

Spagic Console

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1 Document Goal

The goal of this document is to provide you with an introduction on using the Spagic Console.

2 Versions History

| | | | |
|-----------------------------|---|-------------|------------|
| Version/Release n° : | 1.0 | Date | 29/06/2007 |
| Description | First release (English version) | | |
| Version/Release n° : | 1.1 | Date | 18/07/2007 |
| Description | Added some details for Restart Single and Restart Massive features | | |
| Version/Release n° : | 1.2 | Date | 03/08/2007 |
| Description | Added some details for Restart Massive features. Added Backup and Delete Monitoring Data section | | |
| Version/Release n° : | 1.3 | Date | 16/10/2007 |
| Description | Added the Restarting Messages section | | |
| Version/Release n° : | 2.0 | Date | 28/01/2008 |
| Description | Updates for Spagic 2.0.0 | | |
| Version/Release n° : | 2.1 | Date | 10/10/2008 |
| Description | Updates for Spagic 2.3.0 | | |
| Version/Release n° : | 3.0 | Date | 21/10/2009 |
| Description | Updates for Spagic 3 | | |

3 Introduction

Spagic Console is the Enterprise Monitoring released by open source Spagic platform.

Spagic Console contains:

- **System monitoring** to visualize resources such as the threads, the memory, the queues used by ESB platform;
- **Service monitoring** to visualize processes/instances and theirs properties, processes flows and executions processes flows, relevant data. This feature allows to restart the processes in error state, one at a time or more at a time;

The application was developed using the Ajax technique to increase the page's interactivity, speed, functionality.

The URL to launch the application is: *http://host:port/Spagic/*.

3.1 Requirements

Software requirements to use the Spagic Console application:

- ✓ Database MySQL 5 or Oracle 9i/10g
- ✓ Apache Tomcat 5.5.X <http://tomcat.apache.org>
- ✓ JDK 1.5.0_11 or later <http://java.sun.com/>
- ✓ Mozilla Firefox 2.0.0.x <http://www.mozilla.com>

3.2 Installation


To install the Spagic Console application please read to the documentation of your servlet container.

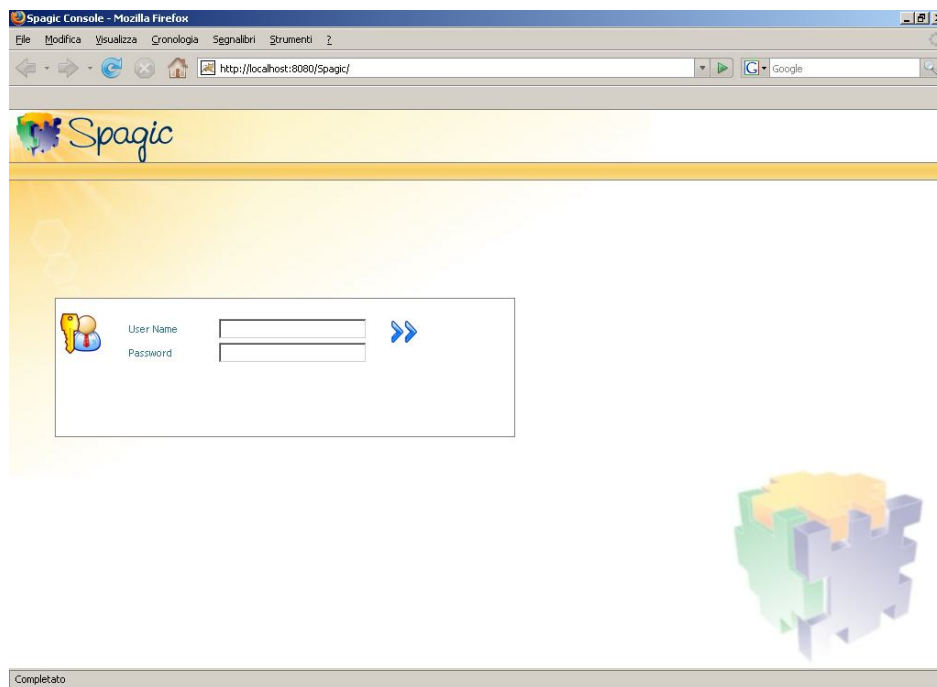
For installing it in Tomcat, simply add the database driver you are using to the Tomcat libraries and copy the *Spagic.war* to the webapps folder.

4 Authentication

You can start the application from: <http://localhost:8080/Spagic/>.

The Spagic Console first page is the authentication page.

Insert the user name and the password given to you by the administrator (the default is *spagic/spagic*) and press the button .



The next page contains the application menu:



These are the main features:




Process/Services List: allows the visualization of the processes and (definitions, characteristics, flow, endpoints).



Process/Services Instances List: allows the visualization of the processes' instances (dynamic flow, messages, relevant data, advanced search).


5 Processes displaying

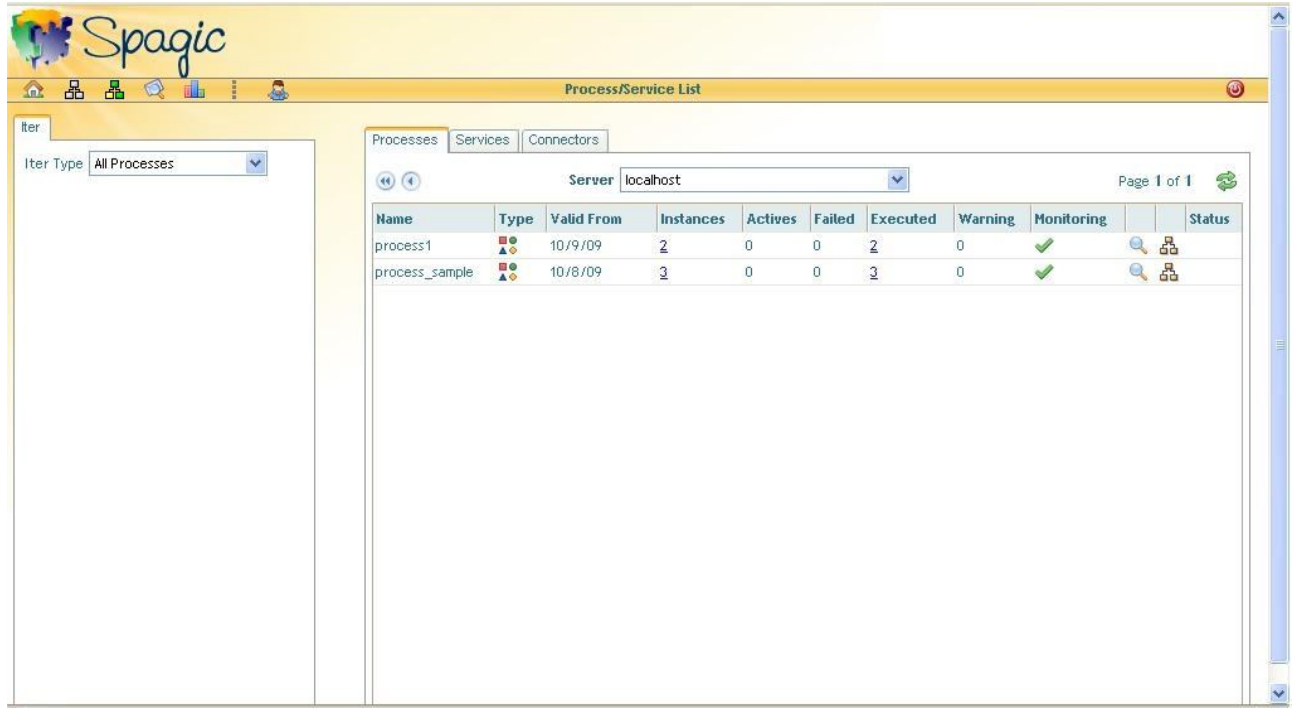
By pressing the **Process/Service List** icon () a window containing the following information is displayed:

- Search section (left side): allowing the user to make a search by taxonomy or by iter.
- List section (right side): all deployed processes, ordered by process name, divided in three different tabs:
 1. Processes
 2. Services
 3. Connectors

If no search is made, the list will contain all the processes. When more versions are available, only the latest versions will be displayed.

