



Sage XRT Common Services

Version 5.0

User Guide



Contents

Installation.....	7
Presentation	7
Sage XRT Communication & Signature mini 4.2.....	8
Configuration 1	8
Configuration 2.....	8
Configuration 3.....	9
Tenants Management Interface	10
Tenants.....	10
Creation	10
Updating the databases	15
First Connection	17
Users.....	17
Adding Workgroups.....	18
Modification	20
Sage XRT Administration Services	21
Authentication Service	22
Configuration.....	22

Login Page.....	23
Administration Service	26
Configuration.....	26
Connection	27
Licenses	28
Creation	29
Modification	29
Deletion	30
Application.....	30
Access Rights	30
Authentication Setup	30
Password Policy	36
Data Activation and Four-Eye Rule.....	37
User Account	40
Profiles.....	43
Creation	44
Duplication	47
Modification	47
Deletion	47
Activation.....	48
Deactivation	48
Sites	48
Creation	48
Modification	49
Deletion	50
Activation.....	50
Deactivation	50
My Account	50
Audits and Logs	51
Setup.....	51
Audit	52
Log	53

Transcoding	54
Design	54
Correspondences.....	57
XDLO (deprecated)	59
Setup.....	59
Definition	61
Sage XRT Functional Service	64
Configuration.....	64
Connection	66
Format Library - Format API	67
Payments - Batch Transfers - Payments API.....	75
Sage.FCS.Client Library	92
Operation	92
Description of Methods Integrated to Library	93
Connection	93
Connection Page.....	96
Tenants	99
Licenses	99
Profiles -Sites -Users- Setup	103
Password	109
Format Library	112
Configuration File	120
Sage.fcs.apifmt Application	122
Installation.....	122
Configuration.....	122
Authentication Service	123
Data Transforming Service	123
Permissions.....	124
Operation	126
Basic Parameters	126
Examples.....	128
Sage.fcs.pwdencode.exe Application	131

Installation.....	131
Operation	131
Base64-encoding Only.....	132
Encryption and Base64-encoding.....	132
Sage.fcs.pwdencode.config Description.....	132
Using sage.fcs.pwdencode.exe.....	134

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Installation

Presentation

This version 5.0 of **Sage XRT Common Services** is the first to offer the most used functions on web interfaces.

The Management of Tenants (e.g.: **workgroups**) and the *DBInstaller* part are the only ones to keep a *Win32* interface.

This version as well as the future versions offer new functions:

- Data Activation and *Four-Eye* Rule
- SAML V2 Authentication
- Management of *Crystal Report* 13.0.23
- Rest API for Authentication Management
- Rest API for Data Conversion (Format Library)
- Rest API for Payment Management including interfacing with a Signature or Communication service

Important!

Installing **Sage XRT Common Services** on each client station is no longer required when installing **Sage XRT Communication & Signature** and **Sage XRT Advanced**.

Sage XRT Common Services must only be installed on the server station.

For **Sage XRT Communication & Signature**, **Sage XRT Common Services** must be installed on the same station as the communication server.

For **Sage XRT Business Exchange**, until **sage.fcs.client** wrapper is integrated, **Sage XRT Common Services** must be installed on the same station as **Sage XRT Business Exchange**.

When a tenant is created before the installation of another product, **Sage XRT Common Services** must be updated.

Sage XRT Communication & Signature mini 4.2

Configuration 1

When everything is on the same station, you must use:

- The **Complete** installation process for **Sage XRT Common Services**
- The **Complete** installation process for **Sage XRT Communication**
- The **Complete** installation process for **Sage XRT Signature**

Sage XRT Common Services database must be updated with *DBInstaller*.

Configuration 2

When 1 to n client station and 1 server station, then on the client station, you must use:

- The **SCAS, SCPS and SCDTS Client Part** installation process for **Sage XRT Common Services**
- The **Client Station** installation process for **Sage XRT Communication**
- The **Client Station** installation process for **Sage XRT Signature**

And on the server station:

- The **Client Station** installation process for **Sage XRT Common Services**
- The **Complete** installation process for **Sage XRT Communication**
- The **Complete** installation process for **Sage XRT Signature**

Sage XRT Common Services database must then be updated with *DBInstaller*.

Configuration 3

For 1 to n client station and 1 server station for **Sage XRT Communication & Signature** and 1 server station for **Sage XRT Common Services**, then on the client station, you must use:

- The **SCAS, SCPS and SCDTS Client Part** installation process for **Sage XRT Common Services**
- The **Client Station** installation process for **Sage XRT Communication**
- The **Client Station** installation process for **Sage XRT Signature**

On **Sage XRT Communication & Signature** server station, you must use:

- The **Client Station** installation process for **Sage XRT Common Services**
- The **Complete** installation process for **Sage XRT Communication**
- The **Complete** installation process for **Sage XRT Signature**

On **Sage XRT Common Services** server station, you must use:

- The **Client Station** installation process for **Sage XRT Common Services**
- The **Database Scripts** installation process for **Sage XRT Common Services**
- The **Database Scripts** installation process for **Sage XRT Signature**

Sage XRT Common Services database must then be updated with *DBInstaller*.

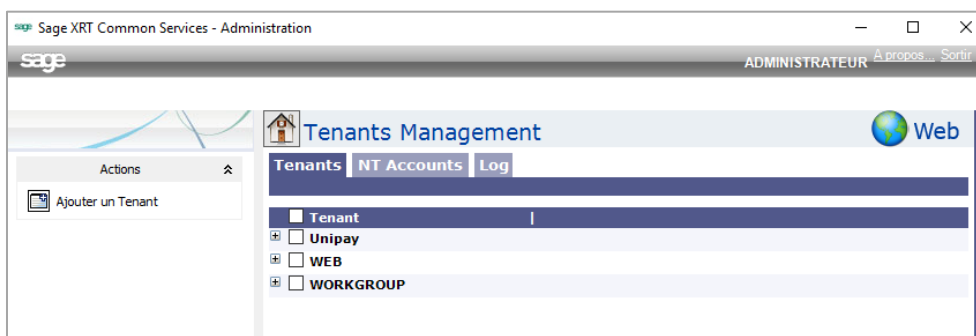
Tenants Management Interface

Tenants

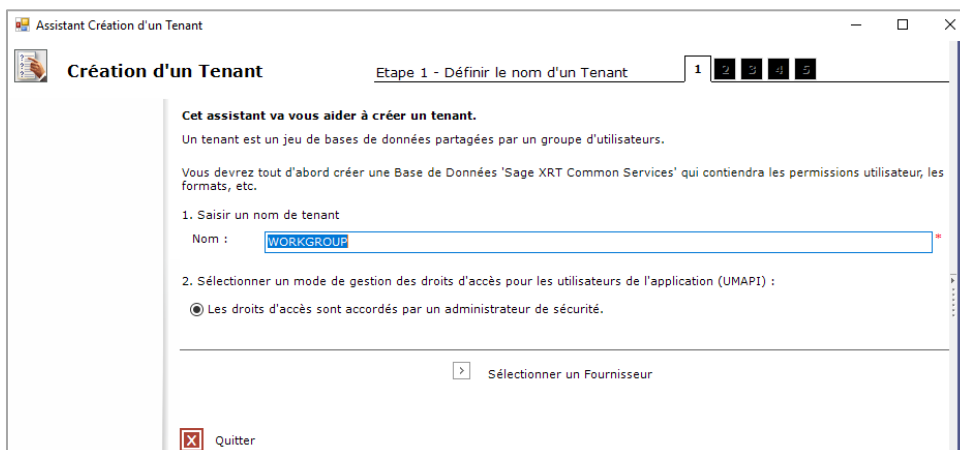
If **Sage XRT Common Services** is installed for the very first time, no tenant exists: the first step consists in creating one or more tenants according to the database type used (*SQL Server* or *Oracle*).

Creation

In the **Start** menu, go to **Programs – Sage – Administration XRT .NET**. The **Tenants Management** interface is displayed.



Click the **Add a Tenant** link to launch the **Tenants Creation Wizard**.



Note: When no tenant has been specified, the **Tenants Creation Wizard** is displayed automatically.

Tenants Management Interface

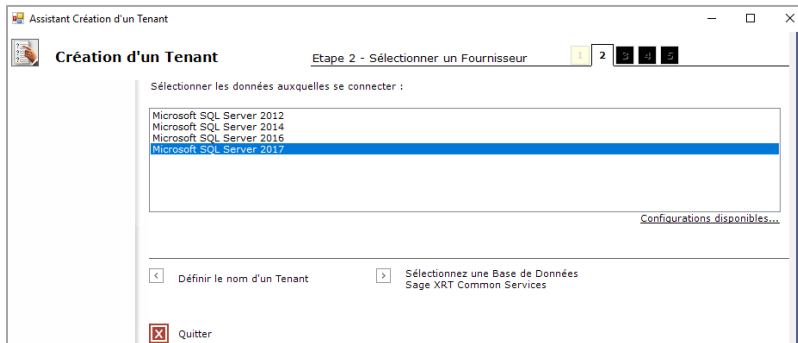
Name

Enter a name in the **Name** field. The default name is **WORKGROUP**.

Define the access permissions management mode for **Sage XRT** application users.

Note: As of version 5.0, the validation by level-2 administrators has been replaced by the data activation. This activation function depends on the setting.

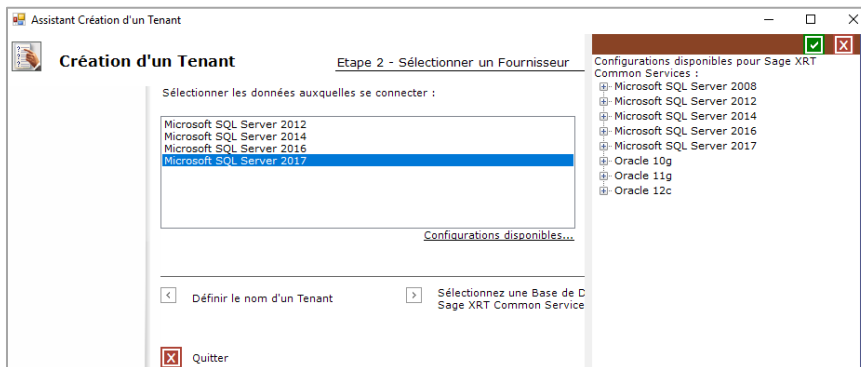
Click **Select a Provider**.




Selecting Providers

Select from the list the database server or client.

Click **Available Configurations** to display the details of the database servers or clients which are installed on the computer, as well as the authorized operations (creation and update).



Click  to close the page and go back to the Database Access Provider selection page.

Tenants Management Interface

Click **Select Sage XRT Common Services Database**.

Assistant Création d'un Tenant

Création d'un Tenant

Etape 3 - Sélectionnez une Base de Données Sage XRT Common Services

Sélectionner les informations nécessaires à la connexion aux données SQL Server :

1. Sélectionner ou saisir un nom de serveur :

WIN-18LGUGG6C31 * Rafraîchir

2. Saisir les crédeniels de l'administrateur du serveur :

☒ Utiliser la sécurité intégrée de Windows NT
☐ Utiliser un nom d'utilisateur et un mot de passe spécifiques :

Nom Utilisateur :

Mot de Passe : ☐ Pas de Mot de Passe

3. Sélectionner ou créer une base de données sur le serveur :

☒ Sélectionner la base de données :
☐ Créer la base de données :

Nom : * Version du modèle XRT : ?

DBO : * Mot de Passe : *

Utilisateur : * Mot de Passe : *

Collation string :

< Sélectionner un Fournisseur > Produits

Quitter

[Tester la connexion DBA](#)
[Tester la connexion DBO](#)
[Tester la connexion USERS](#)

Selecting Databases

Enter the name of the server where you want to create the database. The available characters to name the server are:

- (local)
- (LOCAL)
- .
- *server name*

The **Refresh** button enables the display of the *Microsoft SQL Servers* list connected to the company network.

According to the authentication type used by the DBA (Database Administrator) to connect to the database server, select one of the following options:

- **Use Windows NT integrated security:** the DBA is authenticated by its NT account.
- **Use a specific username and password:** the DBA is authenticated by a username and a password.

Note: Click the **Test DBA connection** link at the bottom of the page to check the DBA's Identifiers.

Tenants Management Interface

You have two options:

- **Select the database** if you want to work on an existing database.
 - Select the database from the dropdown list. The existing databases are refreshed upon the first display of the list.
 - Enter the password corresponding to the DBO name appearing in the **DBO** field. The wizard suggests the password: **password#2005**. When you select a database from the list, the wizard automatically looks for its owner name using the DBA account.
 - Enter **XRTUSERS** account password. The default password is: **password#2005**.

Note: Click the **Test DBO connection** link at the bottom of the page to check the DBO's Identifiers.

- **Create the database** if you want a new database.
 - Enter a name for the database. The wizard checks whether this name is already used for another database, when the user clicks **Create/Modify models**

Important! The database name cannot contain spaces or special characters (*, ?, \, /, etc.).

- Enter the database owner credentials. The wizard suggests the identifier **XRT** with the password **XRT**. It creates the account if necessary and gives it the db_owner role on the database.
- Select the **Collation string** or keep the default **French_CI_AS** (no distinction between uppercase and lowercase).

Click **Products**.

Configuring Logical Units

The wizard proposes a default scenario in which the filegroup tables **DATA** and the filegroup indexes **INDEX** of **XCS** model are created in the filegroup **PRIMARY** (default filegroup upon SQL Server database creation).

Tenants Management Interface

From this Properties panel you can:

- Modify the proposed scenario and install indexes in two distinct **Filegroups** (e.g.: **XCS_DATA** and **XCS_INDEX**).
- Modify the filegroup creation settings (storage directory, initial size, maximum size, file growth). The storage directory must already exist for the creation process to work properly.

Important! Sage XRT Common Services model scripts are based on the **DATA** logical filegroup for tables and the **INDEX** logical filegroup for indexes.

When executing the model creation process, the wizard replaces the logical names by the values entered in the **Properties** panel (**PRIMARY** for the default scenario).

If the target filegroups do not exist (e.g.: **XCS_DATA** and **XCS_INDEX**), they are automatically created by the wizard.

Click **Creating/Modifying Models**.

Creating and Modifying Models

The **Scripts to be executed** list includes all the scripts to be executed in order to create **Sage XRT Common Services** model.

- **createlogicalunits.sql**: Creation script for logical units. A logical unit represents a filegroup for the creation of a *Microsoft SQL server* database.
- **xl_configuration createxl_configuration.sql**: Creation script for the table in which the model version is to be saved
- **registerlogicalunits.sql**: Registering script for logical units

The product scripts are processed later.

According to their types, the scripts are executed with the DBA or DBO account.

Select the **Select data to be imported** option and choose a language from the list. This import processes data (*XML* format) for APIFMT, TRANSCO and UMAPI.

Click **Validate all steps** and proceed with the execution of the actions set up in steps 1, 2, 3, and 4.

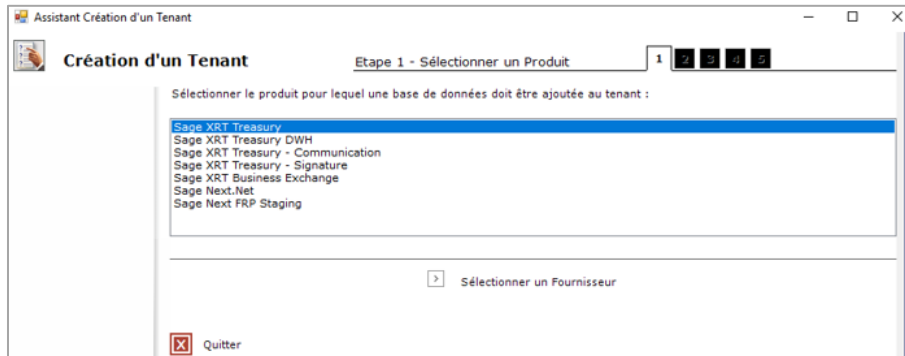
Execution of Actions

This may take several minutes. At this stage, **XCS** model is created.

You can **Quit** the **Workgroup Creation Wizard** and open the **Administration** Service or add another **Product** model.

Tenants Management Interface

Click **Add a Product Database** and the **Tenants Creation Wizard** is displayed.



Selecting Products

Select a product from the list.

Click **Select a Provider**.

Note: For more information about the process of provider selection, refer to the **Selecting a Provider** section.

Updating the databases

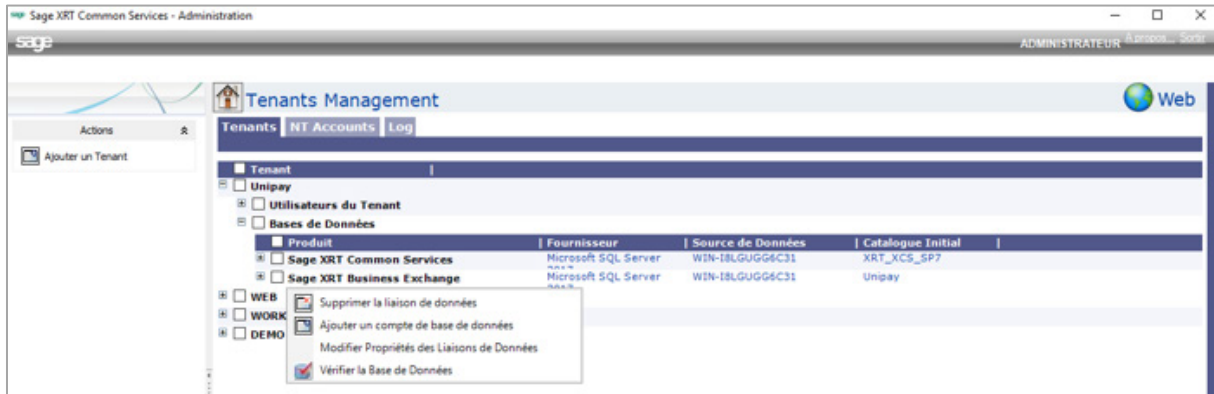
The Tenants Management interface gathers the tenants, users and databases.

Important! The database update may damage the user's data. The data must be saved previously.

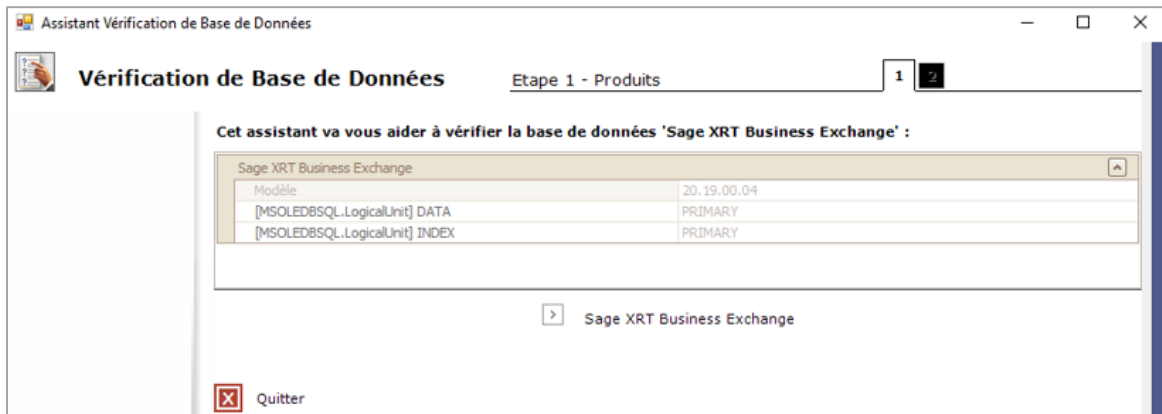
In the tree-view, expand the **Tenant** element, then the relevant tenant and eventually the **Database**.

Tenants Management Interface

Right-click on the line of the database to update and select **Check the database** from the contextual menu.



The **Database Check Wizard** is displayed.



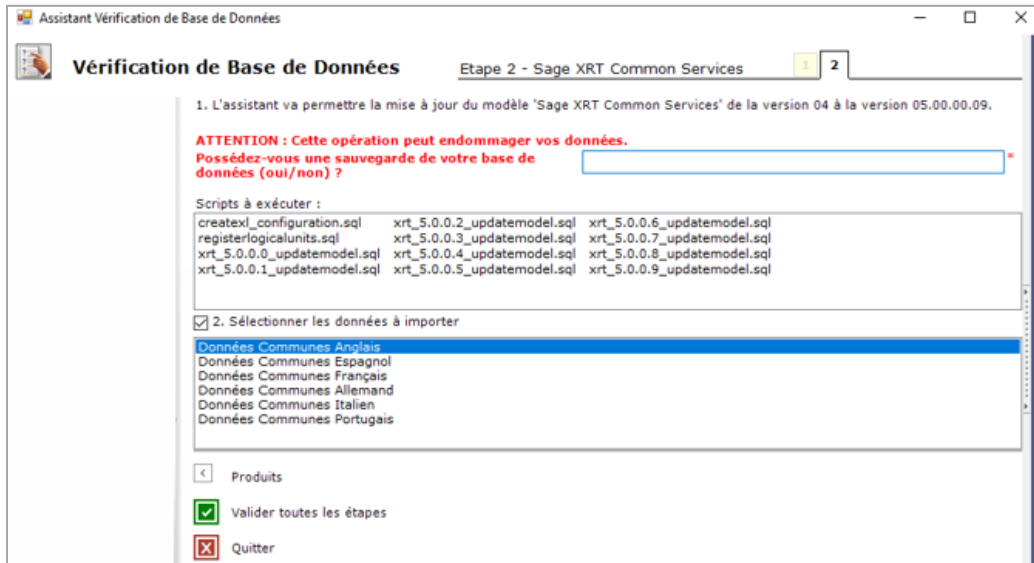
Note: if the *Windows* user is not registered as the DBO in this workgroup, they are not allowed to update the database. The wizard does not suggest any database update and the **Product** is not displayed on screen.

Click on the product.

If the wizard detects an inconsistency in versions, the user is redirected to the database update process.

Tenants Management Interface

Otherwise, the second step appears onscreen.



Answer the question by yes or no: **Do you have a backup of your database?**

Select **Select the data to import** if the data in database are not up to date.

Click **Validate all steps**.

First Connection

After the database creation, upon first connection, you can:

- the NT account used to set up the product
- the login **XRT** and password **S3cret#2018**

Important! The credentials **XRT** and **S3cret#2018** are only for one day!

Users

During the workgroup creation, **Windows NT Administrators** and **XRTDBAdministrators** local groups are automatically declared as administrators of this group.

Sage XRT Common Services proposes a wizard for the management of users within their workgroups.

Tenants Management Interface

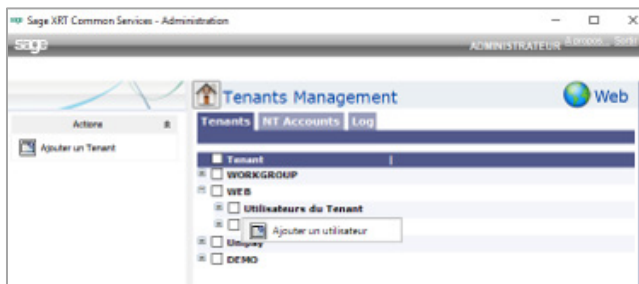
The wizard allows the following actions:

- **Add a network user:** To add a user, enter the NT account of a user or click **Search...** to access *Microsoft Windows NT* user search tool.
- **Add a network group:** This option enables the association of a *Windows NT* user group with a tenant. For this, click **Search...** to access *Microsoft* tool to find a *Windows NT* user.
- **Add a local system account:** This type of account is used by a system service executed for the local system and must access a new database.

Adding Workgroups

To assign users to the tenant, expand the **Tenants** element in the tree-view.

Select a tenant from the list and right-click on the **Users** level.



Select **Add User** to open the **User Creation Wizard**.



Click the link **Sage XRT Common Services** to go to the second step.

Tenants Management Interface

Assistant Création d'un Utilisateur

Création d'un Utilisateur

Etape 2 - Sage XRT Common Services

Crédentiels à utiliser pour connecter le compte NT SAGEFR\BROB à la base de données 'Sage XRT Common Services' :

1. Sélectionner ou saisir un nom pour identifier l'accès à la base de données :

dbo

2. Définir les propriétés d'authentification :

☐ Authentification Windows

☒ Authentification SGBD

Utilisateur : FCS64

Mot de Passe : *****

☐ Pas de mot de passe

< Affecter un Utilisateur

> Sage XRT Business Exchange

Quitter

Select the type of data access from the dropdown list or specify a new one. The wizard proposes two default types of predefined access:

- **DBO**: This access type should be reserved to the database owner.
- **Users**: This access type must be used by users with no authorization.

Select the user authentication mode on the database server:

- **Windows Authentication**: the user is authenticated by their NT account.
- **DBMS Authentication**: the user is authenticated by the account assigned by the database administrator (DBA).

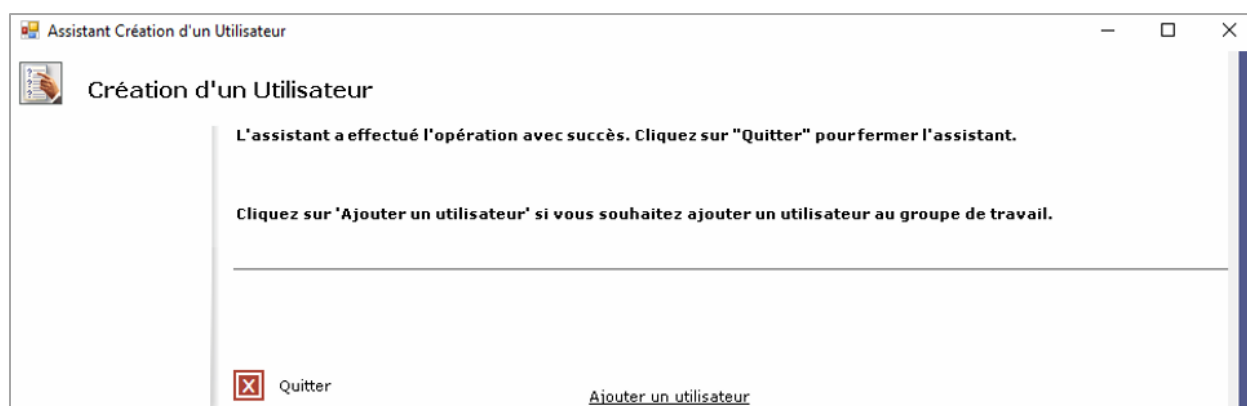
Important! It is recommended to define the access using an *SQL Server* account, as using *NT* authentication does not allow connection pooling.

