Documentation

Plus Workflow for OCI

CONTENT

Chapter 1. Introduction

Plus Workflow for OCI is a module of Plus Workflow system which allows a communication (interface) between Plus Workflow and B2B web portals using OCI standard.

Plus Workflow for OCI provide such functionalities as:

- interface for OCI with user login management,
- configuration an access for users to particular catalogues,
- receiving the products form external B2B portals (directly from basket) to Plus Workflow system.

Plus Workflow for OCI is accessible as Plus Workflow plugin. The installation of Plus Workflow plugins is described in attachment.

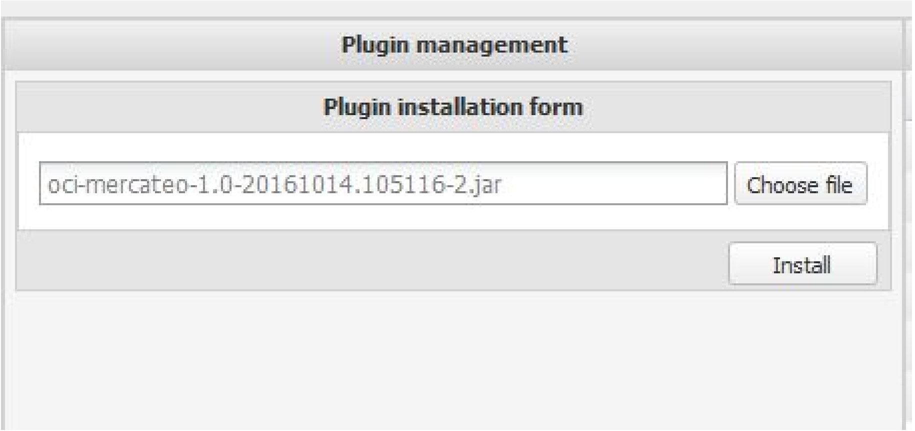
Note: Plus Workflow for OCI is supported by Plus Workflow 3.1.56 version or above.

Chapter 2. Plus Workflow for OCI installation

Note: To install Plus Workflow for OCI administrator rights are needed.

To install Plus Workflow for OCI following steps should be performed:

1. Prepare a plug-in - oci-mercateo-1.0-20161014.105116-2.jar, delivered by Producer.
2. Login to the Plus Workflow with administrator rights.
3. In Plus Workflow system select the path: Administration/System configuration/Plugins.
4. In "Plugin" management section, select the prepared file and then click the button "Install", according to drawing no 1.