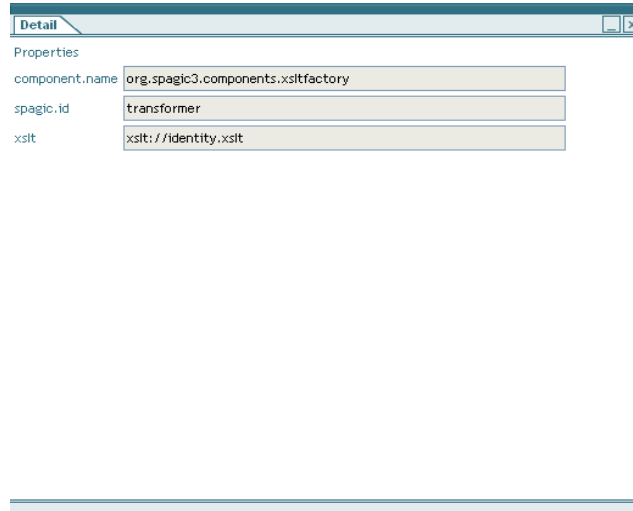
In each tab there are displayed different features of the items the tab is referring:

- *Name*: item name.
- *Type*: item technology.
- *Valid From*: start validity date that corresponds to the process publication date on the repository.
- *Instances*: number of item instances.
- *Actives*: number of item instances actives.
- *Failed*: number of item instances failed.
- *Executed*: number of item instances executed.
- *Warning*: number of item instances terminated with a warning.
- *Monitoring*: number of item instances that are monitored.
- *Status*: displays the status of the item.
-  : open a pop-up window that displays details containing the name of the item, its ID and other feature peculiar of the item.



The screenshot shows the Spagic Console interface. On the left, there's a sidebar with a search bar and a dropdown menu for 'Iter Type' set to 'All Processes'. The main area is titled 'Process/Service List' and contains a tabbed interface with 'Processes', 'Services', and 'Connectors'. The 'Processes' tab is active, showing a table of processes. The table has columns: Name, Type, Valid From, Instances, Actives, Failed, Executed, Warning, Monitoring, and Status. Two processes are listed: 'process1' and 'process_sample'. The 'Server' dropdown is set to 'localhost'.


| Name | Type | Valid From | Instances | Actives | Failed | Executed | Warning | Monitoring | Status |
|----------------|------|------------|-----------|---------|--------|----------|---------|------------|--------|
| process1 | | 10/9/09 | 2 | 0 | 0 | 2 | 0 | ✓ | |
| process_sample | | 10/8/09 | 3 | 0 | 0 | 3 | 0 | ✓ | |



The screenshot shows a 'Detail' window with a 'Properties' section. It contains three input fields: 'component.name' with the value 'org.spagic3.components.xstfactory', 'spagic.id' with the value 'transformer', and 'xslt' with the value 'xslt://identity.xslt'.

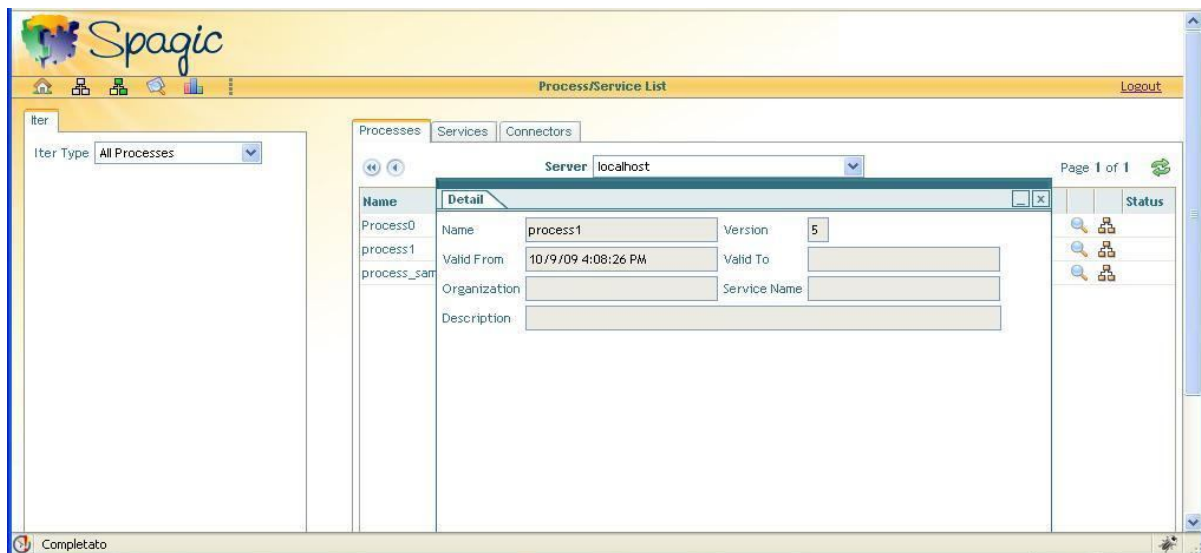
On top of the right side of the page, you can find the button that allows you to update the list. In this version, when the list is updated, any filter parameter will be lost.

5.1 Process Detail

Choosing the icon  from the processes list, a pop-up window is opened, in which you can see further details:

- *Name*, name of the service that coincides with the name of the process.
- *Version*, is always the latest version of the selected process;
- *Description* of the process (it is not possible yet to classify the description in Spagic Studio);
- *Organization*, contains the organization to which the process belongs;
- *Valid from*: the date in which the process starts to be valid
- *Valid to*: the expiration date
- *Service Name* : the name of the service whose process is the implementation