You can create another access name for a given workgroup. This is a **User** access type.

E.g.: definition of the *TREASURER* access for **Sage XRT Treasury** database with a specific *SQL Server* account name *TRESO*.

Click **Validate all steps**.

Tenants Management Interface

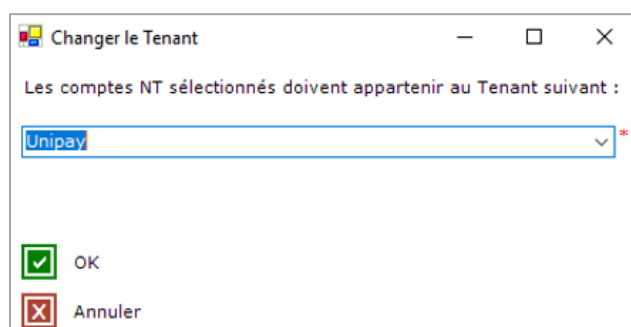


Note: You may also manage **Sage XRT Treasury** users by repeating the process of access to **Sage XRT Common Services** database.

Modification


You can modify the assignment of users to a tenant.

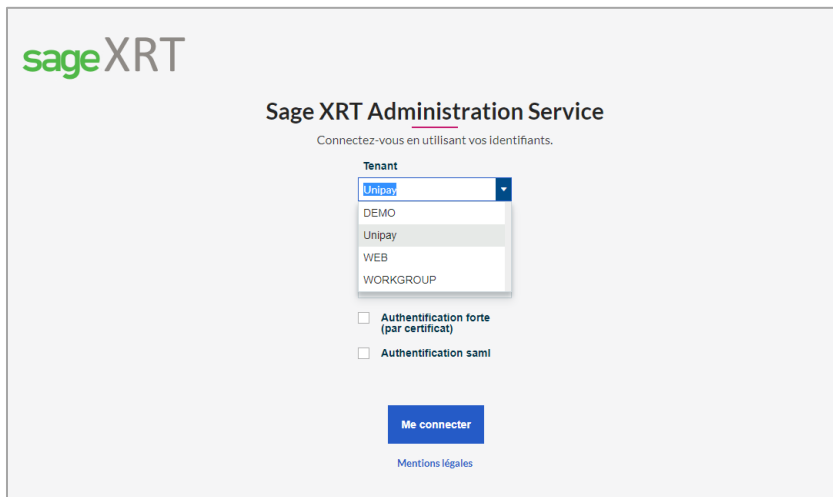
After a right click on the user to be modified, select **Change Tenant**.



Select another tenant and click **OK**.

Sage XRT Administration Services

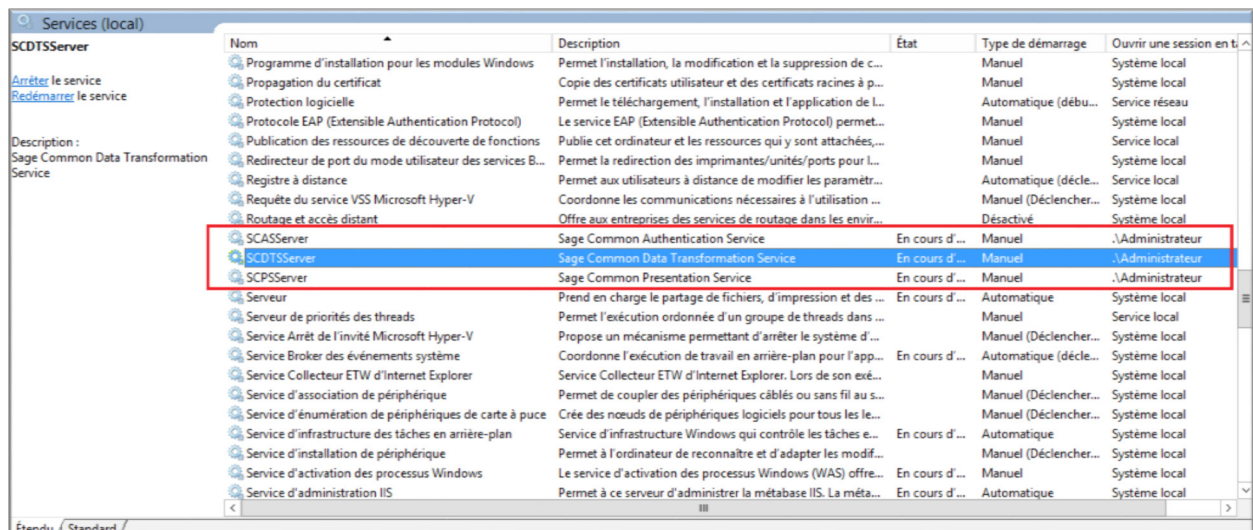
The icon  on the top right of **Tenants Management** interface gives direct access to **Sage XRT Administration Service**, to manage users, profiles, rights, etc.



Sage XRT Common Services 5.0 consists of three services:

- The Authentication Service (SCAS) which validates user identification.
- The Administration Service (SCPS) which manages the sections: Rights (Users, Profiles, Sites, etc.), Audits (Audits, Logs) and Transcoding (Design and Correspondences).
- The Functions Service (SCDTS) which covers the following areas:
 - Format Management
 - Third-Party Security Management (not yet available in 5.0)
 - Payment Management (batch transfers available in 5.0)
 - Bank Statement Management (not yet available in 5.0)

Sage XRT Administration Services



Documentation for these APIs is generated by *Swagger*. **Swagger.json** file corresponds to the documentation JSON export.

Note: You can access the documentation and the JSON file (the link appears in the *.config file for each service) in **C:\Program Files\Common Files\xrt**.

Each service contains its configuration file.

Authentication Service

Configuration

Sage.SCASServer.Service.exe.config (configuration file) is in: **C:\Program Files\Common Files\xrt**

Activating Logs

See <system.diagnostics> and <diagnostics> nodes

Definition of location for website, listening ports and service hosts

See <ApplicationSettings> node

```
<add key="websitehost" value="*" />
<add key="websitehostdefault" value="http://localhost" />
<add key="httpservicehost" value="http://*:80/Auth" />
<add key="httpsservicehost" value="https://*:443/Auth" />
```

Sage XRT Administration Services

Defining Security Features

See <ApplicationSettings> node

```
<add key="showfriendlymessage" value="NO"/>
```

(**Access Denied** generic error messages)

```
<add key="redirectwhitelisthost" value="*"/>
```

(White list of redirection URLs after authentication, * means the redirection is on the same requesting domain, you can add other domain names)

(e.g.: *, localhost, *yourdomainname*)

SWAGGER Documentation

Documentation URL and export URL

Login Page

Initializing Login Process

To start the login process, the form below must be used with the POST method in **Sage XRT Common Services** Authentication Service:

http://computername:80/Auth/loginpage or

<https://nomdemachine:443/Auth/loginpage>

```
<form name="loginpage" method="post"
action="http://nomdemachine:80/Auth/loginpage">

    <input type="hidden" name="workgroup" value="">

    <input type="hidden" name="strongauth" value="YES">

    <input type="hidden" name="samlv2" value="YES">

    <input type="hidden" name="product" value="SXSC">

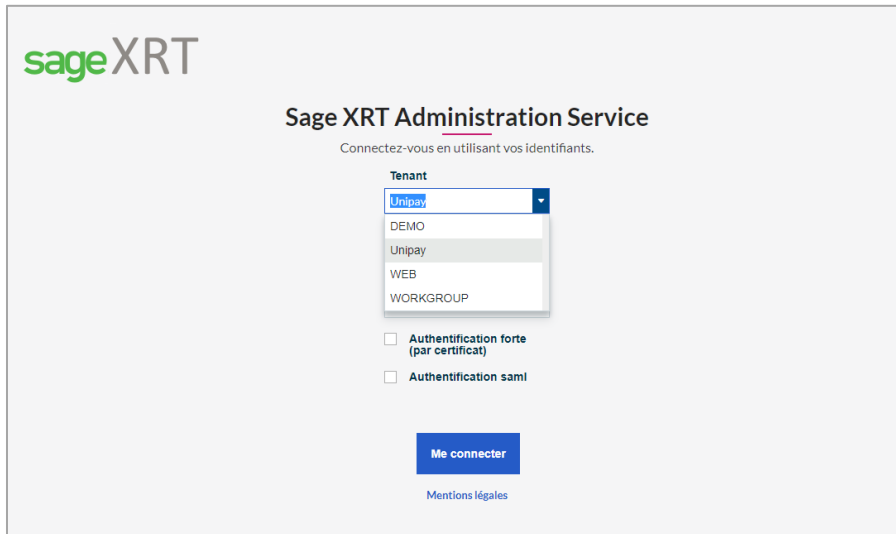
    <input type="hidden" name="url"
value="http://nomdemachine:80/home/homepage">

    <input type="hidden" name="xrtloginweborigin" value="">

</form>
```

Sage XRT Administration Services

The connection page is displayed.



The screenshot shows the Sage XRT Administration Service login interface. At the top left is the 'sageXRT' logo. The main heading is 'Sage XRT Administration Service' with a subtitle 'Connectez-vous en utilisant vos identifiants.' Below this is a 'Tenant' dropdown menu currently showing 'Unipay'. The dropdown list is open, showing options: 'DEMO', 'Unipay' (highlighted), 'WEB', and 'WORKGROUP'. Below the dropdown are two checkboxes: 'Authentication forte (par certificat)' and 'Authentication saml', both of which are unchecked. At the bottom is a blue 'Me connecter' button and a link for 'Mentions légales'.

Workgroup Form Variable

This variable enables the tenant presetting. Its value determines the presence of the dropdown list to select the tenant.

If the variable is a workgroup name, the list is not displayed and the Username/Password is to be checked for this tenant.

Strongauth Variable

This variable enables the strong authentication option.

If the variable is **YES**, the strong authentication checkbox is displayed.

If the variable is empty, the checkbox is not displayed.

Samlv2 Variable

This variable enables the SAML authentication option.

If the variable is **YES**, the SAML authentication checkbox is displayed.

If the variable is empty, the checkbox is not displayed.

Sage XRT Administration Services

Product Form Variable

This variable displays the product name on the connection page. It may be a predefined code or a free text. Below are the predefined codes:

- product= SXSC for **Sage XRT Administration Service**
- product= SCSDTS for **Sage XRT Functional Service**
- product= SXBEONLINEBANKING for **Connection to OnlineBanking**
- product= SXBEADMINISTRATION for **Connection to Business Exchange Administration**
- product= VIEWANDSIGN for **Sage View & Sign**

When these codes are used, **XRTLoginWeb** connection process for **Sage XRT Common Services** manages the localization into French, Spanish and English.

The variable's value can be a free text.

Url Variable

This variable defines the callback URL when the authentication is successful (see the URL white list).

Xrtloginweborigin Variable

This variable defines the website URL for the authentication process when it is not hosted on the same station as the page which launches **XRTLoginWeb** initialization. This variable can be avoided, when the setting up is performed in the configuration file for the Authentication Service (SCAS).

XRTLoginWeb also defines whether passwords are encrypted and then base64 encoded or only base64 encoded. For this, a certificate must be specified in the configuration file of SCAS.

For the certificate which encrypts the username:

```
<add key="serialnumberforpwdcrypt" value="" /> tag
```

Administration Service

Configuration

Sage.SCPSServer.Service.exe.config (configuration file) is located in: **C:\Program Files\Common Files\xrt.**

Log Activation

See <system.diagnostics> and <diagnostics> nodes

Definition of location for website, listening ports and service hosts

See <ApplicationSettings> node

```
<add key="websitehost" value="*" />
<add key="websitehostdefault" value="http://localhost" />
<add key="httpservicehost" value="http://*:80"/>
<add key="httpsservicehost" value="https://*:443"/>
```

Defining Account and Sync Frequency in seconds for NT/LDAP Groups

See <ApplicationSettings> node

```
<add key="syncprofilesitereuser" value="XRT"/>
<add key="syncprofilesiterefrequency" value="3600"/>
```

Defining Security Features

See <ApplicationSettings> node

```
<add key="showfriendlymessage" value="NO"/>
```

(version number not displayed and generic error messages)

SWAGGER Documentation

Documentation URL and export URL

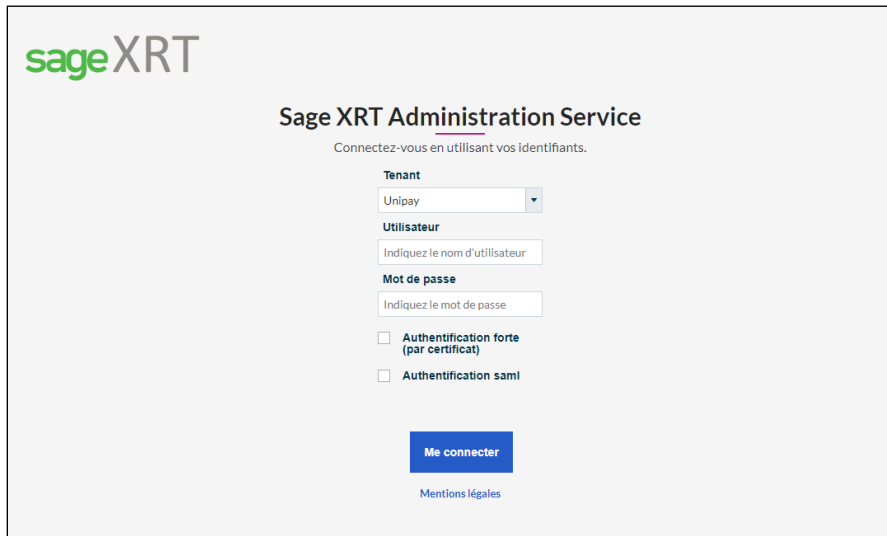
Sage XRT Administration Services

Connection

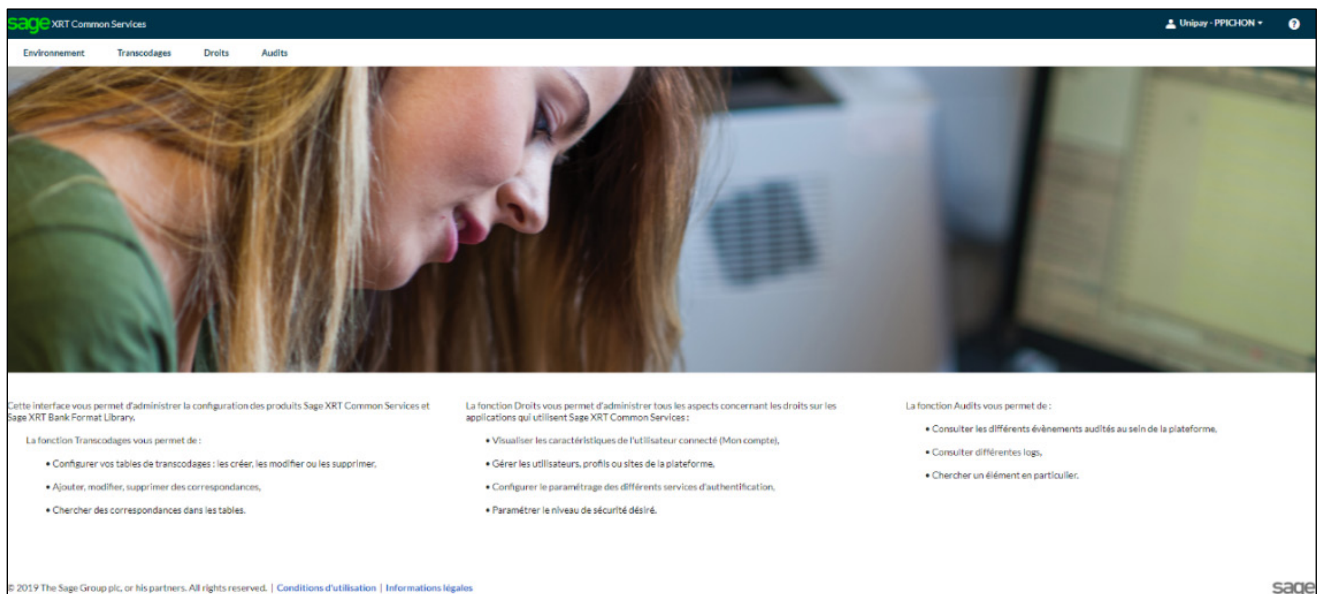
The following URL enables the use of the Administration Service interface:

<http://localhost/SCPS/index.html>

It requires the reboot of the Authentication and Administration Services.



The screenshot shows the login interface for the Sage XRT Administration Service. At the top left is the 'sageXRT' logo. The main heading is 'Sage XRT Administration Service'. Below it, a sub-heading says 'Connectez-vous en utilisant vos identifiants.' The form includes a 'Tenant' dropdown menu with 'Unipay' selected, an 'Utilisateur' text input field with the placeholder 'Indiquez le nom d'utilisateur', and a 'Mot de passe' text input field with the placeholder 'Indiquez le mot de passe'. There are two checkboxes: 'Authentication forte (par certificat)' and 'Authentication saml', both of which are unchecked. A blue 'Me connecter' button is at the bottom, with a link for 'Mentions légales' below it.



The screenshot displays the Sage XRT Common Services dashboard. The top navigation bar includes the 'sageXRT Common Services' logo, a user profile 'Unipay - PPICHON', and a help icon. Below the navigation bar are tabs for 'Environnement', 'Transcodages', 'Droits', and 'Audits'. The main content area features a large background image of a woman looking at a computer screen. Below the image, there are three columns of text describing the functions of the dashboard. The first column describes the 'Transcodages' function, the second describes the 'Droits' function, and the third describes the 'Audits' function. At the bottom, there is a copyright notice and a link to the 'Conditions d'utilisation'.

Cette interface vous permet d'administrer la configuration des produits Sage XRT Common Services et Sage XRT Bank Format Library.

La fonction Transcodages vous permet de :

- Configurer vos tables de transcodages : les créer, les modifier ou les supprimer,
- Ajouter, modifier, supprimer des correspondances,
- Chercher des correspondances dans les tables.

La fonction Droits vous permet d'administrer tous les aspects concernant les droits sur les applications qui utilisent Sage XRT Common Services :

- Visualiser les caractéristiques de l'utilisateur connecté (Mon compte),
- Gérer les utilisateurs, profils ou sites de la plateforme,
- Configurer le paramétrage des différents services d'authentification,
- Paramétrer le niveau de sécurité désiré.

La fonction Audits vous permet de :

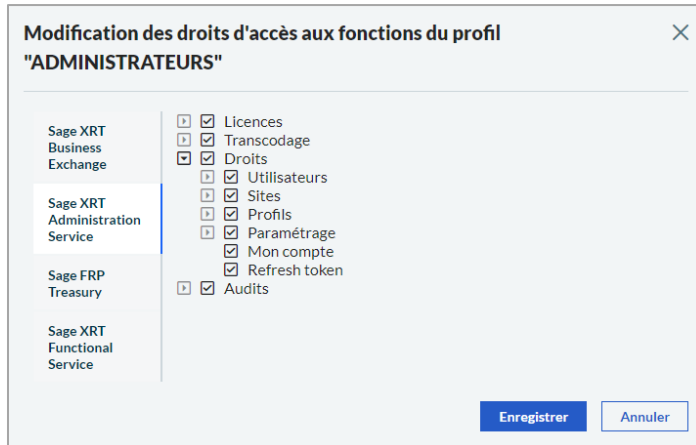
- Consulter les différents événements audités au sein de la plateforme,
- Consulter différentes logs,
- Chercher un élément en particulier.

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Sage XRT Administration Services

Refresh Token

Windows services use the **Refresh token** and consume the Rest APIs of **Sage XRT Common Services**. Its implementation requires a certificate installation on the client and server stations.



Licenses

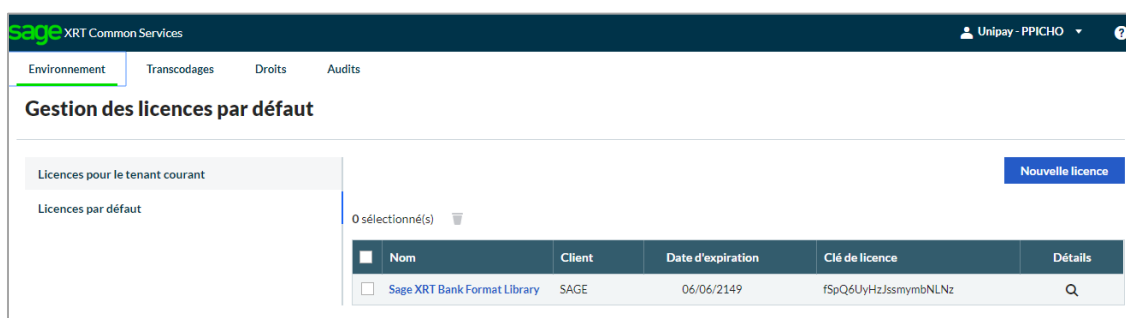
Default licenses are applied to all the tenants for which no license has been specified.

The **Default Licenses** function now replaces the function called **Licenses**. This license remains stored in the registry.

Interfaces are the same for both licenses types.

The licenses for the current tenant are listed when the **Licenses for current tenant** function is called.

The default licenses are listed when the **Default Licenses** function is called.



Click the *magnifier* icon to view the license key details.

Example for **Sage XRT Bank Format Library**:

Sage XRT Administration Services

Détails de la licence Sage XRT Bank Format Library	
Fonction	
Convertisseurs	ok
IN - Accusés de Réception : EDIFACT - ACA 560	ok
IN - Reporting : Espagne - AEB 57	ok
IN - Reporting : SWIFT - MT199-MT299	ok
IN - Account Statements : ISO 20022 - XML CAMT052	ok
IN - Accusés de Réception : EDIFACT - BANSTA	ok
IN - Accusés de Réception : EDIFACT - CONTROL	ok
IN - Accusés de Réception : France - AOI160	ok
IN - Accusés de Réception : France - CVE120	ok
IN - Accusés de Réception : France - E OIR240	ok

Creation

In the **Environment** menu, the **New License** button enables you to access the creation wizard.

The fields marked with asterisk (*) are required.

Click **Save** to complete the creation. A message confirms the license creation.

Création d'une licence	
Nom*	<input type="text"/>
Client*	<input type="text"/>
Clé de licence*	<input type="text"/>
<input type="button" value="Enregistrer"/> <input type="button" value="Annuler"/>	

Modification

Click the link available on the **Name** of the license to modify. The **Client** and **License Key** are the only elements that can be modified.

Click the **Save** button to save your modification. A message confirms the action.

Deletion

From the license list, select the one to delete.

Click the *bin* icon to complete the deletion. A message confirms the action.

Application

When a license for a tenant is specified, the default license does not apply.

Access Rights

This chapter describes the different user authentication methods offered by **Sage XRT Common Services** and the actions to perform for user and access permission management.

Authentication Setup

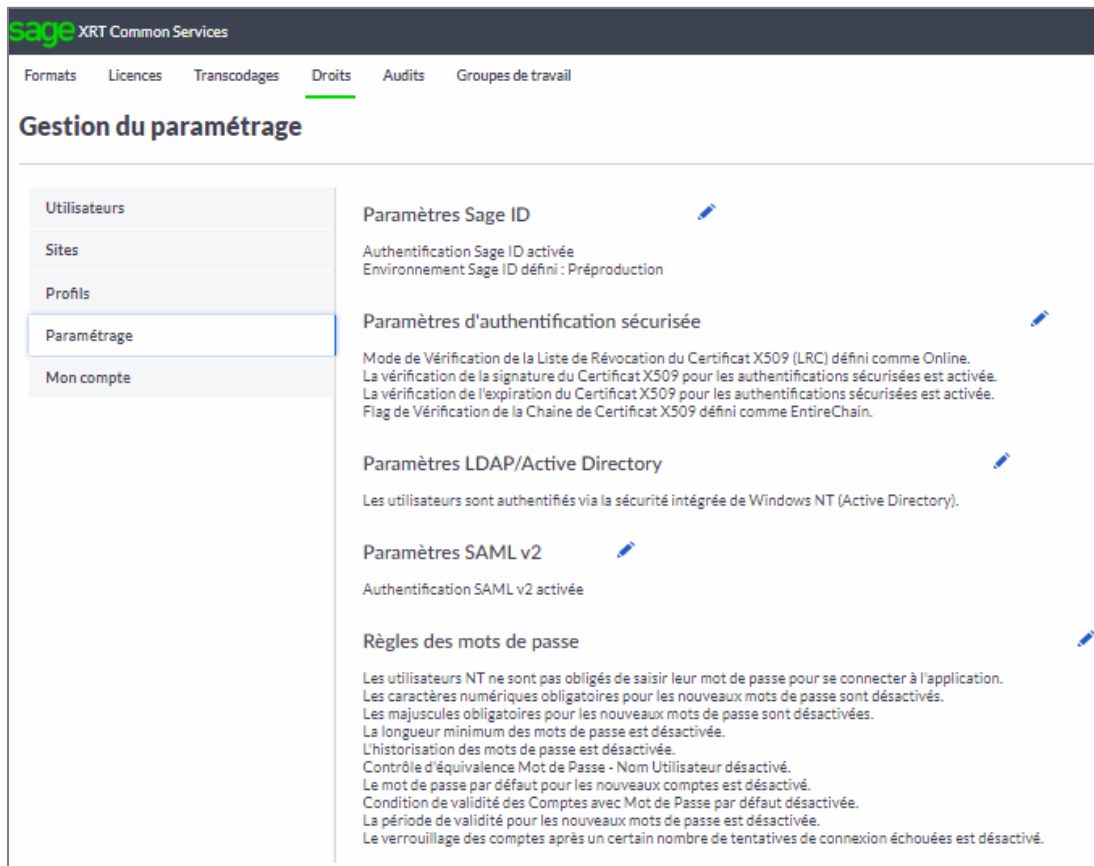
UMAPI login model supports three authentication modes:

- **Windows** Authentication
- **UMAPI** Authentication
- **LDAP** Authentication
- **SAML** Authentication

These authentication methods must be activated before being linked to a user.