oci-mercateo-1.0-20161014.105116-2.jar

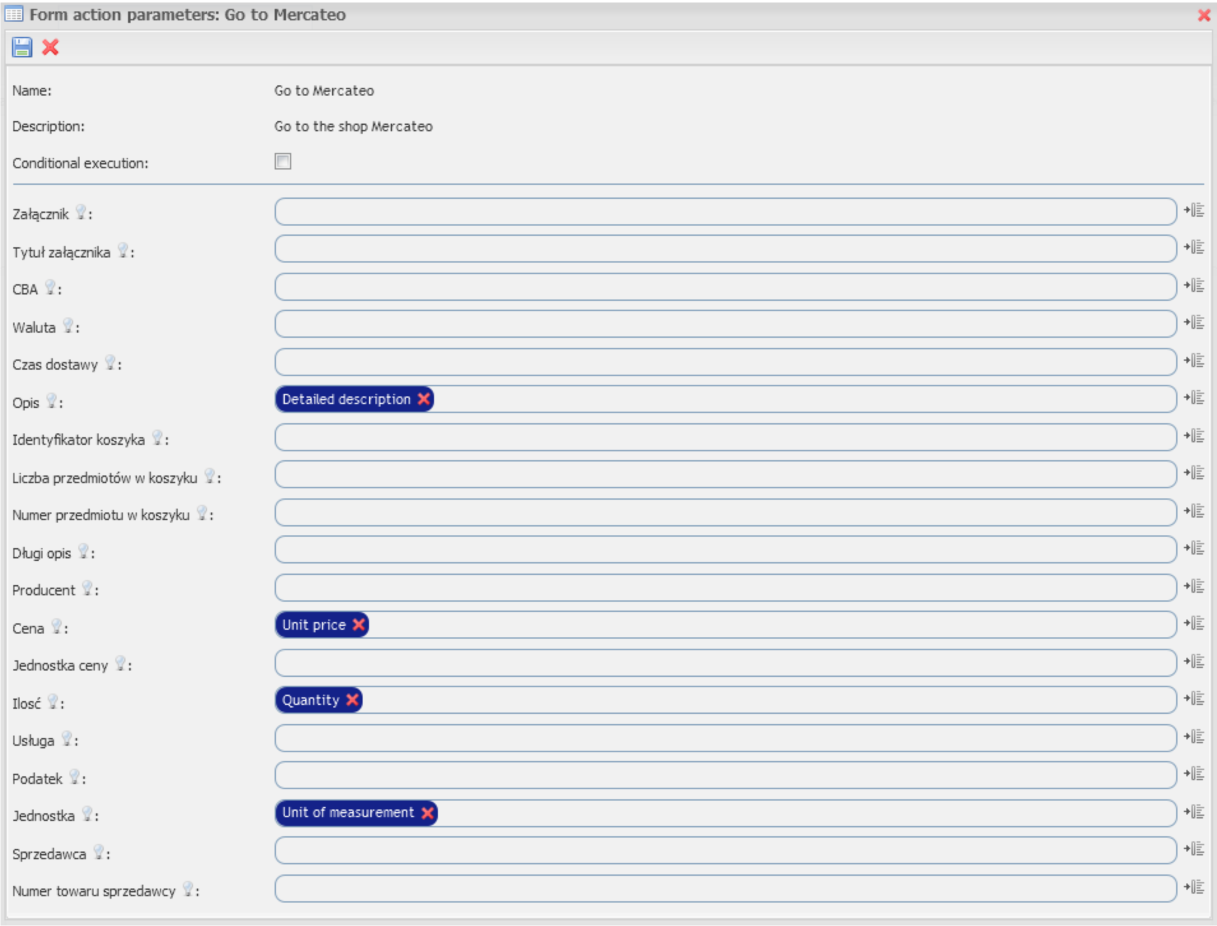
Drawing 1. Plug-in management window in Plus Workflow

Chapter 3. Configuration of Plus Workflow for OCI from Plus Workflow administrator level

After plugin installation in Plus Workflow Editor (process design studio) the new form action will appear. This OCI action should be configured to obtain OCI interface. This action is accessible in "Integration" category as "Go to Mercateo". This action can be use only on button definition.

OCI action configuration

After selecting the action „Go to Mercateo" the configuration form will appear. On drawing No 2. All possible parameters which can be defined (matched) are presented. The field from Plus Workflow business process should be matched with the fields from B2B (e-commerce) portal. In fact, every parameter from Plus Workflow can be connected with parameter from OCI standard which is supported by some e-commerce providers.



Form action parameters: Go to Mercateo

Name:	Go to Mercateo
Description:	Go to the shop Mercateo
Conditional execution:	□
Załącznik:	
Tytuł załącznika:	
CBA:	
Waluta:	
Czas dostawy:	
Opis:	Detailed description
Identyfikator koszyka:	
Liczba przedmiotów w koszyku:	
Numer przedmiotu w koszyku:	
Długi opis:	
Producent:	
Cena:	Unit price
Jednostka ceny:	
Ilość:	Quantity
Usługa:	
Podatek:	
Jednostka:	Unit of measurement
Sprzedawca:	
Numer towaru sprzedawcy:	

