Barre de progression
- Ajout de certaines fonctionnalités sur le serveur (Surveillance Réseau, Application Mono-Instance, fonctionnement parallèle, etc…)

La plus grande partie de ce travail a commencé à être réalisé par Paulin qui rencontrait peu de problème et qui était vite résolu. Florian et Baptiste devait s'occuper de la partie socket, threads, barre de progression et diagrammes.

L'avancement du côté de Paulin est efficace et progresse vite, du côté de Florian et Baptiste l'avancement est bien moindre mais ils progressent.
Le projet est sur une bonne voie et on s'attend à atteindre les différents objectifs présents dans le cahier des charges.

Meeting Report 2

Participants : FAVIER Paulin, HIBERT Florian et GUILLEMET Baptiste

Date et Horaire de réunion :

Mercredi 16/12/2020 : 09h00 – 17h00

Sujet abordés :

Cette réunion a permis de faire un bilan et de voir tous ensembles l'avancement du projet et surtout la progression des différentes parties d'EasySave. Ainsi que les éléments fonctionnels, ceux qui sont défaillant et ceux qui sont absents.
Les tâches accordées à tout le monde ont été dans la plupart des cas remplîtes, juste problème avec la barre de progression, l'implémentation du Background Worker n'a pas été fonctionnel nous avons donc décidé de partir sur un pourcentage qui s'actualise via des threads.

Le projet est bientôt fini, 90% des objectifs sont remplis, une grosse phase de débogage est entamée par Paulin afin de régler les derniers problèmes présents dans le programme et vérifications avec Florian de la synchronisation et de la connexion du client vers le serveur grâce aux sockets et aux threads.

Réalisation du PowerPoint par le groupe et entrainement à la démonstration ainsi qu'à l'oral, réalisations des différents livrables attendus et finalisation des tâches.

Conclusion : Projet finalisé, prêt à être présenté au jury. Soutenance vendredi matin à 10h00.
20 min d'Oral et 10min de questions.