

sage

Sage XRT Common Services

Version 5.2

User Guide

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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.

Sage XRT Common Services provides the following 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
- **CloudID Authentication**
- Use of *Java Open Source*
- Improved *DB Installer*
- API Rest for Bank Statement Management (refer to the dedicated documentation)

New Features of Version 5.1.100

- **SSO Windows** Authentication for **Sage XRT Communication & Signature** and **Sage XRT Treasury**
- Support of *Oracle 19c*

Installation

New Features of Version 5.2

- *Azure Identity Provider* for *SAML* authentication
- *Crystal Report* Transition from 13.0.23 to 13.0.26
- Trusted connection (*SQL Server*)
- Update of *NuGets* libraries
- Multi-server Management of Authentication

Guidelines

Sage XRT Common Services	Guidelines
Server	<ul style="list-style-type: none">• Database engine: SQL Server 2016, SQL Server 2017• Microsoft Server: IIS 10 or later• Version JRE 8 (64 bits) for the smooth operation of Sage XRT Bank Format Library• Activation of <i>PowerShell</i> execution: <i>PS> Set-ExecutionPolicy -ExecutionPolicy RemoteSigned</i>
Client Station	Same SQL Provider Version as the server one

Installation

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.

Deployment

Configuration 1

If everything is on the same station, we recommend that you follow this installation order:

1. **Sage XRT Bank Format Library**
2. **Sage XRT Common Services**
3. **Sage XRT Communication**
4. **Sage XRT Signature**
5. **Sage XRT Advanced**

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**

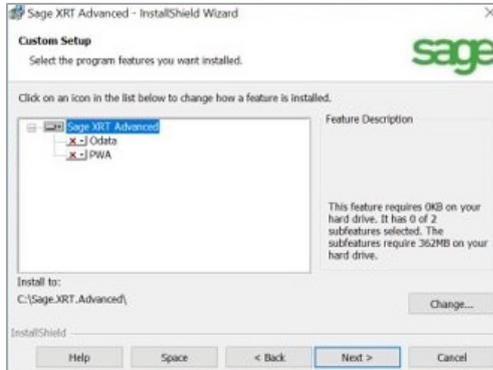
Sage XRT Common Services database must be updated with *DBInstaller*.

Installation

- The **Custom** or **Complete** installation process for **Sage XRT Advanced**

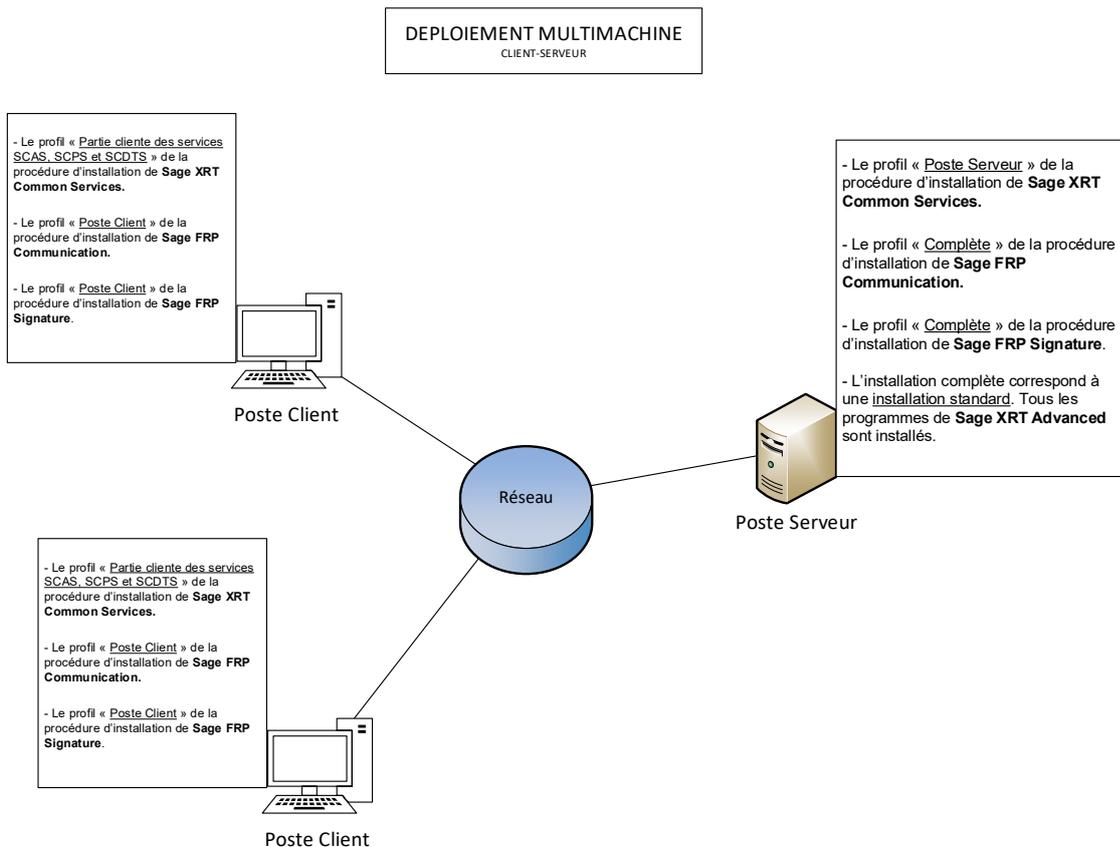
Complete is a standard installation where all **Sage XRT Advanced** programs are installed.

Custom triggers the following window.



Configuration 2

This configuration is the standard on-premise installation.



Installation

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 Treasury Communication**
- The **Complete** installation process for **Sage XRT Treasury Signature**
- The **Complete** or **Custom** installation process for **Sage XRT Advanced** Complete is a standard installation. All **Sage XRT Advanced** programs are installed.

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

And on the server station:

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

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

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

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

Installation

- 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*.

Configuration with SXA and SXCS

For an installation with **Sage XRT Advanced** and **Sage XRT Communication & Signature**, proceed as follows.

1. Activate *powershell* : *Set-ExecutionPolicy - ExecutionPolicy RemoteSigned -Scope LocalMachine*
2. In *Sage.SCDTSServer.Service.exe.config*, set up **REST SXCS** URL for the status request and activate the process: *action=YES*.
3. Set up **REST SXCS** URL for the addition request.

For migration of **Sage XRT Common Services** 3.9 to 5.0, the *XRT standard* user preset in the services configuration files, does not yet exist. You need to either create it, or modify the configuration files using an existing username.

Examples with Payment Management from SXA

Workflow and Processing

These paragraphs present the workflow for a payment and its processing in each product, as well as the required manual actions.

Product	Acronym
Sage XRT Advanced	SXA
Sage XRT Common Services	SCS
Sage XRT Communication & Signature	SXCS

Sage XRT Advanced

The user initiates a payment from the **SXA**.

SXA generates a *JSON* request transmitted to **SCS** through **API Rest** protocol.

SXA follows this request (still through **API Rest**) and notifies users in real time of the payment status and its progress.

Installation

Sage XRT Common Services

SCDTS service receives the **SXA** request and provides **SXA** with a transaction ID for future status requests. Then two other steps follow on:

1. Conversion of the initial *JSON* flow into XML file for processing
2. Enrichment for the initial data transactions if selected.

This file is eventually posted in **Signature** module.

Important! The manual initialization of payment flows by bank is a required step (session/connection). It consists in sending a payment to **SXA** for the first time. Then you need to modify the correspondence in EXITPOSTGEN transcoding table.

In *Sage.SCDTSServer.Service.exe.config*, you need to do the following:

1. Set up REST SXCS URL for the status request
2. Enable the processing: action=YES
3. Set up REST SXCS URL for the addition request

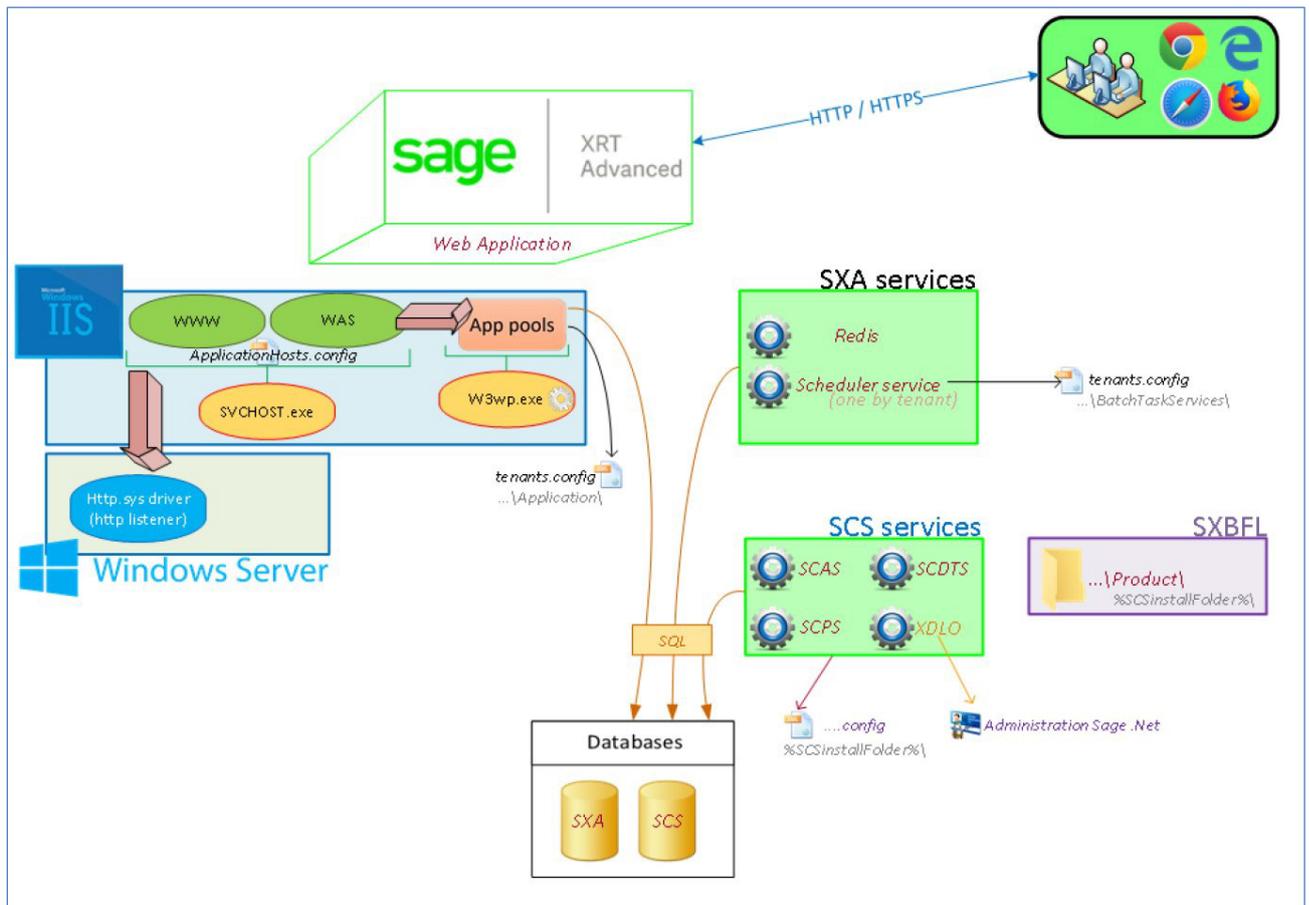
Sage XRT Communication & Signature

ComSignAPI service takes on the request from **SCDTS** to insert it within the work flow corresponding to the selected contract.

Important! Do not forget! On the client station of a multi-station configuration, you must set up LAD address as well as the addresses for **SCDTS**, **SCAS** and **SCPS** in the file: *<INSTALLPATH_DE_SCS_CLIENT>\sage.fcs.client.dll.config*.

Installation

Diagram of flows exchange from **SXA Payments**



JAVA Open Source

1. Uninstall the existing Java version.
2. Through a command line, test the bank file generation from an intermediary file. The following error message should be triggered: **jvm.dll required for Sun JDK**.
3. Download *Windows/x64* zip file of the most recent version available from <https://jdk.java.net>: *openjdk-13.0.2_windows-x64_bin.zip* (187 MB).

Installation

jdk.java.net **JDK 13.0.2 General-Availability Release**

GA Releases
JDK 13
JMC 7

Early-Access Releases
JDK 15
JDK 14
Jpackage
Loom
OpenJFX
Panama
Valhalla

Reference Implementations
Java SE 13
Java SE 12
Java SE 11
Java SE 10
Java SE 9
Java SE 8
Java SE 7

Feedback
Report a bug

Archive

Schedule, status, & features (OpenJDK)

Documentation

- Release notes
- API Javadoc

Build 8 (2019/12/11): General Availability

- Changes in this build
- Issues addressed in this build

These open-source builds are provided under the GNU General Public License, version 2, with the Classpath Exception.

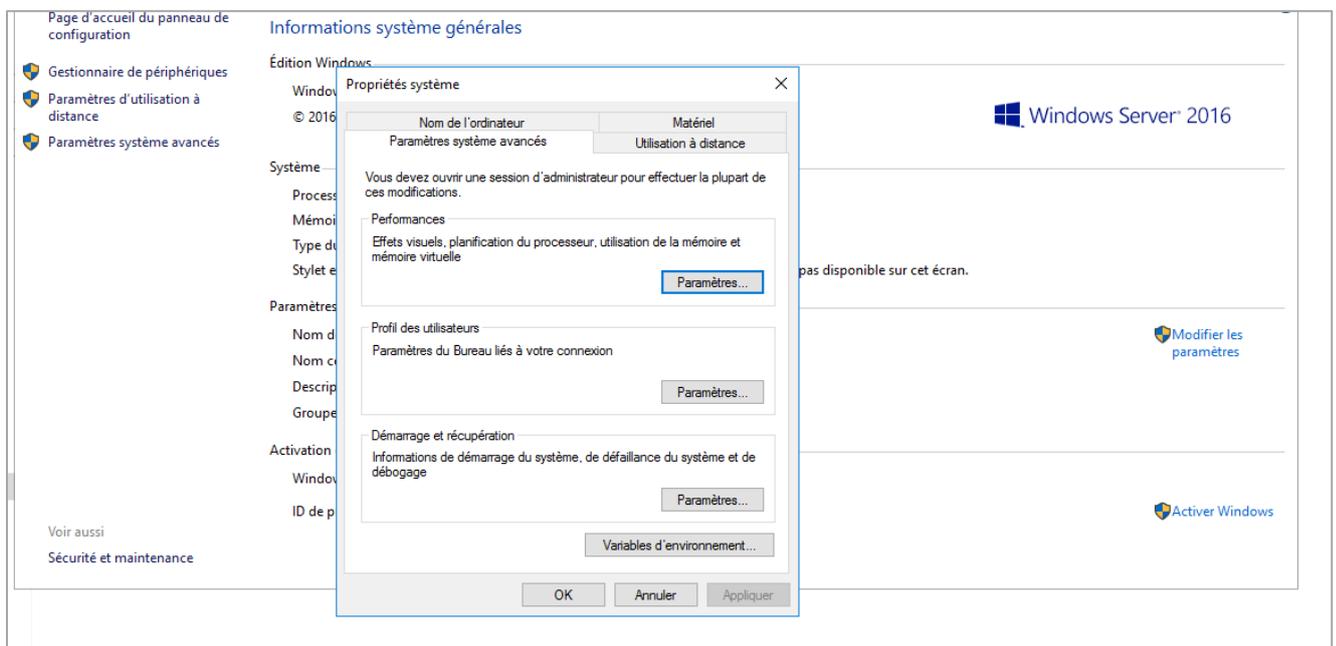
Linux/x64	tar.gz (sha256)	195812001 bytes
macOS/x64	tar.gz (sha256)	189969691
Windows/x64	zip (sha256)	195969512

Commercial builds of JDK 13.0.2 from Oracle under a non-open-source license, for a wider range of platforms, can be found at the Oracle Technology Network.

4. Create a **JAVA** folder under **C:\Programs** and unzip the zipped file in this new folder: a *jdk* folder is generated.
5. You need to create the environment variables.

In *Windows* explorer, open the contextual menu with a right click on **This PC**, and select **Properties**.

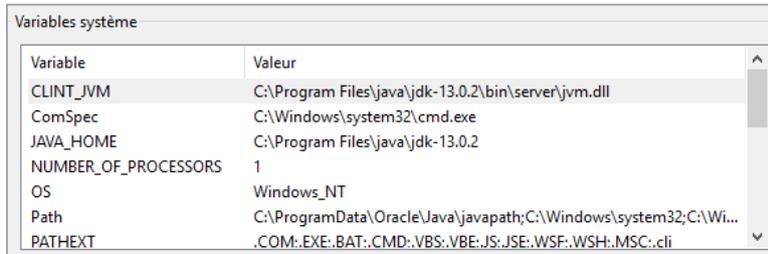
In the left pane, select **Advanced system settings**. Click the **Environment Variables...** button.



Installation

In the section: **User variables for administrator**, double-click the **PATH** variable, then select **New** and add this variable: **C:\Program Files\java\jdk-13.0.2\bin**.

In **System Variables**, click **New**. Create the **JAVA_HOME** variable with the value: *C:\Program Files\java\jdk-13.0.2*. Create the **CLINT_JVM** variable with the value: **C:\Program Files\java\jdk-13.0.2\bin\server\jvm.dll**.