Sage XRT Administration Services

Click the **Setup** tab from the **Rights** menu.



Click the *pencil* icon to modify the settings of each authentication method.

Windows NT Authentication

Windows NT authentication benefits from *NT Windows* security and its user account management. This security mode enables *Sage XRT* applications to use *Windows NT* users credentials.

Sage XRT applications offer two operating modes with this type of authentication:

- The trusted connection mode is no longer available as of version 5.0 since **Sage XRT Common Services** is now a web application.
- Standard Mode: the user needs to enter their password as it is checked by the system via *Windows APIs*.

Sage XRT Administration Services

Advantages of *Windows NT* authentication mode:

- No additional credentials to remember
- No consequences on *UMAPI* when password is changed
- Management of passwords complying with Sarbanes-Oxley Act
- Access to other system functions such as periodic password modification and access logs

Note: Setting up *Windows NT* authentication requires a close collaboration with the *Windows* administrator for creation of users and workgroups. The implementation of *Windows* authentication in *UMAPI* is based on the base class library of the *System.DirectoryServices* namespace for *.NET* framework.

UMAPI Authentication

When using *UMAPI* authentication, the user who wants to connect to a *Sage XRT* application needs to enter a username and a password which are controlled on the basis of information contained in the database.

Advantages of *UMAPI* authentication mode:

- Management of passwords complying with Sarbanes-Oxley Act
- Storage of the last four passwords which cannot be used again when the system requires a password change (editable function)
- User account locked after three consecutive authentication failures (editable function)
- Locked account, unlocked after a given period
- No password stored in the database, only the SHA1 hash codes are
- Passwords with at least six characters containing one upper case letter and one figure at least (editable function)
- Password to change periodically (editable function)
- Possibility for the administrator to lock a user account for a determined or permanent period

LDAP Authentication

When using *LDAP* authentication, the user who wants to connect to a *Sage XRT* application needs to enter a username and a password which are controlled based on the information contained in LDAP directory.

Sage XRT Administration Services

Advantages of *LDAP* authentication mode:

- This is an interesting alternative when a company does not want to use *Windows NT* authentication method exclusively.
- Applicative authentication with *Sage XRT* products

Access to directory can be set up from the setup window for user management. The administrator must enter the following settings:

- The IP address of the station that hosts *LDAP* server
- The number of the port on which LDAP server must be called
- The **DN base** parameter of the directory
- The **User ID attribute name** on which is based the user authentication
- The **User** class name to use when searching the directory for a person
- The **Group** class name to use when searching the directory for a group of persons
- The credentials to search the directory (the **Test Connection** button enables you to check these credentials).

Paramètres LDAP/Active Directory

☐ Utiliser Windows Active Directory uniquement

☒ Utiliser aussi le serveur LDAP personnalisé

☐ Utiliser un serveur LDAP secondaire

Hôte* Port

KKK 389 ☐ SSL

Références de connexion

Bind DN Mot de passe

ex: cn=manager,dc=domain,dc=com

Tester la connexion

DN Base*

KKK

Attribut ID utilisateur* objectClass utilisateur

NN ex: person

objectClass groupe Attribut membres du groupe

ex: groupOfUniqueNames ex: uniqueMember

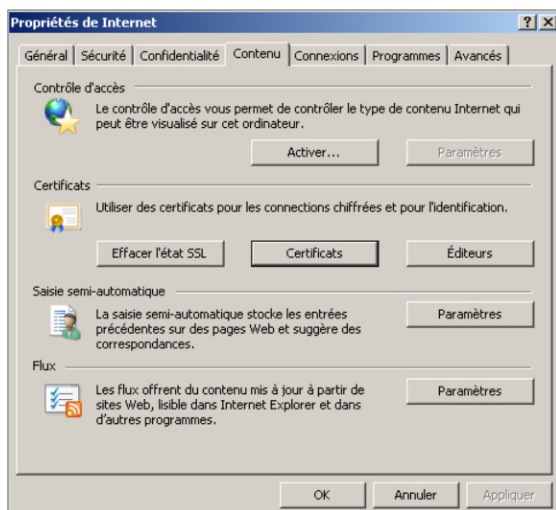
Tester les paramètres

Enregistrer Annuler

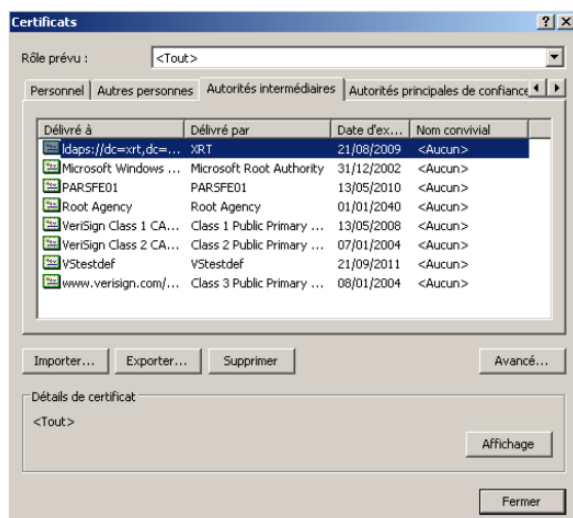
Note: The implementation of *LDAP* authentication in *UMAPI* is based on the base class library of the *System.DirectoryServices* namespace for *.NET* framework.

LDAP exchanges between client and server are usually made by standard *TCP/IP* port (port 389) with encryption, or via the *SSL* tunnel (port 636). *SSL* technology is enabled by installing a certificate published by a certification authority approved by the domain controller and the *LDAP* clients. The approval is obtained by setting up clients and server in order to approve the root certification authority to which the issuing certification authority is bound.

The installed certificate is usually located in the personal certificate store of the local computer in **Internet Properties - Content - Certificates - Intermediate Certification Authorities**.



Click **Certificates**. The following dialog box is displayed.



SAML Authentication

Security Assertion Markup Language (SAML) is an open standard defining a protocol to exchange security data and based on XML language.

SAML offers the *single sign-on* or SSO for the web. This way, you may browse various sites with a single authentication.

SAML authentication uses:

- Identity provider: **Identity Provider SSO URL** and **Identity Provider ID** fields
- Services providers (the services which require authentication): **Service Provider ID** field. More than one *Services provider* can be specified (they are all part of the same circle of trust linked to an *IdP*).
- User identified through an element declared in the metadata (e.g.: ID or Email)

Double Authentication

The protocol *TOTP* (RFC 6238) has been chosen.

Its technology associates a secret key with timestamping, using a cryptographic hash function to generate a one-time password. As network latency and unsynchronized clocks may block

Sage XRT Administration Services

authentication attempts, timestamp increases every 30-second interval which reduces the potential search range.

Using this protocol enables the use of other applications already available such as *FreeOTP*, *Microsoft Authenticator* or *Google Authenticator*.

Note: See *SCS.4.3.DoubleAuthentication.UserGuide_EN*.

Password Policy

These rules are defined from the **Rights** menu. Click **Setup**.

The screenshot displays the 'Gestion du paramétrage' (Configuration Management) page in the Sage XRT Common Services administration interface. The left sidebar contains a menu with options: Utilisateurs, Sites, Profils, Paramétrage (selected), and Mon compte. The main content area is titled 'Gestion du paramétrage' and lists several configuration sections, each with a pencil icon for editing:

- Paramètres Sage ID**: Authentication Sage ID activée, Environnement Sage ID défini : Préproduction.
- Paramètres d'authentification sécurisée**: Mode de Vérification de la Liste de Révocation du Certificat X509 (LRC) défini comme Online. La vérification de la signature du Certificat X509 pour les authentifications sécurisées est activée. La vérification de l'expiration du Certificat X509 pour les authentifications sécurisées est activée. Flag de Vérification de la Chaîne de Certificat X509 défini comme EntireChain.
- Paramètres LDAP/Active Directory**: Les utilisateurs sont authentifiés via la sécurité intégrée de Windows NT (Active Directory).
- Paramètres SAML v2**: Authentification SAML v2 activée.
- Règles des mots de passe**: Les utilisateurs NT ne sont pas obligés de saisir leur mot de passe pour se connecter à l'application. Les caractères numériques obligatoires pour les nouveaux mots de passe sont désactivés. Les majuscules obligatoires pour les nouveaux mots de passe sont désactivées. La longueur minimum des mots de passe est désactivée. L'historisation des mots de passe est désactivée. Contrôle d'équivalence Mot de Passe - Nom Utilisateur désactivé. Le mot de passe par défaut pour les nouveaux comptes est désactivé. Condition de validité des Comptes avec Mot de Passe par défaut désactivée. La période de validité pour les nouveaux mots de passe est désactivée. Le verrouillage des comptes après un certain nombre de tentatives de connexion échouées est désactivé.

Sage XRT Administration Services

Click the *pencil* icon to modify password rules.

Règles des mots de passe [X]

- ☐ Saisie obligatoire du mot de passe pour les utilisateurs NT pour se connecter à l'application
- ☐ Nombre obligatoire de caractères numériques dans les nouveaux mots de passe [input type="text"]
- ☐ Nombre obligatoire de majuscules dans les nouveaux mots de passe [input type="text"]
- ☐ Longueur minimum du mot de passe [input type="text"]
- ☐ Différence entre ancien et nouveau mot de passe [input type="text"]
- ☐ Différence entre le nouveau mot de passe et le nom d'utilisateur
- ☐ Mot de passe par défaut pour les nouveaux comptes [input type="text"]
- Confirmez le mot de passe par défaut pour les nouveaux comptes [input type="text"]
- ☐ Verrouiller le compte si le mot de passe n'a pas été modifié après [input type="text"] [input type="text"]
- ☐ Période de validité des nouveaux mots de passe [input type="text"] [input type="text"]
- ☐ Nombre de tentatives de connexion avant verrouillage de compte [input type="text"]
- Verrouiller le compte pour une période de [input type="text"] [input type="text"]

[Enregistrer] [Annuler]

Data Activation and Four-Eye Rule

Data Activation and *Four-Eye* Rule must explicitly requested. By default, data are not activated and the *Four-Eye* Rule not applied.

Reminder: Deactivated data cannot be used (**deactivated** status). They have to be activated to be usable (**activated** status).

Reminder: A single user can intervene only twice on a same element: creation+modification, creation+deletion, creation+activation, etc.

Sage XRT Administration Services

Click **Setup**.

Sage XRT Common Services

Transcodages Droits Audits

Gestion du paramétrage

Utilisateurs Sites Profils Paramétrage Mon compte

Paramètres Sage ID

Authentification Sage ID activée
Environnement Sage ID défini : Préproduction

Paramètres d'authentification sécurisée

Mode de Vérification de la Liste de Révocation du Certificat X509 (LRC) défini comme Online.
La vérification de la signature du Certificat X509 pour les authentifications sécurisées est activée.
La vérification de l'expiration du Certificat X509 pour les authentifications sécurisées est activée.
Flag de Vérification de la Chaîne de Certificat X509 défini comme EntireChain.

Paramètres LDAP/Active Directory

Les utilisateurs sont authentifiés via la sécurité intégrée de Windows NT (Active Directory).

Paramètres SAML v2

Authentification SAML v2 activée

Règles des mots de passe

Les utilisateurs NT ne sont pas obligés de saisir leur mot de passe pour se connecter à l'application.
Les caractères numériques obligatoires pour les nouveaux mots de passe sont désactivés.
Les requêtes obligatoires pour les nouveaux mots de passe sont désactivées.
La longueur minimum des mots de passe est désactivée.
L'historisation des mots de passe est désactivée.
Contrôle d'équivalence Mot de Passe - Nom Utilisateur désactivé.
Le mot de passe par défaut pour les nouveaux comptes est désactivé.
Condition de validité des Comptes avec Mot de Passe par défaut désactivée.
La période de validité pour les nouveaux mots de passe est désactivée.
Le verrouillage des comptes après un certain nombre de tentatives de connexion échouées est désactivé.

Activation des données et règle des 4 yeux

L'activation des utilisateurs est désactivée
L'activation des sites est désactivée
L'activation des profils est désactivée
La règle des 4 yeux ne s'applique pas sur la gestion des utilisateurs
La règle des 4 yeux ne s'applique pas sur la gestion des sites
La règle des 4 yeux ne s'applique pas sur la gestion des profils
La règle des 4 yeux ne s'applique pas sur la gestion des paramètres d'authentification
La règle des 4 yeux ne s'applique pas sur la gestion des tables de transcodage
La règle des 4 yeux ne s'applique pas sur la gestion des correspondances des tables de transcodage

Click the *pencil* icon to modify Data Activation and *Four-Eye* rules.

Activation des données et règle des 4 yeux

Activation des données

☐ Activation requise des utilisateurs

☐ Activation requise des sites

☐ Activation requise des profils

Règle des 4 yeux

☐ Application sur la gestion des utilisateurs

☐ Application sur la gestion des sites

☐ Application sur la gestion des profils

☐ Application sur la gestion des paramètres d'authentification

☐ Application sur la gestion des tables de transcodage

☐ Application sur la gestion des correspondances des tables de transcodage

Enregistrer Annuler

The activation of an element can only be requested if there is no **deactivated** element.

Activation can be performed for:

- Users
- Profiles
- Sites

Profiles

If profile activation has been requested:

- NT/LDAP profiles are always created as **activated** and cannot be deactivated. Other profiles are always created as **deactivated**.
- If a user is linked to a deactivated profile, they cannot use the rights corresponding to the profile.
- All users linked to NT/LDAP profiles are created as **activated** and can be deactivated.

If profile activation has not been requested: all profiles are created as **activated**.

Sites

If site activation has been requested:

- NT/LDAP sites are always created as **activated** and cannot be deactivated. Other sites are always created as **deactivated**.
- All users linked to NT/LDAP sites are created as **activated** and can be deactivated.

If site activation has not been requested: all sites are created as **activated**.

Users

If user activation has been requested:

- All users linked to NT/LDAP profiles are created as **activated** and can be deactivated.
- All users linked to NT/LDAP sites are created as **activated** and can be deactivated.
- A standard user is created as **deactivated**.
- Users cannot activate themselves.
- Deactivated users cannot log in.

Sage XRT Administration Services

If user activation has not been requested: all users are created as **activated**.

Four-Eye Rule application may be requested for:

- Users
- Profiles
- Sites
- Authentication Parameters Management
- Transcoding Tables
- Transcoding Tables Correspondences

The *Four-Eye* Rule is always applied on the setting up of **Data Activation** and **Four-Eye Rule**.

User Account

A user account enables a user to be authenticated by *Sage XRT* applications. It also enables the management of their access authorizations for the application functions.

A user account includes the following elements:

- User language (French, English, Spanish, Portuguese, Italian, German)
- User Email for notifications
- Description
- User type (administrator or standard user)

Sage XRT Administration Services

Adding Users

Click the **Users** tab from the **Rights** menu.

Gestion des utilisateurs

Utilisateurs | Sites | Profils | Paramétrage | Mon compte

<Filtrer par profil> <Filtrer par site> Rechercher le nom contenant... **Nouvel utilisateur**

0 sélectionné(s)

	Nom	Description	Type	Profil(s)	Site(s)	Statut
<input type="checkbox"/>	ABRILHA		Standard	SIGNATAIRE INTERNE		inactif
<input type="checkbox"/>	ADMINISTRATEUR		Niveau 1	<Multiples>		actif
<input type="checkbox"/>	AWAGUE		Standard	<Multiples>		actif
<input type="checkbox"/>	BOELPRA		Standard	SIGNATAIRE BANCAIRE		actif
<input type="checkbox"/>	BSARTEL		Standard	SIGNATAIRE BANCAIRE		actif
<input type="checkbox"/>	DA		Niveau 1	ADMINISTRATEURS		actif
<input type="checkbox"/>	DF		Standard	ADMINISTRATEURS		actif

In the **User Management** tab, the **New User** button enables you to access the creation wizard.

Création d'un utilisateur

Authentification*
Nom*
Niveau de sécurité*
Langue*
Adresse mail
Description

☐ Activer la période de validité
☐ Double authentification
☐ Réinitialiser la double authentification

Profils
Sites

- ☐ UTILISATEURS
- ☐ PAIE
- ☐ DRH
- ☐ SIGNATAIRE BANCAIRE
- ☐ INFORMATIQUE
- ☐ SIGNATAIRE INTERNE
- ☐ STAGIAIRE
- ☐ TRESORERIE
- ☐ ADMINISTRATEURS
- ☐ TESTEUR

Enregistrer **Annuler**

Select the authentication mode and enter the username.

Windows authentication offers two adding modes for NT users:

- Either adding by selecting the user from the list displayed in the dialog box. The access to the database needs to be defined previously for each user.
- Or adding by searching the company directory for the user. The user gains the *XRTUsers* database access type.

LDAP Authentication: research and selection of the users belonging to the directory set up in the LDAP authentication configuration, provided by the **Search** button.

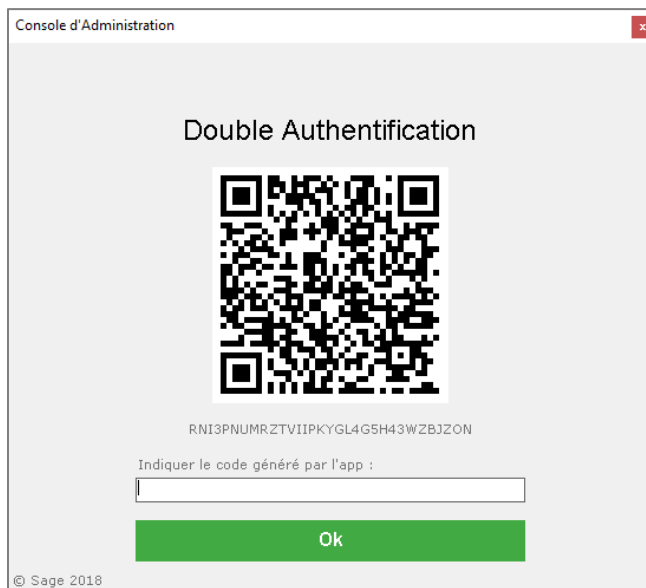
Standard authentication: enter a unique identifier for the user.

Important! Setting up access management based on *NT* accounts is highly recommended.

SAML Authentication: Mandatory input of the SSO ID provided by the Identity Provider.

Sage ID Authentication

Double Authentication option: This option may be selected or not at user creation or later, whatever the authentication type (**Standard**, **Windows**, **SageID**, etc.). When the option is selected and upon first connection, the user must start the authentication by capturing the QR Code (or equivalent) through an app compatible with protocol *TOTP* 6 digits (*FreeOTP* for example). This option appears in orange until the initialization. After the initialization, it turns green.



Sage XRT Administration Services

In case the user loses or replaces their smartphone or uninstalls the authenticating app, the status must be reinitialized to regenerate the link.

For this purpose, the option **Reset double authentication** is available in the users list.

Choose the user type to be created:

- **Level 1 security administrator:** they administrate access permissions of the workgroup's users.
- **Standard User:** they have no write nor modification access granted.

Complete the following fields.

- **Language:** Select the language of the user from the dropdown list.
- **Description:** Enter a description for the user.
- **Email:** Enter the user email address.
- **Validity Period:** Check the box to enable the three fields allowing to define the user validity period.

You may link the user to a profile and a site.

Click **Save** or **Cancel** to quit the dialog box and go back to the user list.

User Account Activation

Users cannot activate themselves.

Expired User

Users get this status when their validity period has expired.

Blocked User

Users get this status when they cannot log in after password policy application.

Profiles

The **Administration Console** is now running. You can create one or several profiles for users.

By default, a user cannot access any function of the product. The administrator must define the access rights of users.

A profile consists of users sharing the same rights. Rights define users' access to product functions.

Important! A user can belong to several profiles.

A user is authorized to access a product function if the corresponding permission is opened in at least one of the profiles to which he/she belongs.

UMAPI executes an operation of type *OR* on the permissions. This operating mode enables the association of a profile with a group of persons with the same activities.

The "standard" profile is defined by the following characteristics:

- A **Code** that identifies the profile (no space)
- A **Description**

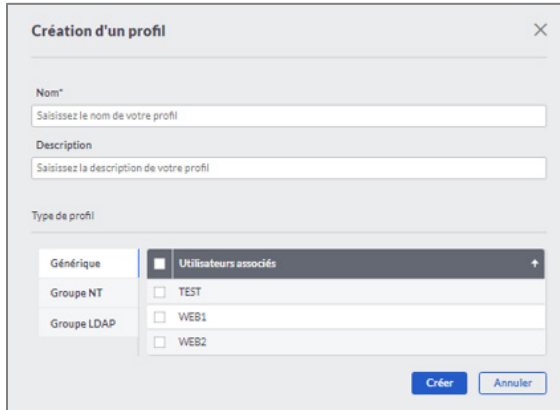
Creation

Click the **Profiles** tab from the **Rights** menu.

Nom	Description	Type de profil	Statut
ADMINISTRATEURS		Générique	actif
DRH		Générique	actif
INFORMATIQUE		Générique	actif
PAIE	GROUPE PAIE RH	Générique	actif
SIGNATAIRE BANCAIRE	SIGNATAIRE BANCAIRE	Générique	actif
SIGNATAIRE INTERNE	SIGNATAIRE INTERNE	Générique	actif
STAGIAIRE	STAGIAIRES	Générique	actif
TEST DROITS	TEST DROITS	Générique	inactif
TESTEUR	TESTEUR	Générique	actif
TRESORERIE		Générique	actif

Sage XRT Administration Services

In the **Profile** tab, the **New Profile** button enables you to access the creation wizard.



Enter the following information:

- **Name:** Enter a name for the Profile. This field is mandatory.
- **Description:** Enter a description for the profile.

Select the profile type:

- **Generic:** Select the users to associate with the profile.
- **NT Group:** Every member of this group is automatically saved in the database as a *Sage XRT User*. *AD Group* profiles are based on *Windows NT* user account data. Select the default language and security level.
- **LDAP Group:** *LDAP Group* profiles are based on a company directory data. The creation of an *LDAP* group is effective only if the access to the company directory was set up. Select the default language and security level.

When creating an *NT* or *LDAP* profile, all the users belonging to the group are automatically registered in the database as *Sage XRT* application users.

Click **Create** to save your new profile.

Sage XRT Administration Services

Access Rights

From the profiles list, select a profile and click **Profile rights management**.

The screenshot displays the 'Gestion des profils' (Profile Management) interface. A table lists various profiles, including 'ADM', 'DRH', 'INFORMATIQUE', 'PAIE', 'PROFIL API', 'PROFIL DONNEES', 'SIGNATAIRE BANCAIRE', 'SIGNATAIRE INTERNE', 'STAGIAIRE', and 'TEST DROITS'. Each profile has a status indicator (actif or inactif). A blue callout box highlights the 'Actions' menu for the 'ADM' profile, showing options like 'Gestion des droits d'accès aux fonctions du profil' and 'Copier les droits d'accès aux fonctions du profil'. The sidebar on the left shows navigation options: Utilisateurs, Sites, Profils, Paramétrage, and Mon compte. The top navigation bar includes 'Environnement', 'Transcodages', 'Droits', and 'Audits'.

The **Grant Rights** page enables the user to manage access rights to functions of a profile for the different *Sage XRT* products.

Click the **Sage XRT Administration Service** tab,

The screenshot shows the 'Modification des droits d'accès aux fonctions du profil' (Modify profile access rights) dialog box for the 'ADMINISTRATEURS' profile. The dialog is divided into two main sections: a list of services on the left and a list of functions on the right. The 'Sage XRT Administration Service' is selected. The functions listed include 'Licences', 'Transcodage', 'Droits', 'Utilisateurs', 'Sites', 'Profils', 'Paramétrage', 'Mon compte', 'Refresh token', and 'Audits'. The 'Enregistrer' (Save) button is highlighted.

Grant the access rights.

Repeat the same process for **Sage XRT Treasury**, **Sage XRT Business Exchange** and **Sage XRT Functional Service (Sage XRT Common Services)** if needed.

Click **Save** to keep the modifications or **Cancel** to cancel them.

Manage Profile's Function Access Rights

Sage XRT Functional Service uses the functions that follow in full autonomy, i.e. with no link to **Sage XRT Business Exchange**, nor **Sage XRT Advanced**.

From the profile list, select a profile and click **Manage profile's function access rights**.

Select by data type (**Origin**, **Entity**, **Bank**, **Account**, **Currency** tabs), the elements unauthorized to the profile users. By default, all elements can be accessed.

Then click the **Save** button to save your setup.

The option **Show inaccessible data only** is not selected by default.

Modification des droits d'accès aux données du profil "ADMINISTRATEURS"

Origine

Entité

Banque

Compte

Devise

☐ Afficher uniquement les données inaccessibles

0 sélectionné(s)

Banque inaccessible
<input type="checkbox"/> BBVAESMM
<input type="checkbox"/> BNPPFRPP
<input type="checkbox"/> SOGEFRPP

Afficher 10 enregistrement(s) Page 1 sur 1 3 enregistrement(s)

Enregistrer

Duplication

From the profile list, select a profile then click **Copy profile's function access rights**. The creation wizard for profiles appears.