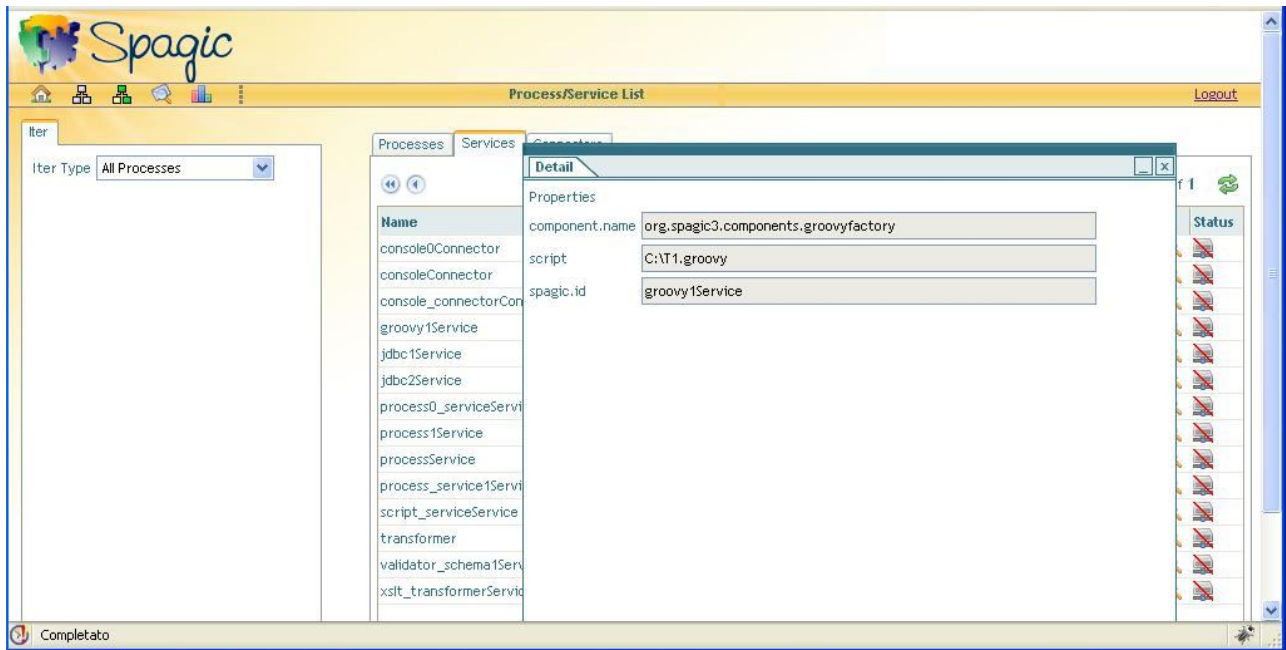
When you choose a new element from the list, the details are automatically updated.




5.2 Service/Connector Detail

Choosing the icon  from the services list, you can see the properties of the service:

- *component.name*: the name of the class of which the service is an instantiation.
- *Spagic.id*: the ID that identify the service in spagic .
- *Properties typical of the service*.



5.3 Graphical representation of the process

Choosing the icon  from the processes list, it is possible to display the process graph.

The process graph is, by definition, a static view; it shows the process components: the binding components (represented by a rhombus), the service engine (represented by a rectangle) and the direction of the process flow (represented by the arrows).

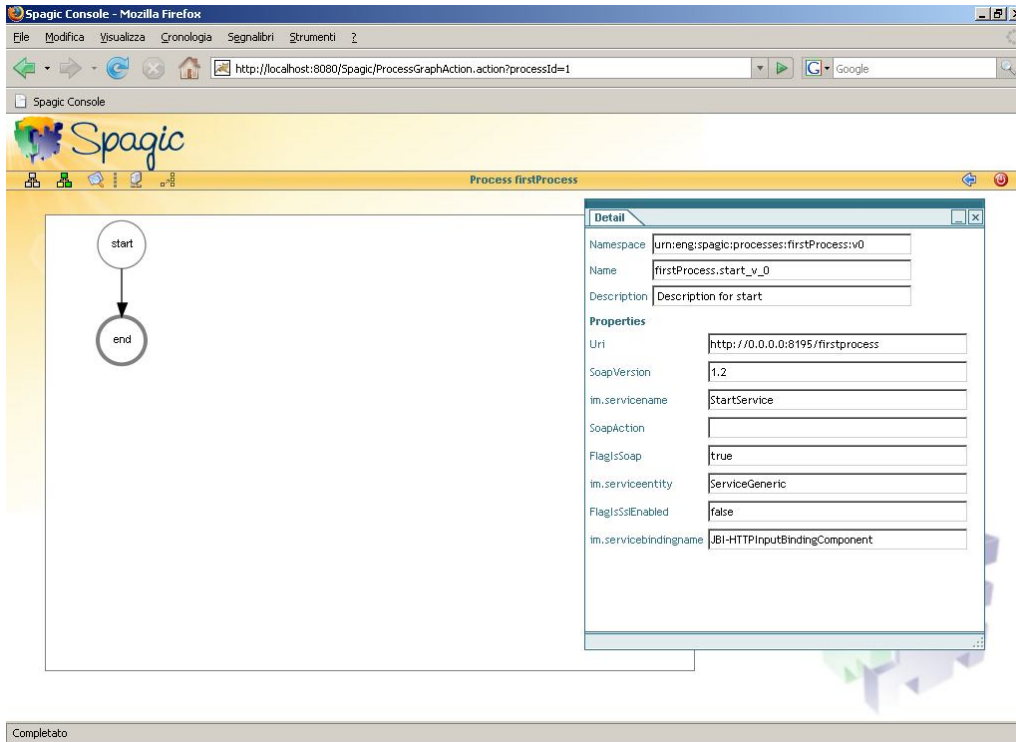
Clicking on the single element of the graph it's possible to display a window containing *Name* and *Description* of the end-point and *Service*, that is the type of the used component (servicemix-container XsltComponent, for instance) and *Properties*.

Using the mouse you can change the position of the window or its dimensions; you can minimize it or close it.

When you choose a new element of the graph, the data in the window are updated.



Clicking this button you can turn back to the processes list.



Detail


| | |
|------------------------|--|
| Namespace | urn:eng:spagic:processes:firstProcess:v0 |
| Name | firstProcess.start_v_0 |
| Description | Description for start |
| Properties | |
| Uri | http://0.0.0.0:8195/firstprocess |
| SoapVersion | 1.2 |
| tns:serviceName | StartService |
| SoapAction | |
| FlagsSoap | true |
| tns:serviceentity | ServiceGeneric |
| FlagsSslEnabled | false |
| tns:servicebindingname | JB1-HTTPInputBindingComponent |

Completato

6 Processes/Services instances displaying

Selecting the icon **Process/Service Instances List**  the process instances list is showed.