Variable	Valeur
CLINT_JVM	C:\Program Files\java\jdk-13.0.2\bin\server\jvm.dll
ComSpec	C:\Windows\system32\cmd.exe
JAVA_HOME	C:\Program Files\java\jdk-13.0.2
NUMBER_OF_PROCESSORS	1
OS	Windows_NT
Path	C:\ProgramData\Oracle\Java\javapath;C:\Windows\system32;C\Wi...
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC;.cli

6. Through another command line, test the bank file generation from an intermediary file: the message has disappeared.

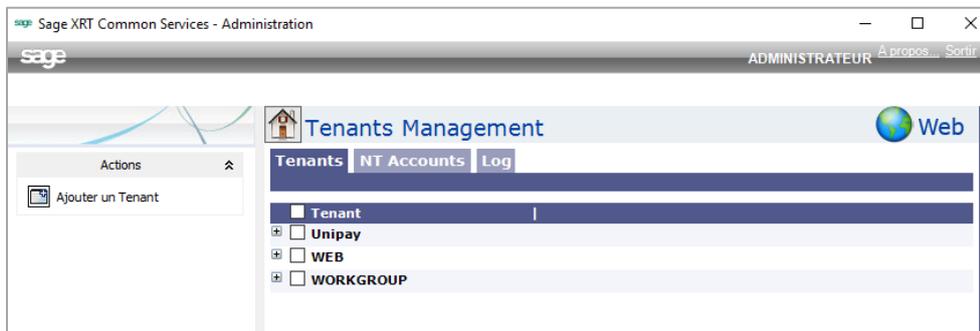
Tenants Management Interface

Tenants

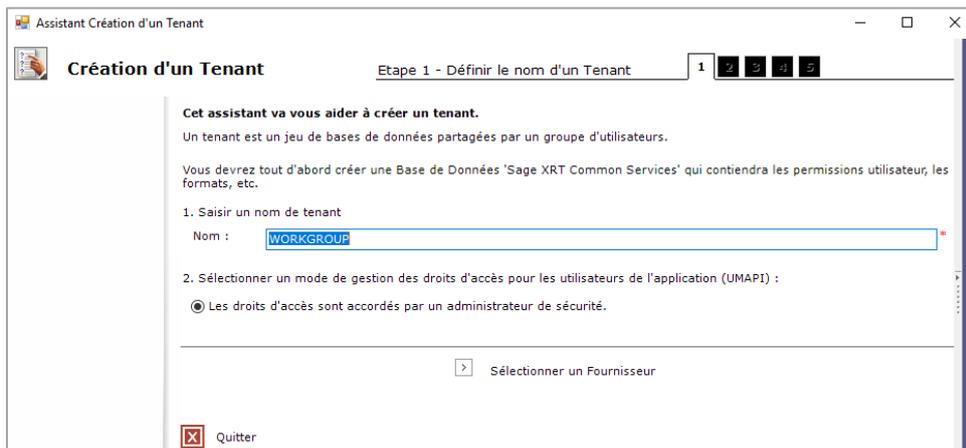
If **Sage XRT Common Services** is installed for the very first time, no tenant exists: the first step consists in creating one or more tenants according to the database type used (*SQL Server* or *Oracle*).

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

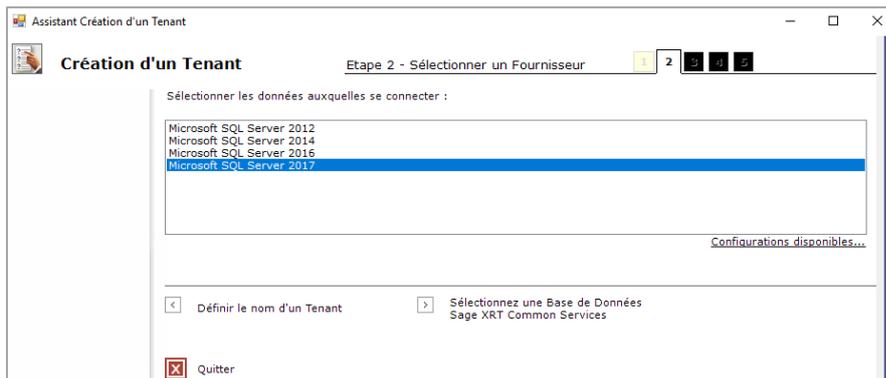
Name

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.

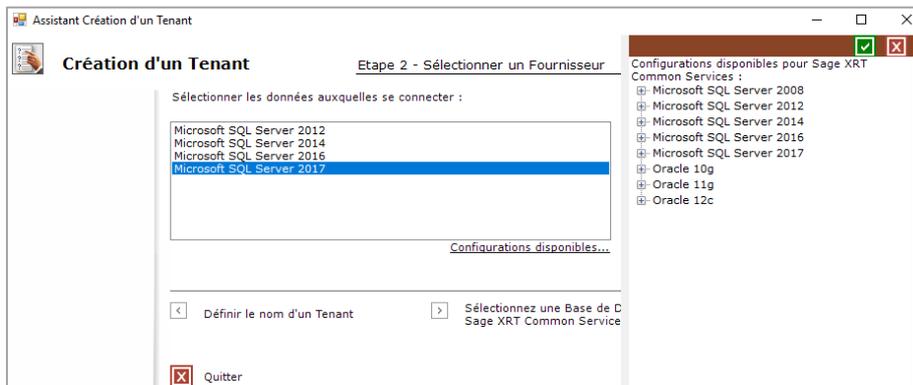
Click **Select a Provider**.



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 identifiants 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 : Use Windows NT integrated security

Utilisateur : * Mot de Passe : Use Windows NT integrated security

Collation string :

Sélectionner un Fournisseur Produits

Tester la connexion DBA

Tester la connexion DBO

Tester la connexion USERS

Quitter

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 corporate 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 or select the option: **Use Windowd NT integrated security**. 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 or select the option: **Use Windowd NT integrated security**. 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**.

Tenants Management Interface

Configuring Logical Units

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

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 on.

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.

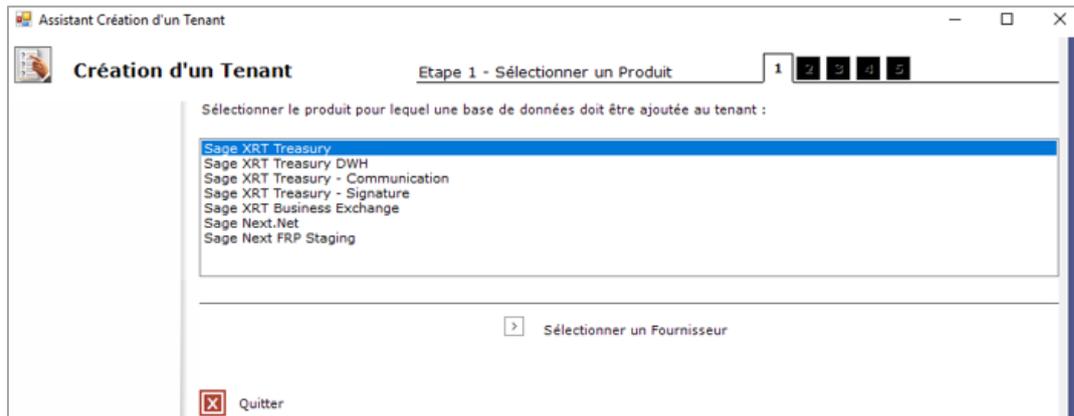
Tenants Management Interface

Execution of Actions

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

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

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.

Databases

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

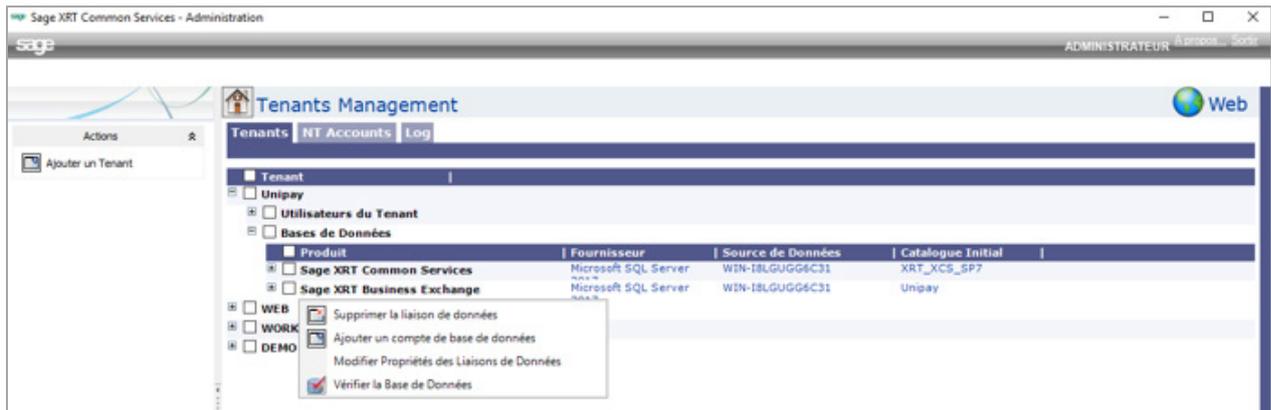
Important! The database update may damage your data. The data must be saved previously.

Update

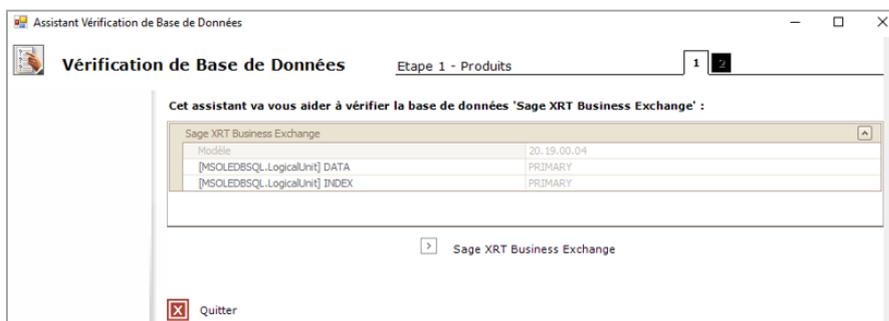
In the tree-view, expand the **Tenant** element, then the relevant tenant and eventually **Database**.

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

Tenants Management Interface



The **Database Check Wizard** is displayed.



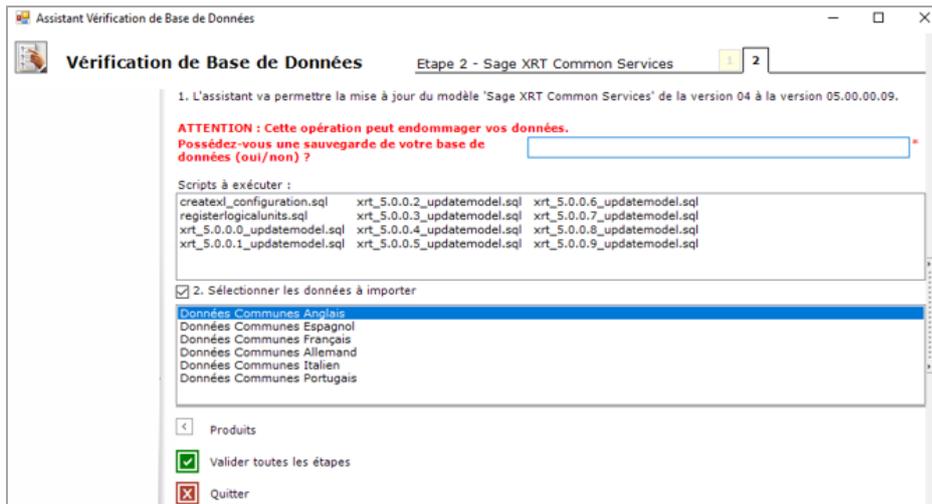
Note: if the *Windows* user is not registered as the *DBO* in this tenant, they are not allowed to update the database. The wizard does not suggest any database update and the **Product** is not displayed on screen.

Click on the product.

If the wizard detects an inconsistency in versions, you are redirected to the database update process.

Otherwise, the **second step** appears onscreen.

Tenants Management Interface



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

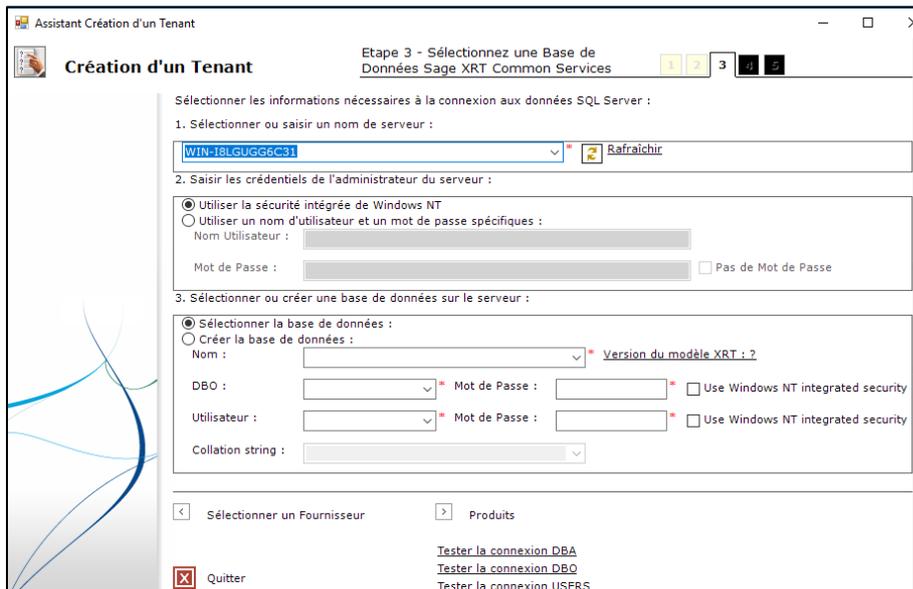
Select **Select the data to import** if the data in database are not up to date.

Click **Validate all steps**.

SQL Server and non-SYSADMIN Profiles

Follow this procedure.

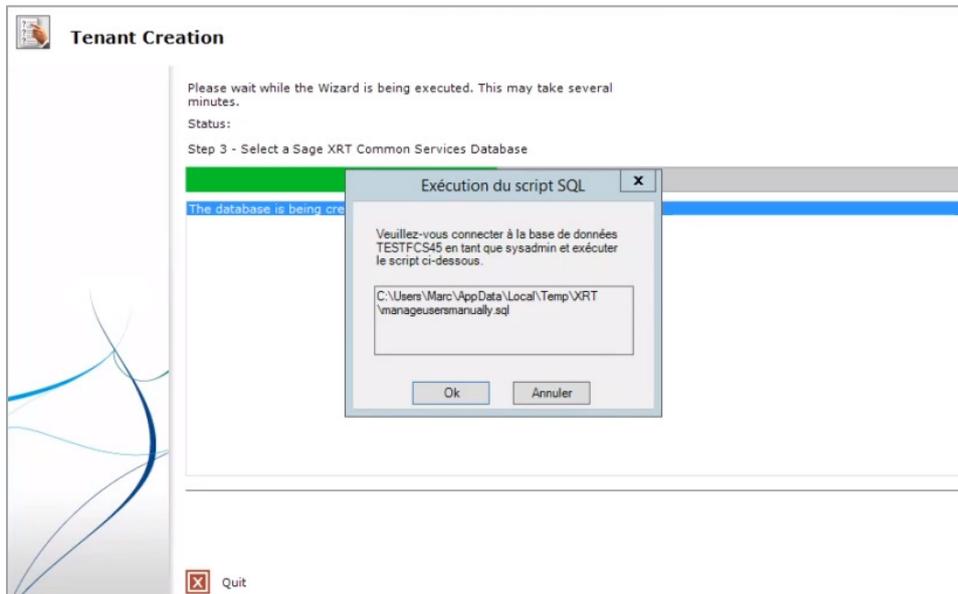
1. First you need to create and update a database with a *dbcreator* profile.
2. For the database creation, enter the *dbcreator* username and password.



Tenants Management Interface

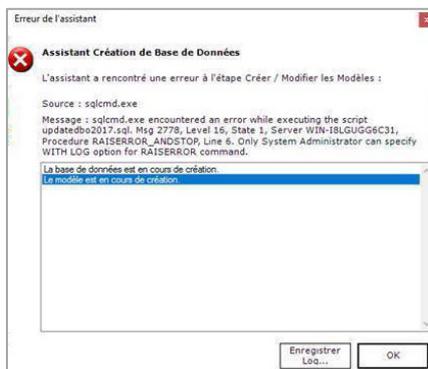
Note: On the *DBA* connection test, the message requiring a *SYSADMIN* connection has disappeared.

3. You can resume the usual process of database management: a message requires the intervention of a user with a *SYSADMIN* profile for the scripts passing step.



4. Connect to **SQL Server** with a *SYSADMIN* profile and open the specified file.
Run the script.
5. Go back to the **Database Creation** wizard and click **OK** to complete the process.

The display of the error shown on the screenshot below means you are using **Microsoft SQL Server 2017 (RTM-GDR) (KB4293803) - 14.0.2002.14 (X64) Jul 21 2018**.



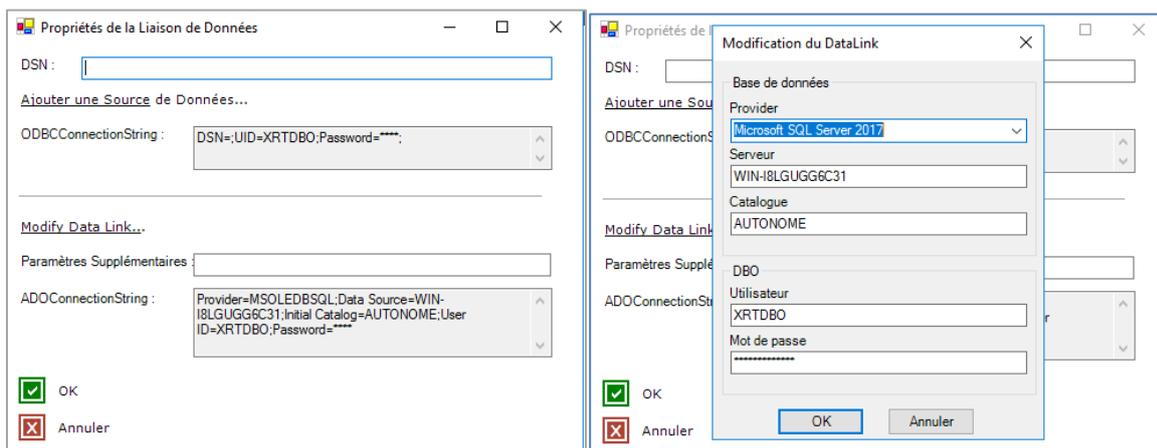
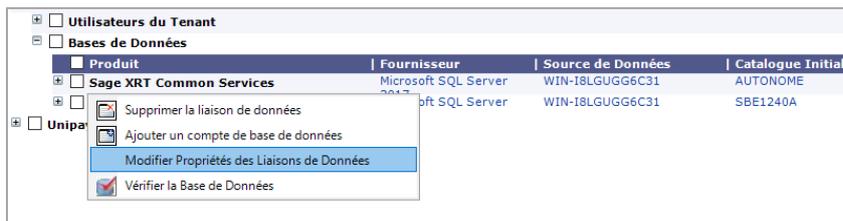
Tenants Management Interface

To solve this problem, you need to update **SQL Server** and use **Microsoft SQL Server 2017 (RTM-GDR) (KB4505224) – 14.0.2027.2 (X64) Jun 15 2019**.

Modifications

You may modify **Provider**, **Data Source** (server) and **Catalog** without using the DBInstaller (**Oracle** and **SQL Server**), for example if you want to get a (pre-)production database instead test database.

For **SQL Server** Databases, select the database, and after right-clicking to open the contextual menu, click **Modify Data Link Properties**.