Drawing 2. Parameters configured in OCI action

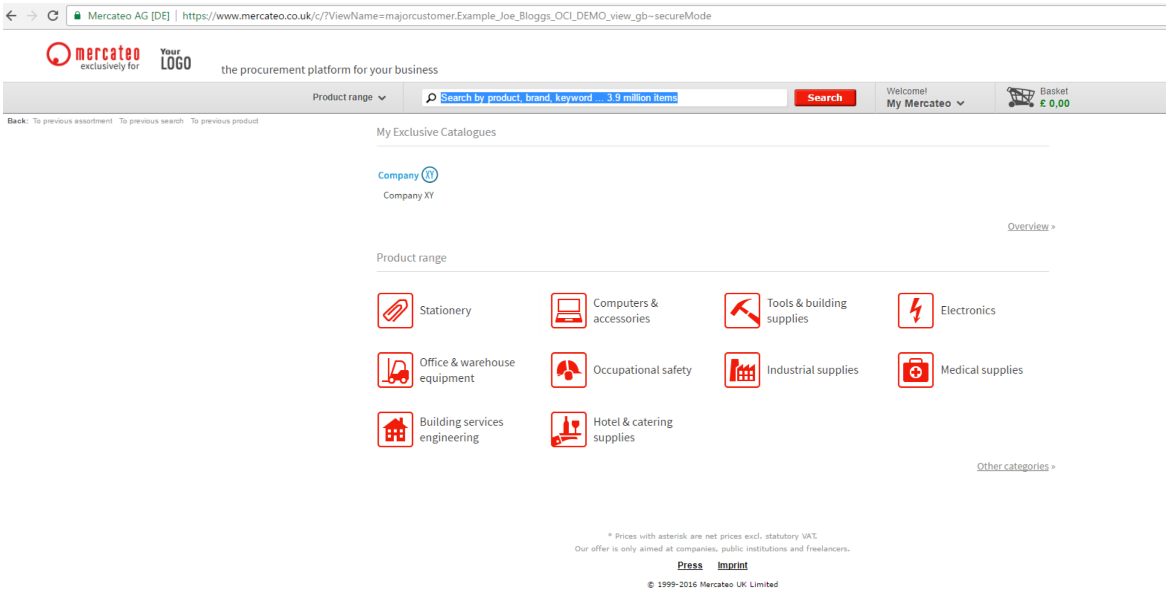
Note: It is not require to match all parameters.

Attachement	URL adress of documents connected with the product.
Attachement name	The name of the above attachement.
CBA	CBA number
Currency	Product price currency
Delivery date	Delivery date counted in days
Description	Short product description
Basket id	Basket id from external B2B
Item numbers in basket	Item numbers in the basket
Number of item	Number of particular item in basket
Descritpion	Full product description
Producer	Producer of item
Price	Net price of particular item
Price unit	?
Quantity	Item quantity
Service	Specifies whether the item is a service or a product (1 - product, 0 - service)
Tax	Tax rate
Unit	?
Seller	ID seller
Number of seller goods	Identification of the goods in the seller system

OCI configuration on Mercateo example from business process level in Plus Workflow

From Plus Workflow user point of view which is on process stage, after clicking on the button where OCI is defined the action automatically redirect the user on Mercateo web site.

User's login is done automatically according to password settings in "OCI configuration" section.



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mercateo exclusively for Your LOGO the procurement platform for your business

Product range | Search by product, brand, keyword ... 3.9 million items | Search | Welcome! My Mercateo | Basket £ 0,00

Back: To previous assortment To previous search To previous product

My Exclusive Catalogues

Company XY
Company XY

Overview »

Product range

Stationery	Computers & accessories	Tools & building supplies	Electronics
Office & warehouse equipment	Occupational safety	Industrial supplies	Medical supplies
Building services engineering	Hotel & catering supplies		

Other categories »

* Prices with asterisk are net prices excl. statutory VAT.
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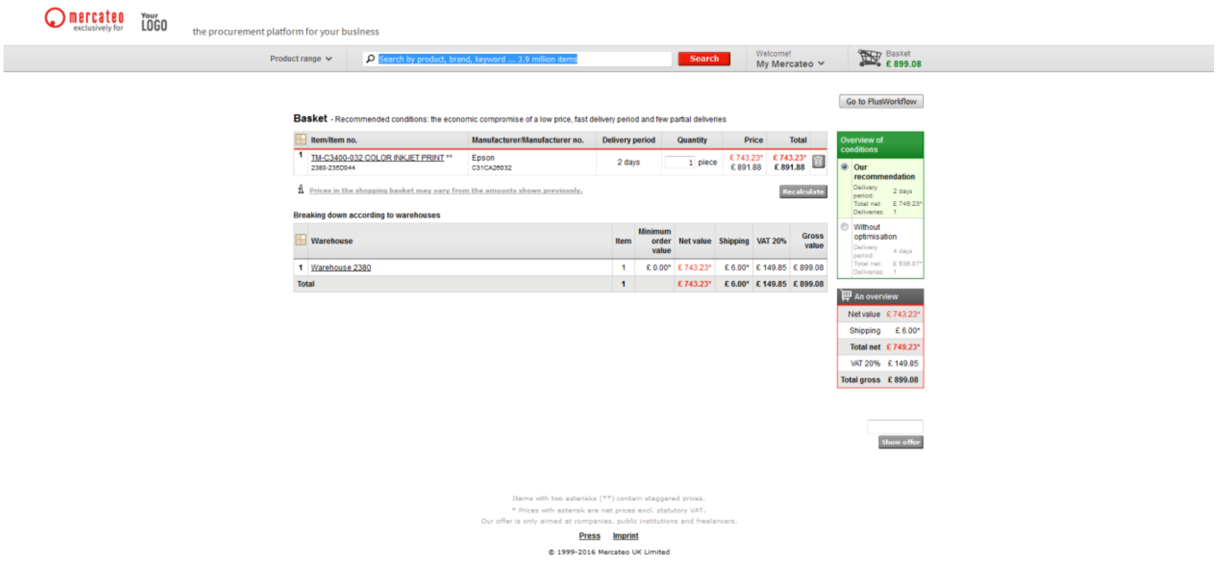
Drawing 3. Web site of Mercateo shop