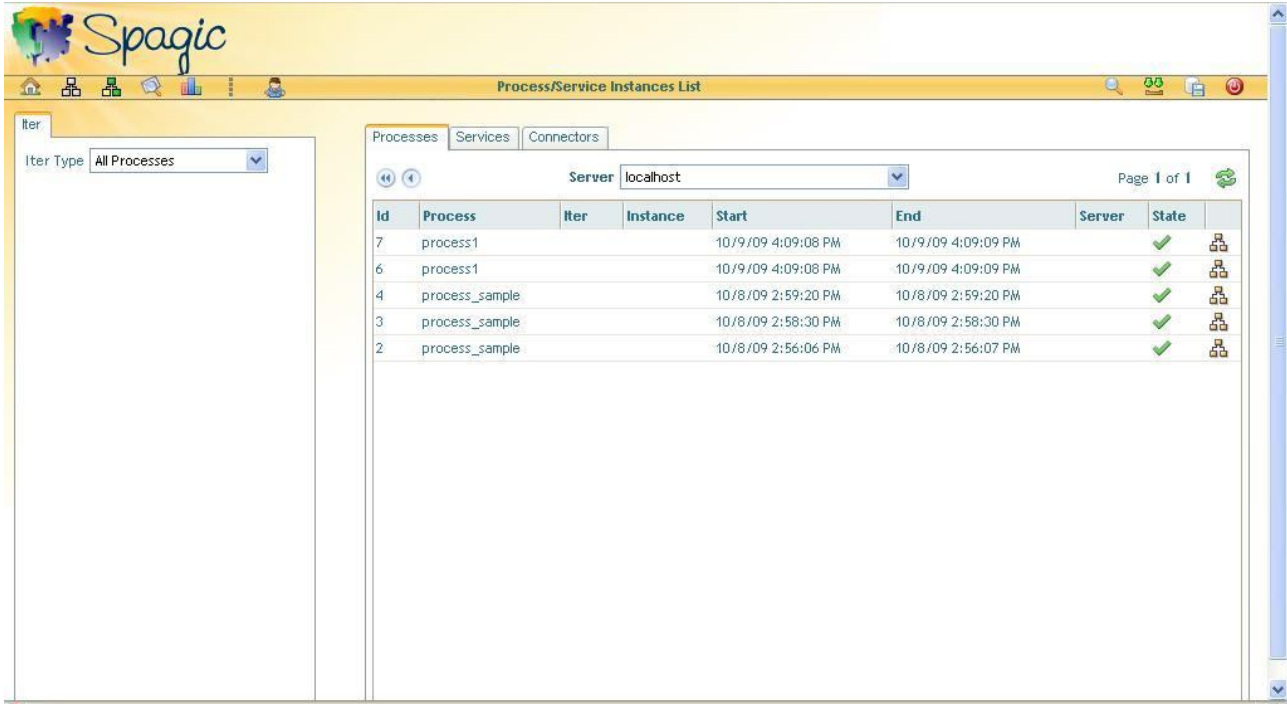
For each tab there are the features of the item which the tab refers to:

- *Id*: identifier of item instance.
- *Process / Service / Connector*: item name.
- *Iter*: name of the iter (optional) associated to the process instance (only for Processes).
- *Instance*: attributes identifying the iter instance (optional).
- *Start*: start execution time.
- *End*: end execution time.
- *State*: instance state. It can be *active* (yellow ✓), *executed* (green ✓) or *fault* (red ✕).
-  : visualizes the process execution detail (only for Processes..)

And only for the tab Services and Connectors:

- *Message*: clicking the message icon, it appears a pop-up window that displays the content of the message carried by the service. This window has two tabs, Request and Response, that displays the content of the Request and the Response.
- *Target*: clicking the target icon, it appears a pop-up window that displays *the receiver of the message*. This window has 4 fields that deal with its target:
 - *Service*: the name of the instance of the service the connector is target
 - *Start*: start execution time of the service
 - *End*: end execution time of the service
 - *State*: instance state. It can be active (yellow ✓), executed (green ✓) or fault (red ✕).

and two tabs, Request and Response, that displays the content of the Request and the Response.



The screenshot shows the Spagic Console interface. On the left, there's a sidebar with a search bar and a dropdown menu for 'Iter Type' set to 'All Processes'. The main area is titled 'Process/Service Instances List' and has tabs for 'Processes', 'Services', and 'Connectors'. The 'Processes' tab is active, showing a table of process instances. The table has columns for Id, Process, Iter, Instance, Start, End, Server, and State. The data is sorted by start time in descending order. There are also buttons for search, refresh, and other actions on the right side of the table.

| Id | Process | Iter | Instance | Start | End | Server | State |
|----|----------------|------|----------|--------------------|--------------------|--------|-------|
| 7 | process1 | | | 10/9/09 4:09:08 PM | 10/9/09 4:09:09 PM | | ✓ |
| 6 | process1 | | | 10/9/09 4:09:08 PM | 10/9/09 4:09:09 PM | | ✓ |
| 4 | process_sample | | | 10/8/09 2:59:20 PM | 10/8/09 2:59:20 PM | | ✓ |
| 3 | process_sample | | | 10/8/09 2:58:30 PM | 10/8/09 2:58:30 PM | | ✓ |
| 2 | process_sample | | | 10/8/09 2:56:06 PM | 10/8/09 2:56:07 PM | | ✓ |

The instances are ordered by start execution time.

It is remarkable that when you execute a process, and decide to monitor it in a Spagic Console, the service that implement the process and the services and connectors that compose the process, are monitored too individually, together with the process.

The user can make a search by taxonomy or by iter. If no search is made, the list will contain all the process instances.

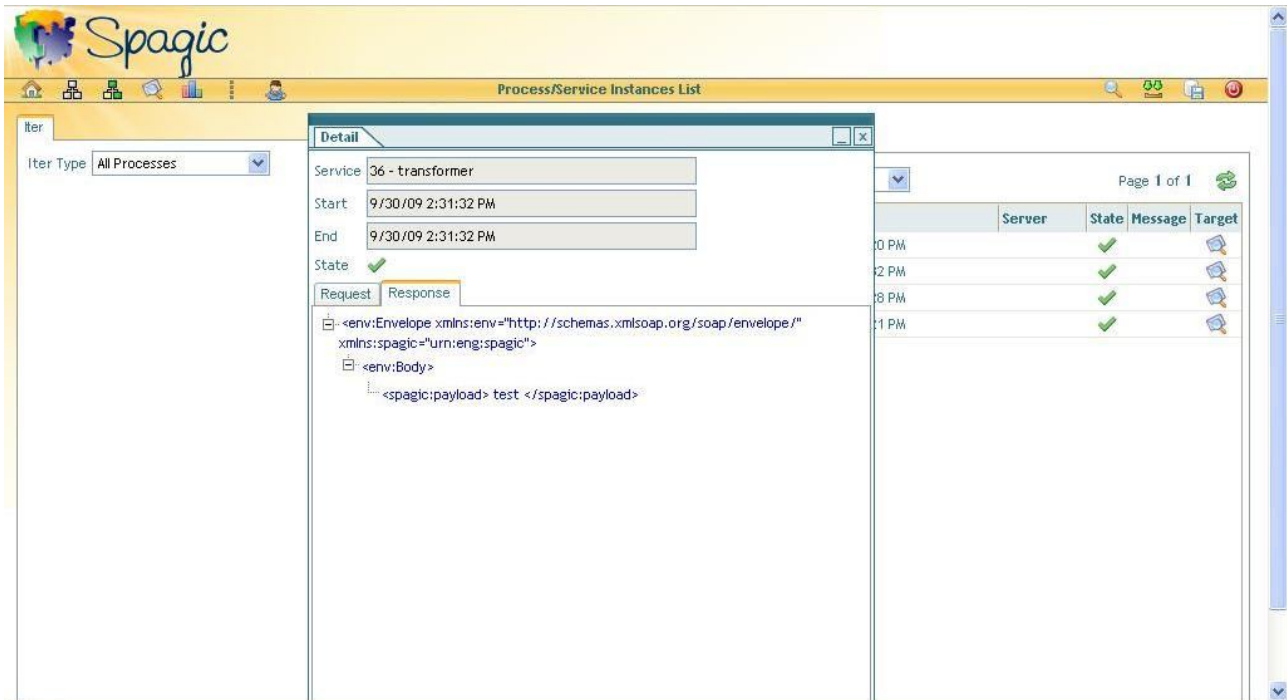
On top of the right side of the page, you can find, in order, the button that allows you to update the list, the button to visualize the *Advanced Search* page and the button to do massive restart of processes.