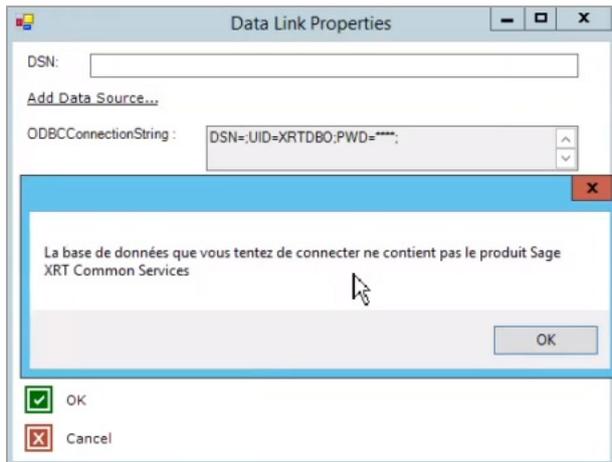


Use the link named: **Modify Data Link**.

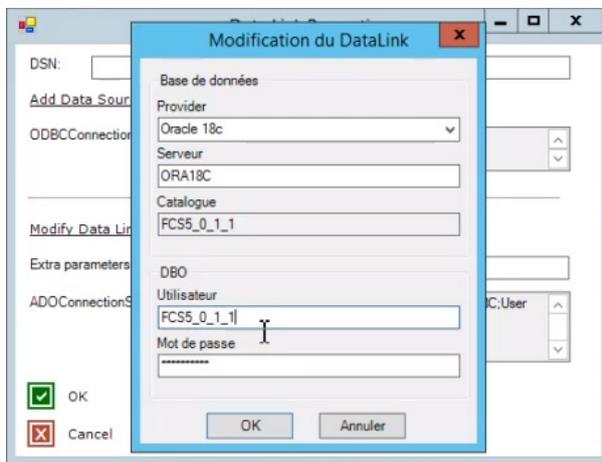
You can modify the **Provider** only in the same *family*: from **SQL Server 2017** to **SQL Server 2019**, from **Oracle 12** to **18**.

The catalog modification is only possible for the same type of database or a database containing the data of the modified database (modification of **FCS** database by an other **FCS** database or an **FCS+SXBE** database), otherwise a blocking message is displayed.

Tenants Management Interface



For **Oracle** Databases, the catalog cannot be modified as it uses.



First Connection

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

- either 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!

Tenants Management Interface

Users

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

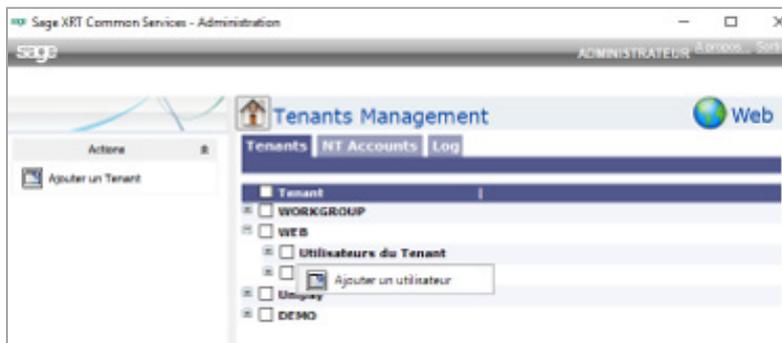
Sage XRT Common Services proposes a wizard for the management of users within their workgroups.

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 workgroup. For this, click **Search...** to access *Microsoft* tool to find a *Windows NT* user.
- **Add a local system account to:** This type of account is used by a system service executed for the local system and must access a new database.

Addition to Tenant

1. To assign users to the tenant, expand the **Tenants** element in the tree-view.
2. Select a tenant from the list and right-click on the **Users** level.

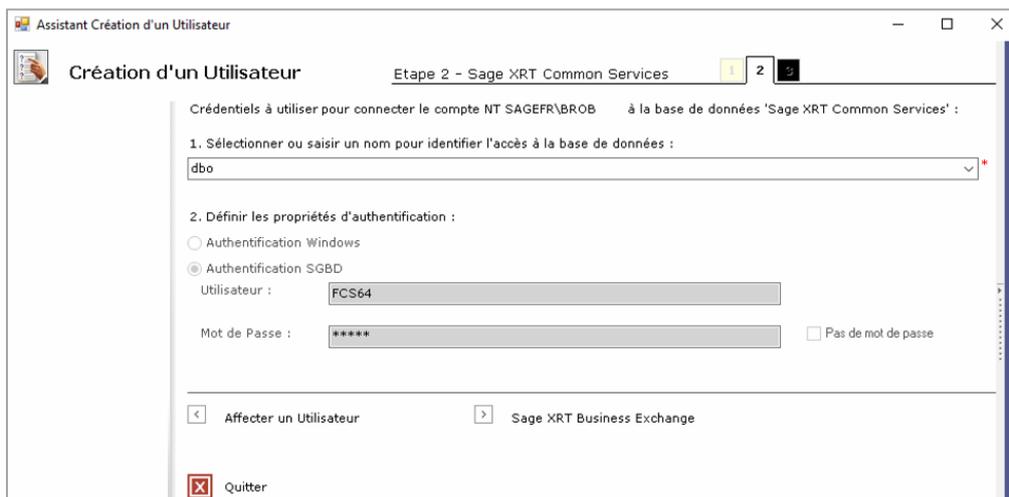


3. Select **Add User** to open the **User Creation Wizard**.

Tenants Management Interface



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



5. 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 profiles with no authorization.
6. Select the user authentication mode on the database server:
 - **Windows Authentication**: by the NT account.
 - **DBMS Authentication**: by the account assigned by the database administrator (DBA).

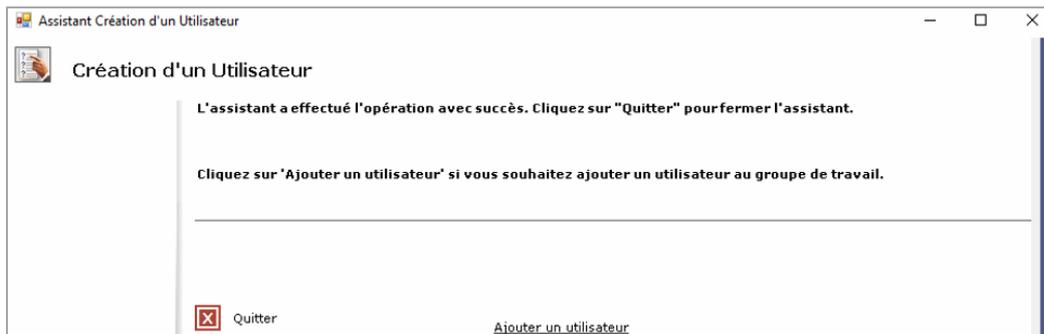
Tenants Management Interface

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*.

7. Click **Validate all steps**.

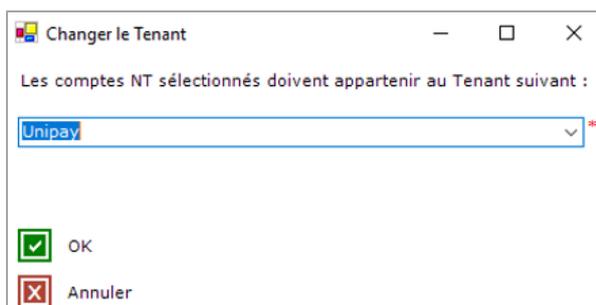


Note: You may also manage **Sage XRT Treasury** users by repeating the process of access to **Sage XRT Common Services** database.

Modification

You can modify the assignment of users to a tenant.

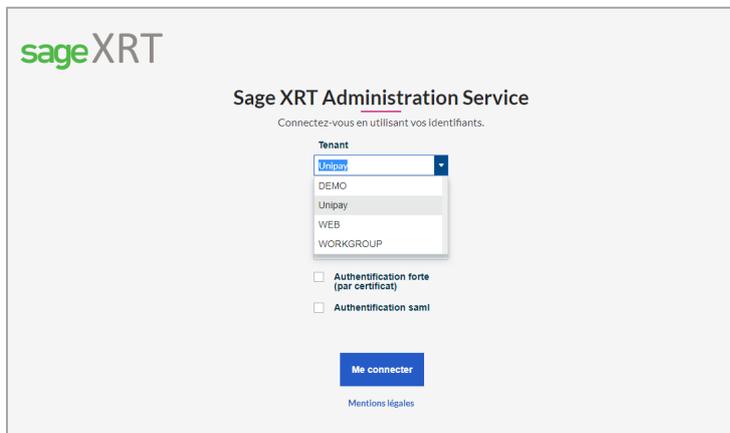
1. After a right-click on the user to be modified, select **Change Tenant**.



2. Select another tenant and click **OK**.

Sage XRT Administration Services

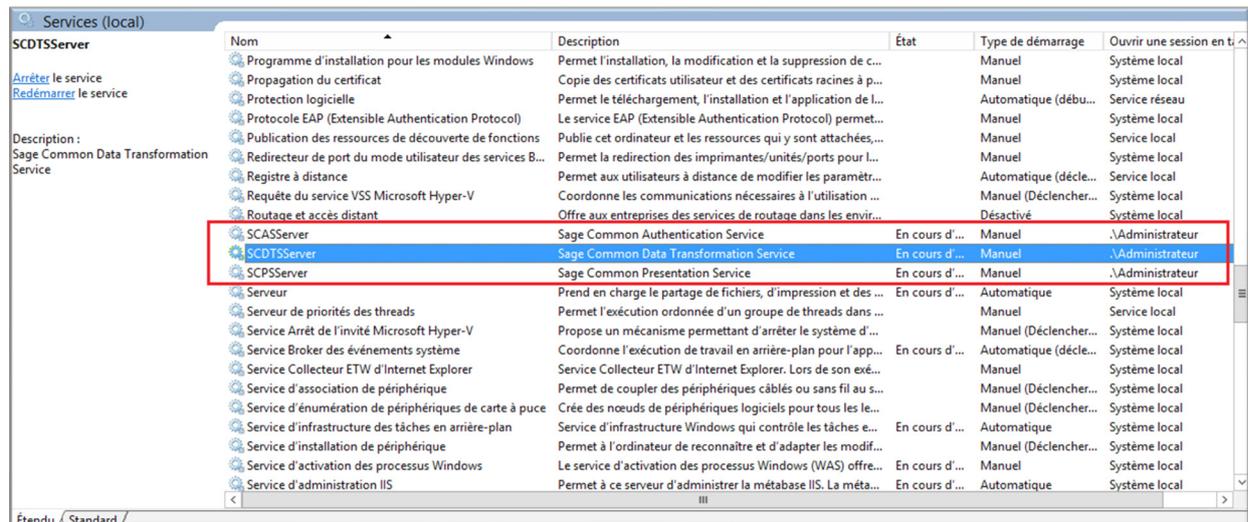
The icon  on the top right of **Tenants Management** interface gives direct access to **Sage XRT Administration Service**, to manage users, profiles, rights, etc.



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 located in: **C:\Program Files\Common Files\xrt**

Activating Logs

See <system.diagnostics> and <diagnostics> nodes

Defining 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*)

(list of the shared authentication servers)

(e.g.: http://scasserver1.sxa.com/Auth,http://scasserver2.sxa.com/Auth)

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

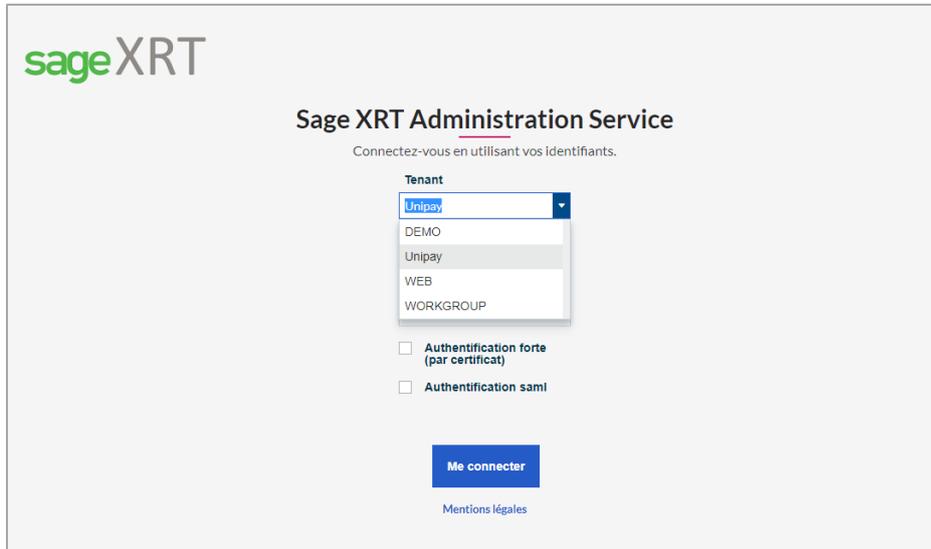
https://nomdemachine:443/Auth/loginpage

```
<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">
```

Sage XRT Administration Services

```
<input type="hidden" name="xrtloginweborigin" value="">
<input type="hidden" name="goto" value="">
</form>
```

The connection page is displayed.



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 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 user name:

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

goto Form Variable

Two values are possible for this variable: **SAML** or **SAGEID**.

To be taken into account, the **WORKGROUP** variable must be specified.

When these values are entered, users are directly led to **SAML** or **SAGEID** authentication page.

Administration Service

Configuration

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

Activating Logs

See <system.diagnostics> and <diagnostics> nodes

Defining 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

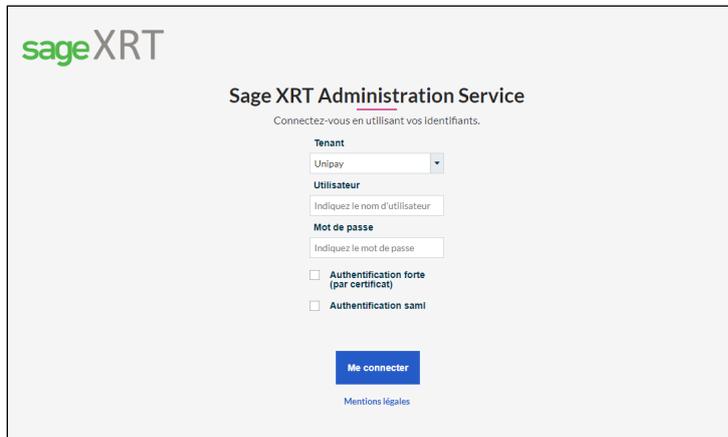
Sage XRT Administration Services

Connection

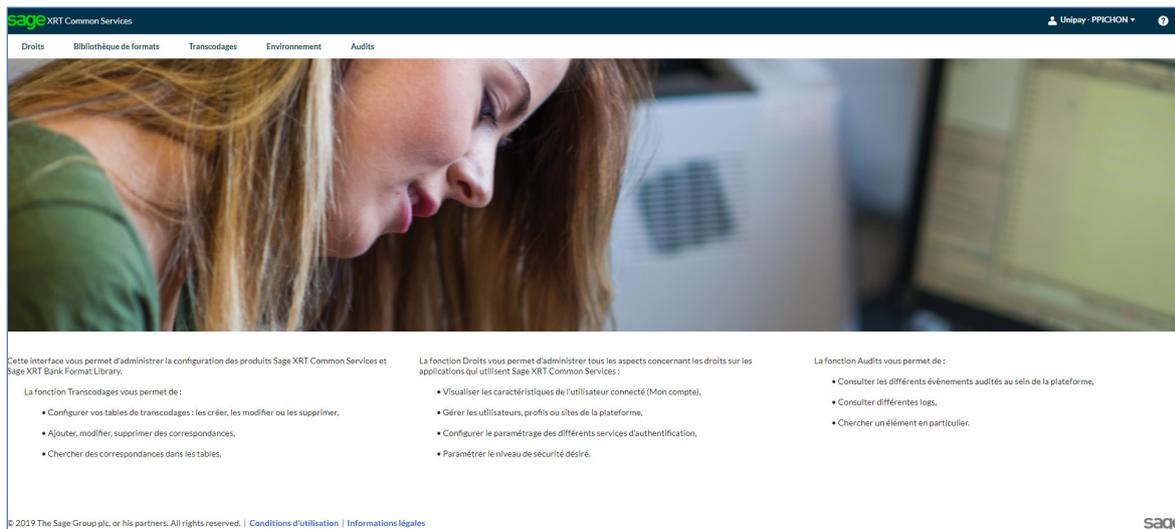
The following URL enables the use of the Administration Service interface:

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

It requires the reboot of the Authentication and Administration Services.



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



The screenshot displays the administration dashboard for Sage XRT Common Services. The top navigation bar includes the Sage logo, 'XRT Common Services', and a user profile 'Unipay - PPKCHON'. Below the navigation bar are tabs for 'Droits', 'Bibliothèque de formats', 'Transcodages', 'Environnement', and 'Audits'. The main content area features a large image of a woman looking at a computer screen. Below the image, there are three columns of text describing the dashboard's capabilities:

- Transcodages:** 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.
- Droits:** 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.
- Audits:** La fonction Audits vous permet de :
 - Consulter les différents événements audités au sein de la plateforme.
 - Consulter différentes logs.
 - Chercher un élément en particulier.

At the bottom, there is a copyright notice: '© 2019 The Sage Group plc, or his partners. All rights reserved. | Conditions d'utilisation | Informations légales' and the Sage logo.

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

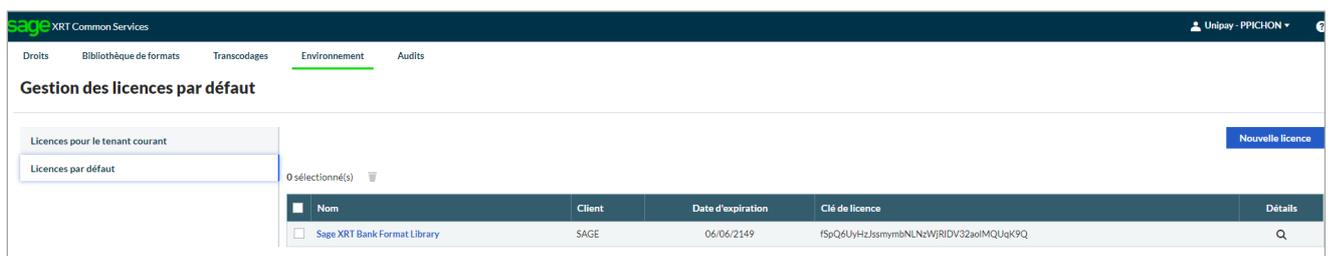
Default licenses are applied to all the tenants for which no license has been specified.