When all items are chosen by user in Mercateo shop, then from basket lever the new button „Back to ERP" will appear – it is shown on Drawing 4.

Note: The name of the button can be change on OCI configuration.



mercateo exclusively for Your LOGO the procurement platform for your business

Product range | Search by product, brand, keyword ... 3.9 million items | Search | Welcome! My Mercateo | Basket £ 899.08

Go to PlusWorkflow

Basket - Recommended conditions: the economic compromise of a low price, fast delivery period and few partial deliveries

	Item/Item no.	Manufacturer/Manufacturer no.	Delivery period	Quantity	Price	Total
1	TM-C3400-032 COLOR INKJET PRINT ** 2380-235D044	Epson C31CA26032	2 days	1 piece	£ 743.23* £ 891.88	£ 743.23* £ 891.88

Prices in the shopping basket may vary from the amounts shown previously.

Recalculate

Breaking down according to warehouses

	Warehouse	Item	Minimum order value	Net value	Shipping	VAT 20%	Gross value
1	Warehouse 2380	1	£ 0.00*	£ 743.23*	£ 6.00*	£ 149.85	£ 899.08
Total		1		£ 743.23*	£ 6.00*	£ 149.85	£ 899.08

Overview of conditions

● Our recommendation
Delivery period: 2 days
Total net: £ 749.23*
Deliveries: 1

○ Without optimisation
Delivery period: 4 days
Total net: £ 936.07*
Deliveries: 1

An overview

Net value	£ 743.23*
Shipping	£ 6.00*
Total net	£ 749.23*
VAT 20%	£ 149.85
Total gross	£ 899.08

Show offer

Items with two asterisks (**) contain staggered prices.
* Prices with asterisk are net prices excl. statutory VAT.
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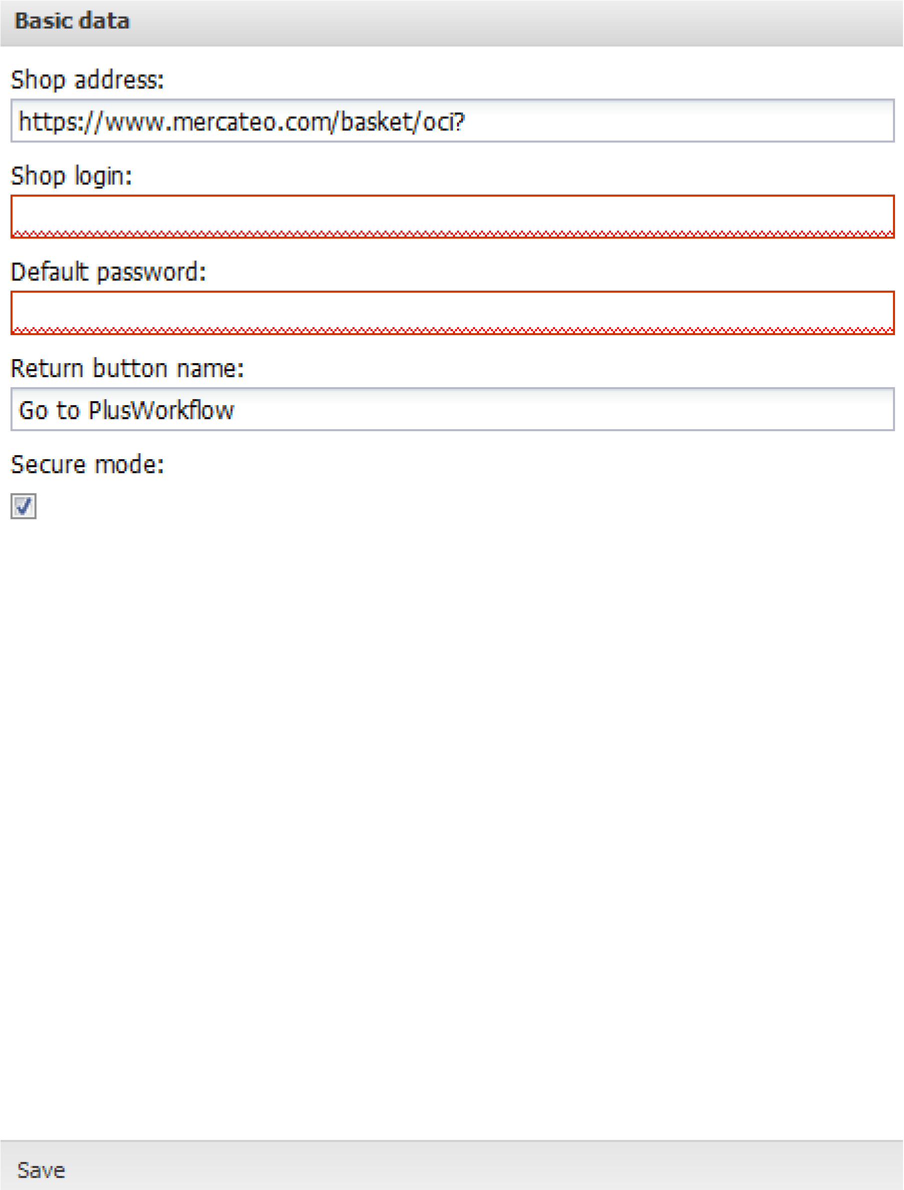
Drawing 4. "Back to ERP" button.