Enter the profile information and click **Create**. This new profile automatically owns the access rights of the copied profile.

Modification

Click the **Profiles** tab from the **Rights** menu. The list of the existing profiles is displayed.

For modification, use the corresponding link available from the profile name.

Proceed with your modifications and click **Save**.

Deletion

Click the **Profiles** tab from the **Rights** menu. The list of the existing profiles is displayed.

To delete one profile, select the corresponding box and click the *bin* button.

Activation

When a profile is created, it gets the **Disabled** status until an Administrator enables it.

From the **Profiles** list, select the one to activate.

Click on the **Inactive** status once and confirm the profile activation.

A message confirms the action.

Deactivation

From the **Profiles** list, select the one to deactivate.

Click on the **Active** status once and confirm the profile deactivation.

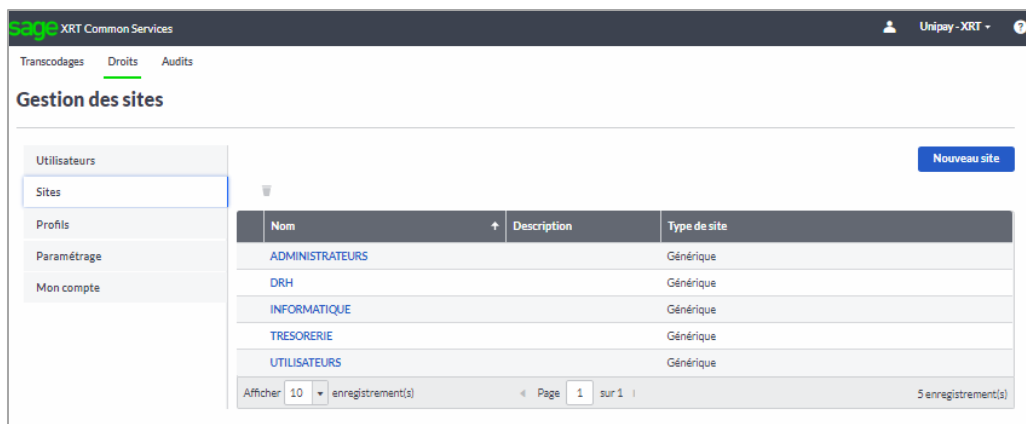
A message confirms the action.

Sites

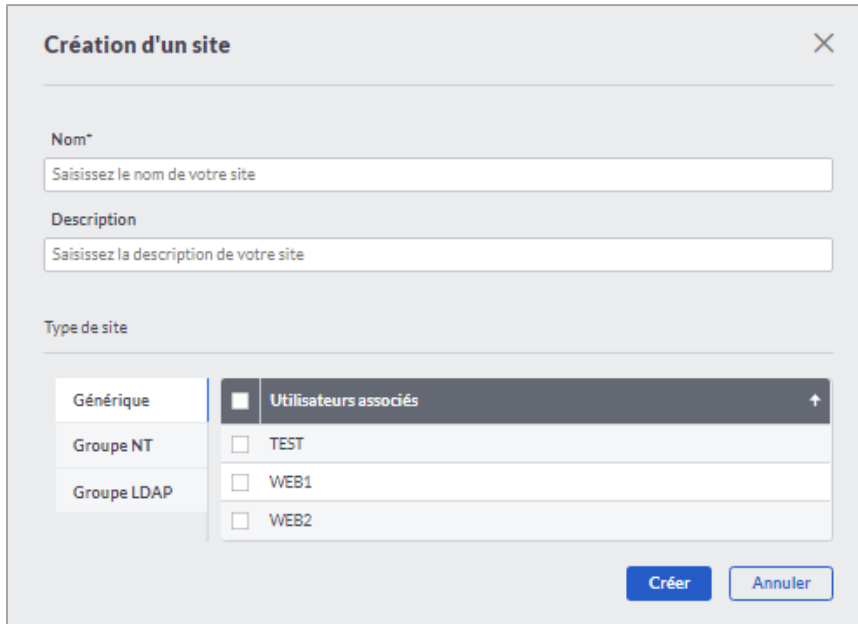
Creation

Creating Sites is the same process as for profiles.

Click the **Site** tab from the **Rights** menu.



The **New Profile** button enables you to access the creation wizard.



Enter the following information:

- **Name:** Enter a name for the site. This field is mandatory.
- **Description:** Enter a description for the site.

Select the site type:

- **Generic:** Select the existing users to associate with the site.
- **AD Group:** Every member of this group is automatically saved in the database as a Sage XRT User. **AD Group** sites are based on *Windows NT* user account data.
- **LDAP Group:** **LDAP Group** Sites are based on a company directory data. The creation of an LDAP group is effective only if the access to the company directory has been set up.

Click **Create** to save your new site.

Modification

Click the **Site** tab from the **Rights** menu. The list of the existing sites is displayed.

For modification, use the corresponding link available from the site name.

Proceed with your modifications and click **Save**.

Deletion

Click the **Site** tab from the **Rights** menu. The list of the existing sites is displayed.

To delete sites, select the sites and click the *bin* icon.

Activation

When a site is created, it gets the **Disabled** status until an Administrator enables it.

From the site list, select the site to activate.

Click on the **Inactive** status once and confirm the site activation. A message confirms the action.

Deactivation

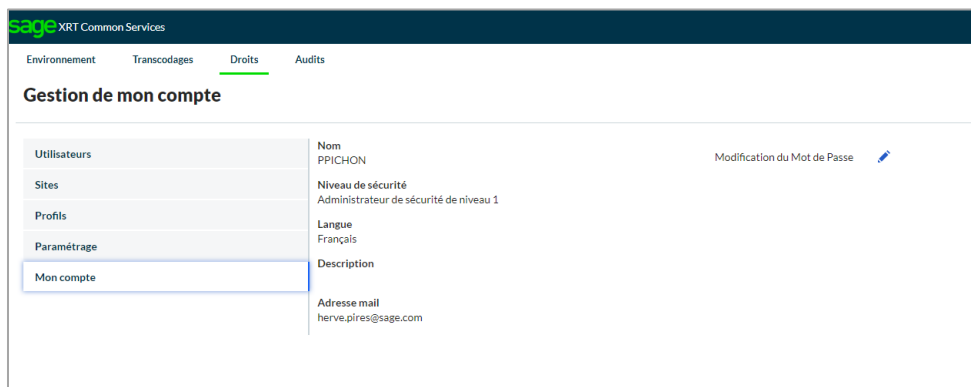
From the site list, select the site to deactivate.

Click on the **Active** status once and confirm your action. A message confirms the action.

My Account

This tab is available to **Standard** Users. It enables the modification of the connected user's password.

Click the **My Account** tab from the **Rights** menu.



The screenshot shows the 'Gestion de mon compte' (Manage my account) page in the Sage XRT Common Services interface. The page has a dark blue header with the Sage logo and 'XRT Common Services'. Below the header, there are tabs: 'Environnement', 'Transcodages', 'Droits' (selected), and 'Audits'. The main content area is titled 'Gestion de mon compte'. It features a table with user details and a sidebar with navigation links.

Utilisateurs	Nom	Modification du Mot de Passe
Sites	PPICHON	
Profils	Niveau de sécurité	
Paramétrage	Administrateur de sécurité de niveau 1	
Mon compte	Langue	
	Français	
	Description	
	Adresse mail	
	herve.pires@sage.com	

The user details are recapped: **Name, Security Level, Language, Description, Email.**

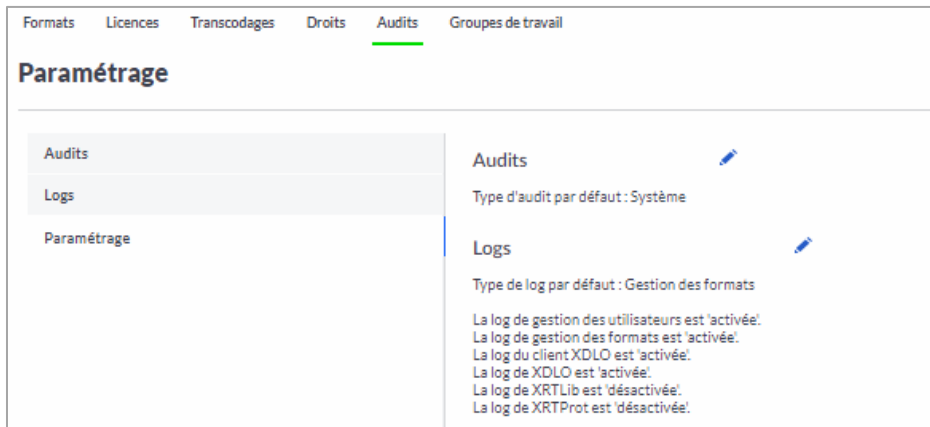
The password is the only element that can be modified using the *pencil* icon.

Audits and Logs

Setup

You need to define the audit type and the log activation before viewing any data.

Click the **Setup** tab from the **Audits** menu.



The setup is recapped. It can be modified using the *pencil* icon.

Select the default audit type to be displayed:

- System
- Database
- Users

Select the default log type to be displayed:

- Format Management
- User Management
- Database Management
- Console Management
- XDLO Client
- XDLO
- XDLO Service

Sage XRT Administration Services

- XRTProt
- XRTLogin
- XRTRLib

Select the logs to be activated.

Click the **Save** button to complete your setup.

Paramètres audits et logs

Audits

Type d'audit sélectionné par défaut: Système

Logs

Type de log sélectionné par défaut: Gestion des formats

☒ Activer la log sur la gestion des utilisateurs ☒ Activer la log XDLO

☒ Activer la log sur la gestion des formats ☐ Activer la log XRTRLib

☒ Activer la log client XDLO ☐ Activer la log XRTProt

Enregistrer **Annuler**

Audit

Click the **Audit** tab from the **Audits** menu. The default audit type is displayed.

Gestion des audits

Type d'audit: Système Période: Aucune **Rechercher** **Purger**

Date/Heure	Statut	Utilisateur	Compte utilisateur	Machine	Description
18/10/2019 16:42:24	Succès	PPICHON	ADMINISTRATEUR	WIN-18LGUGG6C31	Activation du profil 'PROFIL API'
17/10/2019 14:57:21	Succès	PPICHON	ADMINISTRATEUR	WIN-18LGUGG6C31	Modification de l'utilisateur 'ADMINISTRATEUR' (Administrateur de sécurité de niveau 1)
17/10/2019 10:13:49	Succès	PPICHON	ADMINISTRATEUR	WIN-18LGUGG6C31	Modifier les règles de double authentification (Le nombre de saisies OTP incorrectes avant verrouillage est de 34)
17/10/2019 10:13:33	Succès	PPICHON	ADMINISTRATEUR	WIN-18LGUGG6C31	Modifier les règles de double authentification (La période de verrouillage des comptes après saisies OTP incorrectes est : définitivement)
17/10/2019 10:13:33	Succès	PPICHON	ADMINISTRATEUR	WIN-18LGUGG6C31	Modifier les règles de double authentification (Le nombre de saisies OTP incorrectes avant verrouillage est de 3)
07/10/2019 16:27:51	Succès	PPICHON	ADMINISTRATEUR	WIN-18LGUGG6C31	Modification des droits du profil 'ADMINISTRATEURS'
07/10/2019 16:26:26	Succès	PPICHON	ADMINISTRATEUR	WIN-18LGUGG6C31	Modification des droits du profil 'ADMINISTRATEURS'
07/10/2019 16:25:24	Succès	PPICHON	ADMINISTRATEUR	WIN-18LGUGG6C31	Modification des droits du profil 'ADMINISTRATEURS'
04/10/2019 16:33:08	Succès	PPICHON	ADMINISTRATEUR	WIN-18LGUGG6C31	Modification des droits du profil 'ADMINISTRATEURS'
30/08/2019 10:11:22	Succès	PPICHON	ADMINISTRATEUR	WIN-18LGUGG6C31	Modification des droits du profil 'ADMINISTRATEURS'

Afficher 10 enregistrement(s) Page 1 sur 11 105 enregistrement(s)

To modify it, select another one from the **Audit Type** dropdown list.

Sage XRT Administration Services

To filter the table data, select a **Period** from the dropdown list:

- Today
- Last 7 days
- Last 30 days
- Last 12 months
- This week
- This month
- This year

The **Search** button gives you access to more selection criteria. The applied filtering criteria are recapped at the top of the list.

Click **Purge to delete or export events from the list.**

Suppression d'événements de l'audit 'Utilisateurs'

Evénements antérieurs au :

Nombre d'événements à supprimer :

Log

Click the **Log** tab from the **Audits** menu. The default log type is displayed.

Sage XRT Common Services

Unipay - XRT

Transcodages

Droits

Audits

Gestion des logs

Audits

Logs

Paramétrage

Type de log
Gestion des formats

Période
Aujourd'hui

Rechercher

Critères de recherche appliqués

Date du 16/10/2018 au 16/10/2018 inclus

Effacer la recherche

Date/Heure	Niveau	Message
16/10/2018 08:51:00	DEBUG	CCFFmtRun:FMTDDisconnect
16/10/2018 08:51:00	DEBUG	return_S_OK

Afficher 10 enregistrement(s)

Page 1 sur 1

2 enregistrement(s)

Sage XRT Administration Services

To change it, Select a **Log type** from the dropdown list.

To filter the table data, select another **Period** from the dropdown list:

- Today
- Last 7 days
- Last 30 days
- Last 12 months
- This week
- This month
- This year

The **Search** button gives you access to more selection criteria. The applied filtering criteria are recapped at the top of the list.

Transcoding

Design

Creation

Click the **Design** tab from the **Transcoding** menu.

The list displays the default tables required for *Sage XRT* products operation.

Transcodages Droits Audits

Conception des tables de transcodage

Conception

Correspondances

< Filtrer par nom > < Filtrer par description > Rechercher le nom contenant...

0 sélectionné(s) Actions

Nom	Description	Nombre de colonnes en entrée	Nombre de colonnes en sortie
acsaebdv.dat	Correspondance Code Devise AEB <-> Code ISO	1	1
ACSAFBDV.DAT	Correspondance Code Devise AFB <-> Code ISO	2	1
ACSAFBPA.DAT	Table des partenaires	1	1
ACSAFBVE.DAT	Taux de change de l Euro par devise	1	1
ACSAFB_TO_MT		1	1
acsfnstapa.dat	Parametres d'intégration FINSTA	2	1
ACSMT_OP.DAT	Traduction des codes opération SWIFT	1	1
ACSMT_OP_DIR		2	1
AEB43_PARAM		1	1
AFB120RT_PARAM	Parametrage de l'AFB 120	1	1

Afficher 10 enregistrement(s) Page 1 sur 6 56 enregistrement(s)

Sage XRT Administration Services

The **New Table** button enables you to access the creation wizard.

Création d'une table [X]

Nom*
DOC

Description

0 sélectionné(s) [v] Nouvelle colonne

	Nom	Type de colonne
<input type="checkbox"/>	ENTREE 1	Entrée
<input type="checkbox"/>	ENTREE 2	Entrée
<input type="checkbox"/>	SORTIE	Sortie

Enregistrer Annuler

You must enter a **Name** for the table, the **Description** is optional.

The **New Column** button enables you to access the creation wizard for input and output columns.

Création d'une nouvelle colonne [X]

Type de colonne*

Nom*

Valider Annuler

For each column, enter a name and select the column type (input/output).

Click the **Validate** button to save your creation.

Sage XRT Administration Services

The new column appears in the column list of the table. Columns can be modified using the corresponding link available from their name and they can be deleted by selecting them and clicking the *bin* button.

Création d'une table [X]

Nom*
DOC

Description

0 sélectionné(s) [trash icon] [Nouvelle colonne]

	Nom	Type de colonne
<input type="checkbox"/>	ENTREE 1	Entrée
<input type="checkbox"/>	ENTREE 2	Entrée
<input type="checkbox"/>	SORTIE	Sortie

[Enregistrer] [Annuler]

Then click the **Save** button to save your creation. The new table appears in the list.

Modification

Click the **Design** tab from the **Transcoding** menu. The list of the existing tables is displayed.

For modification, use the corresponding link available from the table name.

Proceed with your modifications and click **Save**.

Deletion

Click the **Design** tab from the **Transcoding** menu. The list of the existing tables is displayed.

To delete tables, select them and click the *bin* button.

Import

Click the **Design** tab from the **Transcoding** menu. The list of the existing tables is displayed.

To import transcoding tables, click **Import**. A dialog box enables you to select the file to import.

Select it and click **Open**.

Export

Click the **Design** tab from the **Transcoding** menu. The list of the existing tables is displayed.

To export tables, select them and click the **Export** option from the **Actions** dropdown menu.

Correspondences

After the creation, correspondences to be applied must be specified.

Creation

Click the **Correspondences** tab from the **Transcoding** menu.

The **RIBS-IBAN** Table is selected by default in the **Table** dropdown menu for correspondences display.

Select the table for which correspondences must be created. The table structure is displayed.

The screenshot shows the 'Correspondances dans les tables de transcodage' page. At the top, there are tabs: 'Formats', 'Licences', 'Transcodages' (selected), 'Droits', 'Audits', and 'Groupes de travail'. Below the tabs, the page title is 'Correspondances dans les tables de transcodage'. On the left, there is a sidebar with 'Conception' and 'Correspondances' (selected). The main area shows a 'Table' dropdown menu with 'DOC' selected. To the right of the dropdown is a 'Nouvelle correspondance' button. Below the dropdown, it says '0 sélectionné(s)'. There is a table structure with three columns: 'ENTREE 1 (E)', 'ENTREE 2 (E)', and 'SORTIE (S)'. Below the table, there is a pagination bar showing 'Afficher 10 enregistrement(s)' and 'Page 1 sur 1'. At the bottom right, it says '0 enregistrement(s)'.

The **New correspondence** button enables you to access the creation wizard.

The screenshot shows the 'Création d'une correspondance' dialog box. It has a title bar with a close button. Inside, there are three input fields: 'ENTREE 1 (E)*', 'ENTREE 2 (E)*', and 'SORTIE (S)'. At the bottom, there are two buttons: 'Enregistrer' and 'Annuler'.

Enter input and output values for every correspondence.

Click **Save** to keep the new correspondence.

Sage XRT Administration Services

The new table has a **Disabled** status.

Conception

Correspondances

Table: ACSAFB_TO_MT

Nouvelle correspondance

0 sélectionné(s)

	Code_AFB (E)	Code_Swift (S)
<input type="checkbox"/>	01	NCHK
<input type="checkbox"/>	02	NCLR
<input type="checkbox"/>	03	NRTI
<input type="checkbox"/>	04	NMSC
<input type="checkbox"/>	05	NTRF
<input type="checkbox"/>	06	NTRF
<input type="checkbox"/>	07	NBOE
<input type="checkbox"/>	08	NDDT
<input type="checkbox"/>	09	NDDT
<input type="checkbox"/>	10	NRTI

Afficher 10 enregistrement(s) Page 1 sur 11 103 enregistrement(s)

Modification

From the **Transcoding** menu, click **Correspondances**.

Select the working table. The list of the existing correspondences is displayed.

For modification, use the dedicated link available from the first column.

Proceed with your modifications and click **Save**.

Deletion

Click the **Design** tab from the **Transcoding** menu.

Select the working table. The list of the existing correspondences is displayed.

To delete one correspondence, select the corresponding box and click the *bin* button.

XDLO (deprecated)

The connection strings must be requested and retrieved through the Administration Service (SCPS, cf. doc Swagger).

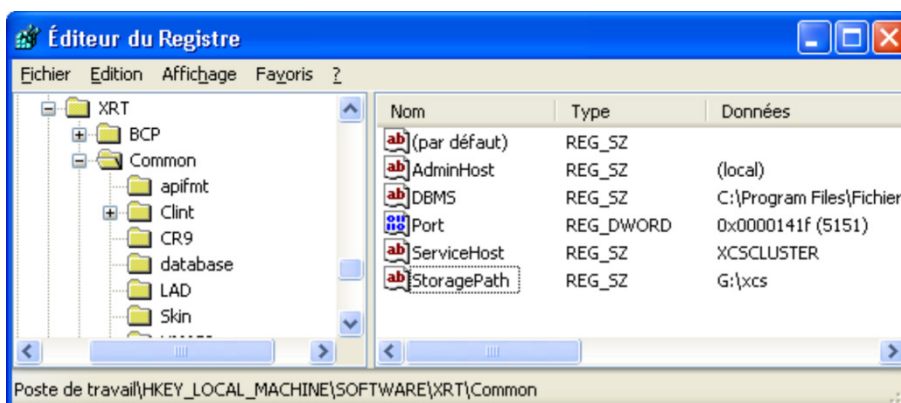
Setup

This chapter describes the administration and client stations.

The administration computer is the machine on which *XDLO* is launched.

The main setup of *XDLO* on the administration station is defined in the register key: **HKEY_LOCAL_MACHINE\SOFTWARE\XRT\Common**. It contains the following values:

Value	Description
Port	TCP/IP port on which the service listens to client calls. Upon XCS installation, this setting receives the default value 5151.
StoragePath	Defines the access path to xdlo_storage.xml file. This setting enables the modification of the access path to xdlo_storage.xml when XDLO is installed in cluster mode. Each node of the cluster must have a write access on the shared file.
ServiceHost	Enables the specification of the name or IP address of the administration station or the virtual name or IP address linked to the administration console. When XDLO is installed in cluster mode. This value enables the specification of the cluster virtual name. This name can be linked to any of the cluster nodes according to the enabled node.



Sage XRT Administration Services

The optional settings of *XDLO* are defined in the register key: **HKEY_LOCAL_MACHINE\SOFTWARE\XRT\Common\XDLO**. It contains the following value:

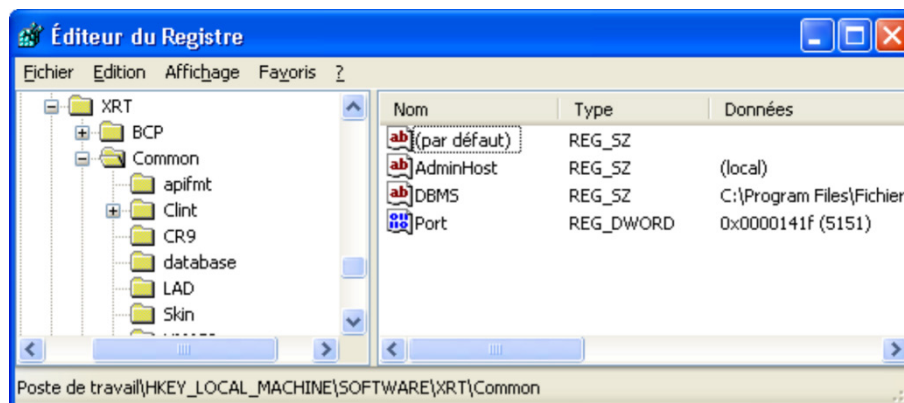
Value	Description
Debug	The Y value enables the debug mode for <i>xdlo_service.exe</i> and <i>xdlo_com.dll</i> which generate - <i>xdlo-service.log</i> and <i>xdlo.log</i> - log files.

The client station refers to the computer on which *Sage XRT* applications and *XDLO* client are executed.

The main settings of the client part of *XDLO* are defined in the register key: **HKEY_LOCAL_MACHINE\SOFTWARE\XRT\Common**.

It contains the following settings:

Value	Description
AdminHost	Name or IP address of the station on which <i>XDLO</i> service is executed. The default value of this setting is "(local)".
Port	Number of the IP port on which <i>XDLO</i> service listens to client calls. The default value of this setting is 5151.



The optional settings of the *XDLO* client part are defined in the register key: **HKEY_LOCAL_MACHINE\SOFTWARE\XRT\Common\XDLO**.

Sage XRT Administration Services

It contains the following values:

Value	Description
DebugRC	Enables the debug mode of the client component which generates the <code>xdlo_remclient.log</code> log file when the "Y" value is given to it. The log file is generated in the <User>\Application Data\XRT\XCS folder.
Cache_lease	Defines the time in seconds during which XDLO uses the cache to retrieve a connection string. When the cache lease time is up, XDLO calls the service.

Definition

XDLO is a *service oriented architecture (SOA)* managing the connection strings to the databases of *Sage XRT* applications. With *XDLO*:

- The connection strings are stored in a secured repository shared by one user group.
- The connection strings are defined by the system administrators.
- Each user belongs to a workgroup.
- Users can change workgroups, provided that the administrator has configured the relevant connection strings.

Besides, *XDLO* consists of two main elements:

- The *XDLO objects* are included in the COM *XDLO_COM.dll* component and presented to clients by *xdlo_service.exe* NT service which executes on the administration console and responds to the requests of connection strings made by clients. This NT service listens to calls on *TCP/IP 5151* port (this default value can be modified when installing **Sage XRT Common Services**).
- The *rem_client.dll* client used by *Sage XRT* applications to send requests to *XDLO* service. This component uses *TCP/IP* and *DCOM* sockets for data exchange.

The administration console name is set up when installing client stations.

Storage

XDLO objects are kept in an *XML* file stored in the <All Users>\Application Data\XRT folder in the administration console. Its location can be changed if required. This file can be installed in a shared directory in case of a cluster deployment.

Sage XRT Administration Services

The *XML* file is protected by the encryption algorithm *3DES* and cannot be directly modified by the users.

On *NTFS* file system, the **Security** pane enables the administrator to set up advanced permissions to restrict access to *XDLO* storage file.