7 Service/Connector Instance Detail

When you go on the tab Service, or Connector if you click on the Target Icon, a pop up window will appear, in which there are important information about the service and the messages transported from the source to the target.

The window contains:

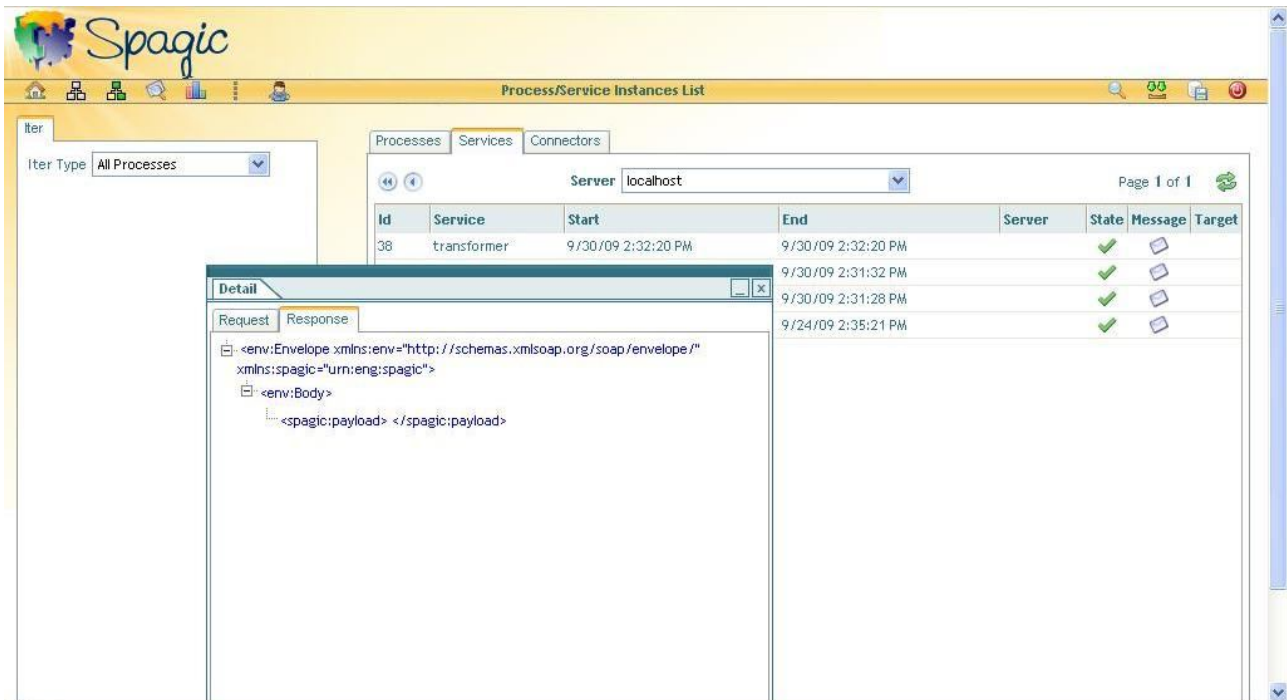
- *Service*: the service name.
- *Start*: the date of start of the execution of the service
- *End*: the date of end of the execution of the service
- *State*: the State of the service
- *Request/Response*: the messages transported in the request and in the response of the service, if there is one.



The screenshot shows the Spagic Console interface. The 'Process/Service Instances List' tab is active. A 'Detail' window is open for a process instance with ID 36, service 'transformer', and a state of 'Success'. The 'Request' tab is selected, showing a SOAP request. The 'Response' tab is also visible but empty. The 'Message' icon in the table is highlighted.

| Id | Service | Start | End | Server | State | Message | Target |
|----|-------------|--------------------|--------------------|--------|---------|---------|--------|
| 36 | transformer | 9/30/09 2:31:32 PM | 9/30/09 2:31:32 PM | | Success | | |


If you click on the icon Message, a pop up window will appear, in which there is the messages transported in the request and in the response of the service, if there is one.



The screenshot shows the Spagic Console interface with the 'Processes' tab selected. A table lists several process instances. The 'Detail' window is open for instance ID 38, showing a SOAP request and response. The 'Message' icon in the table is highlighted.

| Id | Service | Start | End | Server | State | Message | Target |
|----|-------------|--------------------|--------------------|--------|---------|---------|--------|
| 38 | transformer | 9/30/09 2:32:20 PM | 9/30/09 2:32:20 PM | | Success | | |
| | | 9/30/09 2:31:32 PM | 9/30/09 2:31:32 PM | | Success | | |
| | | 9/30/09 2:31:28 PM | 9/30/09 2:31:28 PM | | Success | | |
| | | 9/24/09 2:35:21 PM | 9/24/09 2:35:21 PM | | Success | | |

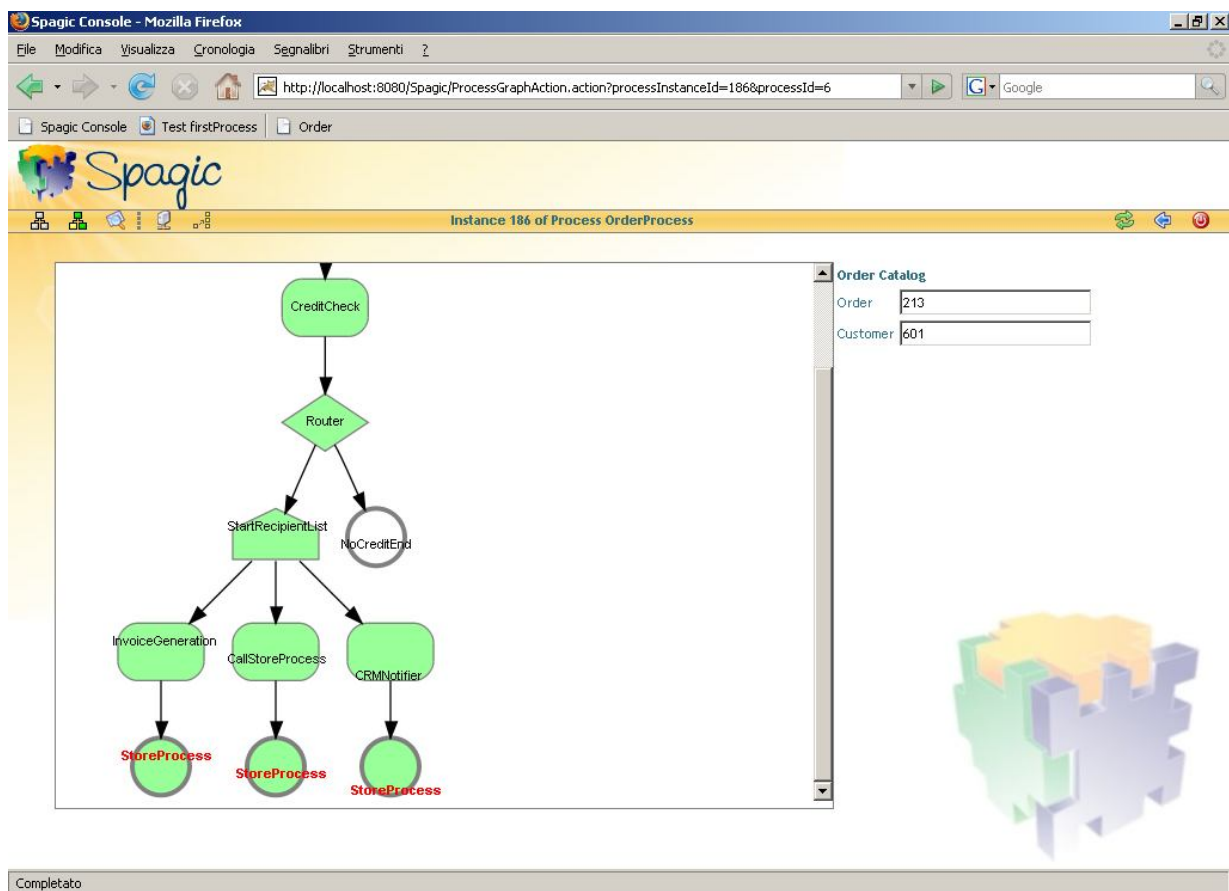
7.1 Graphical representation of the process execution