After clicking the „Back to ERP" button, the user is automatically redirect to Plus Workflow system and the table is Plus Workflow form is automatically fulfilled by items from the basket. Then the approval process may be proceed according to Plus Workflow process map.

Chapter 4. OCI configuration

To run the OCI integration it is needed to set up basic configuration. This configuration is available in Administration section/System set-up.

Basic configuration - example



Shop address: https://www.mercateo.com/basket/oci?

Shop login:

Default password:

Return button name: Go to PlusWorkflow

Secure mode: ☑

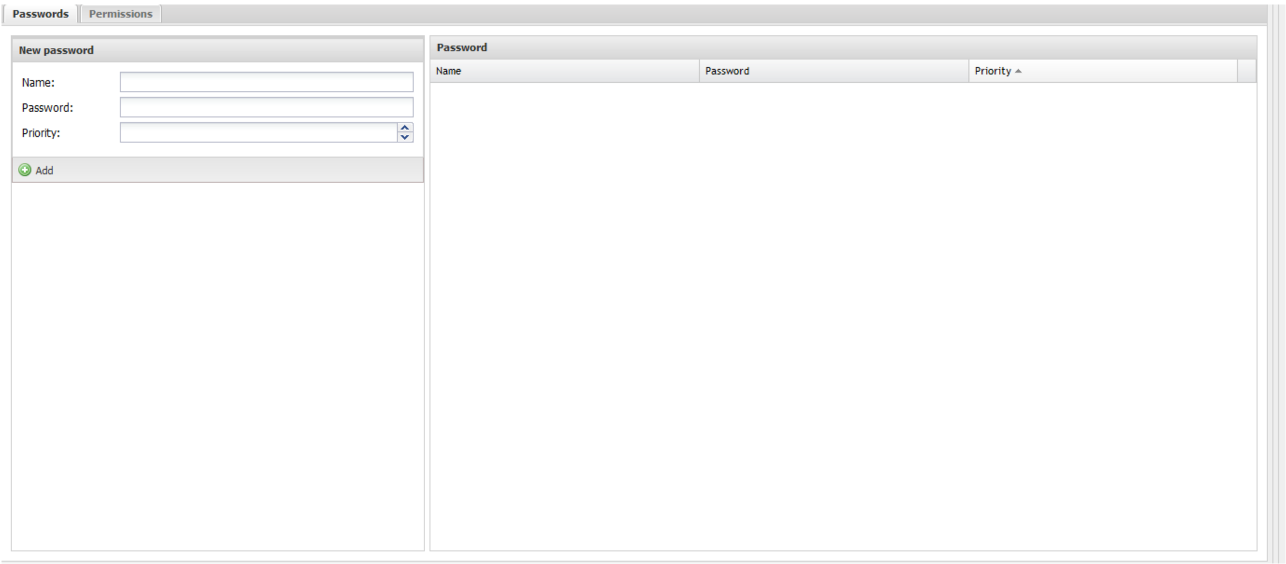
Drawing 5. Basic configuration window.