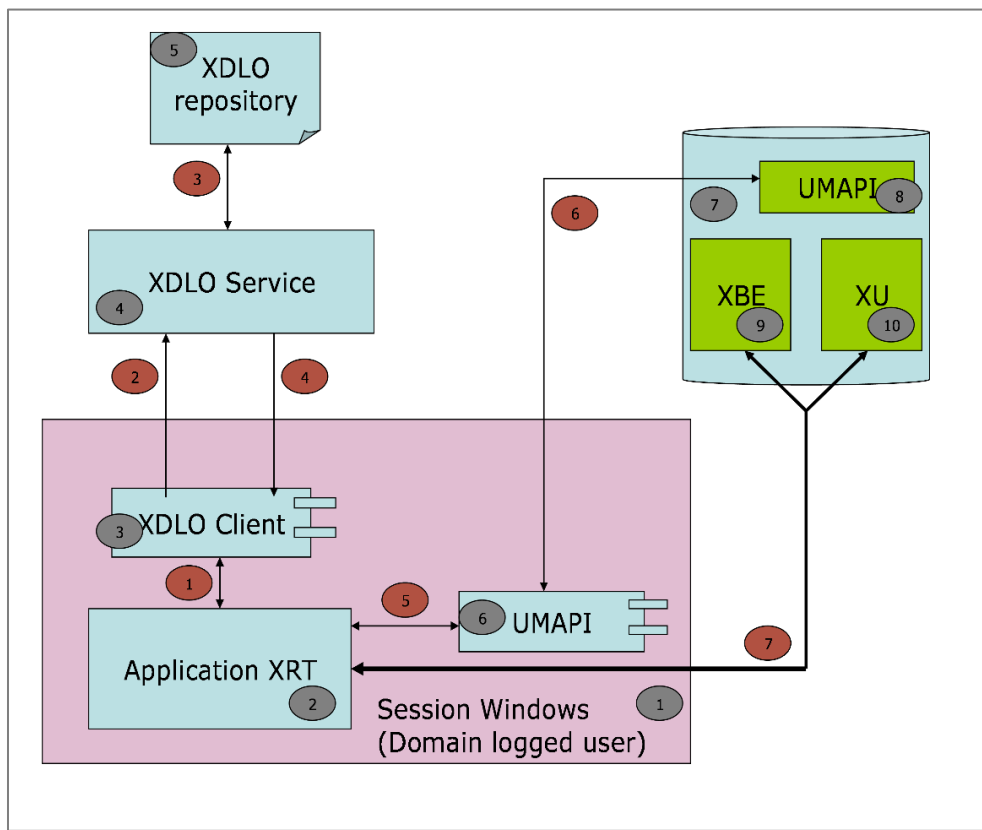
Processes and Interactions

The graph below is a quick representation of exchanges between *XDLO* components in *Sage XRT* applications.

Legend

1 : process components

1 : component interactions



Component	Description
1	Windows session of a NT domain user. This session is opened and the connection to Sage XRT application is made through the NT account of the connected user.
2	The NT user launches a Sage XRT application (SXT, SXBE, etc.).
3	The application uses XDLO client component installed by Sage XRT Common Services setup to get the connection string to the database.
4	The XDLO client component connects to XDLO service which is launched on the administration station. The communication between the client and the service is ensured by DCOM.
5	XDLO file contains the definition of the workgroups and the corresponding connection strings. XDLO service searches XDLO file for information.
6	If the application gets a connection string, it starts UMAPI component in order to check that the user is authorized to use the software and to obtain access permissions to the product.
7	The application connects to the SQL server or Oracle database with a string connection obtained via XDLO.
8	The database contains the UMAPI rights of Sage XRT applications.
9	The database can contain Sage XRT Business Exchange tables and data.
10	The database can contain Sage XRT Treasury tables and data.

Interaction	Description
1	Sage XRT application launches XDLO client with the NT credentials of the connected user.
2	XDLO client connects to the service on TCP/IP port and initiates a communication via DCOM.
3	XDLO service searches XDLO repository to find the workgroups set up for the connected NT user.
4	XDLO service returns the information to XDLO client. This information enables the application to create the workgroup list for the connection window.
5	The application instantiates UMAPI component to obtain the user rights on the application.
6	UMAPI component searches UMAPI tables in the database to get user rights. This information is returned to the application which can finish the initialization of its execution environment.
7	The application can connect to its repository and the user can start working.

Sage XRT Functional Service

Configuration

SSage.SCDTSServer.Service.exe.config (configuration file for function service) is in: **C:\Program Files\Common Files\xrt.**

Log Activation

See <system.diagnostics> and <diagnostics> nodes

Definition of location for website, listening ports and service hosts

See <ApplicationSettings> node

```
<add key="websitehost" value="*" />
```

```
<add key="websitehostdefault" value="http://localhost" />
```


Sage XRT Administration Services

```
<add key="httpservicehost" value="http://*:80"/>
```

```
<add key="httpsservicehost" value="https://*:443"/>
```

Defining counter and frequency in second for APIFMT jobs popping-off

See <ApplicationSettings> node

```
<add key="apifmtasyncuser" value="XRT" />
```

```
<add key="apifmtasyncfrequency" value="20" />
```

Defining account and frequency in seconds for the payment creation jobs

See <ApplicationSettings> node

```
<add key="payasyncuser" value="XRT" />
```

```
<add key="payasyncfrequency" value="30" />
```

Defining number of actions threads on payments JSON flows

See <ApplicationSettings> node

```
<add key="payasyncthreadtaskI" value="10" />
```

```
<add key="payasyncthreadtaskII" value="10" />
```

Notes:

taskI => Dematerialisation to Database

taskII => Creation from Database

Defining tenants to exclude for jobs popping-off (APIFMT, PAIEMENTS)

See <ApplicationSettings> node

```
<add key="apifmtasyncexception"
value="[YOUR_WORKGROUP_EXCEPT1],[YOUR_WORKGROUP_EXCEPT2]" />
```

```
<add key="payasyncexception"
value="[YOUR_WORKGROUP_EXCEPT1],[YOUR_WORKGROUP_EXCEPT2]"/>
```

Defining Security Features

See <ApplicationSettings> node

```
<add key="showfriendlymessage" value="NO"/> (messages d'erreur
générique)
```

Sage XRT Administration Services

Setting up the link to another product (RAPI, posting and status retrieval)

See <ApplicationSettings> node

```
<add key="paysendfilepostgen" value=" "/>
```

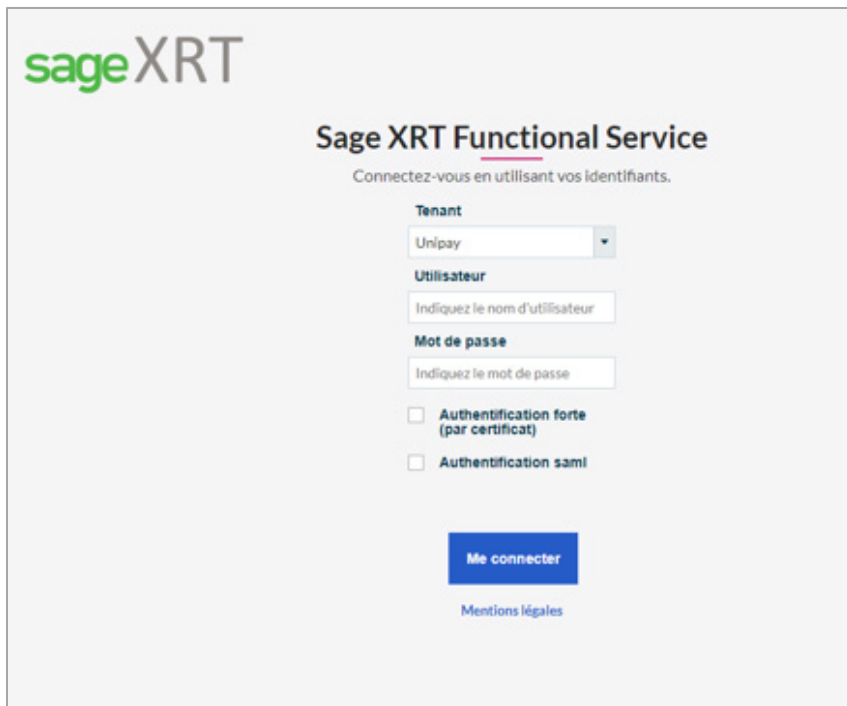
```
<add key="payfollowfilepostgen" value=" "/>
```

SWAGGER Documentation

Documentation URL and export URL

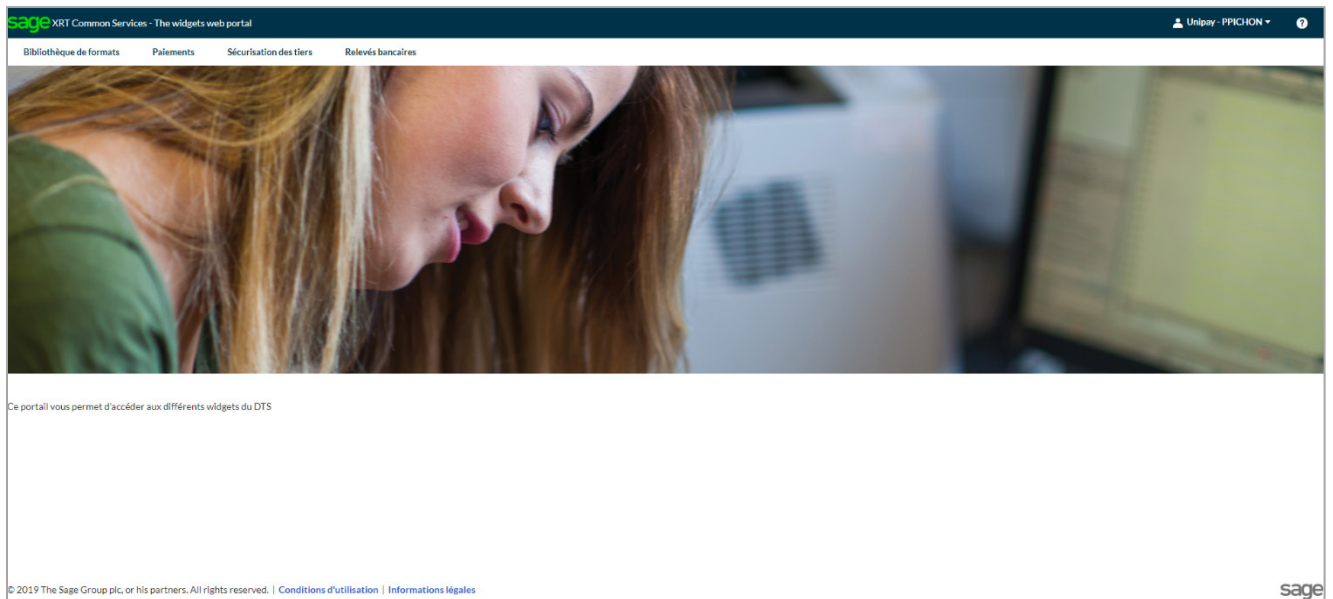
Connection

Access **Sage XRT Functional Service** interface through the URL **<http://localhost/SCDTS/index.html>**. Authentication and functional services must be restarted.



The screenshot shows the login interface for the Sage XRT Functional Service. At the top left is the 'sageXRT' logo. The main heading is 'Sage XRT Functional Service' with a subtitle 'Connectez-vous en utilisant vos identifiants.' Below this are three input fields: 'Tenant' (a dropdown menu currently showing 'Unipay'), 'Utilisateur' (a text field with placeholder 'Indiquez le nom d'utilisateur'), and 'Mot de passe' (a text field with placeholder 'Indiquez le mot de passe'). There are two checkboxes for authentication methods: 'Authentification forte (par certificat)' and 'Authentification saml', both of which are unchecked. A blue 'Me connecter' button is positioned below the password field. At the bottom, there is a link for 'Mentions légales'.

Sage XRT Administration Services



This service offers the following possibilities:

- Format Library
- Payment Management
- Third-Party Security (not yet available in 5.0)
- Bank Statements (not yet available in 5.0)

Sage XRT Functional Service uses the functions that follow in full autonomy, i.e. with no link to **Sage XRT Business Exchange**, nor **Sage XRT Advanced**.

Format Library - Format API

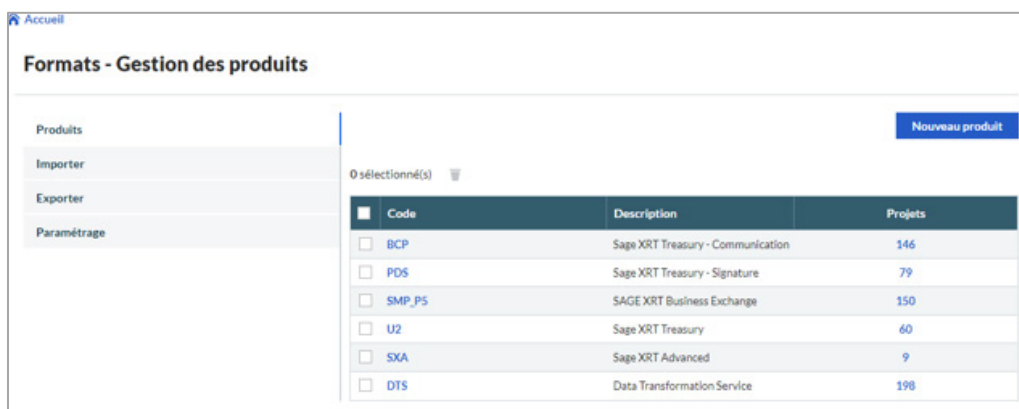
To access the format library, use the **Formats List** widget.



Creating Products

The elements linked to the format management (projects, processing) can be accessed by **Product**.

By default, the usable products are available along with all their standard projects and processes.

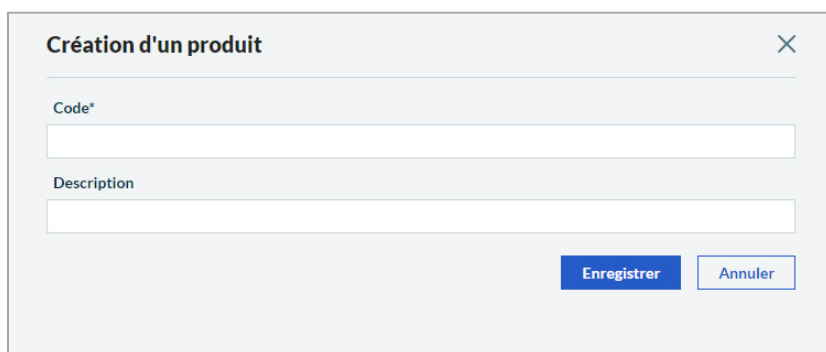


<input type="checkbox"/>	Code	Description	Projets
<input type="checkbox"/>	BCP	Sage XRT Treasury - Communication	146
<input type="checkbox"/>	PDS	Sage XRT Treasury - Signature	79
<input type="checkbox"/>	SMP_P5	SAGE XRT Business Exchange	150
<input type="checkbox"/>	U2	Sage XRT Treasury	60
<input type="checkbox"/>	SKA	Sage XRT Advanced	9
<input type="checkbox"/>	DTS	Data Transformation Service	198

In the **Product** tab, the **New product** button enables you to access the creation wizard.

The **Code** is mandatory and the **Description** optional.

Click **Save** to validate the product creation or **Cancel** to go back to the products. A message confirms the license creation.



Création d'un produit

Code*

Description

Enregistrer Annuler

Modifying Products

In the product list, use the link on the product code. The modification wizard is displayed.

You can only modify the **Description**.

Click **Save** to validate the product modification or **Cancel** to go back to the products. A message confirms the action.

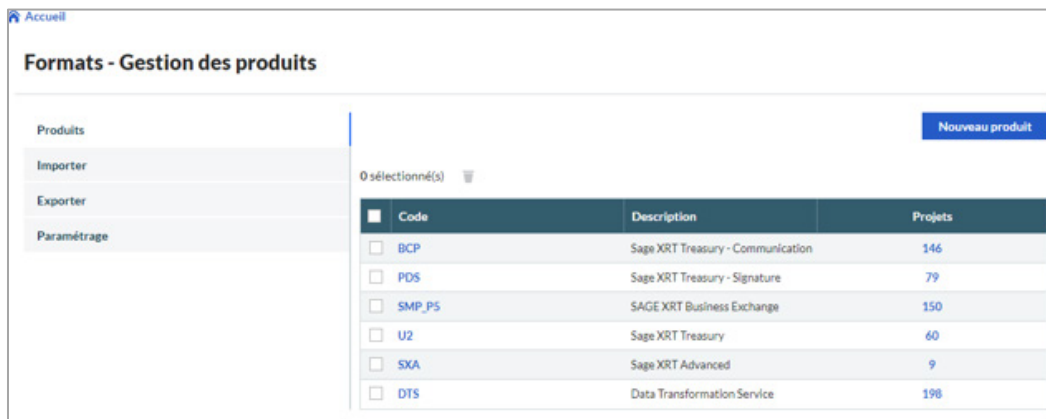
Sage XRT Administration Services

Deleting Products

To delete a product, select it from the product list and click the *bin* icon. A message confirms the action.

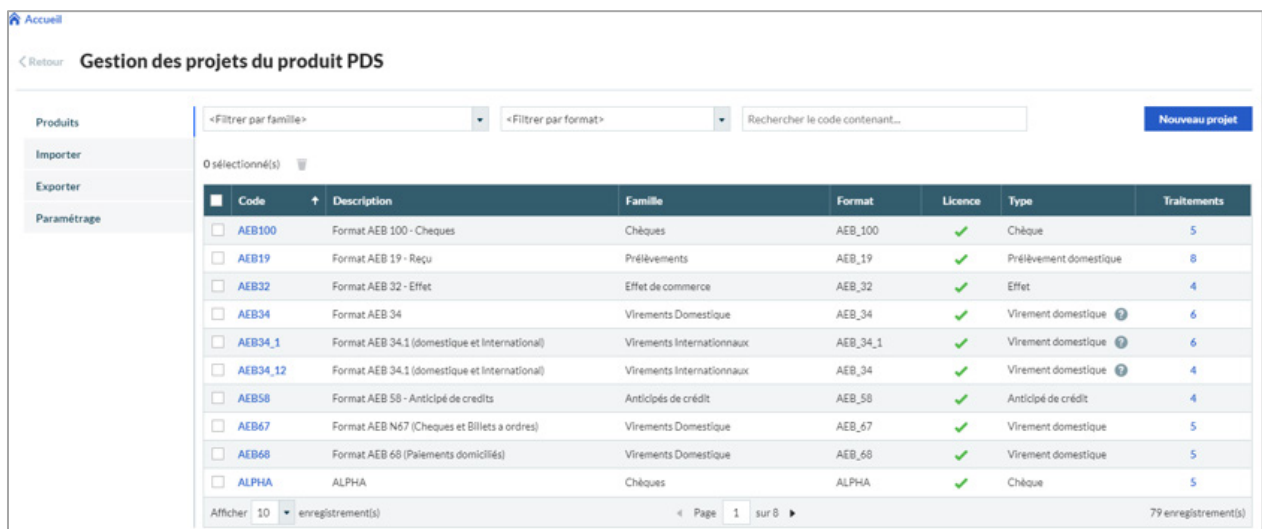
Creating Projects

To access the list of the standard projects associated with the products, click the number displayed in the **Projects** column.



	Code	Description	Projets
<input type="checkbox"/>	BCP	Sage XRT Treasury - Communication	146
<input type="checkbox"/>	PDS	Sage XRT Treasury - Signature	79
<input type="checkbox"/>	SMP_P5	SAGE XRT Business Exchange	150
<input type="checkbox"/>	U2	Sage XRT Treasury	60
<input type="checkbox"/>	SXA	Sage XRT Advanced	9
<input type="checkbox"/>	DTS	Data Transformation Service	198

The project list is displayed.



	Code	Description	Famille	Format	Licence	Type	Traitements
<input type="checkbox"/>	AEB100	Format AEB 100 - Cheques	Chèques	AEB_100	✓	Chèque	5
<input type="checkbox"/>	AEB19	Format AEB 19 - Reçu	Prélèvements	AEB_19	✓	Prélèvement domestique	8
<input type="checkbox"/>	AEB32	Format AEB 32 - Effet	Effet de commerce	AEB_32	✓	Effet	4
<input type="checkbox"/>	AEB34	Format AEB 34	Virements Domestique	AEB_34	✓	Virement domestique ⓘ	6
<input type="checkbox"/>	AEB34_1	Format AEB 34.1 (domestique et International)	Virements Internationaux	AEB_34_1	✓	Virement domestique ⓘ	6
<input type="checkbox"/>	AEB34_12	Format AEB 34.1 (domestique et International)	Virements Internationaux	AEB_34	✓	Virement domestique ⓘ	4
<input type="checkbox"/>	AEB58	Format AEB 58 - Anticipé de crédits	Anticipés de crédit	AEB_58	✓	Anticipé de crédit	4
<input type="checkbox"/>	AEB67	Format AEB N67 (Cheques et Billets à ordres)	Virements Domestique	AEB_67	✓	Virement domestique	5
<input type="checkbox"/>	AEB68	Format AEB 68 (Palements domiciliés)	Virements Domestique	AEB_68	✓	Virement domestique	5
<input type="checkbox"/>	ALPHA	ALPHA	Chèques	ALPHA	✓	Chèque	5

Afficher 10 enregistrement(s) Page 1 sur 8 79 enregistrement(s)

This list can be filtered by format and by family: International Transfers, Account Statements, etc.

You can also search directly for the project by entering part or all of a project code.

Sage XRT Administration Services

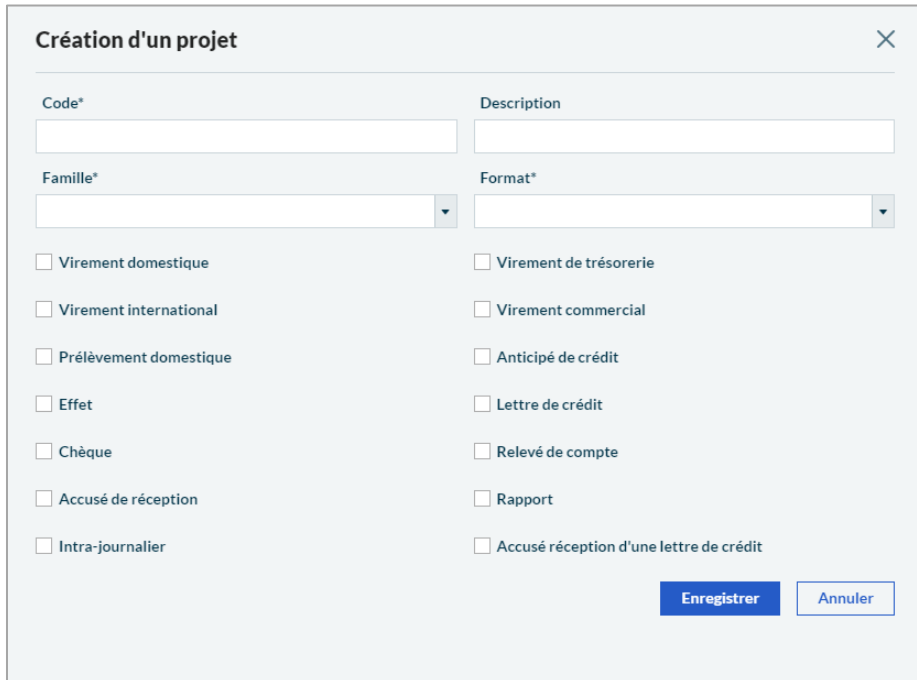
For each project identified by code, the list displays:

- Description
- Family
- Attached Format
- Access Right to the format according to the license key
- Access to the processes associated with the project

In the **Product** tab, the **New project** button enables you to access the creation wizard.

The **Code**, **Family** and **Format** fields are mandatory.

Click **Save** to validate the project creation.



A message confirms the action.

Modifying Projects

In the project list, use the link on the product code. The modification wizard is displayed.

The **Code** cannot be changed.

Click **Save** to validate the project modification or **Cancel** to go back to the projects.

A message confirms the action.

Deleting Projects

From the project list, select the project to delete and click the *bin* icon.

A message confirms the action.

Creating Processing

To access the list of the standard processes associated with the project, click the number displayed in the **Processes** column.

Gestion des traitements du projet AEB34 du produit PDS				
Produits				
Importer				
Exporter				
Paramétrage				
0 sélectionné(s) Actions				
	Code	Description	Type	Tâches
<input type="checkbox"/>	AEB34_PAY	Edition de Virement AEB 34 (Paysage)	Exécution asynchrone du traitement ?	1
<input type="checkbox"/>	AEB34_POR	Edition de Virement AEB 34 (Portrait)	Exécution asynchrone du traitement ?	1
<input type="checkbox"/>	AEB34_TOT	Edition des AEB 34 - Totaux	Exécution asynchrone du traitement ?	1
<input type="checkbox"/>	DelRejet		Redirection de la sortie de l'exécutable ?	1
<input type="checkbox"/>	DelSigne		Redirection de la sortie de l'exécutable ?	1
<input type="checkbox"/>	Prepa		Redirection de la sortie de l'exécutable ?	1

For each process identified by code, the list displays:

- Description
- Process Type
- Number of Tasks

In the **Products** tab, the **New Process** button enables you to access the creation wizard.

You must specify the **Code**.

For the task management, click the **+** icon to add tasks, and the *bin* icon to delete tasks.

Click **Save** to validate the process creation. A message confirms the action.

Création d'un traitement

Code*

Description

Type

- ☐ Exécution asynchrone du traitement
- ☒ Redirection de la sortie de l'exécutable
- ☒ Exécution asynchrone des tâches du traitement
- ☐ Paramètres identiques à toutes les tâches
- ☐ Traitement permettant de visualiser un fichier
- ☐ Vue permettant la gestion des pouvoirs bancaires
- ☐ Conversion vers un autre format

Tâches

0 sélectionné(s)

☐ Paramètres

Enregistrer **Annuler**

Modifying Processing

In the process list, use the link on the process code.