Choosing the icon  from the instances list, it is possible to display the process execution graph.

The graph is composed by the binding components (represented by circles) and the service engines; the direction of the execution flow is represented by the arrows.

The color of the component represents the component state: the green color means *executed*, the yellow color means *active* and the red means *fault*.

On the right side of the page all the relevant data associate to the endpoints composing the process are visualized, grouped by the catalog. The relevant data are defined in Spagic Studio. On the example in the image below, we have a catalog *Order Catalog* containing the relevant data *Order* and *Customer*.



Clicking on the single element of the graph it's possible to display a window containing two tabs: *Details* and *Relevant Data*. Using the mouse you can change the position of the window or its dimensions; you can minimize it or close it.

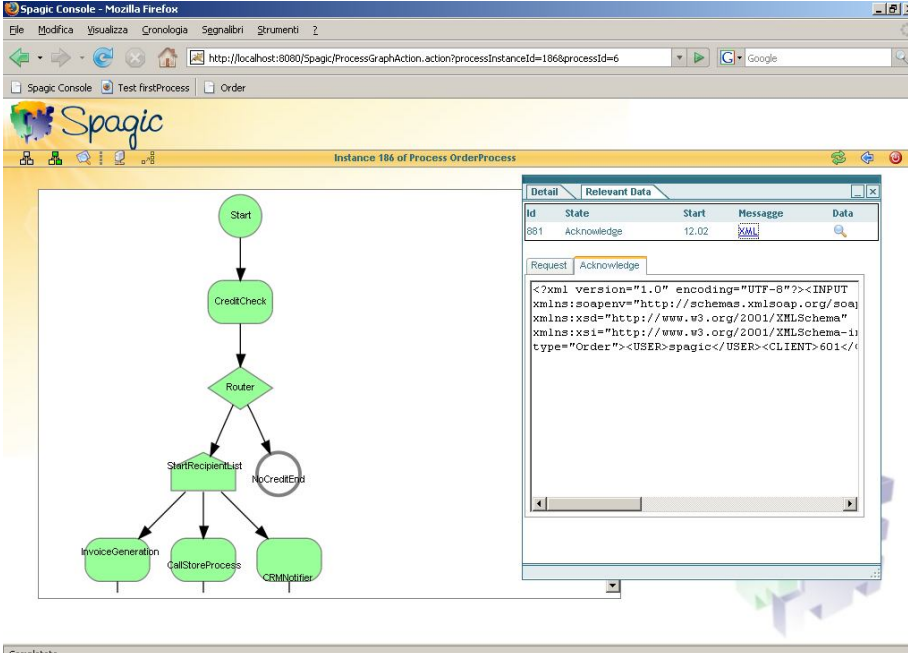
When you choose a new element of the graph, the data in the window are updated.

The *Detail tab*, as in the processes, contains Name and *Description* of the end-point and *Service*, that is the type of the used component (servicemix-lwcontainer XsltComponent, for instance) and *Properties*.

The *Relevant Data* tab contains the exchange messages having as target the component selected. The list display the *State*, the *Start* of the message reception, the link to visualize the XML message and the link to visualize the relevant data contained in the message.

On the example in the image below, by selecting the *Router* component, 2 messages having as a target the *Router* component are displayed.

By selecting the *XML* link, the *XML* message is visualized. Because the mep is INONLY, there are two parts: *ACTIVE* messages are displayed as *Request* and *DONE* messages are displayed as *Acknowledge*.

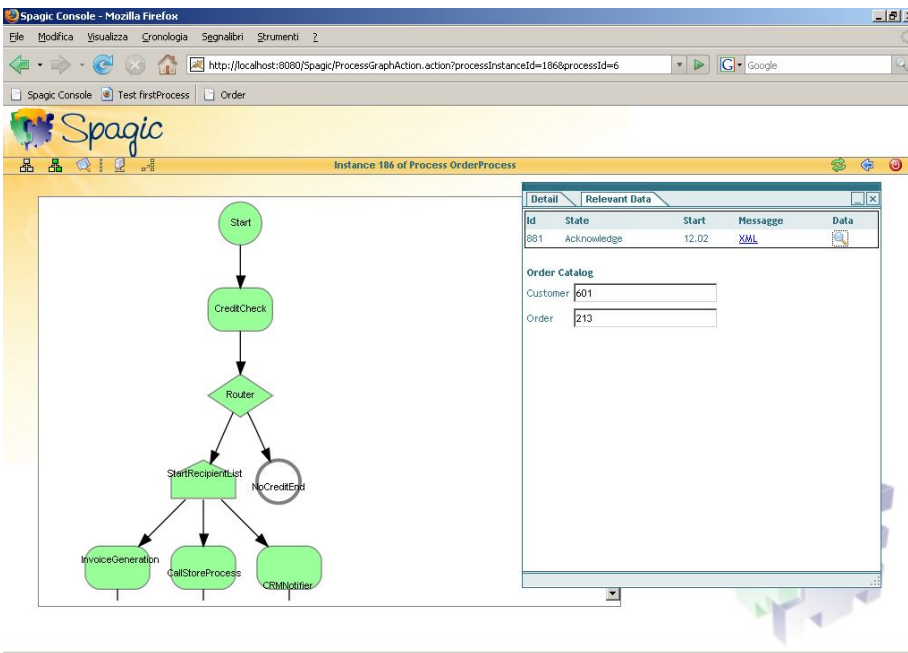


The screenshot shows the Spagic Console interface. On the left, a process graph for 'Instance 186 of Process OrderProcess' is displayed. The graph starts with a 'Start' node, followed by a 'CreditCheck' node, then a 'Router' node. The 'Router' node has two outgoing paths: one labeled 'StartRecipientList' leading to 'InvoiceGeneration', 'CallStoreProcess', and 'CRMIntegration' nodes; and another labeled 'NoCreditEnd' leading to a 'NoCreditEnd' node. On the right, a 'Detail' window is open, showing a table with columns: Id, State, Start, Message, and Data. The table contains one row with Id 881, State Acknowledge, Start 12.02, and a link to the XML message. Below the table, the 'Request' tab is selected, displaying an XML message body.

| Id | State | Start | Message | Data |
|-----|-------------|-------|---------------------|------|
| 881 | Acknowledge | 12.02 | XML | |

```
<?xml version="1.0" encoding="UTF-8"?><INPUT xmlns:soapenv="http://schemas.xmlsoap.org/soap" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" type="Order"><USER>spagic</USER><CLIENT>601</CLIENT></INPUT>
```

On the example in the image below, by selecting the *creditCheck* component, the messages list is refreshed. By clicking on *Data*, the relevant data contained in the message are displayed.