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.

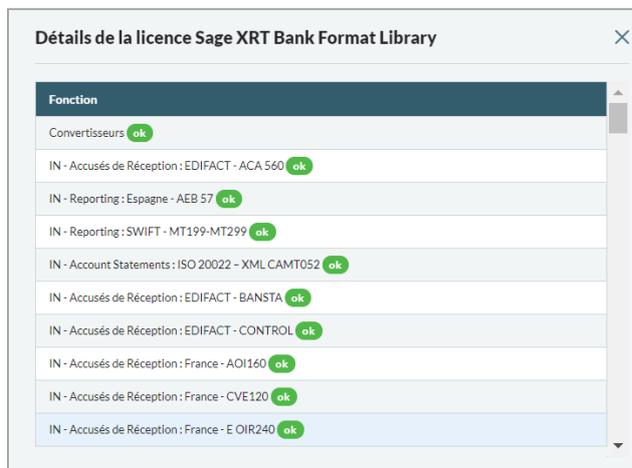
The default licenses are listed when the **Default Licenses** function is called.



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

Sage XRT Administration Services

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



Creation

In **Environment – Default licenses**, 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.

The screenshot shows a form titled "Création d'une licence". It has three input fields, each with an asterisk indicating it is required:

- Nom*
- Client*
- Clé de licence*

At the bottom right, there are two buttons: "Enregistrer" (blue) and "Annuler" (grey).

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.

Sage XRT Administration Services

Deletion

From the license list, select the one to delete.

Click the *bin* button 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

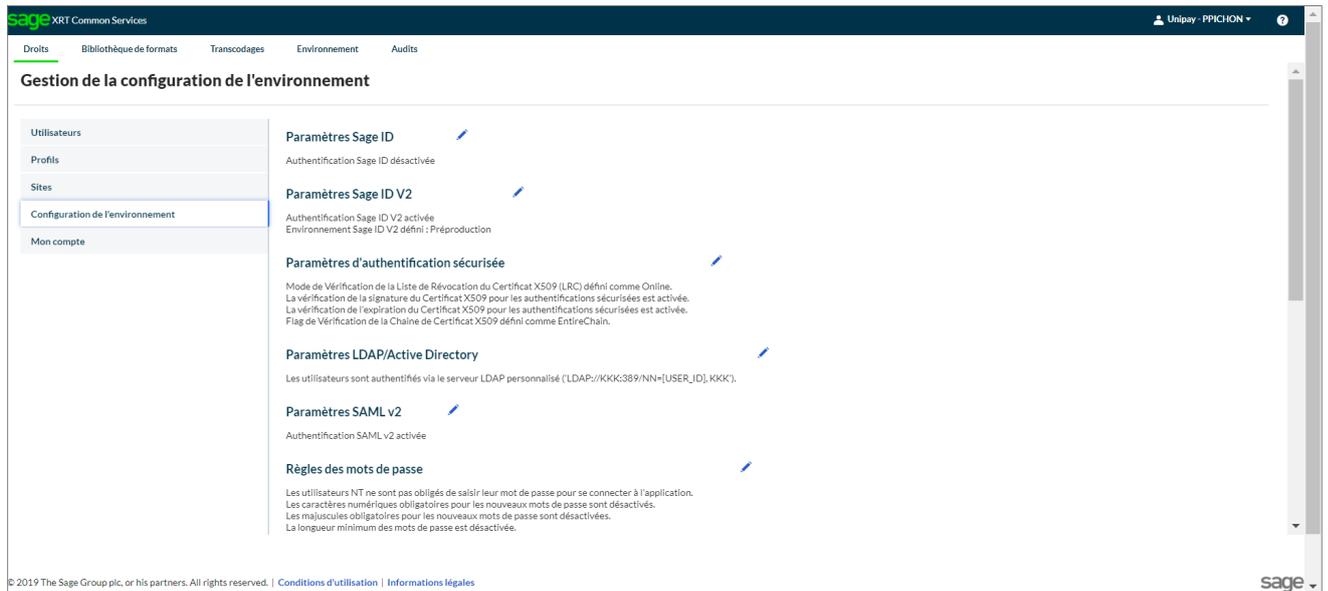
UMAPI login model supports three authentication modes:

- **Windows NT**
- **UMAPI**
- **LDAP**
- **SAML**
- **CloudID: Sage ID V2**

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

Sage XRT Administration Services

Click the **Environment Configuration** tab from the **Rights** menu.



Click the *pencil* button 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*.

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 of time
- 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 of time

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.

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

Sage XRT Administration Services

- 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

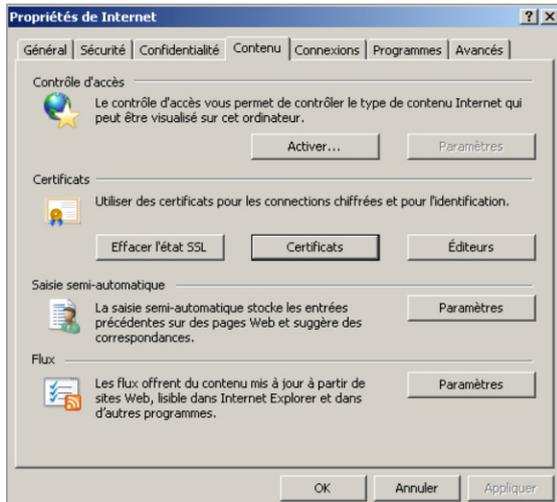
Enregistrer Annuler

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

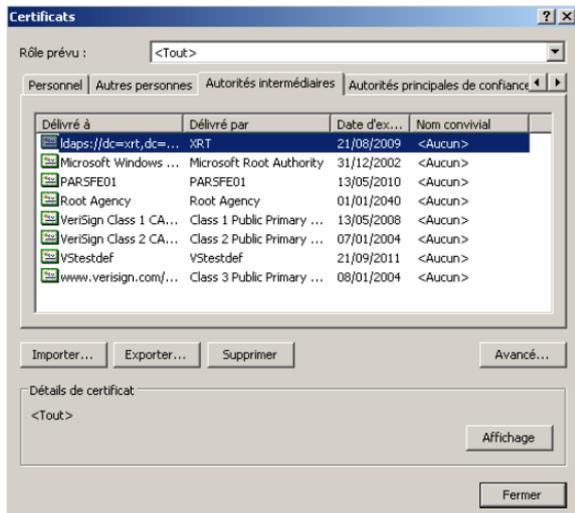
LDAP exchanges between client and server are usually made by standard *TCP/IP* port (port 389) with encryption, or via the *SSL* tunnel (port 636). *SSL* technology is enabled by installing a certificate published by a certification authority approved by the domain controller and the *LDAP* clients. 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**.

Sage XRT Administration Services



Click **Certificats**. 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.

Sage XRT Administration Services

Paramètres SAML v2

Authentification avec SAML v2

Paramètres de sécurité
Web Browser SSO Profile ou Cookie Based SAML Authentication

Services

Tous

Identity Provider SSO URL*

Identity Provider Identifiant*

Service Provider Identifiant*

Métadonnées

Adresse de messagerie

Cookie*

_saml_idp

Identity Provider Certificat public*
<Choisir un fichier>

Gestion des fichiers métadonnées
Ce sont les fichiers permettant d'échanger les informations entre le SP et IdP.

[Importer le fichier Federation Metadata de l'IdP](#) [Générer le fichier Federation Metadata du SP](#)

Annuler

SAML authentication uses:

- Identity provider: **Identity Provider SSO URL** and **Identity Provider ID** fields.
ADFS (*Active Directory Federation Services*) and **Azure AD** (*Active Directory*) are supported.
- 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).
- Metadata files enable the communication between *SP* and *IdP*.

The *IdP* metadata file contains the certificate to check the *token SAML* and *IdP* identifier.

The *SP* metadata file contains the *SP* identifier and the *callback* URL by service.

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

Sage XRT Administration Services

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 the **Environment Configuration** tab.

The screenshot shows the Sage XRT Administration Services interface. The top navigation bar includes 'Droits', 'Bibliothèque de formats', 'Transcodages', 'Environnement', and 'Audits'. The main heading is 'Gestion de la configuration de l'environnement'. The left sidebar contains the following menu items: 'Utilisateurs', 'Profils', 'Sites', 'Configuration de l'environnement' (which is highlighted), and 'Mon compte'. The main content area displays several configuration sections, each with a blue edit icon:

- Paramètres Sage ID**: Authentification Sage ID désactivée.
- Paramètres Sage ID V2**: Authentification Sage ID V2 activée. Environnement Sage ID V2 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 le serveur LDAP personnalisé ('LDAP://KJK:389/NN=[USER_ID], KJK').
- 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.
- Règles de double authentification**: Le nombre de saisies OTP incorrectes avant verrouillage est de 34. La période de verrouillage des comptes est : définitivement.

Sage XRT Administration Services

Use the **Modification** icon to edit the password rules.

Règles des mots de passe

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

Nombre obligatoire de majuscules dans les nouveaux mots de passe

Longueur minimum du mot de passe

Différence entre ancien et nouveau mot de passe

Différence entre le nouveau mot de passe et le nom d'utilisateur

Mot de passe par défaut pour les nouveaux comptes
Confirmez le mot de passe par défaut pour les nouveaux comptes

Verrouiller le compte si le mot de passe n'a pas été modifié après

Période de validité des nouveaux mots de passe

Nombre de tentatives de connexion avant verrouillage de compte
Verrouiller le compte pour une période de

Data Activation and Four-Eye Rule

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

Important! 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.

Click the **Environment Configuration** tab.

The screenshot displays the Sage XRT Common Services administration interface. At the top, there is a navigation bar with the Sage logo and the text 'XRT Common Services'. Below this, a menu contains the following items: 'Droits', 'Bibliothèque de formats', 'Transcodages', 'Environnement', and 'Audits'. The 'Environnement' tab is selected and highlighted in green.

Gestion de la configuration de l'environnement

The main content area is divided into two columns. The left column contains a sidebar menu with the following items: 'Utilisateurs', 'Profils', 'Sites', 'Configuration de l'environnement' (which is highlighted with a blue border), and 'Mon compte'.

The right column displays the configuration details for the 'Environnement' section, organized into several sections, each with a blue pencil icon for editing:

- Paramètres LDAP/Active Directory**: Les utilisateurs sont authentifiés via le serveur LDAP personnalisé ('LDAP://KXK:389/NN=[USER_ID], KXK').
- 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.
- Règles de double authentification**: Le nombre de saisies OTP incorrectes avant verrouillage est de 34. La période de verrouillage des comptes est : définitivement.
- Activation des données et règle des 4 yeux**:
 - L'activation des utilisateurs est requise
 - L'activation des sites est requise
 - L'activation des profils est requise
 - L'activation des identifications de la liste d'autorisation est requise
 - L'activation des identifications de la liste d'exclusion locale est requise
 - L'activation des exportations de données de relevés bancaires est requise
 - L'activation des reports de relevés bancaires est requise
 - L'activation des purges de relevés bancaires 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
 - La règle des 4 yeux ne s'applique pas sur la gestion des identifications de la liste d'autorisation
 - La règle des 4 yeux ne s'applique pas sur la gestion des identifications de la liste d'exclusion locale
 - La règle des 4 yeux ne s'applique pas sur la gestion des exportations de données de relevés bancaires
 - La règle des 4 yeux ne s'applique pas sur la gestion des reports de relevés bancaires
 - La règle des 4 yeux ne s'applique pas sur la gestion des purges de relevés bancaires

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

Activation des données et règle des 4 yeux

Activation des données

<input checked="" type="checkbox"/> Activation requise des utilisateurs ?	<input checked="" type="checkbox"/> Activation requise des identifications de la liste d'autorisation
<input checked="" type="checkbox"/> Activation requise des sites ?	<input checked="" type="checkbox"/> Activation requise des identifications de la liste d'exclusion locale ?
<input checked="" type="checkbox"/> Activation requise des profils ?	<input checked="" type="checkbox"/> Activation requise des exportations de données de relevés bancaires ?
	<input checked="" type="checkbox"/> Activation requise des reports de relevés bancaires
	<input type="checkbox"/> Activation requise des purges de relevés bancaires

i Vous ne pouvez pas décocher une activation requise sur un élément s'il existe encore un élément en statut inactif dans la liste

Règle des 4 yeux

<input type="checkbox"/> Application sur la gestion des utilisateurs	<input type="checkbox"/> Application sur la gestion des identifications de la liste d'autorisation
<input type="checkbox"/> Application sur la gestion des sites	<input type="checkbox"/> Application sur la gestion des identifications de la liste d'exclusion locale
<input type="checkbox"/> Application sur la gestion des profils	<input type="checkbox"/> Application sur la gestion des exportations de données de relevés bancaires
<input type="checkbox"/> Application sur la gestion des paramètres d'authentification	<input type="checkbox"/> Application sur la gestion des reports de relevés bancaires
<input type="checkbox"/> Application sur la gestion des tables de transcodage	<input type="checkbox"/> Application sur la gestion des purges de relevés bancaires
<input type="checkbox"/> 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
- Identifications for Authorized Lists
- Identifications for Local Exclusion List
- Data Exports from Bank Statements
- Reports on Bank Statements
- Purges of Bank Statements

The four-eye rule can be applied to:

- User Management
- Profile Management

Sage XRT Administration Services

- Sites Management
- Authentication Parameters Management
- Transcoding Tables Management
- Correspondence Management for Transcoding Tables
- Identification Management for Authorized Lists
- Identification Management for Local Exclusion List
- Management of Data Exports from Bank Statements
- Management of Reports from Bank Statements
- Purges of Bank Statements

Click **Save**.

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**.

Sage XRT Administration Services

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.

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

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.

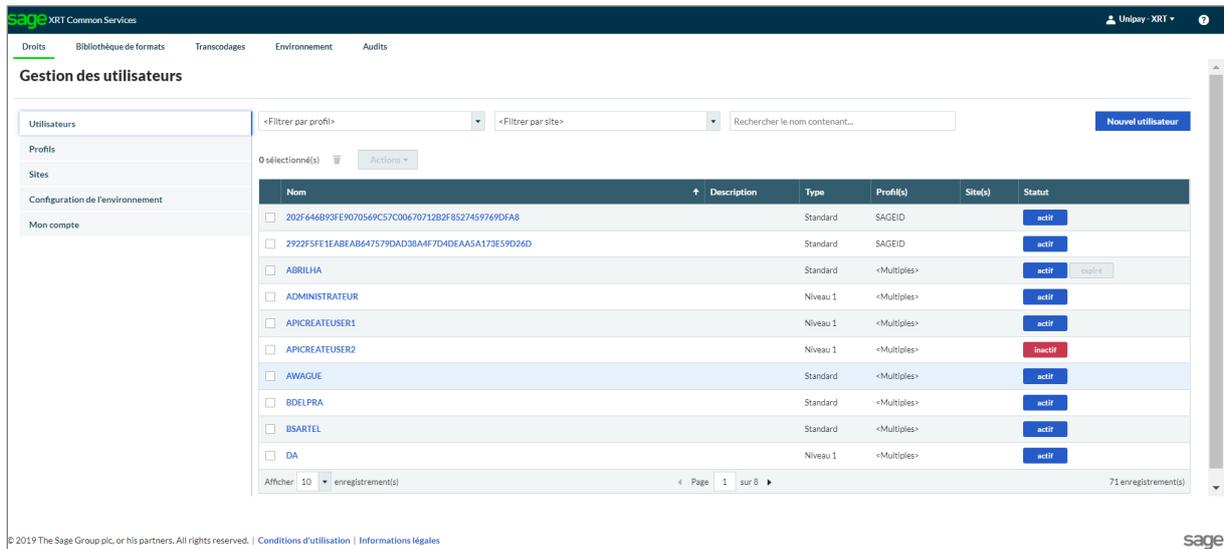
A user account includes the following elements:

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

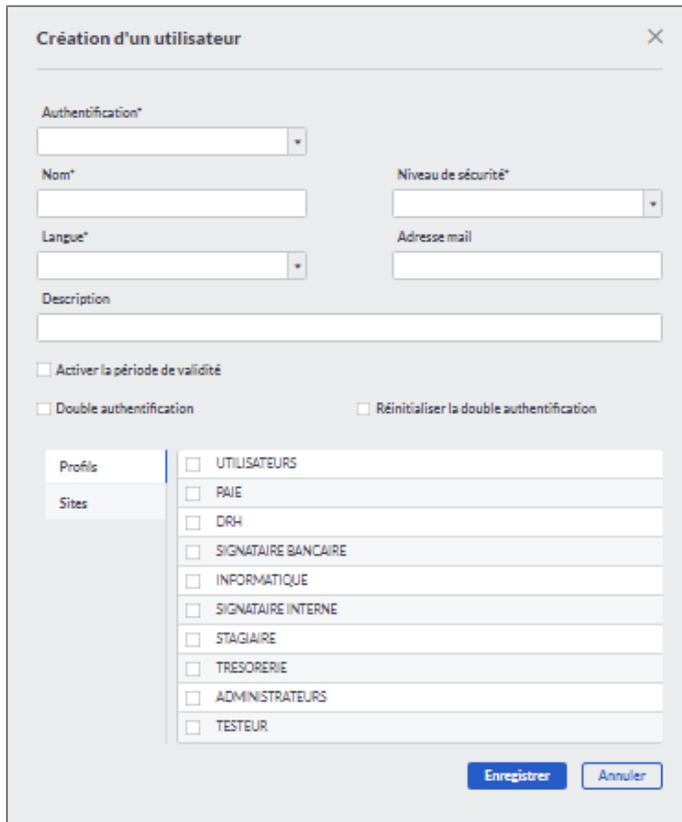
Sage XRT Administration Services

Adding Users

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



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



Sage XRT Administration Services

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 on the 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.



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.

Sage XRT Administration Services

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:** Select this option 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.