The modification wizard is displayed.

The **Code** cannot be changed.

Click **Save** to validate the process modification. A message confirms the action.

Deleting Processing

From the process list, select the process to delete then click the *bin* icon. A message confirms the action.

Executing Processing

From the process list, select the process to execute.

Click **Actions** and select the one to execute.

The execution window is displayed. Select the file corresponding to the process.

Sage XRT Administration Services

Click **Execute** to launch the process.

After the process completion, click **View Results** to access the process results (e.g.: file *PDF*) or **Save Results** to keep them without viewing them straight away.

Import

You can import a modified *apifmt.xml* file via the **Import** function.

For this, click in the frame to open up the file browser and select the file to import.

Click **Import**.

Formats - Accès à l'importation

Produits	<div>Essayez de déposer le fichier ici ou cliquez pour sélectionner le fichier à télécharger.</div> <div>Importer</div>
Importer	
Exporter	
Paramétrage	

Export

You can export elements used in a file via the **Export** function.

When you call the function, the export process is automatically launched. Once it is completed, you may modify the *apifmt.xml* default file name.

Click **Save** to keep the file.

Formats - Accès à l'exportation

Produits	<div><div><div></div><div>Ci-dessous vous trouverez les informations à sauvegarder sur votre disque dur.</div></div><div>Nom du fichier apifmt.xml</div><div>Contenu du fichier <?xml version="1.0" encoding="UTF-8"?> <root xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="x-schema:FMT-schema.xml"> <origins> <origin name="PRODUCT"/> </origins> <familles> <family name="Pas_de_famille" comments="Divers" origin="PRODUCT"/> <family name="Intraday" comments="Relevés Intra-journaliers" origin="PRODUCT"/> <family name="Domestic" comments="Virements Domestique" origin="PRODUCT"/> <family name="Treasury" comments="Virements de trésorerie" origin="PRODUCT"/> <family name="International" comments="Virements internationaux" origin="PRODUCT"/> </familles> </root></div></div> <div>Sauvegarder</div>
Importer	
Exporter	
Paramétrage	

Setup

You can manage the settings linked to the *Clint* engine and to the format management using the **Setup** function.

Sage XRT Administration Services


Formats - Gestion du paramétrage

Produits


Importer

Exporter

Paramétrage

Clint

SCRIPT_PRODUCT : C:\Program Files\Common Files\xrt\Product\
SCRIPT_PATH : C:\Program Files\Common Files\xrt\Product\
C:\Program Files\Common Files\xrt\Product\Common
C:\Program Files\Common Files\xrt\Product\Payment

Formats

Les extensions suivantes sont désactivées : bat,cmd,sys,ini,inf,vbs,js
La trace de l'API des formats est activée
La trace de Clint est désactivée
Le séparateur ODBC est Delimited(,)

These default settings can be modified via the *pencil* icon.

Paramétrage

×

Clint

SCRIPT_PRODUCT

C:\Program Files\Common Files\xrt\Product\

SCRIPT_PATH

C:\Program Files\Common Files\xrt\Product\;C:\Program Files\Common
Files\xrt\Product\Common;C:\Program Files\Common Files\xrt\Product\Payment;

Formats

Extensions désactivées

bat,cmd,sys,ini,inf,vbs,js

☒ Activer la trace de l'API des formats

☐ Activer la trace de Clint

Séparateur ODBC

Delimited(,)

Enregistrer

Annuler

Click **Save** to keep the modifications or **Cancel** to ignore them.

Payments - Batch Transfers - Payments API

This function enables you to manage transfer transactions (treasury or providers) from a single *JSON* flow including all the transactions to process.

JSON Flow of Transactions to Process

Mandatory data appear in yellow.

Flux JSON UTF-8 BOM

```
{
  "Transaction": [
    {
      "TransactionType":
      "IssuingAgentBIC" :
      "IssuingAgentNationalId" :
      "IssuingAgentContact" :
      "IssuingAgentPhone" :
      "IssuingAgentFax" :
      "IssuingAgentName" :
      "IssuingAgentTown" :
      "IssuingAgentState" :
      "IssuingAgentCountry" :
      "IssuingAgentCurrency" :
      "IssuingAgentInCurrencyIndicator" :
      "DebtorAgentName":
      "DebtorAgentBIC":
      "DebtorAgentNationalId":
      "DebtorAgentAddressLine1":
      "DebtorAgentAddressLine2":
      "DebtorAgentTown":
      "DebtorAgentState":
      "DebtorAgentCountryCode":
      "DebtorAgentCountryLabel":
      "DebtorAgentBankId":
      "DebtorAgentBranchId":
      "DebtorAgentContact":
```

"DebtorAgentPhone":
"DebtorAgentFax":
"DebtorAgentIdType":
"DebtorAgentId":
"DebtorAgentDomiciliation":
"InitiatingPartyName":
"InitiatingPartyNationalId":
"InitiatingPartyIdType":
"InitiatingPartyId":
"InitiatingPartyAddressLine1":
"InitiatingPartyAddressLine2":
"InitiatingPartyTown":
"InitiatingPartyState":
"InitiatingPartyProvince":
"InitiatingPartyCountryCode":
"InitiatingPartyContact":
"InitiatingPartyService":
"InitiatingPartyPhone":
"InitiatingPartyFax":
"InitiatingPartyEmail":
"InitiatingPartySenderId":
"InitiatingPartyContratNb":
"InitiatingPartyIssuerIndicator":
"DebtorName1":
"DebtorName2":
"DebtorAddressLine1":
"DebtorAddressLine2":
"DebtorTown":
"DebtorState":
"DebtorProvince":
"DebtorCountryCode":

"DebtorCountryLabel":
"DebtorNationalId":
"DebtorIdType":
"DebtorId":
"DebtorContact":
"DebtorService":
"DebtorPhone":
"DebtorFax":
"DebtorEmail":
"DebtorNonResidentIndicator":
"DebtorSenderId":
"DebtorContratNb":
"DebtorAcctCountryCode":
"DebtorAcctId":
"DebtorAcctLocalKey":
"DebtorAcctCurrency":
"DebtorAcctIssuerId":
"DebtorAcctType":
"DebtorAcctReferenceNumber":
"DebtorAcctIdCustomer":
"ChargesAcctCountryCode":
"ChargesAcctId":
"ChargesAcctLocalKey":
"ChargesAcctCurrency":
"ChargesAcctType":
"ChargesAcctBranchIdType":
"ChargesAcctBranchId":
"BeneficiaryName":

"BeneficiaryAdressLine1":
"BeneficiaryAdress Line2":
"BeneficiaryTown":

"BeneficiaryProvince":

"BeneficiaryCountryCode":
"BeneficiaryContact":

"BeneficiaryService":

"BeneficiaryPhone":

"BeneficiaryNationalId":
"BeneficiaryTypeId":

"BeneficiaryId":

"BeneficiaryAutorisationNb":
"BeneficiaryFax":

"BeneficiaryEmail":

"CreditorName":

"CreditorAdressLine1":
"CreditorAdressLine2":
"CreditorTown":
"CreditorProvince":
"CreditorState":
"CreditorCountryCode":
"CreditorCountryLabel":
"CreditorContact":
"CreditorService":
"CreditorPhone":
"CreditorNationalId":
"CreditorIdType":
"CreditorId":

"CreditorNonResidentIndicator":
"CreditorAutorisationNb":
"CreditorFax":

"CreditorEmail":

"CreditorAgtName":

"CreditorAgtBIC":

"CreditorAgtAdressLine1":
"CreditorAgtAdressLine2":
"CreditorAgtTown":

"CreditorAgtState":

"CreditorAgtCountryCode":
"CreditorAcctId":

"CreditorAcctCurrency":

"CreditorAcctDomiciliation":
"CreditorAcctIdType":

"CreditorAcctId":

"CreditorAcctBankId":

"CreditorAcctBIC1":

"CreditorAcctType":

"IntermediaryAgtBIC":

"IntermediaryAgtOccasionnalIndicator":
"IntermediaryAgtIdType":
"IntermediaryAgtId":

"IntermediaryAgtName":

"IntermediaryAgtAdressLine1":
"IntermediaryAgtAdressLine2":
"IntermediaryAgtAdressLine3":
"IntermediaryAgtCountryCode":
"TransactionAmount":

"TransactionAmountDecimalNb":
"TransactionTransfertCurrency":
"TransactionReference":


```
"TransactionExecutionDate":  
"TransactionFeesImputation":  
"TransactionPaymentMode":  
"TransactionTransactionCode":  
"TransactionInternalNumber":  
"TransactionStatus":  
  
"TransactionValueDate":  
  
"TransactionReason":  
  
"TransactionCurrencyPurchaseIndicator":  
"TransactionCurrencyPurchaseContractReference":  
"TransactionCurrencyPurchaseDate":  
"TransactionCurrencyPurchaseRate":  
"TransactionBeneficiaryAlertIndicator":  
"TransactionBeneficiaryAlertMode":  
"TransactionBeneficiaryAlertNb":  
"TransactionBankBeneficiaryAlertIndicator":  
"TransactionBankBeneficiaryAlertMode":  
"TransactionBankBeneficiaryAlertNb":  
"TransactionContratSettlement":  
"TransactionIntraCompanyIndicator":  
"TransactionNettingIndicator":  
"TransactionUrgentIndicator":  
"TransactionRTGSIndicator":  
"TransactionBilateralInstruction":  
"TransactionBeneficiaryIdentificationIndicator":  
"TransactionExclusivePaymentIndicator":  
"TransactionFreeText":  
  
"TransactionEconomicReason":  
"TransactionEconomicCountry":  
"TransactionBranchId":  
  
"TransactionInvoiceReference":  
"TransactionInvoiceDate":  
"TransactionInvoicePaidAmount":  
"TransactionInvoiceOriginalAmount":  
"TransactionDiscountAmount":  
"TransactionDeclaration": [  
    {  
        "DeclarationAmount" :  
        "DeclarationDate":  
        "DeclarationEcoReason":
```

"TransactionDeclarationdLZB":
"TransactionDeclarationBranchIdLZB":
"TransactionDeclarationPayorIdLZB":
"TransactionDeclarationBuyText":
"TransactionDeclarationBuyCode":
"TransactionDeclarationCountryCode":
"TransactionDeclarationBuyAmount":
"TransactionDeclarationSellText":
"TransactionDeclarationSellCode":
"TransactionDeclarationSellCountryCode":
"TransactionDeclarationSellAmount":
"TransactionDeclarationStockingPlace":
"TransactionDeclarationSellPlace":
"TransactionDeclarationExpirationDateUnsoldGoods":
"TransactionDeclarationActionType":
"TransactionDeclarationActionCode":
"TransactionDeclarationCapitalOriginCountry":
"TransactionDeclarationCapitalDestinationCountry":
"TransactionDeclarationProductCode":
"TransactionDeclarationDNBTradingTransitCode":
"TransactionDeclarationDNBRecordNumberCode":
"TransactionDeclarationDNBGoodsTransitCode":
"TransactionDecDirectIndicator":
"TransactionSource":

"TransactionPrivatePaymentIndicator":
"TransactionFinality":

"TransactionAmountExpression":
"TransactionBeneficiaryReference":
"TransactionGoodsPurchaseIndicator":
"TransactionNIFIssuer":

"TransactionNOF":

"TransactionISINCode":

"TransactionSuffix":

"TransactionInvoiceDetail":
"TransactionAdviceReference":
"TransactionAdviceMode":
"TransactionAdviceNumber":
"TransactionAdviceName":
"TransactionAdviceAddress":
"TransactionAdviceCountry":
"TransactionDirectPaymentOrderbyCCCindicator":
"TransactionDocReference":
"TransactionBonificationCurrency":

```
"TransactionPostalAcctBankPayee":
"TransactionPaymentNumber":
"TransactionSubmissionCode":
"TransactionCommercialFunction":
"TransactionLetter":

"TransactionMobilisation":
"TransactionRate":

"TransactionMargin":

"TransactionInvoices: [
    {
        "InvoiceEdifactType":
        "InvoiceLabel":
        "InvoiceInternalReference":
        "InvoiceIssuingDate":
        "InvoicePaidAmount":
        "InvoiceBeneficiaryReference":
        "InvoiceSign":
        "InvoiceXMLType":
        "InvoicePayeeType":
        "InvoiceAdditionnalInformation":
        "InvoiceDueAmount":
        "InvoiceGapReason":
        "InvoiceDecision":
        "InvoiceCommunication":
        "InvoiceCurrency":
```

DTSPAYCAT_TRANS_PAY Transcoding Table

This table is very important as it infers the transaction category to apply to each transaction (and indirectly the bank file format which contains the transactions) from the flow data.

Here are the data analyzed to assign the transaction category:

- Transaction Type:
 - **FT** for Treasury Transfers (**TREA** in **JSON** flow)
 - **DO/IN** for Providers Transfers (**SUPP** in **JSON** flow)
- International or Domestic **DO/IN**
- Issuing Bank (BIC and name)
- Debit Bank (country, name, BIC)
- Country of Credit Bank
- Transfer Currency
- Transaction Priority

The input columns of the transcoding table consist of these data. The asterisk * means **All**. **SEPA** means countries from the SEPA. **NSEPA** means countries out of the SEPA.

TYPE	LOCALISATION	ISSUING BANK BIC	ISSUING BANK NAME	PAYOR BANK COUNTRY CODE	PAYOR BANK NAME	PAYOR BANK BIC	PAYEE BANK COUNTRY CODE	TRANSFER CURRENCY	URGENT FLAG	TRANSACTION CATEGORY
FT	DO	*	*	SEPA	*	*	SEPA	EUR	0	[SCT VTSDOM 001.001.03][902100]
FT	DO	*	*	NSEPA	*	*	NSEPA	*	0	[VTSDO Pain 001.001.03][758796]
FT	IN	*	*	SEPA	*	*	SEPA	EUR	0	[SCT VTSIN 001.001.03][903100]
FT	IN	*	*	SEPA	*	*	NSEPA	*	0	[VTSIN Pain 001.001.03][739797]
FT	IN	*	*	NSEPA	*	*	NSEPA	*	0	[VTSIN Pain 001.001.03][739797]
FT	IN	*	*	NSEPA	*	*	SEPA	*	0	[VTSIN Pain 001.001.03][739797]

FT	DO	*	*	SEPA	*	*	SEPA	EUR	1	[SCT VTSDOM 001.001.03][902100]
FT	DO	*	*	NSEPA	*	*	NSEPA	*	1	[VTSDO Pain 001.001.03][758796]
FT	IN	*	*	SEPA	*	*	SEPA	EUR	1	[SCT VTSIN 001.001.03][903100]
FT	IN	*	*	SEPA	*	*	NSEPA	*	1	[VTSIN Pain 001.001.03][739797]
FT	IN	*	*	NSEPA	*	*	NSEPA	*	1	[VTSIN Pain 001.001.03][739797]
FT	IN	*	*	NSEPA	*	*	SEPA	*	1	[VTSIN Pain 001.001.03][739797]

The **Transaction Category** output column must respect the following syntax:

- Profile Name between brackets []
- Format-Subformat Pair between brackets []

Posting JSON Flow of Transactions

From **Sage XRT Functional Service** interface, select the **Payments** menu and the **Batch Transfers** widget.



The **Job Creation** function enables the selection of the file containing the transactions to process (*JSON* flow) and the specification of the info required for the file processing.

- Info **Origin**: **SXA**, **SXBE**, **X3**
- **Number of Transactions** in the file for security control purposes
- **Use Enrichment** for the initial data transactions contained in the *JSON* flow in order to generate correct not rejected bank files (example of enrichment: Allocation of Charges, Purpose, etc.)

After specifying these elements, click **Send**.

The screenshot shows the 'Virements de masse - Accès à la création des Jobs' form. On the left, there are two tabs: 'Création d'un Job' and 'Suivi d'un Job'. The main area contains a large dashed box with the text 'Essayez de déposer le fichier ici ou cliquez pour sélectionner le fichier à télécharger.' Below this, there are three input fields: 'Origine:' with a dropdown menu showing 'SXA', 'Nombre de transactions:' with a text input field containing '1', and 'Utilisation de l'enrichissement:' with a dropdown menu showing 'Non'. At the bottom right, there is a blue button labeled 'Envoyer'.

The **Job ID** is automatically assigned.

Accueil

Virements de masse - Accès à la création des Jobs

Création d'un Job

Suivi d'un job

Les transactions suivantes vont être envoyées.

```
{
  "Transaction": [
    {
      "TransactionType": "TREA",
      "DebtorAgentBIC": "AGRIFRPP833",
      "DebtorName1": "DB NM1",
      "DebtorAcctId": "FR76333332222444444444455",
      "DebtorAcctType": "1",
      "CreditorName": "CDTR NM",
      "CreditorAgtBIC": "SOGEFRPP833",
      "CreditorAcctId": "FR76999998888777777777766",
      "CreditorAcctType": "1",
      "TransactionAmount": "2000.00",
      "TransactionAmountDecimalNb": "2",
      "TransactionTransfertCurrency": "EUR",
      "TransactionReference": "TRN REFERENCE",
      "TransactionExecutionDate": "16102018",
      "TransactionReason": "TRN MOTIF",
      "TransactionUrgentIndicator": "0"
    }
  ]
}
```

Origine :

SXA

Nombre de transactions :

1

Utilisation de l'enrichissement :

Non

This process consists of some steps:

- Converting initial *JSON* flow into *XML* file for processing
- Splitting *XML* file into several according to the transaction category (the other splitting criteria are not activated)
- Use Enrichment for the initial data transactions if selected
- Data dematerialization in **Sage XRT Common Services** Database

Monitoring Jobs of JSON Flow Processing

The **Job Monitoring** function provides the process progress for the *JSON* flow posted.

Specify the **Job ID** and the flow **Origin**. Click **Send**.

Virements de masse - Accès au suivi des Jobs

Création d'un Job

Suivi d'un job

Id Job :

4D0096E1-1003-44D7-91D0-4A32F1EEA397

Origine :

SXA

Envoyer

Flux résultat. ?

```
{
  "error": {
    "description": "",
    "number": 0
  },
  "file": {
    "H4sIAAAAAAAAAEAI2OvQqDMBSFX0XwXDBJsdGMLBFTpQ.P43IUZ
    ZRun5J7V0sv5Ujw5hDCKyMJ4ZQcr/5onprp6z1DZfB7Bk15Mwg
    NZMGpRkKnDBywv57fMmgZ9ZCn8AKq6Ypw8AAA
    "idjob": "4D0096E1-1003-44D7-91D0-4A32F1EEA397"
    "message": ""
  }
}
```

Décodage du fichier ?

```
{
  "file_list": [
    {
      "idfic": "105",
      "statusfic": "FileGenerated",
      "status_datefic": "10/21/2019 3:26:00 PM",
      "exiterr": ""
    }
  ],
  "remittance_list": [
    {
      "idfic": "105",
      "idrm": "150018",
      "refrm": "BETR191021152558",
      "statusrm": "RmGenerated",
    }
  ]
}
```

The answer may be:

- Error
- **In Progress** message if the query was raised before the storage process is complete
- *JSON* file with this type of contents:

```
{
  "file_list": [
    {
      "idfic": "108",
      "statusfic": "50007",
      "status_datefic": "11/12/2018 10:06:16 AM"
    }
  ],
  "remittance_list": [
    {
      "idfic": "108",
      "idrm": "401",
      "refrm": "BETR181112100613",
      "statusrm": "50006",
      "status_daterm": "11/12/2018 10:06:16 AM"
    }
  ],
  "trn_list": [
    {
```

Sage XRT Administration Services

```

        "idfic":"108",
        "idrm":"401",
        "idtrn":"381",
        "reftrn":"EQUILIBRAGE01/06/18",
        "statustrn":"50005",
        "status_datetrn":"11/12/2018 10:06:16 AM"
    }
  ]
}

```

Statuses

!:	Transaction	Remittance	File	Job
Total Error				x
In progress				x
Control Error (to regenerate)	X (50 001 - TrnControlError)			
Pending	X (50 002 - TrnPending)	X (50 003 - RmPending)		
Remitted	X (50 004 - TrnRemitted)			
Generated	X (50 005 - TrnGenerated)	X (50 006 - RmGenerated)	X (50 007 - FileGenerated)	
Post-generation statuses			X (status codes for signature and com = WMFILE)	
			50 008 – ExitPostGenerationSuccess	
			ExitPostGenerationSuccess – No Action	
			50 009 - ExitPostGenerationError	

Dematerialization in SCS Database

DTSPAYJOB: this table contains **JOB IDs** with gzipped base64-encoded file and creation date.

Here are the successive statuses (**JOBSTATUS** column):

- 0: Pending
- 1: In progress
- 3: Completed with errors
- 11: Completed successfully
- 13: Completed: technical error

DTSPAYORIFILE: for each ID JOB, it contains the ID files for each generated *XML* files.

DTSPAYBATCH: for each ID file, it contains the associated ID Batch.

DTSPAYPARTIES: it contains the entity info such as bank, applicant, payor, beneficiary, payee.

DTSPAYAGENCE: it contains the information for the debit and credit branches.

DTSPAYCPTE: it contains the information for the debit and credit accounts.

DTSPAYVIR_TMP: for each ID Batch, it contains the associated transactions list and their details (no control over data).

DTSPAYVIR: for each ID Batch, it contains the associated transactions list and their details (no control over data) related to the linked profile.

The checking processes linked to the profile are based on *dtspay_profilspay.xml* file in **C:\Program Files\Common Files\xrt** which uses **SXBE** variables system to determine the checks to perform on the transaction.

Here are the successive statuses (**STATUS** column):

- 1: Pending
- 6: Grouped
- 8: Generated

DTSPAYIMPXML: it contains the errors linked to the checks and to the associated profile (**VIRTMPERROR** column). **VIRTMPERROR** column displays the error code which is defined in *imptext.xml* (**SXBE** root folder).

DTSPAYREMISE: it contains the list of the remittances created from batch ID transactions.

Sage XRT Administration Services

The grouping criteria linked to the profile are based on *dtspay_profilspay.xml* file in **C:\Program Files\Common Files\xrt** which uses **SXBE** variables system (*xxsame...*) to determine the criteria to apply.

Here are the successive statuses (**STATUS** column):

- 2: Pending
- 5: Grouped
- 7: Generated

DTSPAYGENFILE: it contains the list of the bank files created from batch ID transactions.

Post-Generation Exits

After the bank file generation, an exit can be launched for this file (e.g.: to send it for signature).

EXITSPOSTGENERATION is a default standard table:

- Input columns are automatically completed with the data of transactions to process.
- Output columns display **POWERSHELL** scripts (stored in **C:\Program Files\Common Files\xrt\Tasks**) and their arguments.

Modification de la table EXITSPOSTGEN

Nom*
EXITSPOSTGEN

Description
Exits Post génération

0 sélectionné(s) Nouvelle colonne

Nom	Type de colonne
<input type="checkbox"/> BANK	Entrée
<input type="checkbox"/> PARTIES	Entrée
<input type="checkbox"/> PROFILE	Entrée
<input type="checkbox"/> POWERSHELLSCRIPT	Sortie
<input type="checkbox"/> POWERSHELLARGS	Sortie

Enregistrer Annuler

Modification d'une correspondance

BANK (E)*
AGRIFRPP

PARTIES (E)*
DB NM1

PROFILE (E)*
SCT VTSDOM 001.001.03

POWERSHELLSCRIPT (S)
SendToSbeSign.ps1

POWERSHELLARGS (S)
-url "http://WIN-I8LGUGG6C31:9090/sra/v1/pdssa/addfile" -protocol "Ebics" -client "SAGE" -partner "BNP" -

Enregistrer

Annuler

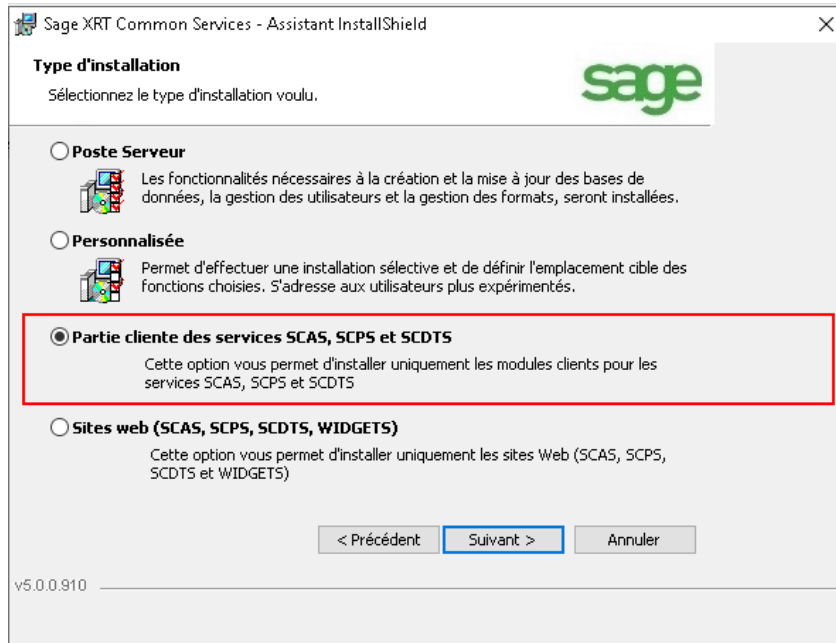
Example: adding and preparing files for signature in **Sage XRT Business Exchange**

In the transcoding table, specify in the **Output** column the powershell: *SendToSbeSign.ps1*.

Enter the quadruplet to be used: [*protocol – client – partner – service*].

Sage.FCS.Client Library

This library is a 32-bit and 64-bit compatible *DLL*. It may be used as a *.NET* Library or as a *COM* component. This library is installed on the client station through the profile: **SCAS, SCPS and SCDTS client part** of **Sage XRT Common Services** installation process.