The screenshot shows the Spagic Console interface. On the left, the same process graph as in the previous image is displayed. On the right, the 'Detail' window is open, showing the same table as before. However, the 'Data' tab is now selected, displaying the relevant data from the message. The data is organized into a form with fields for 'Customer' and 'Order'.

| Id | State | Start | Message | Data |
|-----|-------------|-------|---------------------|------|
| 881 | Acknowledge | 12.02 | XML | |

Order Catalog

Customer:

Order:

8 Messages Displaying

Spagic Console allows visualizing all the exchange messages by selecting a component belonging to a process.

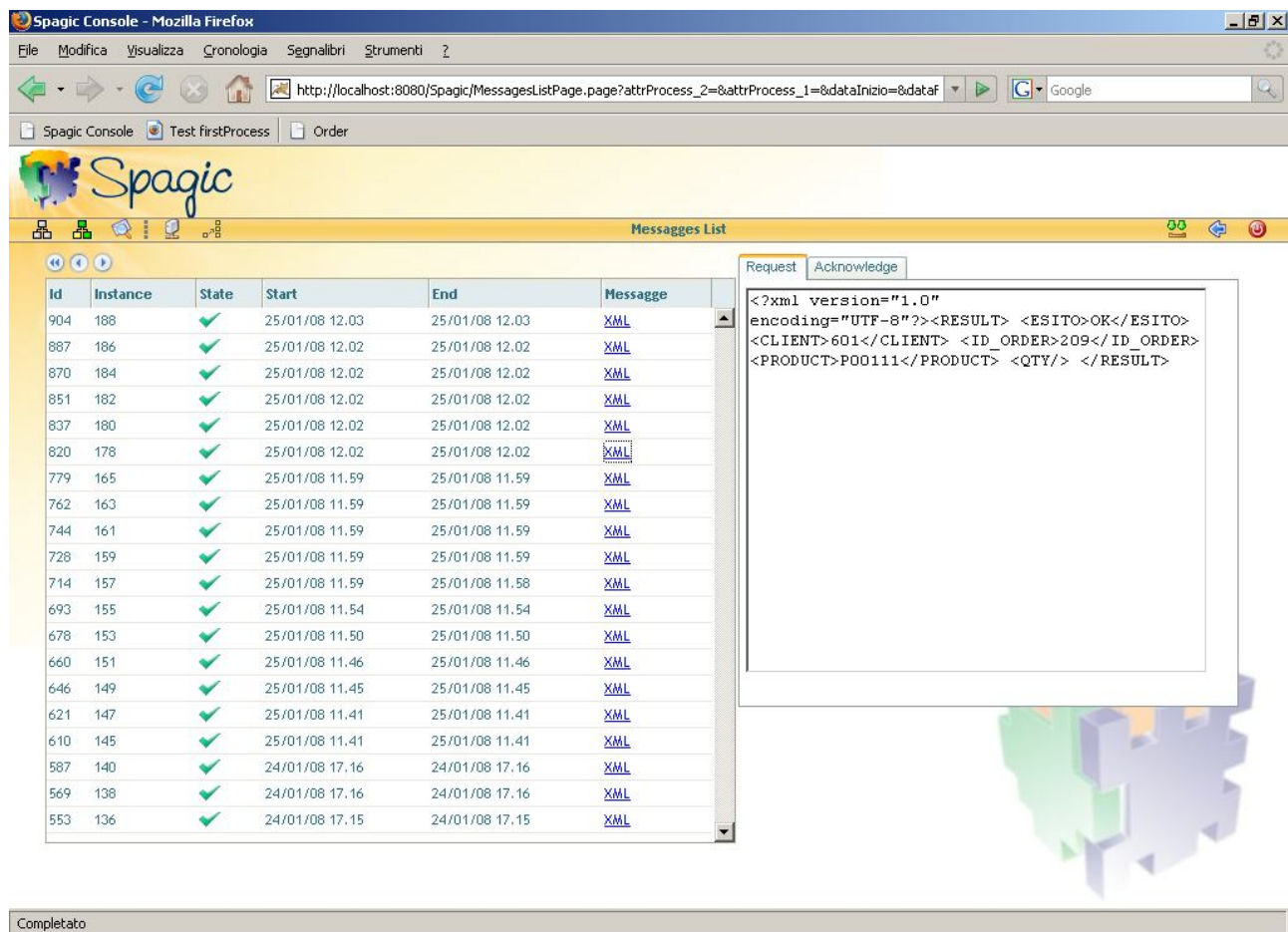
By selecting in the service tab and clicking on the *Messages* icon, a pop-up window is being displayed.

The window contains:

- **Process:** to select a process between those published in the MetaDB. By selecting the process, will be displayed:
 - The *Component* field containing all components belonging to the process,
 - All attributes associates to endpoints composing it;
- **Component:**
- **From To:** with the calendar it is possible to select year, month, day, hours and minutes;
- **State** containing the possible state relative to process instance: *Executing*, *Executed*, *Fault*;

By clicking the button *Search* a list of exchange messages will be display.

By selecting the *XML* link in the elements of the list, the messages composing the exchange messages will be visualized on the right side.




The screenshot shows the Spagic Console interface in Mozilla Firefox. The browser address bar shows the URL: `http://localhost:8080/Spagic/MessagesListPage.page?attrProcess_2=&attrProcess_1=&dataInizio=&dataF`. The console displays a "Messages List" table with columns: Id, Instance, State, Start, End, and Message. The table contains 20 rows of data, all with a "State" of "✓". The "Message" column contains links labeled "XML". To the right of the table, a pop-up window shows the XML content of a selected message. The XML is a SOAP response with the following structure:

```
<?xml version="1.0"
encoding="UTF-8"?><RESULT> <ESITO>OK</ESITO>
<CLIENT>601</CLIENT> <ID_ORDER>209</ID_ORDER>
<PRODUCT>P00111</PRODUCT> <QTY/> </RESULT>
```