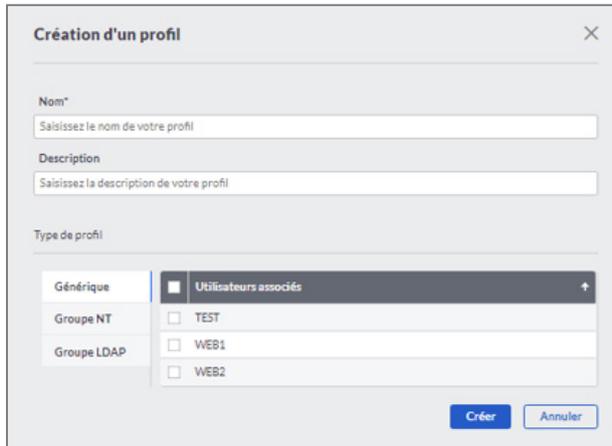
The screenshot displays the 'Gestion des profils' (Profile Management) interface. The main content area features a table with the following data:

Nom	Description	Type de profil	Statut
ADMINISTRATEURS		Générique	actif
DRH		Générique	inactif
INFORMATIQUE		Générique	actif
PAIE	GROUPE PAIE RH	Générique	actif
PROFIL API	DESCRIPTION PROFIL API	Générique	actif
PROFIL DONNEES	PROFIL DONNEES	Générique	inactif
SAGEID	SAGEID	Générique	actif
SIGNATAIRE BANCAIRE	SIGNATAIRE BANCAIRE	Générique	actif
SIGNATAIRE INTERNE	SIGNATAIRE INTERNE	Générique	actif
STAGIAIRE	STAGIAIRES	Générique	actif

At the bottom of the table, there is a pagination control showing 'Page 1 sur 2' and a total of '16 enregistrement(s)'. The footer of the page includes the copyright notice '© 2019 The Sage Group plc, or his partners. All rights reserved.' and the Sage logo.

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.

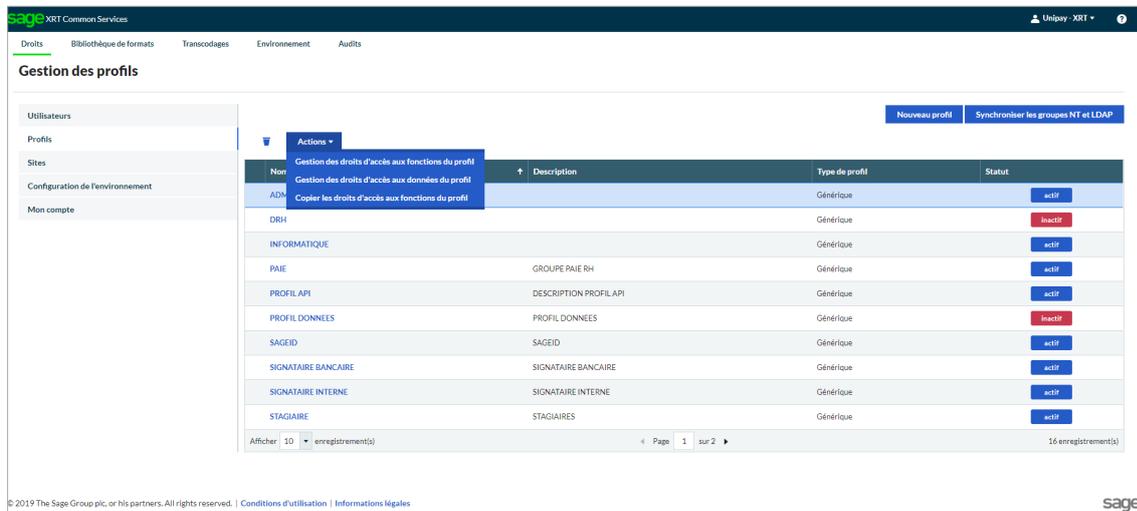
Click **Create** to save your new profile.

In the **Profiles** tab, the button **Synchronize NT and LDAP groups** enables you to launch manually the directories sync.

Sage XRT Administration Services

Access Rights

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



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

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



Grant the access rights one by one or use the **All** and **None** buttons.

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.

Sage XRT Administration Services

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

BBVAESMM

BNPPFRPP

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.

Sage XRT Administration Services

Activation

When a profile is created, it gets the **Inactive** 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.

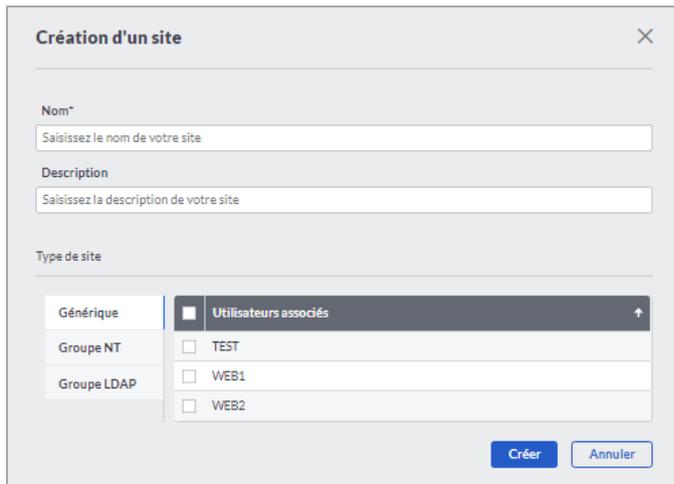
The screenshot displays the 'Gestion des sites' interface. On the left, a navigation menu includes 'Utilisateurs', 'Profils', 'Sites', 'Configuration de l'environnement', and 'Mon compte'. The 'Sites' section is active, showing a table with the following data:

Nom	Description	Type de site	Statut
ADMINISTRATEURS		Générique	actif
DRH		Générique	actif
INFORMATIQUE		Générique	actif
INTERFACE	INTERFACE DES	Générique	actif
INTERFACE2	INTERFACE DES	Générique	actif
INTERFACE3	INTERFACE DES	Générique	inactif
INTERFACE4	INTERFACE DES	Générique	inactif
TRESORERIE		Générique	actif
UTILISATEURS		Générique	actif
WQ	WQ	Générique	inactif

At the bottom of the table, there is a pagination control: 'Afficher : 10 enregistrement(s) < Page 1 sur 1 >' and a total count of '10 enregistrement(s)'. The footer of the page contains the text '© 2019 The Sage Group plc, or his partners. All rights reserved. | Conditions d'utilisation | Informations légales' and the Sage logo.

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

Sage XRT Administration Services



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 corporate 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* button.

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

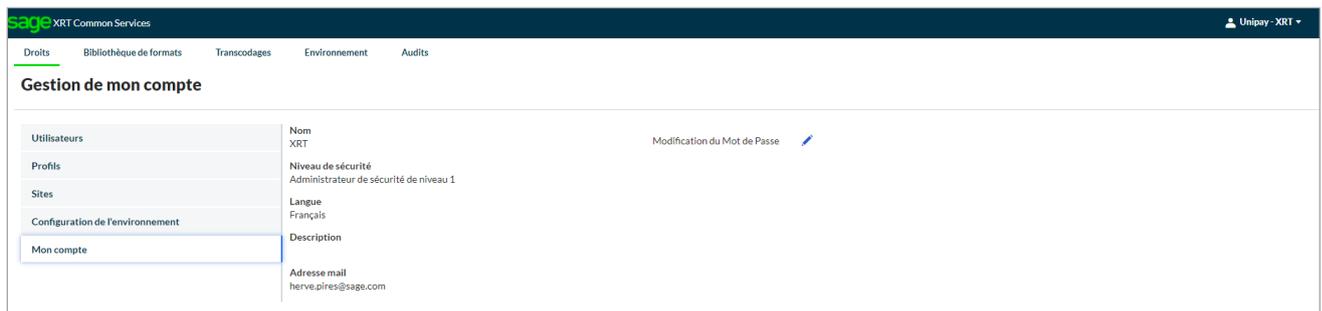
From the site list, select the site to deactivate.

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

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

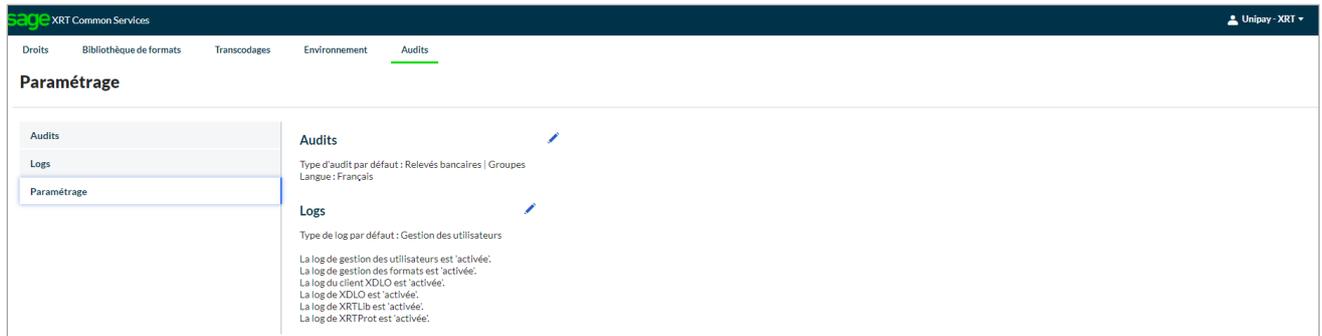
Audits and Logs

Setup

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

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

Sage XRT Administration Services



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

Select the default audit type to be displayed:

- System
- Database
- Users
- Bank Statements | Account Statements
- Bank Statements | Intraday Statements
- Bank Statements | Transaction Statements
- Bank Statements | Status Statements
- Bank Statements | Statements Import
- Bank Statements | Data Export
- Bank Statements | Reporting
- Bank Statements | Purge
- Bank Statements | Groups

Select the default log type to be displayed:

- Format Management
- User Management
- Database Management
- Console Management

Sage XRT Administration Services

- XDLO Client
- XDLO
- XDLO Service
- XRTProt
- XRTPLogin
- 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:

Logs

Type de log sélectionné par défaut:

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

Audit

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

Gestion des audits

Type d'audit: Utilisateurs Période: Aucune Description contenant... Rechercheur Purger Exporter Rapport

Date/Heure	Catégorie	Statut	Produit	Composant	Utilisateur	Compte utilisateur	Machine	Description
02/11/2020 16:26:52	Logon	Succès	CS	FCSWeb	XRT	ADMINISTRATEUR	WIN-8LUGGG6C31	
02/11/2020 16:04:49	Logon	Succès	CS	FCSWeb	PPICHON	ADMINISTRATEUR	WIN-8LUGGG6C31	
02/11/2020 15:18:34	Logon	Succès	CS	FCSWeb	PPICHON	ADMINISTRATEUR	WIN-8LUGGG6C31	
02/11/2020 15:14:50	Logon	Succès	CS	FCSWeb	PPICHON	ADMINISTRATEUR	WIN-8LUGGG6C31	
02/11/2020 15:13:42	Logon	Succès	CS	FCSWeb	PPICHON	ADMINISTRATEUR	WIN-8LUGGG6C31	
02/11/2020 15:13:04	Logon	Succès	CS	FCSWeb	PPICHON	ADMINISTRATEUR	WIN-8LUGGG6C31	
02/11/2020 15:12:57	Logon	Echec	CS	FCSWeb	ADMINISTRATEUR	ADMINISTRATEUR	WIN-8LUGGG6C31	Une exception de type 'UMAPILB.LUMAPIException' a été levée.
02/11/2020 15:12:57	Logon	Echec	CS	FCSWeb	PPICHON	ADMINISTRATEUR	WIN-8LUGGG6C31	Une exception de type 'UMAPILB.LUMAPIException' a été levée.
02/11/2020 14:12:10	Logon	Succès	CS	FCSWeb	PPICHON	ADMINISTRATEUR	WIN-8LUGGG6C31	
02/11/2020 14:12:07	Logon	Echec	CS	FCSWeb	PPICHON	ADMINISTRATEUR	WIN-8LUGGG6C31	Une exception de type 'UMAPILB.LUMAPIException' a été levée.

Afficher 10 enregistrements(s) Page 1 sur 583 5823 enregistrement(s)

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Sage XRT Administration Services

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

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

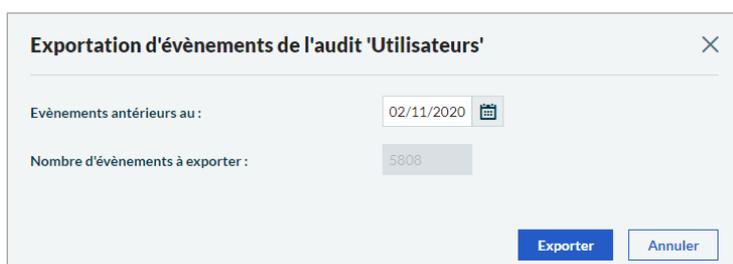
The **Search** button gives you access to more selection criteria. The applied filtering criteria are recapped at the top of the list.

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



The screenshot shows a dialog box titled "Suppression d'événements de l'audit 'Utilisateurs'". It contains two input fields: "Événements antérieurs au :" with a date value of "02/11/2020" and a calendar icon, and "Nombre d'événements à supprimer :" with a value of "5808". At the bottom right, there are two buttons: "Supprimer" (highlighted in blue) and "Annuler".

Click **Export** to export events from the list.



The screenshot shows a dialog box titled "Exportation d'événements de l'audit 'Utilisateurs'". It contains two input fields: "Événements antérieurs au :" with a date value of "02/11/2020" and a calendar icon, and "Nombre d'événements à exporter :" with a value of "5808". At the bottom right, there are two buttons: "Exporter" (highlighted in blue) and "Annuler".

For **Users** audit type, the **Report** button enables you to generate the corresponding report (report on each user's right and the security rules applied).

02/11/2020	Rapport d'audit des droits utilisateurs	Page N° 1
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Tenant(s) : Unipay

Activation des données et règles des 4 yeux	Règle des 4 yeux	Activation
Gestion des profils	non	oui
Gestion des sites	non	oui
Gestion des utilisateurs	non	oui
Gestion des identifications de la liste d'autorisation	non	oui
Gestion des identifications de la liste locale d'exclusion	non	oui
Gestion des rapports de relevés bancaires	non	oui
Gestion des exportations de données de relevés bancaires	non	oui

Règles des mots de passe	Paramètres
Obligation de saisie de mot de passe pour se connecter	non
Caractères numériques obligatoires pour les nouveaux mots de passe	non
Majuscules obligatoires pour les nouveaux mots de passe	non
Longueur minimum des mots de passe	non
Historisation des mots de passe	non
Contrôle d'équivalence Mot de passe - Nom Utilisateur	non
Mot de passe par défaut pour les nouveaux comptes	non
Condition de validité des comptes avec mot de passe par défaut	non
Période de validité pour les nouveaux mots de passe	non
Verrouillage des comptes après un certain nombre de tentatives de connexion échouées	non

Log

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

The screenshot displays the 'Gestion des logs' (Log Management) interface. At the top, there's a navigation bar with 'Audits' highlighted. Below it, a search bar is present with 'Gestion des utilisateurs' selected in the dropdown and 'Aucune' in the 'Période' dropdown. A 'Rechercher' button is on the right. The main area shows a table of log entries:

Date/Heure	Niveau	Message
02/11/2020 16:57:01	DEBUG	ado connection closed
02/11/2020 16:57:01	DEBUG	executing query 'select FUNCTION_CODE,PARENT_FUNCTION,DESCRIPTION,MOREINFO,DISPLAY_ORDER from UM_PROD_FUNCTION'
02/11/2020 16:57:01	DEBUG	ado connection opened
02/11/2020 16:57:01	DEBUG	ado connection closed
02/11/2020 16:57:01	DEBUG	executing query 'SELECT FUNCTION_CODE,USER_SECURITY,L1,USER_SECURITY,L2,OPENED FROM UM_PROF_RIGHTS WHERE PROFILE_CODE=NADMINISTRATEURS'
02/11/2020 16:57:01	DEBUG	ado connection opened
02/11/2020 16:57:01	DEBUG	Query='SELECT FUNCTION_CODE,USER_SECURITY,L1,USER_SECURITY,L2,OPENED FROM UM_PROF_RIGHTS WHERE PROFILE_CODE=NADMINISTRATEURS'
02/11/2020 16:57:01	DEBUG	ado connection closed
02/11/2020 16:57:01	DEBUG	executing query 'SELECT PPROFILE_CODE,PPROFILE_NAME,PDESCRIPTION,PACTIVE,PUSER_CODE,LASTACTION,PPROFILE_TYPE,PDEFAULT_LANG,PDEFAULT_SECURITY_LEVEL,PGRANT_STATUS,C FROM UM_PROFILES P,UM_USER_PROFILES UP WHERE UPPROFILE_CODE = PPROFILE_CODE AND UPUSER_CODE = N'XRT' ORDER BY PPROFILE_CODE'
02/11/2020 16:57:01	DEBUG	ado connection opened

At the bottom of the log table, there's a pagination control showing 'Afficher 10 enregistrement(s)' and 'Page 1 sur 29'. The total number of records is 284.

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.

The screenshot shows the 'Conception des tables de transcodage' page in the Sage XRT Administration Services interface. The page features a navigation bar with 'Droits', 'Bibliothèque de formats', 'Transcodages', 'Environnement', and 'Audits'. Below the navigation bar, there are search filters for 'Nom' and 'Description', and a search input field. The main content area displays a table of transcoding tables with the following columns: 'Nom', 'Description', 'Nombre de colonnes en entrée', and 'Nombre de colonnes en sortie'. The table lists various tables such as ACCTFILE_TO_ACCTREF, ACSAFBVDAT, ACSAFBVDAT, ACSAFBPA.DAT, ACSAFBVE.DAT, ACSAFB_TO_MT, acsfrstapa.dat, ACSMT_OP.DAT, ACSMT_OP_DIR, and AEB43_PARAM. The interface also includes an 'Importer' button and a 'Nouvelle table' button.

Nom	Description	Nombre de colonnes en entrée	Nombre de colonnes en sortie
<input type="checkbox"/> ACCTFILE_TO_ACCTREF	File account to repository account	1	1
<input type="checkbox"/> acsaebv.dat	Correspondance Code Devise AEB <-> Code ISO	1	1
<input type="checkbox"/> ACSAFBVDAT	Correspondance Code Devise AFB <-> Code ISO	2	1
<input type="checkbox"/> ACSAFBPA.DAT	Table des partenaires	1	1
<input type="checkbox"/> ACSAFBVE.DAT	Taux de change de l Euro par devise	1	1
<input type="checkbox"/> ACSAFB_TO_MT		1	1
<input type="checkbox"/> acsfrstapa.dat	Parametres d'intégration FINSTA	2	1
<input type="checkbox"/> ACSMT_OP.DAT	Traduction des codes opération SWIFT	1	1
<input type="checkbox"/> ACSMT_OP_DIR		2	1
<input type="checkbox"/> AEB43_PARAM		1	1

Sage XRT Administration Services

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

Création d'une table

Nom*
DOC

Description

0 sélectionné(s) 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

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.

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.

Sage XRT Administration Services

Création d'une table

Nom*
DOC

Description

0 sélectionné(s) 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.