For its integration as a *COM* component in a 32-bit application, it must be saved with *RegAsm.exe* of 32-bit *.NET* framework.

Operation

Sage.fcs.client enables the use of a Rest API set hosted by **SCASServer** (authentication), **SCPSServer** (administration) and **SCDTSServer** (functions) of **Sage XRT Common Services**. So, the applications using this library only call methods. **Sage XRT Common Services** server is located using *Sage.Fcs.Client.dll.configsetup* file.

Example of Configuration File:

```
<?xml version="1.0" encoding="utf-8" ?>

<configuration>

  <!-- The auto generate certificate CN is Sage.fcs.client -->

  <appSettings>
```

```
<add key="securitylevel" value="http"/>

<add key="http_servicehost_SCASServer"
value="http://localhost:80/Auth" />

<add key="https_servicehost_SCASServer"
value="https://localhost:443/Auth" />

<add key="http_servicehost_SCDTSServer" value="http://localhost:80" />

<add key="https_servicehost_SCDTSServer" value="https://localhost:443"
/>

<add key="http_servicehost_SCPSServer" value="http://localhost:80"/>

<add key="https_servicehost_SCPSServer"
value="https://localhost:443"/>

<add key="AutoGenerateCertificate" value="true"/>

<add key="SerialNumber" value=""/>

<add key="ApifmtResponseTimeout" value="180"/>

<add key="ApifmtBaseTimeTry" value="2"/>

<add key="ApifmtPdfViewer" value="none"/>

<add key="ApifmtPrinter" value="none"/>

</appSettings>

</configuration>
```

Description of Methods Integrated to Library

Connection

void DoLogin(object p_oReq)

This method enables authentication and token generation to access the service. This token is transparently used during methods calls.

Request:

```
public class LoginReq : ILoginReq
{
```

```
    public LoginMode mode { get; set; }
    public string workgroup { get; set; }
    public string user { get; set; }
    public string password { get; set; }
    public string certificatebase64 { get; set; }
    public string challengerawbase64 { get; set; }
    public string challengesignedhex { get; set; }
}

public enum LoginMode
{
    SAMLV2_AUTH,
    STRONG_AUTH,
    STANDARD_AUTH
}
```

Answer:

```
public class LoginRep : ILoginRep
{
    public string authorization { get; set; }
    public string description { get; set; }
    public string twofactorauth { get; set; }
    public string fcsuser { get; set; }
    public string idpurl { get; set; }
}
```

void CheckSession()

This method checks the used token.

Answer:

```
public class VerifCodeRep : IVerifCodeRep
{
    public string valid { get; set; }
}
```

void CheckUser(object p_oReq)

This method checks user access.

Request:

```
public class CheckUserReq : ICheckUserReq
{
    public string user { get; set; }
    public string password { get; set; }
    public bool ctrlpwd { get; set; }
}
```

void Disconnect()

This method disconnects a user.

object ConnectionString(object p_oReq)

This function enables the retrieval of a connection string at the level of DBA, DBO or USER. This method requires the **SerialNumber** key of the configuration file to be specified or the **AutoGenerateCertificate** value to be **true**. The connection string is actually encrypted (RSA) for security reasons.

Request:

```
public class ConnectionStringReqPub : IConnectionStringReqPub
{
    public DatabaseProductID product { get; set; }
}
```

Sage.FCS.Client Library

```
        public DatabaseOwner type { get; set; }  
    }  
  
    public enum DatabaseOwner  
    {  
        DBA,  
        DBO,  
        USER  
    }
```

Answer:

```
    public class ConnectionStringRep : IConnectionStringRep  
    {  
        public string connectionstring { get; set; }  
    }
```

void RefreshToken()

Connection Page

void DoLoginForm(LoginProductID product, string version, string component, LanguageID language)

This method enables authentication and token generation to access the service through a *Win32* interface. This token is transparently used during methods calls. The method manages license checking.

Request:

Product: Product Identifier.

```
    public enum LoginProductID  
    {  
        XCS,  
        XBE,
```


Sage.FCS.Client Library

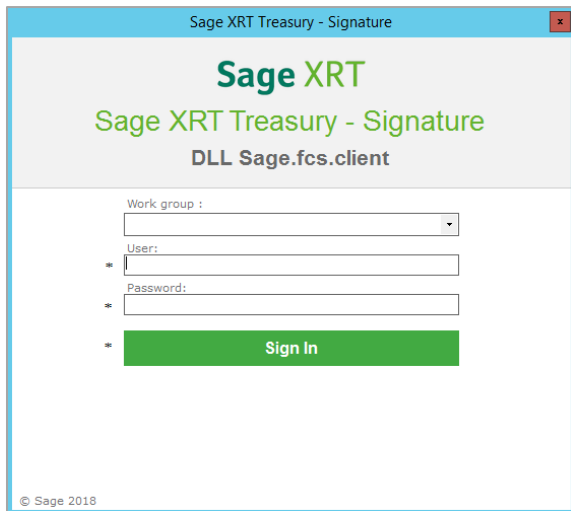
```
        XBESign,  
        U2,  
        U2Sign,  
        U2Com  
    }
```

Version: Product Version. E.g.: 2019

Component: Name of the component to connect to. E.g.: *Sage.fcs.client DLL*

Language: Interface Language.

```
public enum LanguageID  
{  
    French,  
    English,  
    Spanish,  
    German,  
    Italian,  
    Portuguese,  
    Polish,  
    Catalan  
}
```



void DoLoginService(object p_oReq)

This method enables authentication and token generation to access the service.

Request:

```
public class DoLoginServiceReq : IDoLoginServiceReq
{
    public ServiceName servicename { get; set; }
    public string workgroup { get; set; }
}

public enum ServiceName
{
    XRTCOM,           // Service XCMonitor
    XRTSIGN,          // Service XSMonitor
    SRA,
    RAPI,
    P5CWEB,
    P5COM,
    P5CAUT,
```

```
        XSMONITOR,  
        BCPCOMM,          // BcpComm  
        COMSIGNAPI,       // ComSign. Rest Api  
        SXA  
    }
```

Tenants

object WorkgroupList()

This method may be called without authentication, nor access token. It returns a table presenting the available tenant list.

Request:

```
public class WorkgroupListRep : IWorkgroupListRep  
{  
    public string selectedworkgroup { get; set; }  
    public object workgroups { get; set; }  
}
```

Licenses

object LicenseDetails(object p_oReq)

This function enables the listing of detailed info. on the license for a given product.

Request:

```
public class LicenseDetailsReq : ILicenseDetailsReq  
{  
    public string product { get; set; }  
}
```

Answer:

```
public class LicenseDetailsRep : ILicenseDetailsRep
{
    public object features { get; set; }
}

public class Feature : IFeature
{
    public string id { get; set; }
    public string description { get; set; }
    public string value { get; set; }
}
```

object LicenseList()

This function enables the listing of the available licenses.

Answer:

```
public class LicenseListRep : ILicenseListRep
{
    public object licenses { get; set; }
    public object products { get; set; }
}

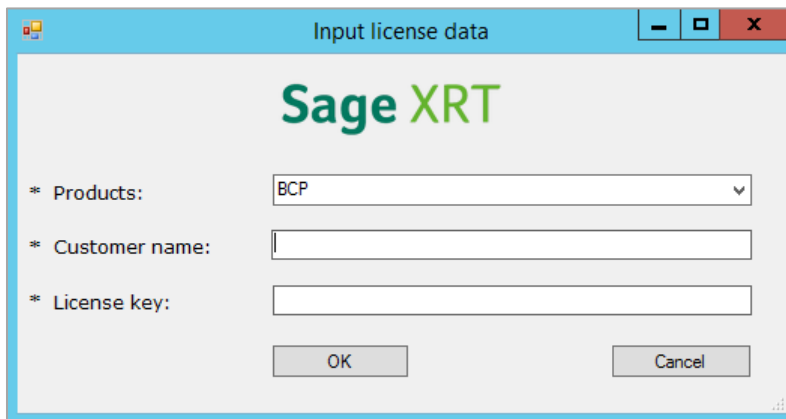
public class License : ILicense
{
    public string product { get; set; }
    public string customer { get; set; }
    public string enddate { get; set; }
    public string key { get; set; }
}
```

Sage.FCS.Client Library

```
public class Product : IProduct
{
    public string product { get; set; }
    public string name { get; set; }
}
```

void LicenseCreateForm()

This function enables license creation in a *Win32* graphical interface.



void LicenseCreate()

This function enables the creation of a license.

Request:

```
public class LicenseCreateReq : ILicenseCreateReq
{
    public string product { get; set; }
    public string customer { get; set; }
    public string key { get; set; }
}
```

Answer:

```
public class LicenseCreateRep : ILicenseCreateRep
{
    public string enddate { get; set; }
}
```

void LicenseMigrate(object p_oReq)

This function enables the update of a license. For instance, it is used for the **Sage XRT Communication & Signature** version which operates with **Sage XRT Common Services 5.0.0** to migrate licenses to the new license management system.

Request:

```
public class LisenceMigrateReq : ILisenceMigrateReq
{
    public LicenseProductID product { get; set; }
    public string customername { get; set; }
    public string shortserialnumber { get; set; }
}

public enum LicenseProductID
{
    FORMATS,
    U2,
    PDS,
    BCP,
    CONVERTERS,
    SXA
};
```

Profiles -Sites -Users- Setup

object FunctionRights(object p_oReq)

This function enables the listing of the rights associated with a function list for the connected user, the user specified as a parameter or the profile specified as a parameter.

Request:

```
public class FunctionRightsReq : IFunctionRightsReq
{
    public FunctionRightsLevel level { get; set; } =
FunctionRightsLevel.CURRENTUSER;

    public string code { get; set; }

    public string[] functions { get; set; }

    public enum FunctionRightsLevel
    {
        CURRENTUSER,
        USER,
        PROFILE
    }
}
```

Answer:

```
public class FunctionRightsRep : IFunctionRightsRep
{
    public object functions { get; set; }
}

public class FuncRight: IFuncRight
{
    public string function { get; set; }

    public bool right { get; set; }
}
```

object ProfileList()

This function enables the listing of the user profiles associated with a token tenant.

Request:

```
public class ProfileListRep : IProfileListRep
{
    public object profiles { get; set; }
}

public class Profile : IProfile
{
    public string name { get; set; }
    public string description { get; set; }
    public int type { get; set; }
    public bool active { get; set; }
    public string lastactionuser { get; set; }
```

object UserList(object p_oReq)

This function enables the listing of the users associated with a token tenant.

Request:

```
public class UserListReq : IUserListReq
{
    public bool bGetProfileList { get; set; } = false;
    public bool bGetSiteList { get; set; } = false;
}
```


Answer:

```
public class UserListRep : IUserListRep
{
    public object users { get; set; }
    public object profiles { get; set; }
    public object sites { get; set; }
}

public class User : IUser
{
    public string name { get; set; }
    public string description { get; set; }
    public int securitylevel { get; set; }
    public string lang { get; set; }
    public string email { get; set; }
    public int authenticationtype { get; set; }
    public bool authenticatex509 { get; set; }
    public string validtillldate { get; set; }
    public bool active { get; set; }
    public string lastactionuser { get; set; }
    public bool isvirtual { get; set; }
    public bool issecurityleveldefined { get; set; }
    public bool islanguagedefined { get; set; }
    public bool twofactorauthlevel { get; set; }
    public string tfasecretcodevalid { get; set; }
    public string lockedtillldate { get; set; }
    public string lockedtillltime { get; set; }
```

```
        public object profiles { get; set; }
        public object sites { get; set; }
    }
    public class Profile : IProfile
    {
        public string name { get; set; }
        public string description { get; set; }
        public int type { get; set; }
        public bool active { get; set; }
        public string lastactionuser { get; set; }
    }
    public class Site : ISite
    {
        public string name { get; set; }
        public string description { get; set; }
        public int type { get; set; }
        public bool active { get; set; }
        public string lastactionuser { get; set; }
    }
}
```

object UserInfos(object p_oReq)

This function retrieves a user's info.

Request:

```
public class DataUserInfosReq : IDataUserInfosReq
{
    public string username { get; set; }
    public bool bGetRules { get; set; } = false;
    public bool bGetProfilsAndSites { get; set; } = false;
}
```

Answer:

```
public class UserInfosRep: IUserInfosRep
{
    public object user { get; set; }
    public object rules { get; set; }
}

public class User : IUser
{
    public string name { get; set; }
    public string description { get; set; }
    public int securitylevel { get; set; }
    public string lang { get; set; }
    public string email { get; set; }
    public int authenticationtype { get; set; }
    public bool authenticatex509 { get; set; }
    public string validtillldate { get; set; }
    public bool active { get; set; }
    public string lastactionuser { get; set; }
    public bool isvirtual { get; set; }
}
```

```
        public bool issecurityleveldefined { get; set; }
        public bool islanguagedefined { get; set; }
        public bool twofactorauthlevel { get; set; }
        public string tfasecretcodevalid { get; set; }
        public string lockedtilldate { get; set; }
        public string lockedtilltime { get; set; }
        public object profiles { get; set; }
        public object sites { get; set; }
    }

    public class UserInfosRules: IUserInfosRules
    {
        public int iAccountsMinDigitsInPassword { get; set; }
        public int iAccountsMinCapLettersInPassword { get; set; }
        public int iAccountsMinPasswordLength { get; set; }
        public int iAccountsCheckPasswordsHistoryLength { get; set; }
        public bool bAccountsCheckPasswordsDifferFromUserName { get; set; }
    }

    public string sAccountsDefaultPassword { get; set; }
    public bool bUseCustomLDAPServer { get; set; }
    public bool bSageIDEnabled { get; set; }
    public bool bSAMLEnabled { get; set; }
    public bool bSAMLUseMail { get; set; }
    public bool bActivateUsers { get; set; }
    public bool bActivateSites { get; set; }
    public bool bActivateProfiles { get; set; }
    public bool bActivateBlacklist { get; set; }
```

```
    public bool bActivateWhitelist { get; set; }
    public bool bFourEyesUsers { get; set; }
    public bool bFourEyesSites { get; set; }
    public bool bFourEyesProfiles { get; set; }
    public bool bFourEyesParams { get; set; }
    public bool bFourEyesConception { get; set; }
    public bool bFourEyesCorrespondances { get; set; }
    public bool bFourEyesBlacklist { get; set; }
    public bool bFourEyesWhitelist { get; set; }
}
```

Password

void Password ()

This method enables the update of the user's password.

Request:

```
public class PasswordReq : IPasswordReq
{
    public string workgroup { get; set; }
    public string user { get; set; }
    public string old_password { get; set; }
    public string new_password { get; set; }
}
```

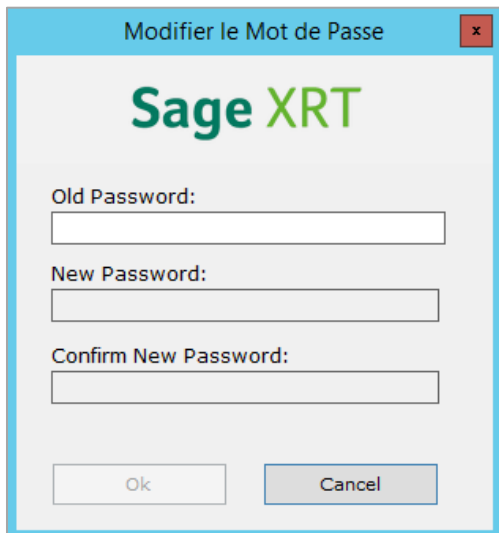
Answer:

```
public class PasswordRep : IPasswordRep
{
    public string authorization { get; set; }
}
```

```
public string description { get; set; }  
public string twofactorauth { get; set; }  
}
```

void PasswordUpdatingByActionForm()

It enables the update of the connected user's password through the *Win32* interface.



void PasswordUpdatingByAction(object p_oReq)

It enables the update of the connected user's password.

Request:

```
public class PasswordReqByAction : IPASSWORDReqByAction  
{  
    public string old_password { get; set; }  
    public string new_password { get; set; }  
}
```

object PwdInfos();

This function enables the listing of the password rules for **Sage XRT Common Services** standard users.

Answer:

```
public class PwdInfosRep : IPwdInfosRep
{
    public object pwd { get; set; }
}

public class DataParamsUpdatePassword : IDataParamsUpdatePassword
{
    public int bTrustedConnection { get; set; } = -1;
    public int iAccountsMinDigitsInPassword { get; set; } = -1;
    public int iAccountsMinCapLettersInPassword { get; set; } = -1;
    public int iAccountsMinPasswordLength { get; set; } = -1;
    public int iAccountsCheckPasswordsHistoryLength { get; set; } = -
1;
    public int bAccountsCheckPasswordsDifferFromUserName { get; set; }
= -1;
    public string sAccountsDefaultPassword { get; set; }
    public int iAccountsDefaultPasswordValidityPeriodType { get; set;
} = -1;
    public int iAccountsDefaultPasswordValidityPeriodCount { get; set;
} = -1;
    public int iAccountsPasswordValidityPeriodType { get; set; } = -1;
    public int iAccountsPasswordValidityPeriodCount { get; set; } = -
1;
    public int iAccountsLockoutAfterAttemptsCount { get; set; } = -1;
    public int iAccountsLockoutPeriodType { get; set; } = -1;
    public int iAccountsLockoutPeriodCount { get; set; } = -1;
}
```

Format Library

object ProjectList(object p_oReq)

This function enables the listing of the format library projects associated with a product.

Request:

```
public class ProjectListReq : IProjectListReq
{
    public string product { get; set; }
}
```

Answer:

```
public class ProjectListRep : IProjectListRep
{
    public object projects { get; set; }
}

public class ProjectList : IProjectList
{
    public string code { get; set; }
    public string name { get; set; }
    public object types { get; set; }
    public int licence { get; set; }
    public ApifmtFamily family { get; set; }
    public ApifmtFormat format { get; set; }
    public int nbrwork { get; set; }
    public int productid { get; set; }
}
```


object WorkList(object p_oReq)

This function enables the listing of the format library processes associated with a product and a project.

Request:

```
public class WorkListReq : IWorkListReq
{
    public string product { get; set; }
    public string project { get; set; }
}
```

Answer:

```
public class WorkListRep : IWorkListRep
{
    public object works { get; set; }
}

public class WorkList : IWorkList
{
    public string code { get; set; }
    public string name { get; set; }
    public string version { get; set; }
    public object types { get; set; }
    public object tasks { get; set; }
}

public class ApifmtWorkType : IApifmtWorkType
```

```
{  
    public int code { get; set; }  
    public string desc { get; set; }  
}  
  
public class Task : ITask  
{  
    public string param { get; set; }  
}
```

object TranscoTableList()

This function enables the listing of the transcoding tables associated with a token tenant.

Answer:

```
public class TranscoTableListRep : ITranscoTableListRep  
{  
    public object tables { get; set; }  
}  
  
public class Table : ITable  
{  
    public int id { get; set; }  
    public string name { get; set; }  
    public string description { get; set; }  
    public int input { get; set; }  
    public int output { get; set; }  
    public string lastactionuser { get; set; }  
}
```

object FormatList()

This function enables the listing of the formats from format library.

Answer:

```
public class ApifmtFormatListRep : IApifmtFormatListRep
{
    public object formats { get; set; }
}

public class ApifmtFormat : IApifmtFormat
{
    public int id { get; set; }
    public string name { get; set; }
    public string desc { get; set; }
    public int licence { get; set; }
}
```

object FamilyList()

This function enables the listing of the format library categories.

Answer:

```
public class ApifmtFamilyListRep : IApifmtFamilyListRep
{
    public object families { get; set; }
}

public class ApifmtFamily : IApifmtFamily
{
    public int id { get; set; }
    public string name { get; set; }
    public string desc { get; set; }
}
```

```
        public FamilyType type { get; set; }  
    }
```

object ProductList();

This function enables the listing of the format library products.

Answer:

```
    public class ApifmtProductListRep : IApifmtProductListRep  
    {  
        public object products { get; set; }  
    }  
  
    public class ProductList : IProductList  
    {  
        public int id { get; set; }  
        public string code { get; set; }  
        public string name { get; set; }  
        public int nbrproject { get; set; }  
    }
```

object WorkExec(object p_oReq);

This function enables the execution of an **apifmt** process using the character string as it was required in the former library, into the **parameters** variable.

Examples:

1)

```
Wscript.echo "-- WorkExec BCP_SOLDE"
```

```
    l_oWorkExecReq.product = 0 "BCP"  
    l_oWorkExecReq.project = "E_REL120"  
    l_oWorkExecReq.work = "BCP_SOLDE"  
  
    l_oWorkExecReq.parameters =  
    ""C:\DATA\SBE\Payment_Fichier_import_valides_1050\AFB120\Fichier 1  
    AFB120.TXT""  
    ""C:\DATA\SBE\Payment_Fichier_import_valides_1050\AFB120\BCP_SOLDE.out""
```

2)

```
Wscript.echo "-- WorkExec Prepa"
```

```
l_oWorkExecReq.product = 2 "PDS"
```

```
l_oWorkExecReq.project = "SCT"
```

```
l_oWorkExecReq.work = "Prepa"
```

```
l_oWorkExecReq.parameters =
""C:\Users\Marc\AppData\Local\Temp\XRT\PDS\CXF{378DEFE3-AE40-417E-8D57-
3D514E4FE6B3}.tmp""
""C:\Users\Marc\AppData\Local\Temp\XRT\PDS\PXF_c0b93023-fbea-4cbf-a0f5-
7c91884d6d53.TMP"" N ; PASDEVISU LANG:0C
""Provider=OraOLEDB.Oracle.1;Password=XBEUNICODE;Persist Security
Info=True;User ID=XBEUNICODE;Data Source=ORAC12C;Extended Properties=""""
```

3)

```
Wscript.echo "-- WorkExec SQL_FORMULA_VISU (PRINTER)"
```

```
l_oWorkExecReq.product = 2 "PDS"
```

```
l_oWorkExecReq.project = "EDITIONS"
```

```
l_oWorkExecReq.work = "SQL_FORMULA_VISU"
```

```
l_oWorkExecReq.parameters = "status.rpt ""Provider=SQLNCLI11;Data
Source=PO150073;Initial Catalog=XRTCOM;User ID=XRTDBO;Password=XRTDBO"" IL
""title='Statuts des fichiers de
signature';partner='*';protocol='*';service='*';client='*';int=' -
';ext='';cre=' - ';sta='Fichier ajouté, Fichier archivé, Fichier préparé,
Fichier signé';l0='Signature
interne';l1='Partenaire';l2='Protocole';l3='Service';l4='Client';c1='Référ
ence';c2='Référence externe';c3='Date d'ajout';c4='Montant (EUR)';c5='Nb
signatures réalisées';c6='Première signature';c7='Premier
signataire';c8='Deuxième signature';c9='Statut';edit='Edité
le';yes='Oui';no='Non';ajoute='Ajouté';prepare='Préparé';archive='Archivé'
;signe='Signé';refustotal='Refus total';rejetstotal='Rejets
total';avecrajets='avec Refus';avecraefus='avec
Rejets';verrouille='Verrouillé'"" ""{S_TFI.CNTR_TFI} in[1,2,32,16]""
```

Request:

```
public class WorkExecReq : IWorkExecReq
{
    public ApifmtProductID product { get; set; }
    public string project { get; set; }
    public string work { get; set; }
    public string parameters { get; set; }
}

public enum ApifmtProductID
{
    BCP,
    DTS,
    PDS,
    SMP_P5,
    SXA,
    U2
};
```

Answer:

```
public class WorkExecRep : IWorkExecRep
{
    public string trace { get; set; }
}
```

object GenericWorkExec(object p_oReq);

This function enables the execution of certain **apifmt** processes pr specific processes that would have been set up.

E.g.:

```
1)l_oGenericWorkExecReq.product = 5 "U2"

l_oGenericWorkExecReq.project = "SCTDOM"

l_oGenericWorkExecReq.work = "SCTVTSDOM_PAIN_03"

l_oGenericWorkExecReq.infile =
"C:\DATA\SBE\Payment_Fichier_import_valides_1050\U2\Intermedio_traspaso_te
so_v40.TRT"

l_oGenericWorkExecReq.outfile =
"C:\DATA\SBE\Payment_Fichier_import_valides_1050\U2\Intermedio_traspaso_te
so_v40.out"
```

Request:

```
public class GenericWorkExecReq : IGenericWorkExecReq
{
    public ApifmtProductID product { get; set; }
    public string project { get; set; }
    public string work { get; set; }
    public string infile { get; set; }
    public string outfile { get; set; }
    public string cmdargs { get; set; }
}

public enum ApifmtProductID
{
    BCP,
    DTS,
    PDS,
```

```
SMP_P5,  
SXA,  
U2  
};
```

Answer:

```
public class GenericWorkExecRep : IGenericWorkExecRep  
{  
    public string trace { get; set; }  
}
```

Configuration File

void SetConfigFile(object p_oReq);

It enables the update of the Library configuration file.

Request:

```
public class ConfigFileReq : IConfigFileReq  
{  
    public string securitylevel { get; set; }  
    public string http_servicehost_SCASServer { get; set; }  
    public string https_servicehost_SCASServer { get; set; }  
    public string http_servicehost_SCDTSServer { get; set; }  
    public string https_servicehost_SCDTSServer { get; set; }  
    public string http_servicehost_SCPSServer { get; set; }  
    public string https_servicehost_SCPSServer { get; set; }  
    public string autogeneratecertificate { get; set; }  
    public string serialnumber { get; set; }  
    public string apifmtresponsetimeout { get; set; }  
}
```



```
public string apifmtbasetimetry { get; set; }  
public string apifmtpdfviewer { get; set; }  
public string apifmtprinter { get; set; }  
}
```

Sage.fcs.apifmt Application

This console application can provide the distant execution results for a Format API process.