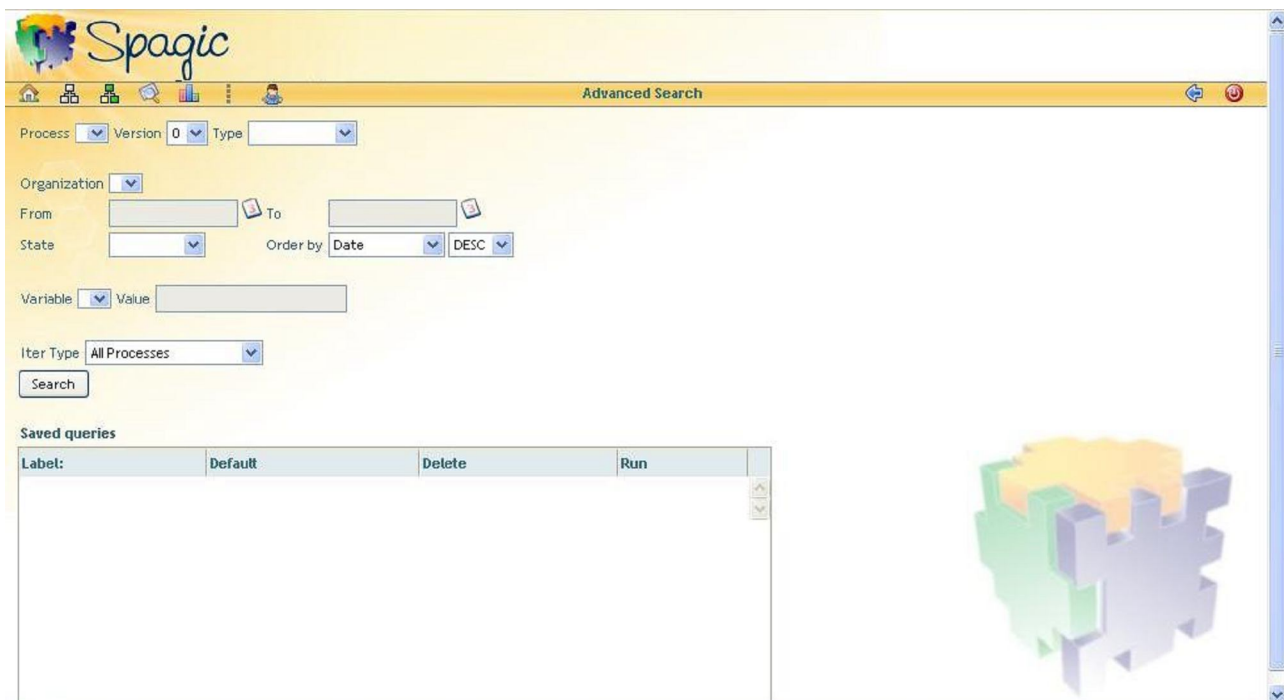
At the bottom of the console, there is a status bar that says "Completato".

9 Advanced Search

Selecting the icon  *Advanced Search* in the *Process Instances* list, on the top of the right page, the *Advanced Search* page is displayed.

The page contains:

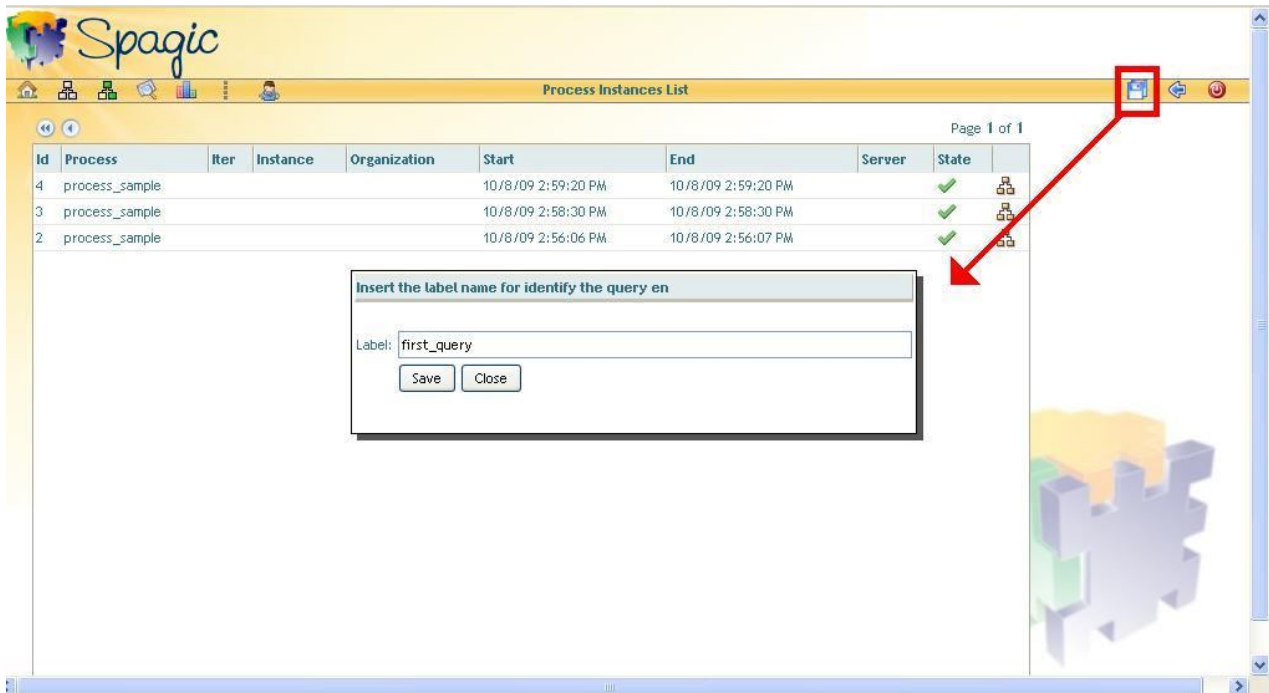
- *Process* to select a process between those published in the MetaDB. By selecting the process, will be displayed:
 - The *Version* field containing the last version published in the database. Modifying it, it is possible to visualize to process instances relative to previous versions.
 - The Technology of the selected process.
 - All attributes associates to endpoints composing it;
- *Organization* contains all organizations defined in the service registry;
- *From To*: with the calendar it is possible to select year, month, day, hours and minutes;
- *State* containing the possible state: *Executing*, *Executed*, *Fault*;
- *Order by* follows to order the list by fields: *Date*, *Organization*, *Process* (ASCending or DESCending)
- *Variable*: contains all the variables of a particular process
- *Value*: after selecting the variable you can fill this field with the value you desire to find
- *Iter Type*: follows to select an iter and the attributes that identify it



The screenshot shows the Spagic Advanced Search interface. At the top, there's a Spagic logo and a navigation bar. Below the navigation bar, there are several search filters: Process (dropdown), Version (0), Type (dropdown), Organization (dropdown), From (calendar), To (calendar), State (dropdown), Order by (Date), and DESC (dropdown). There are also fields for Variable (dropdown) and Value (text input). At the bottom, there's an Iter Type dropdown set to 'All Processes' and a Search button. Below the search filters, there's a 'Saved queries' section with a table showing a single query labeled 'Default' with buttons for 'Delete' and 'Run'.

| Label: | Default | Delete | Run |
|--------|---------|--------|-----|
| | | | |

It is possible to save searches parameters and give them a name.



All the saved searches will be displayed in the table **saved queries** in the Advanced Search page. One of these queries can be selected as a favorite query. In this way, it will appear when you click on the main icon, or when you open the console in the home page.