Sage XRT Administration Services

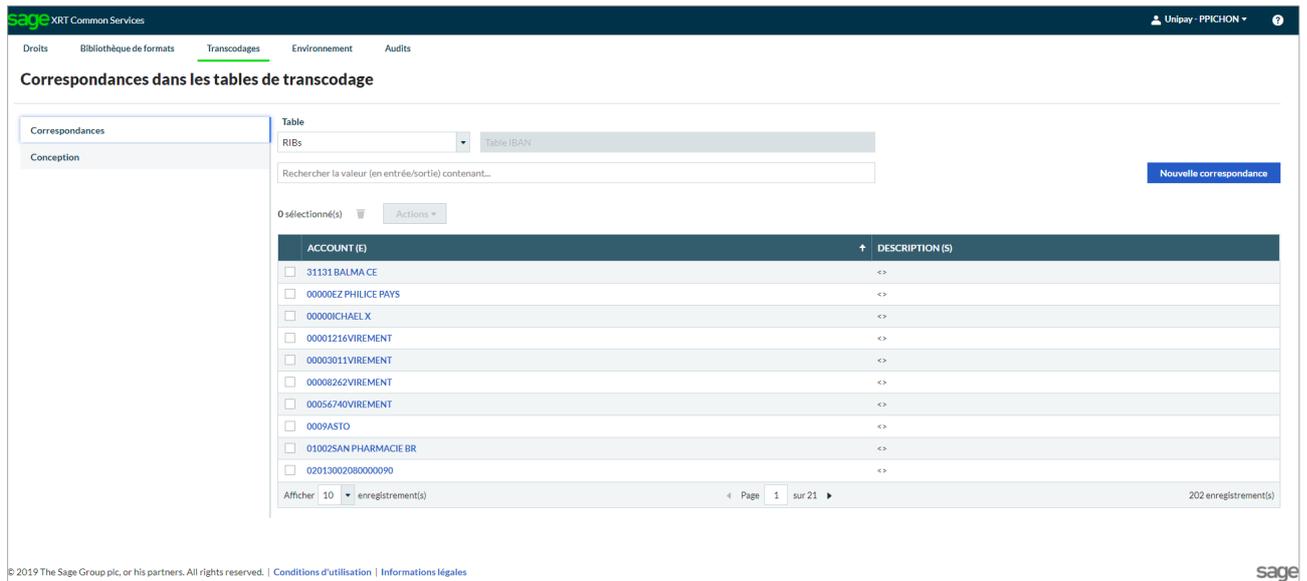
Creation

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.

You can search any input and output columns for a value.

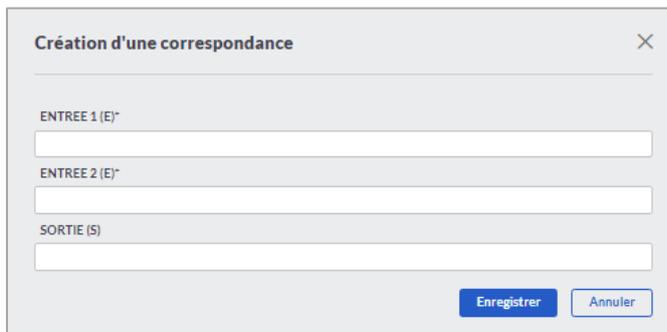


The screenshot shows the Sage XRT Administration Services interface. The main heading is "Correspondances dans les tables de transcoding". Below this, there is a "Table" dropdown menu set to "Table IBAN". A search bar is present with the placeholder text "Rechercher la valeur (en entrée/sortie) contenant...". A "Nouvelle correspondance" button is located in the top right corner. The main content area displays a table with the following structure:

ACCOUNT (E)	DESCRIPTION (S)
<input type="checkbox"/> 31131 BALMA CE	<>
<input type="checkbox"/> 0000EZ PHILICE PAYS	<>
<input type="checkbox"/> 000001CHAE L X	<>
<input type="checkbox"/> 00001216VIREMENT	<>
<input type="checkbox"/> 00003011VIREMENT	<>
<input type="checkbox"/> 00008262VIREMENT	<>
<input type="checkbox"/> 00056740VIREMENT	<>
<input type="checkbox"/> 0009ASTO	<>
<input type="checkbox"/> 01002SAN PHARMACIE BR	<>
<input type="checkbox"/> 0201300208000090	<>

At the bottom of the table, there is a pagination control showing "Page 1 sur 21" and "202 enregistrement(s)".

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



The screenshot shows a modal window titled "Création d'une correspondance". It contains three input fields: "ENTREE 1 (E)*", "ENTREE 2 (E)*", and "SORTIE (S)". At the bottom right, there are two buttons: "Enregistrer" (Save) and "Annuler" (Cancel).

Enter input and output values for every correspondence.

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

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

Sage XRT Administration Services

Modification

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

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

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

For multiple modifications (output only), select the correspondences to modify and use the **Modify** action.

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.

Correspondence Duplication

Select the correspondence to duplicate and click **Actions** to use the **Copy** function.

The screenshot shows the Sage XRT Common Services interface. The main heading is "Correspondances dans les tables de transcodage". On the left, there are tabs for "Correspondances" and "Conception". The main area shows a table with the following columns: "ACCOUNT (E)" and "DESCRIPTION (S)". The first row is selected, and the "Actions" menu is open, showing the "Copier" option. The table contains the following data:

ACCOUNT (E)	DESCRIPTION (S)
<input checked="" type="checkbox"/> 31131 BALMA CE	<->
<input type="checkbox"/> 00000EZ PHILICE PAYS	<->
<input type="checkbox"/> 00000ICHAELX	<->
<input type="checkbox"/> 0000121AVIREMENT	<->
<input type="checkbox"/> 00003011VIREMENT	<->
<input type="checkbox"/> 00008262VIREMENT	<->
<input type="checkbox"/> 00056740VIREMENT	<->
<input type="checkbox"/> 0009ASTO	<->
<input type="checkbox"/> 01002SAN PHARMACIE BR	<->
<input type="checkbox"/> 0201300208000090	<->

In the creation window, modify an element from the input column to view the **Save** button.

The screenshot shows a window titled "Création à partir de la correspondance 31131 BALMA CE". The window contains the following fields and buttons:

- ACCOUNT (E)*: 31131 BALMA CE
- DESCRIPTION (S): <->
- Buttons: Enregistrer, Annuler

XDLO (obsolete)

The XDLO service does not exist anymore.

Sage XRT Functional Service

Configuration

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

Activating Logs

See <system.diagnostics> and <diagnostics> nodes

Defining 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="httpservicehost" 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" />
```

Sage XRT Administration Services

Defining number of actions threads on payments JSON flows

See <ApplicationSettings> node

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

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

Note:

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)
```

Setting up the link to another product (RAPI), Posting and Retrieving Status

See <ApplicationSettings> node

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

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

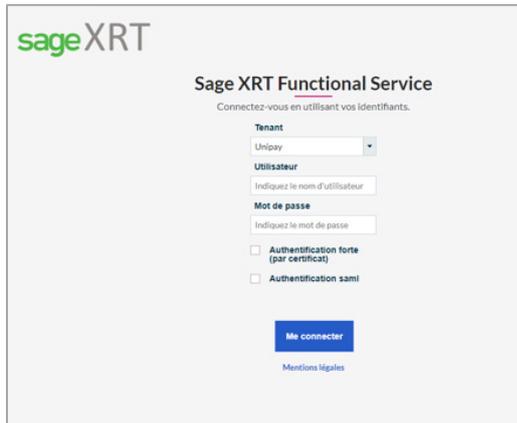
SWAGGER Documentation

Documentation URL and export URL

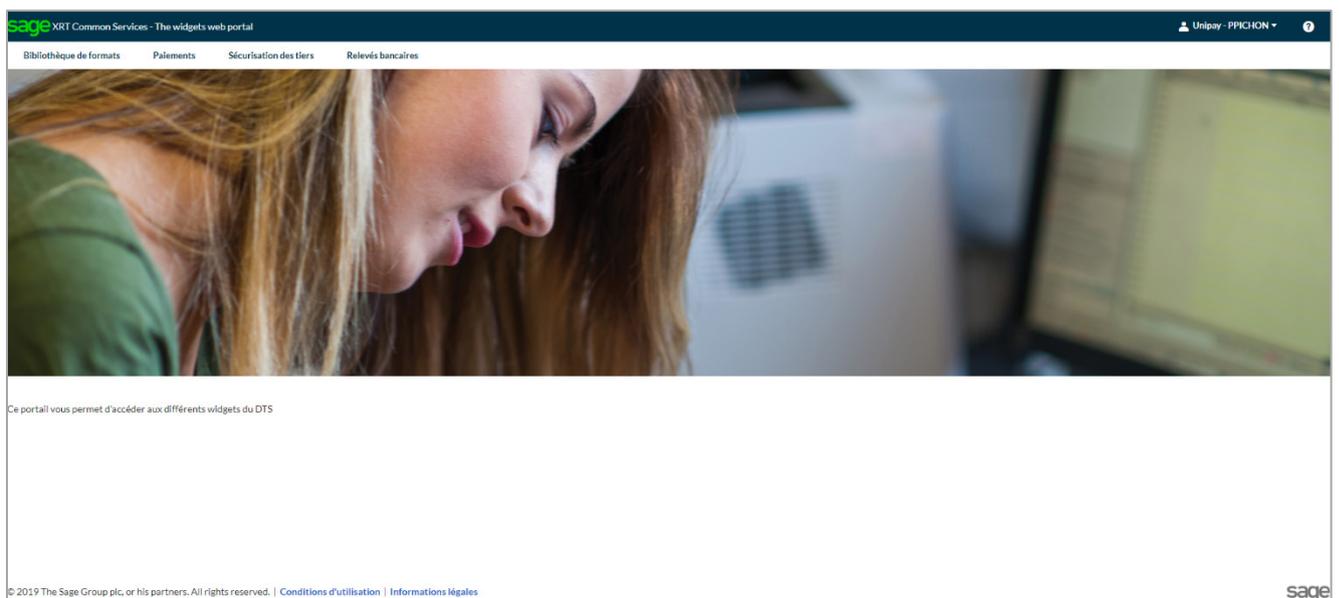
Sage XRT Administration Services

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 Sage XRT Functional Service. At the top left is the 'sageXRT' logo. The main heading is 'Sage XRT Functional Service' with a sub-heading 'Connectez-vous en utilisant vos identifiants.' Below this, there are four input fields: 'Tanant' (a dropdown menu with 'Unipay' selected), 'Utilisateur' (with the instruction 'Indiquez le nom d'utilisateur'), 'Mot de passe' (with the instruction 'Indiquez le mot de passe'), and two checkboxes for 'Authentication forte (par certificat)' and 'Authentication saml'. A blue 'Me connecter' button is positioned below the password field, and a link for 'Mentions légales' is at the bottom.



This service offers the following possibilities:

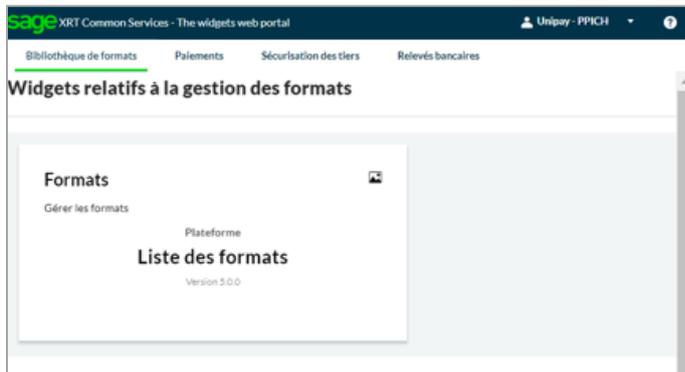
- Format Library
- Payment Management
- Third-Party Security (not yet available in 5.2)
- Bank Statements (5.1 and above versions)

Sage XRT Administration Services

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.



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.

Sage XRT Administration Services

Création d'un produit

Code*

Description

Modifying Products

From the product list, use the button with the edition icon in front of the product description to display the modification window.

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.

Deleting Products

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

Creating Projects

To access the list of the standard projects associated with the products, click the product **Description**. The number of projects is displayed in the last column.

The project list is displayed.

The screenshot shows the 'Gestion des projets du produit DTS' interface. It includes a sidebar with 'Produits', 'Importer', 'Exporter', and 'Paramétrage'. The main area contains a table with columns: Code, Description, Famille, Format, Licence, Type, and Traitements. The table lists various products like ACAS50, ACH CCD, ACH CCDP, ACH CTX, ACH PPD, ACK NACK, and several ACMT entries. Each row has a checkbox, an edit icon, and a 'bin' icon. A search bar and filter options are at the top. The footer shows 'Afficher 10 enregistrements(s)' and 'Page 1 sur 21'.

Code	Description	Famille	Format	Licence	Type	Traitements
<input type="checkbox"/> ACAS50	Accusé de Réception Applicatif	Accusés de réception	ACA_560	✓	Accusé de réception	2
<input type="checkbox"/> ACH CCD	Virements Domestique	Virements Domestique	ACH	✓	Virement domestique	1
<input type="checkbox"/> ACH CCDP	Virements Domestique	Virements Domestique	ACH	✓	Virement domestique	1
<input type="checkbox"/> ACH CTX	Virements Domestique	Virements Domestique	ACH	✓	Virement domestique	1
<input type="checkbox"/> ACH PPD	Virements Domestique	Virements Domestique	ACH	✓	Virement domestique	1
<input type="checkbox"/> ACK NACK	Format XML Banque vers Client	Rapports	SPECIFIC	✓	Accusé de réception	2
<input type="checkbox"/> ACMT010	ACMT010	Rapports	ACMT010	✓	Accusé de réception	1
<input type="checkbox"/> ACMT011	ACMT011	Rapports	ACMT011	✓	Accusé de réception	1
<input type="checkbox"/> ACMT014	ACMT014	Rapports	ACMT014	✓	Accusé de réception	1
<input type="checkbox"/> ACMT017	ACMT017	Rapports	ACMT017	✓	Accusé de réception	1

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

Sage XRT Administration Services

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

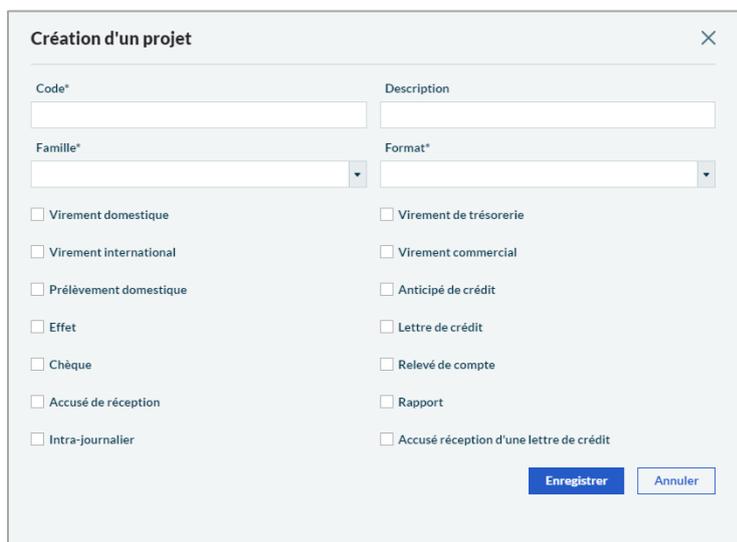
For each project identified by code, the list displays:

- 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

From the project list, use the button with the edition icon in front of the project **Code** to display the modification window.

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.

Sage XRT Administration Services

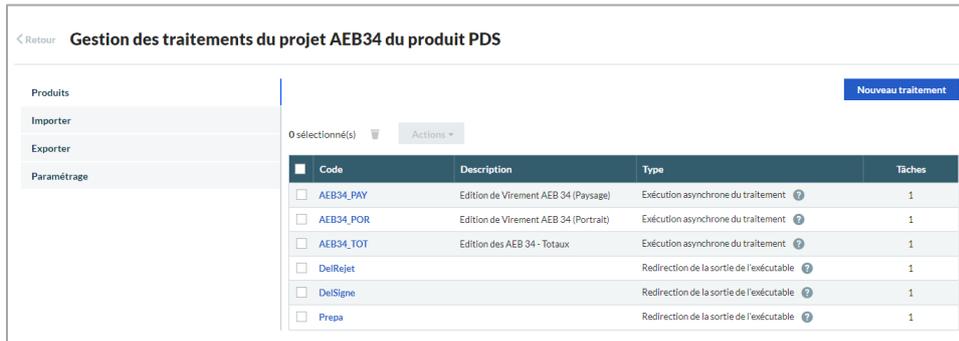
Deleting Projects

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

A message confirms the action.

Creating Processing

To access the list of the standard processes associated with the project, click the project **Code**. The number of processes is displayed in the last column.



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:

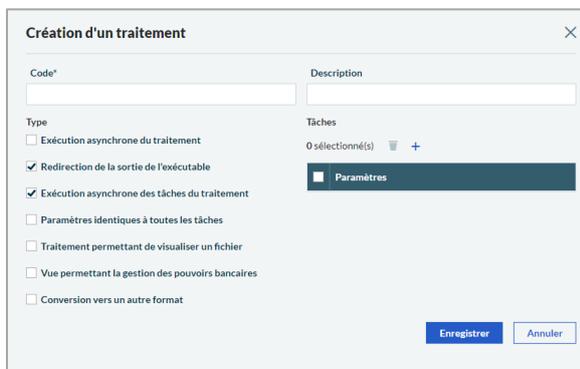
- Description
- Process Type
- Number of Tasks

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 **+** button to add tasks, and the *bin* button 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)

Sage XRT Administration Services

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

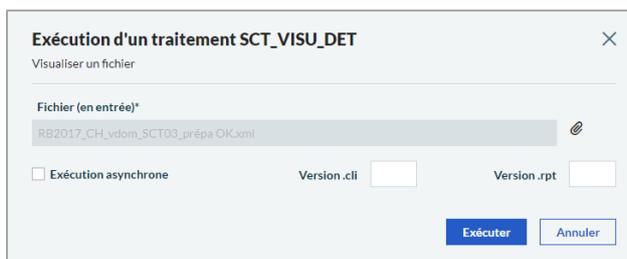
From the process list, select the process to delete then click the *bin* button. A message confirms the action.

Executing Processing

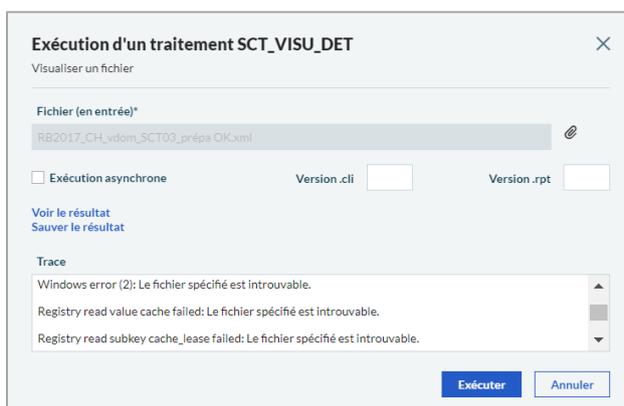
From the process list, select the process to execute.