Basic configuration indicated in Drawing 5 is needed to run OCI interface in Plus Workflow system. Following fields should be fullfiled:

- Shop address - URL address to B2B portal (e-commerce) for which OCI integration is provided.
- Shop login – user's login to B2B portal.
- Return button name – the button name on B2B portal side which enable returning to Plus Workflow system.
- Secure mode – safe mode define the https connection (prefered, safe mode) .

Password management

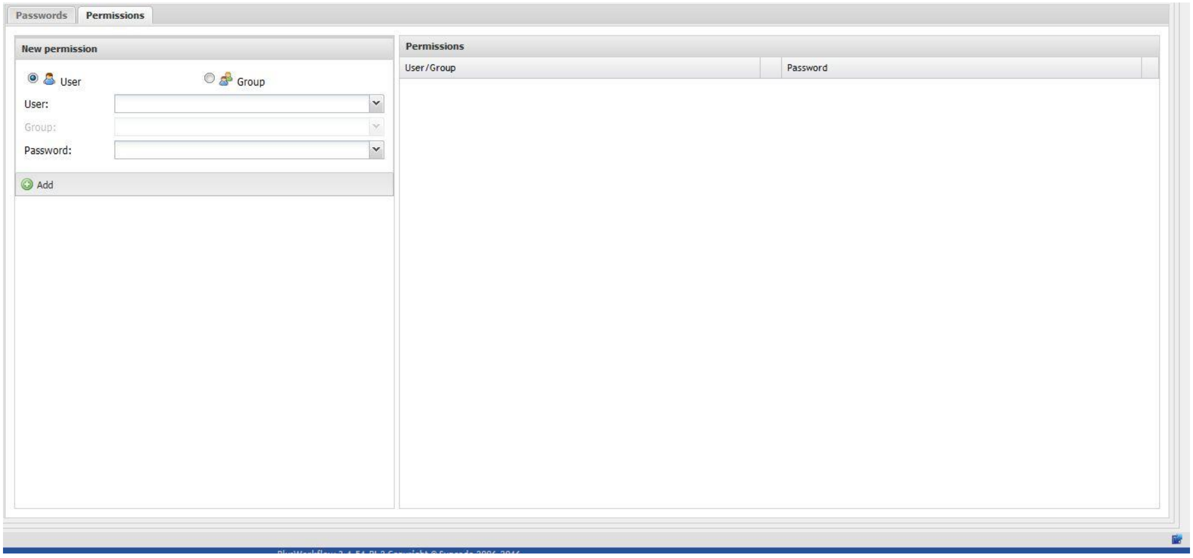
B2B portals enables access to different catallogues by different paosswords. Password management functionality in Plus Workflow system is available in „Password" section.



Drawing 6. „Password" window

User rights management

The password which will be use to B2B connection can be assigned to the particular user or to the user group to which this user belongs.
Passwords can be assigned in „User rights" section.



Passwords | Permissions

New permission

● User ○ Group

User:

Group:

Password:

Add

Permissions

User/Group	Password

Drawing 7. „User rights" window

Sequence of passwords

The system is use following sequence of password:

1. Password assigned to the user.
2. Password assigned to user's group with the highest priority (the highest priority the lowest it's number).
3. Default password.

Exapmple:
Let's assume that example user has two passwords:

Pass1	10
Pass2	20

In following users groups:

- SharkGroup,
- Workers.

And following users:

- admin,
- jnowak.

Example 1
Jnowak User is not belong to user's group and he doesn't have any password. Then the default password will be use.

Example 2
Jnowak User belong to user's group "Workers" with the Passwor1. Then the Pass1 will be use

Example 3
The user belong to „Sharkgroup" and „Workers" groups. These groups have the following passwords assigned:

SharkGroup	Pass1
Workers	Pass2

Then Password 1 will be used, because it has higher priority (lower number).