Installation

Installing **Sage XRT Common Services** enables the installation of **Sage.fcs.apifmt** providing the component **FCS DLLs** or **SCAS, SCPS and SCDTS client part** is selected. Unless you unselect one of these components for a custom installation, the application is automatically installed for all configurations except **Web Sites (SCAS, SCPS, SCDTS and WIDGETS)**.

Two files are installed:

- *sage.fcs.apifmt.exe*
- *sage.fcs.apifmt.exe.config*

Sage.fcs.apifmt.exe.config configuration file associated with *sage.fcs.apifmt.exe* is used to declare the location of the Authentication Service as well as the Data Transforming Service.

Configuration

Here is the default content of *sage.fcs.apifmt.exe.config*:

```
<?xml version="1.0" encoding="utf-8" ?>

<configuration>

  <appSettings>

    <add key="securitylevel" value="http"/>

    <add key="http_servicehost_SCASServer"
value="http://localhost:80/Auth" />

    <add key="https_servicehost_SCASServer"
value="https://localhost:443/Auth" />

    <add key="http_servicehost_SCDTSServer" value="http://localhost:80" />

    <add key="https_servicehost_SCDTSServer" value="https://localhost:443"
/>

  </appSettings>

</configuration>
```

Authentication Service

This file enables the declaration of the Authentication Service which is contacted for the user password checking process.

If this service operates in *https* mode, the following line must be modified as follows:

```
<add key="securitylevel" value="https"/>
```

For not secure mode, the following line is used:

```
<add key="http_servicehost_SCASServer" value="http://localhost:80/Auth" />
```

For secure mode, the following line is used:

```
<add key="https_servicehost_SCASServer" value="https://localhost:443/Auth" />
```

You must modify *value* to adapt to the particularities of each installation.

Reminder: you can use a certificate for the Authentication Service (to decrypt the password) by modifying *Sage.SCASServer.Service.exe.config* file and specifying the certificate Serial No. in the following line:

```
<add key="serialnumberforpwdcrypt" value="3526df91b8be9ab046a226d0390a764f" />
```

If the *value* is empty, then **/PWT=RSA** cannot be exploited with this Authentication Service.

Data Transforming Service

This file is used to declare the data transforming service which is contacted for the execution of the process required.

If this service operates in *https* mode, the following line must be modified as follows:

```
<add key="securitylevel" value="https"/>
```

For not secure mode, the following line is used:

```
<add key="http_servicehost_SCDTSServer" value="http://localhost:80/Auth" />
```

For secure mode, the following line is used:

```
<add key="https_servicehost_SCDTSServer" value="https://localhost:443/Auth" />
```

You must modify *value* to adapt to the particularities of each installation.

Permissions

In order to execute a process without error, the user passed in parameter (**/USR**) must have the profile with access to **Sage XRT Functional Service** and **Format Library - Formats - Products** and rights for:

- Viewing process details (in every case)
- Executing synchronous processes (if **/NOW:YES** is used)
- Executing asynchronous processes and obtaining the result (if **/NOW:FALSE** is used)

```

Administrateur : Invite de commandes

C:\Program Files\Common Files\xrt>sage.fcs.apifmt
Usage : Sage.fcs.apifmt.exe /WKG: /USR: /PWD: [/PWT:] /PRD: /PRJ: /WRK: [/NOW:]
[/CLU:] [/RPU:] [...]

/WKG: Workgroup
/USR: User login
/PWD: Base64 password
/PWT: Password type (RSA|B64 - B64 is default value)
/PRD: Product code (BCP|DTS|PDS|SMP_P5|SXA|U2)
/PRJ: Project code (SCT|VIR_160|XML|...)
/WRK: Work code (VIR_160_VISU|XML_VISU_PAY|...)
/NOW: Execution is prioritary on server (Y|N - N is default value)

/CLU: .cli version <<number>>
/RPU: .rpt version <<number>>
OPTIONAL ARGUMENTS

Remittance slip /WRK:<REMITTANCESLIP|BORDEREAU> /FIL: /OUT:
      /FIL: Input file <<path>>
      /OUT: Output PDF file <<path>>

View file (general case) /FIL: /OUT:
      /FIL: Input file <<path>>
      /OUT: Output PDF file <<path>>

View file /WRK:<HAA_VISU|HKD_VISU|HTD_VISU> /FIL: /EBP: /OUT:
      /FIL: Input file <<path>>
      /EBP: Ebics partner
      /OUT: Output PDF file <<path>>

View with banking rights /H00: /C00: [/C01:] /B00: /TOT: /OUT:
      /H00: File .H00 <<path>>
      /C00: File .C00 <<path>>
      /C01: File .C01 <<path>>
      /B00: File .B00 <<path>>
      /TOT: File .TOT <<path>>
      /OUT: Output PDF file <<path>>

View report /WRK:ODBC_TXT_VISU /RPT: [/LAN:] /ZIP: /OUT:
      /RPT: Report name (without path)
      /LAN: Report language (1033|1034|1036 - 1036 is default value)
      /ZIP: Zipped ODBC text files <<path>>
      /OUT: Output PDF file <<path>>

View report /WRK:SQL_FORMULA_VISU /RPT: [/LAN:] /PAR: [/SQL:] /OUT:
      /RPT: Report name (without path)
      /LAN: Report language (1033|1034|1036 - 1036 is default value)
      /PAR: Formulas list
      /SQL: SQL request
      /OUT: Output PDF file <<path>>

View report /WRK:SQL_TABLES_VISU /RPT: [/LAN:] [/SQL:] /OUT:
      /RPT: Report name (without path)
      /LAN: Report language (1033|1034|1036 - 1036 is default value)
      /SQL: SQL request
      /OUT: Output PDF file <<path>>

Conversion (general case) /FIL: [/OUT:]
      /FIL: Input file <<path>>
      /OUT: Output base file name <<path>>, if not present output fi
les (*.out, .ERR) will be generated from input file name

Conversion /WRK:<*_SCT_UIASBE> /FIL: /SBS: /SBF: [/OUT:]
      /FIL: Input file <<path>>
      /SBS: SBE service
      /SBF: Finality
      /OUT: Output file name <<path>>, if not present output file (<
out>) will be generated from input file name

Conversion /WRK:<*_UIASBE> /FIL: /SBS: [/OUT:]
      /FIL: Input file <<path>>

```

Operation

Basic Parameters

Workgroup /WKG

This parameter is mandatory as it specifies the database to be used with the data authentication and transformation services.

User /USR

This parameter is mandatory as it specifies the user for the authentication as well as the authorizations associated with their profile.

Password /PWD

This parameter is mandatory as it specifies the user password. It must not be displayed in plaintext but obtained through the **sage.fcs.pwdencode.exe** console application (see hereafter).

Password Type /PWT

This parameter is optional.

The value to use depends on the encryption chosen for the Authentication Service password. Its default value is **B64**, which corresponds to Base64-encoding only. For a different encryption type, the **RSA** value must be used for this parameter.

Product /PRD

This parameter is mandatory as it specifies the product code containing the process to execute (e.g.: **BCP** for **Sage XRT Treasury – Communication**).

Project /PRJ

This parameter is mandatory as it specifies the project code containing the process to execute (e.g.: **SCT** for SCT SEPA Format).

Processing /WRK

This parameter is mandatory as it specifies the code of the process to execute (e.g.: **SCT_VISU_PAY** for SCT SEPA Edition).

Execution Type (/NOW)

This parameter is optional.

Its default value is **N**, which corresponds to a request for asynchronous process execution. The application asks the server if the data transformation execution has been processed, the waiting time depends on the input file size. The default waiting time is 30 seconds.

A relatively light process can be executed using **Y** for the parameter. The execution is then synchronous and the result is obtained as soon as the server process is over.

Clint File Version /CLV

This parameter is not yet operational. It specifies the version of *.cli* file to execute when the specific *Clint* process is derived from the original *Clint* process.

Crystal Report File Version /RPV

This parameter is not yet operational. It specifies the version of *.rpt* file to execute when the specific *Crystal Report* is derived from the original *Crystal Report*.

Specific Parameters

Several default process families are defined and you can find help on the command line in the **OPTIONAL ARGUMENTS** topic.

Remittance slip /WRK:{REMITTANCESLIP|BORDEREAU} /FIL: /OUT:

View file (general case) /FIL: /OUT:

View file (Ebics) /WRK:{HAA_VISU|HKD_VISU|HTD_VISU} /FIL: /EBP: /OUT:

View with banking rights /H00: /C00: [/C01:] /B00: /TOT: /OUT:

View report /WRK:ODBC_TXT_VISU /RPT: [/LAN:] /ZIP: /OUT:

View report /WRK:SQL_FORMULA_VISU /RPT: [/LAN:] /PAR: [/SQL:] /OUT:

View report /WRK:SQL_TABLES_VISU /RPT: [/LAN:] [/SQL:] /OUT:

Conversion (general case) /FIL: [/OUT:]

Conversion /WRK:{*_SCT_VIASBE} /FIL: /SBS: /SBF: [/OUT:]

Conversion /WRK:{*_VIASBE} /FIL: /SBS: [/OUT:]

Conversion /WRK:P160_2_SDD_VIA_FRPPAIEMENT /FIL: /FPT: /FPR: [/OUT:]

Conversion /WRK:{*_RB7|*_RB9} /FIL: /RBB: [/OUT:]

Prepare file /WRK:Prepa /FIL: /OUT:

Sage.fcs.apifmt Application

Invalid records /WRK:DelRejet /FIL: /REJ: /OUT:

Valid records /WRK:DelSigne /FIL: /REJ: /OUT:

Bank Import /WRK:{BCP_GEN_CERG|CONV_FMT_CERG} /FIL: /OUT:

Filter bank statements /WRK:UPDATEFILE /FIL: /UFP: /UFT: /UFS: /UFC: /OUT:

Bank Import /WRK:BFI_MQ /FIL: /QUE: /BNK: /OUT:

File generation for U2 /FIL: /OUT:

Execute /ARG: [/FIL: /OUT:]

Examples

You must deal with the basic parameters (see the dedicated paragraphs) before the specific parameters of the following examples.

E.g.: When an **XRT** user, with **XRT** password wants to execute a synchronous process for the **SXBE32T064** workgroup, this piece of code must be added:

```
Sage.fcs.apifmt.exe /NOW:Y /WKG: SXBE32T064 /USR:XRT /PWD:WFJU
```

Remittance slip /WRK:{REMITTANCESLIP|BORDEREAU} /FIL: /OUT:

```
/PRD:BCP /PRJ:VIR_160 /WRK:BORDEREAU /FIL:"C:\file.160" /OUT:"C:\file.pdf"
```

View file (general case) /FIL: /OUT:

```
PRD:SMP_P5 /PRJ:SCT /WRK:SCT_VISU_PAY /FIL:"C:\file.xml"  
/OUT:"C:\file.pdf"
```

View file (Ebics) /WRK:{HAA_VISU|HKD_VISU|HTD_VISU} /FIL: /EBP: /OUT:

```
/PRJ:EBICS_Requests /WRK:HKD_VISU /FIL:"C:\file.hkd" /EBP:Partner  
/OUT:"C:\file.pdf"
```

View with banking rights /H00: /C00: [/C01:] /B00: /TOT: /OUT:

```
/PRD:PDS /PRJ:SCT /WRK:SCT_VISU_PAY /H00:"C:\file.H00" /C00:"C:\file.C00"  
/B00:"C:\file.B00" /TOT:"C:\file.TOT" /OUT:"C:\file.pdf"
```

View report /WRK:ODBC_TXT_VISU /RPT: [/LAN:] /ZIP: /OUT:

```
/PRD:SMP_P5 /PRJ:EDITIONS /WRK:ODBC_TXT_VISU /RPT:ticketr.rpt  
/ZIP:"C:\file.zip" /OUT:"C:\file.pdf"
```


View report /WRK:SQL_FORMULA_VISU /RPT: [/LAN:] /PAR: [/SQL:] /OUT:

```
/PRD:SMP_P5 /PRJ:EDITIONS /WRK:SQL_FORMULA_VISU /RPT:status.rpt
/PAR:"title='Statuts des fichiers de
signature';partner='*';protocol='*';service='*';client='*';int=' -
';ext='';cre=' - ';sta='Fichier ajouté, Fichier archivé, Fichier bloqué,
Fichier préparé, Fichier signé';l0='Signature
interne';l1='Entité';l2='Protocole';l3='Service';l4='Client';c1='Référence
';c2='Référence externe';c3='Date d'ajout';c4='Montant';c5='Nb signatures
réalisées';c6='Première signature';c7='Premier signataire';c8='Deuxième
signature';c9='Statut';edit='Edité
le';yes='Oui';no='Non';ajoute='Ajouté';prepare='Préparé';bloque='Bloqué';a
rchive='Archivé';signe='Signé';refustotal='Refus
total';rejetstotal='Rejets total';avecreejets='avec Rejets';avecerefus='avec
Refus';verrouille='Verrouillé';afrejet='modifié par le module anti-
fraude'" /SQL:"{S_TFI.CNTR_TFI} in[1,2,64,32,16]" /OUT:"C:\file.pdf"
```

View report /WRK:SQL_TABLES_VISU /RPT: [/LAN:] [/SQL:] /OUT:

```
/PRD:SMP_P5 /PRJ:EDITIONS /WRK:SQL_TABLES_VISU /LAN:1033 /RPT:client.rpt
/SQL:"{S_SES."VPS_SES"}='BNP' AND {S_SES."PRO_SES"}=134217728 AND
{S_SES."VFS_SES"}='AFB160' AND {S_SES."CLIENT_SES"}='SAGE' AND
{S_SES."SIGNINT_SES"}=0" /OUT:"C:\file.pdf"
```

Conversion (general case) /FIL: [/OUT:]

```
/PRD:SMP_P5 /PRJ:CONVERTISSEURS /WRK:VIR160_TO_SCT03 /FIL:"C:\file.160"
```

Conversion /WRK:{*_SCT_VIASBE} /FIL: /SBS: /SBF: [/OUT:]

```
/PRD:SMP_P5 /PRJ:VIR_160 /WRK:VIR160_TO_SCT_VIASBE /FIL:"C:\file.160"
/SBS:SCT /SBF:SALARY
```

Conversion /WRK:{*_VIASBE} /FIL: /SBS: [/OUT:]

```
/PRD:SMP_P5 /PRJ:PRE_160 /WRK:PREL160_TO_SDD_VIASBE /FIL:"C:\file.160"
/SBS:SDD
```

Conversion /WRK:P160_2_SDD_VIA_FRPPAIEMENT /FIL: /FPT: /FPR: [/OUT:]

```
/PRD:U2 /PRJ:PRE_160 /WRK:P160_2_SDD_VIA_FRPPAIEMENT /FIL:"C:\file.160"
/FPT:160 /FPR:1
```

Conversion /WRK:{*_RB7}*_*_RB9} /FIL: /RBB: [/OUT:]

```
/PRD:SMP_P5 /PRJ:CONVERTISSEURS /WRK:VIR160_TO_SCT_RB7 /FIL:"C:\file.160"
/RBB:1
```

Prepare file /WRK:Prepa /FIL: /OUT:

```
/PRD:PDS /PRJ:SCT /WRK:Prepa /FIL:"C:\file.xml" /OUT:"C:\file.zip"
```

Invalid records /WRK:DelRejet /FIL: /REJ: /OUT:

```
/PRD:PDS /PRJ:SCT /WRK:DelRejet /REJ:"C:\fil.rej" /FIL:"C:\file.xml"  
/OUT:"C:\filereject.xml"
```

Valid records /WRK:DelSigne /FIL: /REJ: /OUT:

```
/PRD:PDS /PRJ:SCT /WRK:DelSigne /REJ:"C:\fil.rej" /FIL:"C:\file.xml"  
/OUT:"C:\fileaccept.xml"
```

Bank Import /WRK:{BCP_GEN_CERG|CONV_FMT_CERG} /FIL: /OUT:

```
/PRD:BCP /PRJ:AEB43 /WRK:BCP_GEN_CERG /FIL:"C:\file.aeb43"  
/OUT:"C:\file.conv"
```

Filter bank statements /WRK:UPDATEFILE /FIL: /UFP: /UFT: /UFS: /UFC: /OUT:

```
/PRD:BCP /PRJ:AEB43 /WRK:UPDATEFILE /FIL:"C:\file.aeb43" /UFP:INTER  
/UFT:FILE /UFS:AEB43 /UFC:SAGE /OUT:"C:\file.out"
```

Bank Import /WRK:BFI_MQ /FIL: /QUE: /BNK: /OUT:

```
/PRD:BCP /PRJ:AEB43 /WRK:BFI_MQ /FIL:"C:\file.aeb43" /QUE:QU1 /BNK:BNP  
/OUT:"C:\file.out"
```

File generation for U2 /FIL: /OUT:

```
/PRD:U2 /PRJ:AFB320 /WRK:Standard /FIL:"C:\file.320" /OUT:"C:\file.conv"
```

Execute /ARG: [/FIL: /OUT:]

```
/PRD:PDS /PRJ:SCT /WRK:SCT_TEST /ARG:"$INPUTFILE$ Y P $OUTPUTFILE$"  
/FIL:"C:\file.xml" /OUT:"C:\file.pdf"
```

In this case, **SCT_TEST** process has been created by copying SCT_VISU_DET process, and deleting **File viewing process** and **Banking rights management view**.

Sage.fcs.pwdencode.exe Application

This console application can encode the user password to avoid its plaintext circulation on the network.

The password can be base64-encoded only (by default), or encrypted with the public key of the Authentication Service, then base64-encoded.

Installation

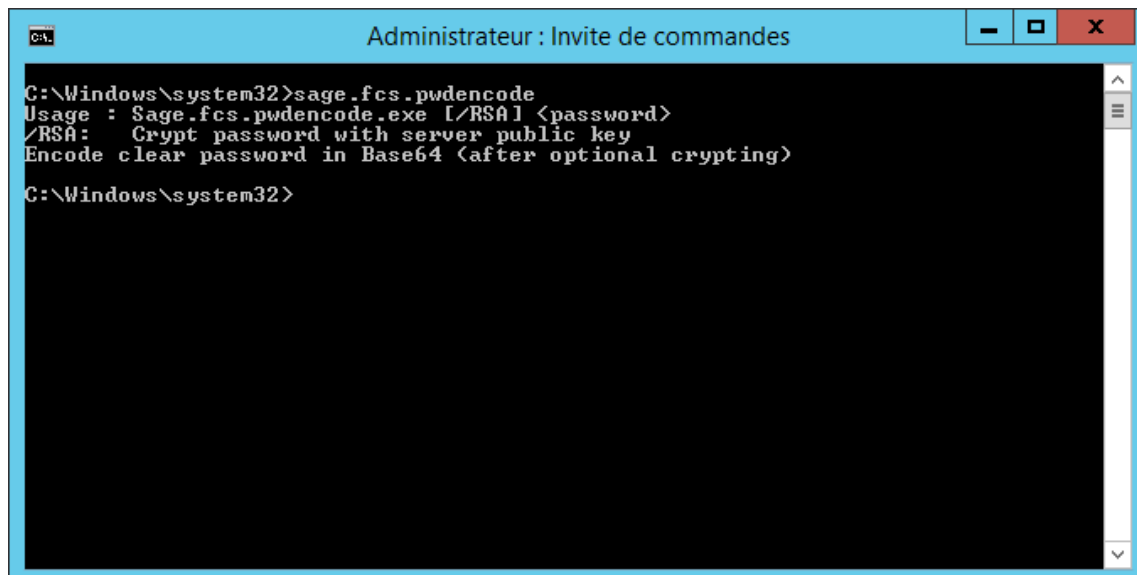
Installing **Sage XRT Common Services** enables the installation of **Sage.fcs.apifmt** providing the component **FCS DLLs** or **SCAS, SCPS and SCDTS client part** is selected. Unless you unselect one of these components for a custom installation, the application is automatically installed for all configurations, except **Web Sites (SCAS, SCPS, SCDTS and WIDGETS)**.

Two files are installed:

- *sage.fcs.pwdencode.exe*
- *sage.fcs.pwdencode.exe.config*

sage.fcs.pwdencode.exe.config file associated with **sage.fcs.pwdencode.exe** is used to declare the location of the Authentication Service for encryption cases (to obtain the certificate public key).

Operation

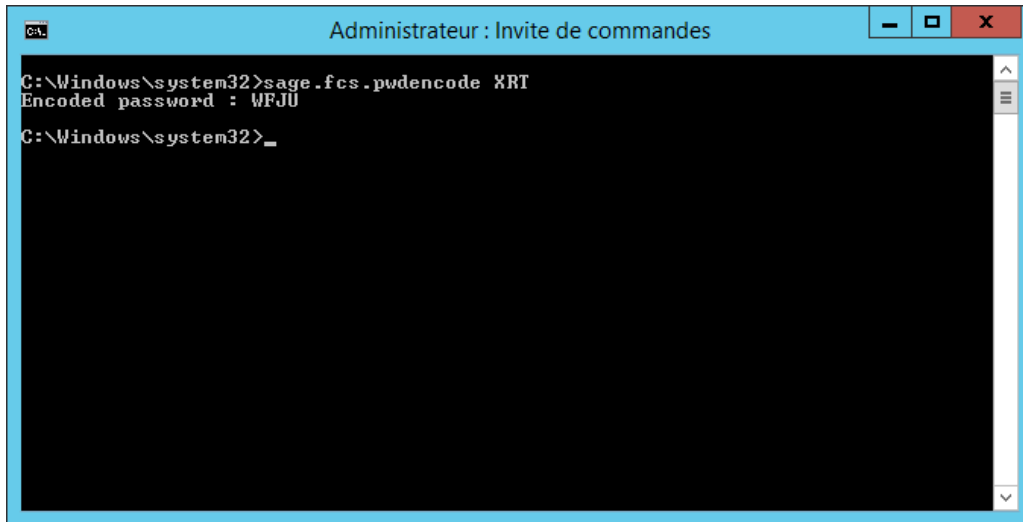


```
C:\Windows\system32>sage.fcs.pwdencode
Usage : Sage.fcs.pwdencode.exe [/RSA] <password>
/RSA:  Crypt password with server public key
Encode clear password in Base64 <after optional crypting>
C:\Windows\system32>
```

Base64-encoding Only

Using the *sage.fcs.pwdencode.exe.config* file is not required in this case since the encoding is performed locally (no point in contacting the Authentication Service).

The password: **XRT** translates as **WFJU**.



Encryption and Base64-encoding

Sage.fcs.pwdencode.config Description

Here is the default content of the file:

```
<?xml version="1.0" encoding="utf-8" ?>

<configuration>

  <appSettings>

    <add key="securitylevel" value="http"/>

    <add key="http_servicehost_SCASServer"
value="http://localhost:80/Auth" />

    <add key="https_servicehost_SCASServer"
value="https://localhost:443/Auth" />

  </appSettings>

</configuration>
```

Sage.fcs.pwdencode.exe Application

This file enables the declaration of the Authentication Service which must be contacted for the user password checking process.

If this service operates in *https* mode, the following line must be modified as follows:

```
<add key="securitylevel" value="https"/>
```

For not secure mode, the following line is used:

```
<add key="http_servicehost_SCASServer" value="http://localhost:80/Auth" />
```

For secure mode, the following line is used:

```
<add key="https_servicehost_SCASServer" value="https://localhost:443/Auth" />
```

You must modify *value* to adapt to the particularities of each installation.

Reminder: you can use a certificate for the Authentication Service (to decrypt the password) by modifying *Sage.SCASServer.Service.exe.config* file and specifying the certificate Serial No. in the following line:


```
<add key="serialnumberforpwdcrypt" value="3526df91b8be9ab046a226d0390a764f" />
```

If *value* is empty, then **/RSA** cannot be exploited with this Authentication Service.

Sage.fcs.pwdencode.exe Application

Using sage.fcs.pwdencode.exe

To use encryption, the **/RSA** parameter is added into the command line.



```
C:\Windows\system32>sage.fcs.pwdencode /RSA XRT
Encoded password : OUNFRTU5MkQ5RTk1MTI5QTRGNzU4RTUvFNUFDQzE1MzU0QUZBQTRCRTgzMDU0M
kFDQTBdNjU2MUQ0NkYwQ0M4RjY0NEY4Rja4NTk2N0IxdY1QUU5Rja1NkU1RUE3RkFDMDk5OTJERUE3N
UUDMEM3MENBMTI4OEExNEJBRDNCQTdBMzExMkY3OUQ0MEQ3QzM4MzcwMEIzQkUENjU3NjA2NDU0OUREN
0M2NkRENEJFOEU4NTIENzU5OUU1NjA5OERGmUMwNUQ0NzY3MzA5M0JFNDkwMzQxQTIJGmIRERdc0NDMzM
zg2MzYwQjU1MDUGMjQzOEFDMZEZQkE1RTUxNDM5RTY3OUQ1QTU0RDBFNTUGMzNCN0UDNTY2QTII0EMvR
TRBMzBGNjUyNUM0URFQUUDOEYxQ0Q0Qj1CQkM5NUNCODUxMjYzMzQ0NTBGNkY0RDk1Qj1k0M0NBQ0UCM
zEwQ0FCREUDNEM1OTc5MTI1RkJEJMUFBMkUwQTU4Mz1DM0JBQjU2RkI1NUUGRkEwQjBFOTg1QkM3RkUxR
DJCQkUxRERGM0E3QTgWNEM1MzFDMEYxRDc5OTJDRThtDRUZGMjM0MzY4MjkzMTM1MDdBNtcwQjA2QzFFQ
kFGNTI1NjQ2MDUCMTYwRDQ1RDYzOEYzN0I2OEEOQTNEREY5OTBEMUYwMjREMDY=

C:\Windows\system32>_
```

We recommend you redirect the console output into a file to retrieve the encrypted/encoded password for future use (e.g.: **> pwd.txt**).