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

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



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.

Sage XRT Administration Services

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**.

The screenshot shows a web interface titled "Formats - Accès à l'importation". On the left, there is a vertical menu with four items: "Produits", "Importer", "Exporter", and "Paramétrage". The "Importer" item is highlighted. The main area on the right contains a dashed blue rectangular box with the text "Essayez de déposer le fichier ici ou cliquez pour sélectionner le fichier à télécharger." Below this box is a blue button labeled "Importer".

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.

The screenshot shows a web interface titled "Formats - Accès à l'exportation". On the left, there is a vertical menu with four items: "Produits", "Importer", "Exporter", and "Paramétrage". The "Exporter" item is highlighted. The main area on the right contains a blue information box with a question mark icon and the text "Ci-dessous vous trouverez les informations à sauvegarder sur votre disque dur." Below this is a text input field labeled "Nom du fichier" containing the text "apifmt.xml". Underneath is a text area labeled "Contenu du fichier" containing XML code. At the bottom right of the text area is a blue button labeled "Sauvegarder".

```
<?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>
```

Sage XRT Administration Services

Setup

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

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.infvbs.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* button.

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.infvbs.js

Activer la trace de l'API des formats Activer la trace de Clint

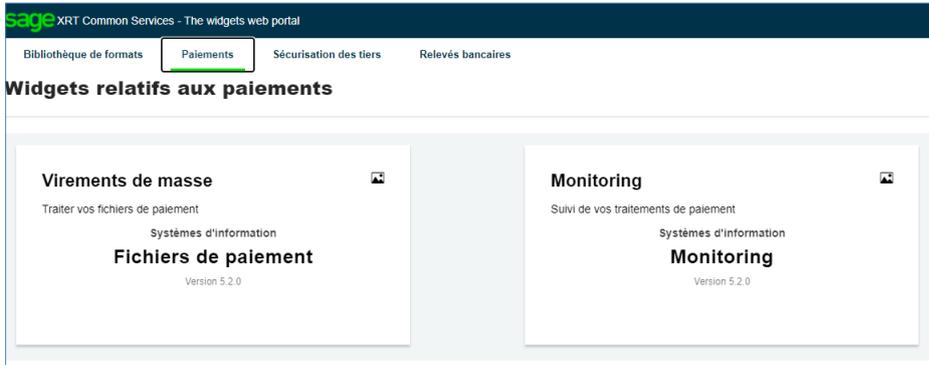
Séparateur ODBC
Delimited(,)

Enregistrer Annuler

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

Payments - Batch Payments

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.

JSON UTF-8 BOM flow

```
{  
  "Transaction": [  
    {  
      "TransactionType":  
      "IssuingAgentBIC" :  
      "IssuingAgentNationalId" :  
      "IssuingAgentContact" :  
      "IssuingAgentPhone" :  
      "IssuingAgentFax" :  
      "IssuingAgentName":  
      "IssuingAgentTown" :  
      "IssuingAgentState" :  
      "IssuingAgentCountry" :
```

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"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":

Sage XRT Administration Services

"InitiatingPartyEmail":
"InitiatingPartySenderId":
"InitiatingPartyContratNb":
"InitiatingPartyIssuerIndicator":
"DebtorName1":
"DebtorName2":
"DebtorAdressLine1":
"DebtorAdressLine2":
"DebtorTown":
"DebtorState":
"DebtorProvince":
"DebtorCountryCode":
"DebtorCountryLabel":
"DebtorNationalId":
"DebtorIdType":
"DebtorId":
"DebtorContact":
"DebtorService":
"DebtorPhone":
"DebtorFax":
"DebtorEmail":
"DebtorNonResidentIndicator":
"DebtorSenderId":
"DebtorContratNb":
"DebtorAcctCountryCode":
"DebtorAcctId":
"DebtorAcctLocalKey":
"DebtorAcctCurrency":

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"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":

Sage XRT Administration Services

"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":

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```
"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":
```

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```
"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":
```

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```
"InvoicePayeeType":  
  
"InvoiceAdditionalInformation":  
"InvoiceDueAmount":  
  
"InvoiceGapReason":  
  
"InvoiceDecision":  
  
"InvoiceCommunication":  
  
"InvoiceCurrency":
```

Operation Modes

The two following operation modes are available. The selected one must be specified in *Sage.SCDTSServer.Service.exe.config* under **C:\Program Files\Common Files\xrt**, in `<add key="payflowmode" value=""/>`.

The **NONE** mode uses *DTSPAYCAT_TRANS_PAY* transcoding table and does not require any specific syntax for element names (database, entities, banks, services, etc.).

The **CLOUDPARTNER** mode uses *DTSPAYCAT_TRANS_PAY* transcoding table but does require a specific syntax for element names (database, entities, banks, services, etc.).

DTSPAYCAT_TRANS_PAY Transcoding Table

This table is crucial 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

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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 (see Appendices):

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

Syntax to follow in CLOUDPARTNER Mode

Example of setup based on the following case: PRTN manages two clients in SAAS.

- CLIENT 1
- CLIENT 2

Both clients have VTS contracts with *BNP* and *SOGÉ* banks.

Tenants and Databases

1. Creating an **SXA** tenant by PRTN client containing:
 - **SCS** database with the syntax:
SCS_SXA_%partnerCode%_%clientCode%
 - **SXA** database with the syntax: **SXA_%partnerCode%_%clientCode%**

Tenant	SCS Database	SXA Database
PRTNSXA01 (no syntax to apply)	SCS_SXA_PRTN_01	SXA_PRTN_01
PRTNSXA02 (no syntax to apply)	SCS_SXA_PRTN_02	SXA_PRTN_02

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2. Creating a unique **SXBE** tenant of PRTN containing:
 - **SCS** database with the syntax: **SCS_SXBE_Cloud**
 - **SXBE** database with the syntax: **SXBE_%PartnerCode%**

Tenant	SCS Database	SXBE Database
PRTNSXBE (no syntax to apply)	SCS_SXBE_Cloud	SXBE_PRTN

Service Manager

Only *AFB160VT* and *VTSXML* are used.

The services are created through duplication for each existing client, and according to the syntax **%nnVTS160** and **%nnVTSXML**.

Service	Client 1	Client 2
AFB160VT	01VTS160	02VTS160
VTSXML	01VTSXML	02VTSXML

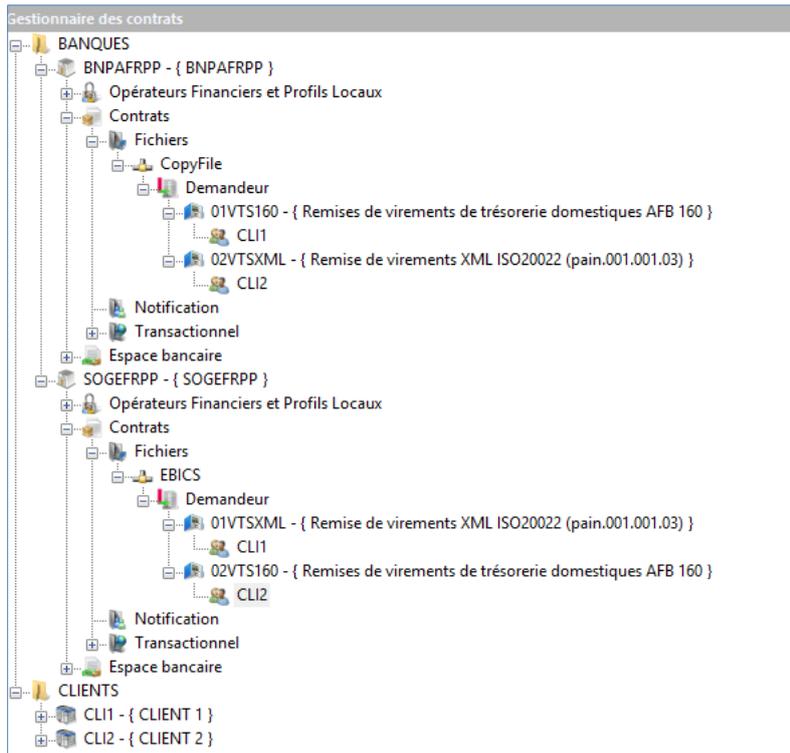
Contract Manager

You must create as many entities as clients to manage. Enter the corporate name of the client for **SXA**.

For each bank used in **SXA**, you must create a bank and enter the corresponding BIC.

For each bank, you must declare the client contracts: a single client can have only one contract by flow type and by bank.

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Configuration Files

Important! `dtspay_exitpostgen.xml` cannot be modified except for the addition of services (different from `VTS160` and `VTSXML`): Service name + link to DTS profile to associate.

1. Check whether the right URL is used (UAT/prod).
2. In `Sage.SCDTSServer.Service.exe.config`, replace `<add key="payflowmode" value="NONE"/>` by `<add key="payflowmode" value="CLOUDPARTNER"/>`.
3. Enable the **SXBE** section for the payment files posting (**paysendfilepostgen**) and specify that section as a comment for **SXCS** (Communication/Signature).
4. Position the variables for **SXA** and activate the processing.

```
<add key="paysendfilepostgen" value="[SXA_DEFAULT:SendToSbeSign.ps1|-url
&#34;@baseurl_of_srp_service@/srp/v1/pdssa/addfile&#34; -protocol
&#34;@protocol_name@&#34; -client &#34;@client_name@&#34; -partner
&#34;@partner_name@&#34; -service &#34;@service_name@&#34; -action
&#34;YES&#34; -filename &#34;$filename$&#34; -filedata
&#34;$filedata$&#34; -reference
&#34;$reference$&#34;],[X3_DEFAULT:SendToSbeSign.ps1|-url
&#34;baseurl_of_srp_service/srp/v1/pdssa/addfile&#34; -protocol
&#34;protocol_name&#34; -client &#34;client_name&#34; -partner
&#34;partner_name&#34; -service &#34;service_name&#34; -action
```

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```
&#34;NO&#34; -filename &#34;$filename$&#34; -filedata &#34;$filedata$&#34;  
-reference &#34;$reference$&#34;]" />
```

5. Enable the **SXBE** section for the payment files monitoring, follow up (**payfollowfilepostgen**) and specify that section as a comment for **SXCS** (Communication/Signature).
6. Position the variables for **SXA** and activate the processing.

```
<add key="payfollowfilepostgen" value="[SXA_DEFAULT:FollowSbeSignFile.ps1  
-url &#34;$baseurl_of_srp_service$/srp/v1/pdssa/getstatus&#34; -idjobext  
&#34;$idjobext$&#34; -workgroup &#34;$workgroup$&#34; -action  
&#34;YES&#34;],[X3_DEFAULT:FollowSbeSignFile.ps1 -url  
&#34;baseurl_of_srp_service/srp/v1/pdssa/getstatus&#34; -idjobext  
&#34;$idjobext$&#34; -action &#34;YES&#34;],[X3:FollowSbeSignFile.ps1 -url  
&#34;http://sra_host:sra_port/sra/v1/pdssa/getstatus&#34; -idjobext  
&#34;$idjobext$&#34; -action &#34;NO&#34;],[X3:FollowSbeSignFile.ps1 -url  
&#34;baseurl_of_srp_service/srp/v1/pdssa/getstatus&#34; -idjobext  
&#34;$idjobext$&#34; -action &#34;NO&#34;]" />
```

RAPI Setup

The **Address** information must be specified with the URL following this syntax:

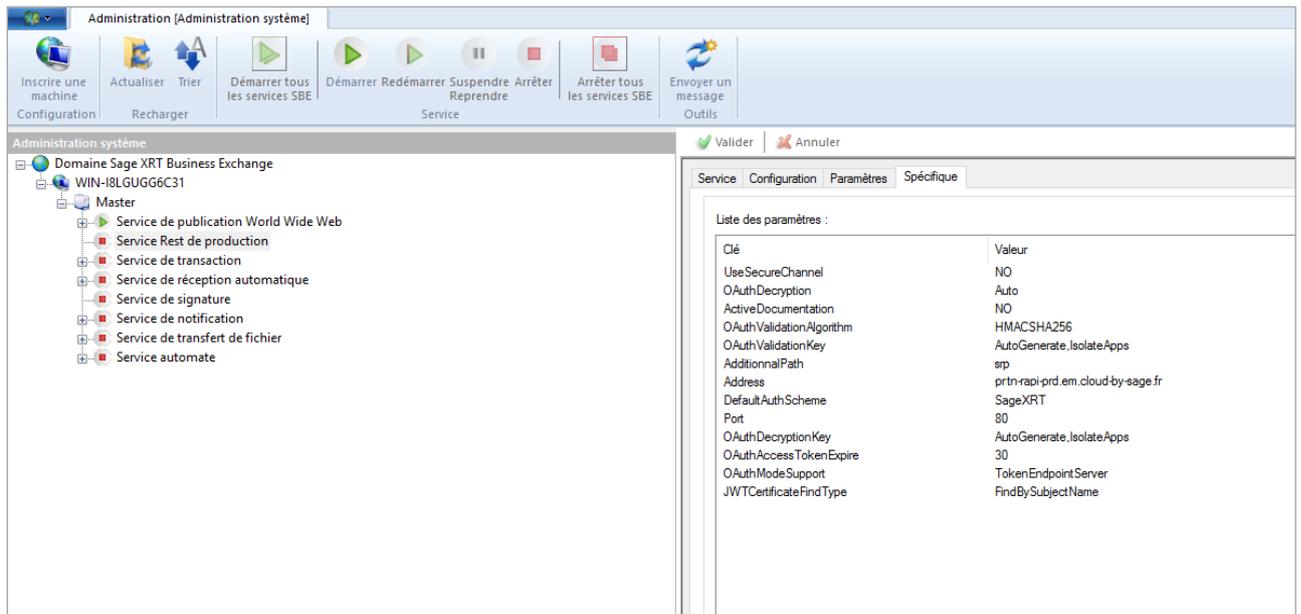
- **http(s)://%CP%-rapi-prd.em.cloud-by-sage.fr**
- **http(s)://%CP%-rapi-rec.em.cloud-by-sage.fr**

Example of address for the partner PRTN in a production environment:

<http://PRTN-rapi-prd.em.cloud-by-sage.fr>

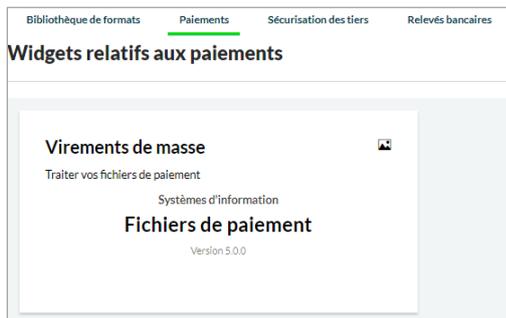
Note: Sage XRT must be the value to use for **DefaultAuthScheme**.

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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**.

Sage XRT Administration Services

Accueil

Virements de masse - Accès à la création des Jobs

Création d'un Job

Suivi d'un job

Essayez de déposer le fichier ici ou cliquez pour sélectionner le fichier à télécharger.