Plugin

OCI Plug-in is an OSGi bundle which is installed on OSGi enviroment. It has following system possibilities:

- installation,
- updating,,
- running,
- stopping,
- uninstallation.

The plug-in has itself context which is treat as a plug-in, services and controllers component container. It is possible to inject the object relationship and using all functionalities of SpringFramework.

Plugin descriptor (suncode-plugin.xml)

Plug-in descriptor is a XML file which provide basic information about the plug-in and it is a place for declaration of used modules. This file is required, because it provides also unique ID and displayed name of it.

Descriptor structure:

suncode-plugin.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<plugin key="com.suncode.plugin-tutorial" name="Tutorial Plugin">
    <plugin-details>
        <description>
            <localized language="en">Description</localized>
            <localized language="pl">Opis</localized>
        </description>
        <author>Suncode</author>
    </plugin-details>

    <!-- Wszystkie kolejne elementy stanowią deklaracje modułów -->
</plugin>
```

It is possible to define the PluginHook:

suncode-plugin.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<plugin key="com.suncode.plugin-tutorial" name="Tutorial Plugin"
hook="com.suncode.plugin.tutorial.Hook">
    <!-- ... -->
</plugin>
```

The file suncode-plugin.xml must be placed in main folder of jar file.

Plugin operations

In this chapter API mechanism of plugins is presented. It also includes the way of plugin management from Plus Workflow level:

- Javadoc
- JavaDoc API znajduje sie tutaj: http://192.168.1.52/javadoc/plugin-framework/1.0.0/api/

The main component of plugins is PluginFramework. In PlusWorkflow system this object must be downloaded from app context.

- Using of injected relationship

```
@Component
public class SomeComponent {
    @Autowired
    private PluginFramework framework;

    /**
...
    */
}
```

- Static Download the object from app context:

```
import com.suncode.plugin.framework.PluginFramework;
import com.suncode.pwfl.util.SpringContext;

public class SomeClass {
    public static void doSomething(){
        PluginFramework      framework       =       SpringContext.getBean(
PluginFramework.class);
    /**
    ...
*/
}
}
```

Some basic activities with plugins are presented below:

```
// pobrany w dowolny sposób
// PluginFramework framework = ...

// 1. Installaton
File pluginFile = new File("/fakepath");
Plugin plugin = framework.installPlugin( pluginFile );

// 2. Update
File updatedPluginFile = new File("/fakepath");
plugin.update( updatedPluginFile );

// 3. Plugin start
plugin.start();
plugin.getState(); // PluginState.ACTIVE

// 4. Translation
plugin.getMessage("message1");

// 5. Stopping the plugin
plugin.stop();
plugin.getState(); // PluginState.STOPPED
```

Chapter 5. Context plugin configuration

Introduction

Every plugin has itself app context (ApplicationContext) in which components, controllers and services are registered. Thanks to that this plugin can be developed using SpringFramewor standard.

Kontekst może być konfigurowany na 2 sposoby:

1. przez plik plugin-context.xml w katalogu /META-INF/spring/
2. przez klasę z adnotacją @Configuration

XML configuration

If the plugin includes the file /META-INF/spring/plugin-context.xml, then the XmlOsgiPluginContext is created.
If its Maven, then the file is located in src/main/resources/META-INF/spring/plugin-context.xml

This file is a standard springframework and is presented below:

plugin-context.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:context="http://www.springframework.org/schema/context"
    xmlns:tx="http://www.springframework.org/schema/tx"
    xsi:schemaLocation="http://www.springframework.org/schema/beans
http://www.springframework.org/schema/beans/spring-beans.xsd
        http://www.springframework.org/schema/tx
http://www.springframework.org/schema/tx/spring-tx-3.2.xsd
        http://www.springframework.org/schema/context
http://www.springframework.org/schema/context/spring-context-3.2.xsd">

    <!—Starting the plugin scaanning @Component -->
    <context:component-scan base-package="com.suncode.plugin.tutorial" />

</beans>
```

Java configuration

From the SpringFramework 3 version it is possible to context configuration which base on Java calsses @Configuration adnotation.

Example configuration (1 bean class String is registered):

Java Configuration

```
package com.suncode.plugin.tutorial;

import org.springframework.context.annotation.Bean;
import org.springframework.context.annotation.Configuration;

@Configuration
public class Config {
    @Bean
    public String someString() {
        return "asd";
    }
```

Drawings

Notes