Origine :
SXA

Nombre de transactions :
1

Utilisation de l'enrichissement :
Non

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": "FR7633332222444444444455",
      "DebtorAcctType": "1",
      "CreditorName": "CDTR NM",
      "CreditorAgentBIC": "SOGEFRPP833",
      "CreditorAcctId": "FR769999988888777777777766",
      "CreditorAcctType": "1",
      "TransactionAmount": "2000.00",
      "TransactionAmountDecimalNb": "2",
      "TransactionTransferCurrency": "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":
  "H4sIAAAAAAAAAEAi2OvQgDMBSFX0XuXDBJ5dGMLbFTpQ.P43IUZ.ZRun5J7V0svvSUpwShDokyMjH4ZQcr/5onprp6z1DZfB7B415MwG.NZMGpRjKXnDBYwvF57fMmgIZ9i2CnN8AKKq6YpwBAAA",
  "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",
      "exterr": ""
    }
  ],
  "remittance_list": [
    {
      "idfic": "105",
      "idrm": "150018",
      "refrm": "BETR191021152558",
      "statusrm": "RmGenerated",
      "status_daterm": ""
    }
  ]
}
```

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

Sage XRT Administration Services

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).

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

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 (*xesame...*) 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

EXITSPOSTGEN Table

After the bank file generation, an *exit* can be launched for this file (e.g.: locate the file in a folder to send it for signature, etc.).

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

Sage XRT Administration Services

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-1BLGUGG6C31:9090/sra/v1/pdssa/addfile" -protocol "Ebics" -client "SAGE" -partner "BNP" -

Enregistrer Annuler

Standard processes

They are stored in *C:\Program Files\Common Files\xrt\Tasks*:

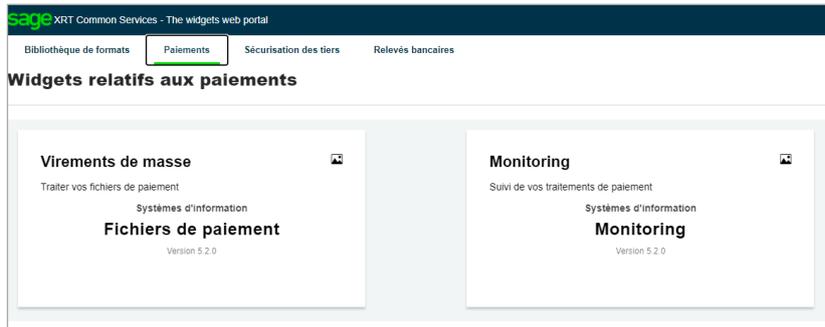
- **SendToFrpSign.ps1**: adding and preparing the file generated in **Sage XRT Signature**
- **SendToSbeSign.ps1**: adding and preparing the file generated in the **Signature** module of **Sage XRT Business Exchange**
- **SendToFrpSignUsingTrnCode.ps1**: adding and preparing the file generated in **Sage XRT Signature** using a correspondence between the transaction code and the contract to use (automatic correspondence or declaration in *SendToFrpSignUsingTrnCode.xml*)
- **SendToFolder.ps1**: storing the generated file in a folder
- **FollowFrpSignFile.ps1**: following up the status for the file posted in **Sage XRT Signature**
- **FollowSbeSignFile.ps1**: following up the status for the file posted in **Sage XRT Business Exchange**

Case study: adding and preparing files for the **Signature** module in **Sage XRT Business Exchange**

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

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

Payments – Monitoring



Monitoring - Liste des Jobs

Jobs: Aucun | ID Job contenant... | Période de date de création: Aucune

ID Job	Statut	Date/Heure de création	Transactions	ID Fichiers bancaires	Flux JSON d'origine
BE33E875-6A5E-405E-A0E4-EB388C8EF007	Terminé avec erreur	11-12-2020 2:49:07	1		
F841088E-FCFC-448A-9542-43326F57708B	Terminé avec erreur	19-11-2020 10:42:09	1		
AED194D5-F7D0-4051-8088-02044C96016	Terminé avec succès	19-03-2020 2:58:57	1	137	
475563A9-048F-448E-A875-525EF33F3650	Terminé avec succès	19-03-2020 2:58:56	1	136	
4B3EEDCB-1D56-4D01-825E-8C16993A3D41	Terminé avec succès	19-03-2020 2:58:54	1	135	
D9815ECC-8784-4338-894A-C84F503D5020	Terminé avec succès	19-03-2020 2:58:54	1	134	
ACB307A0-2384-4127-8C81-F012AE1F8823	Terminé avec erreur	19-03-2020 2:58:56	1		
8B88718D-4D5F-42AA-981D-05A4E71209E96	Terminé avec succès	19-03-2020 2:58:56	1	132	
9E47D0BD-9F8A-4F7E-88CF-3210A8180061	Terminé avec succès	19-03-2020 2:58:55	1	131	
3CA33DDC-888E-4531-8113-D3ADACEA8F08	Terminé avec succès	19-03-2020 2:58:55	1	130	

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This function enables you to follow up the workflow progress by **Job ID**.

For each **ID job**, the following elements are specified:

- Status: **Completed successfully** or **Completed with errors**
Click the question mark to get more info on the error encountered.
- Creation Date and Time of the *Job*
- Number of Transactions in the Job
- Number of bank files generated with download option
- Original *JSON* flow with download option

Sage XRT Administration Services

This list can be filtered by:

- Status
- Job ID
- Creation Date Period

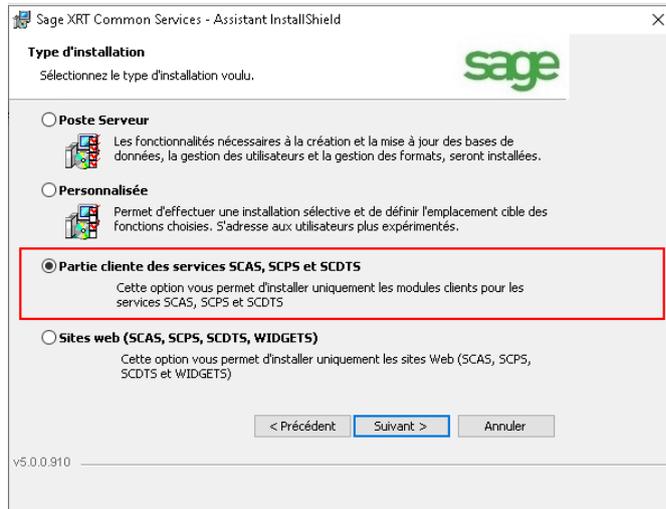
The **Actions** button enables you to act on all the selected *jobs*:

- **Relaunch**: relaunch for the jobs with the **Completed with error** status
- **Cancel**: cancellation with no impact on **SXA**

Use the **Refresh** button to update the list.

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, the *DLL* must be saved with *RegAsm.exe* of 32-bit *.NET* framework.

Operation

Sage.fcs.client enables the use of an 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:

```
<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_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"/>

</appSettings>
</configuration>

```

Integrated Methods Description

ID	
2	<code>object</code> WorkgroupList()
3	<code>void</code> DoLogin(<code>object</code> p_oReq)
4	<code>void</code> CheckSession()
5	<code>void</code> CheckUser(<code>object</code> p_oReq)
6	<code>void</code> Disconnect()
7	
8	<code>void</code> DoLoginService(<code>object</code> p_oReq)
9	<code>void</code> PasswordUpdatingByActionForm()

ID	
10	<code>void PasswordUpdatingByAction(object p_oReq)</code>
11	<code>object ProjectList(object p_oReq)</code>
12	<code>object WorkList(object p_oReq)</code>
13	<code>object UserList(object p_oReq)</code>
14	
15	
16	
17	
18	
19	
20	
21	
22	<code>object PwdInfos()</code>
23	<code>object LicenseDetails(object p_oReq)</code>
24	<code>object LicenseList()</code>
25	<code>void LicenseCreateForm()</code>
26	<code>void LicenseMigrate(object p_oReq)</code>
27	<code>object ConnectionString(object p_oReq)</code>
28	<code>object UmDataVersion()</code>
29	<code>void ImpStmt(object p_oReq)</code>
30	<code>object WorkExec(object p_oReq)</code>
31	<code>object GenericWorkExec(object p_oReq)</code>
32	<code>object OdbcTextSeparator()</code>

ID	
33	<code>void SetConfigFile(object p_oReq)</code>
34	<code>object UmFeaturesProductKey(object p_oReq)</code>
35	<code>object ProductRights(object p_oReq)</code>
36	<code>object ParamsInfosForClint()</code>
37	<code>void GrpImportBatchStmt(object p_oReq)</code>
38	<code>object PayPostTrn(object p_oReq)</code>
39	<code>object PayFollowBatch(object p_oReq)</code>
40	<code>object WorkgroupListNt(object p_oReq)</code>
41	<code>void OpeGetDataToCtrl(object p_oReq)</code>
42	<code>object GetFrpSessionConnInfo(object p_oReq)</code>
43	<code>object GetSxaCodetrnIssuingagentbic(object p_oReq)</code>

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* and *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*:

```
<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>
```

Sage.fcs.apifmt Application

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:

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:

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 a 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)

```

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|UIR_160|XML|...)
/WRK: Work code (UIR_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:<CHAQ_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

Tenant /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).

Sage.fcs.apifmt Application

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: /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"
```

Sage.fcs.apifmt Application

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';afreject='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:{*_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"
```

Sage.fcs.apifmt Application

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: /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

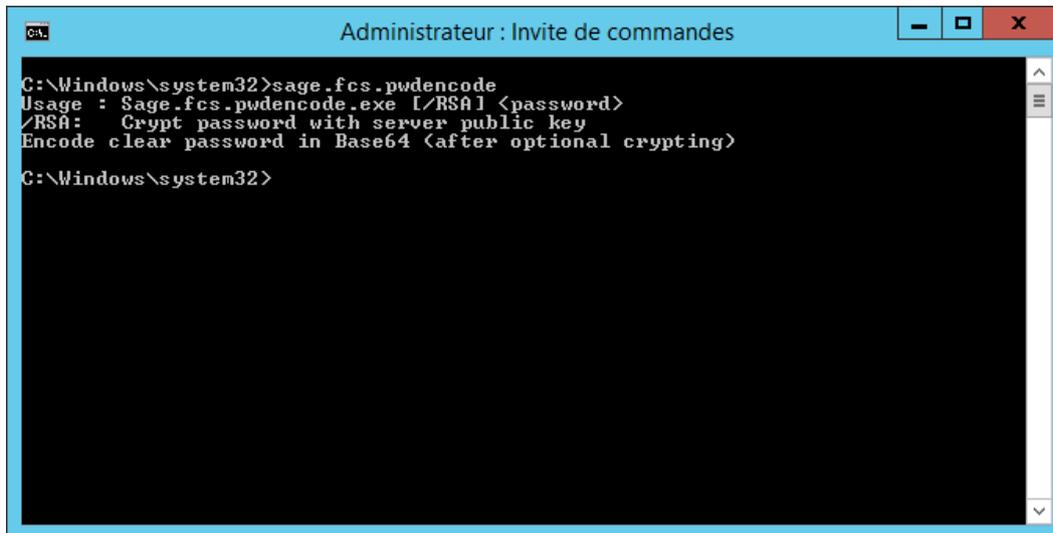
Installing **Sage XRT Common Services** enables the installation of **Sage.fcs.apifmt** providing the component **FCS DLLs** or **SCAS, SCPS and SCDTS client part** is selected. Unless you unselect one of these components for a custom installation, the application is automatically installed for all configurations,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

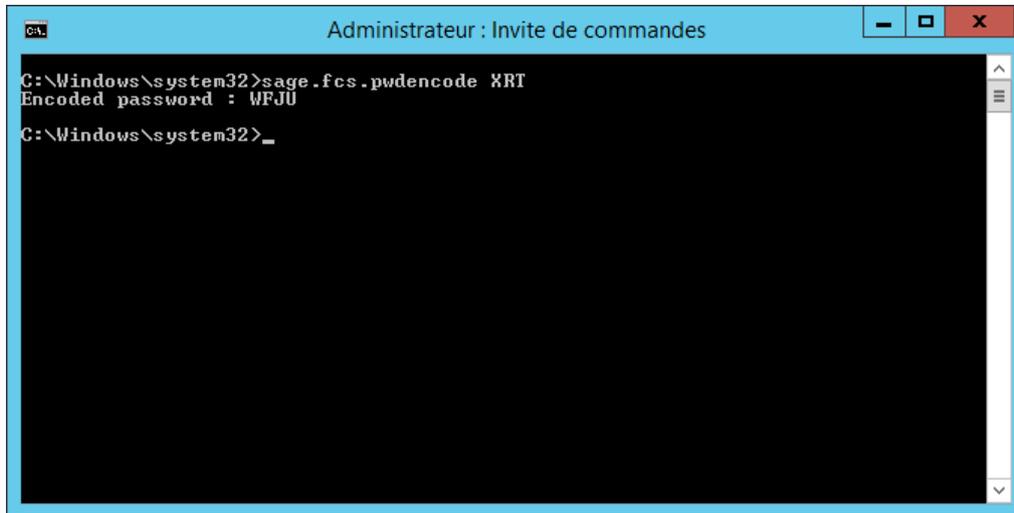


```
C:\Windows\system32>sage.fcs.pwdencode
Usage : Sage.fcs.pwdencode.exe [/RSA] <password>
/RSA:  Crypt password with server public key
Encode clear password in Base64 <after optional crypting>
C:\Windows\system32>
```

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**.



```
Administrateur : Invite de commandes
C:\Windows\system32>sage.fcs.pwdencode XRT
Encoded password : WFJU
C:\Windows\system32>_
```

Encryption and Base64-encoding

Description of Configuration File

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:

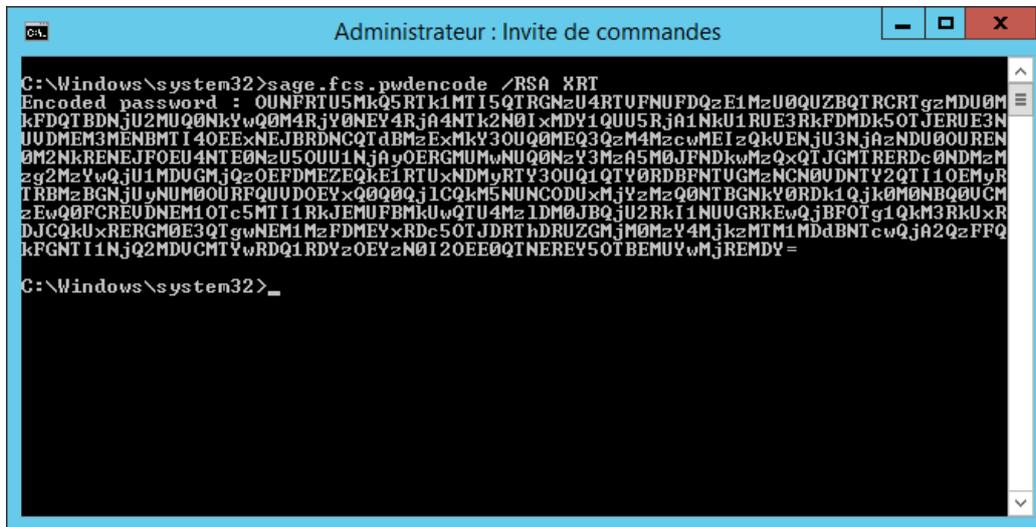
```
<add key="serialnumberforpwdcrypt" value="3526df91b8be9ab046a226d0390a764f" />
```

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

Sage.fcs.pwdencode.exe Application

Using Executable

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



```
C:\Windows\system32>sage.fcs.pwdencode /RSA %RT
Encoded password : OUNFRTU5MkQ5RTk1MTI5QTlRGNzU4RTUFRNUFDQzE1MzU0QUZBQTRCRITgZMDU0M
kFDQIBDNjU2MUQ0NkYwQ0M4RjY0NEY4RjA4NTk2N0IxdDY1QUU5RjA1NkU1RUE3RkFDMDk5OTJERUE3N
UUDMEM3MENBMTI4OEExNEJBRDNCQTdBMzExMkY3OUQ0MEQ3QzM4MzcwMEIzQkUENjU3NjAzNDU0OUREN
0M2NkRENEJFOEU4NTE0NzU5OUU1NjA5OERGNUMwNUQ0NzY3MzA5M0JFNDkwMzQxQlJGMTRERDc0NDMzM
zg2MzYwQjU1MDUgMjQzOEFDMZEZEQkE1RTUxNDMyRTY3OUQ1QTlV0RDlFNTUgMzNCN0UdNTY2QTl1OEMyR
TRBMzBGNjUyNUM0OURFQUUdOEYxQ0Q0Qj1CQkM5NUNCODUxMjYzMzQ0NTBGNkY0RDk1Qjk0M0NBQ0UdCM
zEwQ0FCREUdNEM1OTc5MTI1RkJEUMUFBMkUwQlU4Mz1DM0JBQjU2RkI1NUUGRkEwQjBFOTg1QkM3RkUxR
DJCQkUxRERGM0E3QTgWNEM1MzFDMEYxRDc5OTJDRThDRUZGMjM0MzY4MjkzMTM1MDdBNTcwQjA2QzFFQ
kFGNTI1NjQ2MDUCMTYwRDQ1RDYzOEYzN0I2OE00TNEREY5OTBEMUyWmJREMDY=

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**).

Appendix

CATEGORY(S) column of the transcoding table named TC DTSPAYCAT TRANS PAY:

[SCT VTSDOM 001.001.03][902100]
[SCT VTSIN 001.001.03][903100]
[VTSDO Pain 001.001.03][740796]
[VTSIN Pain 001.001.03][739797]
[VTSDO Pain 001.001.02][740802]
[VTSIN Pain 001.001.02][739801]
[VTSDO Pain 001.001.03 CBI][740825]
[VTSDO Pain 001.001.03 CBI NS][740826]
[VTSIN Pain 001.001.03 CBI][739798]
[VTSIN Pain 001.001.03 CBI NS][739799]
[SCT VTSDOM 001.001.03 BANK OF SPAIN][770002]
[SCT VTSDOM 001.001.03 CBI][770003]
[SCT VTSDOM 001.001.03 CBI NS][770004]
[SCT VTSIN 001.001.03 CBI][771005]
[SCT VTSIN 001.001.03 CBI NS][771006]
[AFB320URG-VTS][003800]
[MT101VTS][001101]
[AEB34VTS][016116]
[AFB160VTS][010191]
[DTAUSDTE-VTS][011111]
[DTAZVEUE-VTS][004105]
[PAY912VTSDO][008108]
[PAY912VTSIN][002102]

Appendix

[PAY96AABNVTSDO][710733]
[PAY96AABNVTSIN][711734]
[PAY96ABOAVTSDO][724757]
[PAY96ABOAVTSIN][725759]
[PAY96ACHVTSDO][510561]
[PAY96ACHVTSIN][610611]
[PAY96ADBVTSDO][712737]
[PAY96ADBVTSIN][713738]
[PAY96ASCBVTSDO][722753]
[PAY96ASEBVTSDO][717745]
[PAY96ASEBVTIN][718746]
[PAY96AVTSDO][500502]
[PAY96AVTSIN][600603]
[SCT VDOM 001.001.02][738774]
[SCT VDOM 001.001.03][756793]
[SCT VDOM 001.001.03 BANK OF SPAIN][738823]
[SCT VDOM 001.001.03 CBI][738819]
[SCT VDOM 001.001.03 CBI NS PMRQ][738820]
[SCT VDOM 001.003.03][780001]
[VDOM Pain 001.001.02][740776]
[VDOM Pain 001.001.03][758795]
[SCT VINT 001.001.02][737773]
[SCT VINT 001.001.03][755792]
[SCT VINT 001.001.03 CBI][737821]
[SCT VINT 001.001.03 CBI NS PMRQ][737822]
[SCT VINT 001.003.03][781002]

Appendix

[VINT Pain 001.001.02][739775]
[VINT Pain 001.001.03][757794]
[VINT Pain 001.001.03 CBI][757828]
[VINT Pain 001.001.03 CBI NS][757829]
[AEB3412DOM][060060]
[AEB3412VINT][070070]
[AEB341VDOM][734734]
[AEB341VINT][729729]
[AEB34VDOM][016116]
[AEB68VDOM][732768]
[AFB160][010110]
[AFB320][003103]
[CBIIPCVDOM][014162]
[CIRI128VDOM][022187]
[CLIEOP3VDOM][012112]
[CMI101][001129]
[DTA826VDOM][759798]
[DTA827VDOM][520562]
[DTA830VINT][620621]
[DTA836VINT][630631]
[DTAUSDTE-VDOM][011111]
[DTAUSIZV-VDOM][011111]
[DTAUSVDOM][011111]
[DTAZV-AZV][004104]
[DTAZV-ESU][004106]
[DTAZV-EUE][004105]

Appendix

[ETB101][001127]
[FIN101][001130]
[MT100][005105]
[MT101][001101]
[MT101C2B][741777]
[MT103][726760]
[MX101C2B][753789]
[OPAE22VDOM][706729]
[OPAE27VDOM][707730]
[PAY912VDOM][008108]
[PAY912VINT][002102]
[PAYEXT96ABOAVDOM][724756]
[PAYEXT96ABOAVINT][725758]
[PAYMUL96AABNVDOM][710733]
[PAYMUL96AABNVINT][711734]
[PAYMUL96ACHVDOM][510561]
[PAYMUL96ACHVINT][610611]
[PAYMUL96ACRGVDOM][500501]
[PAYMUL96ACRGVINT][600601]
[PAYMUL96ADBVDOM][712735]
[PAYMUL96ADBVINT][713736]
[PAYMUL96ASCBVDOM][723754]
[PAYMUL96ASCBVINT][722752]
[PAYMUL96ASEBVDOM][717744]
[PAYMUL96ASEBVINT][718746]
[PS2VDOM][015115]