



ECLIPSE/BIRT

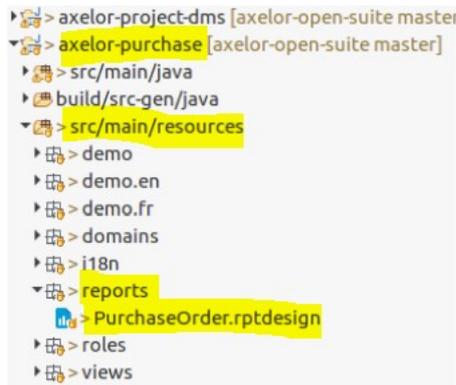
AXELOR

Quick start

Prerequisite to be completed at least once

The following operations should be performed by the developer or operator of the Axelor application in your organization.

The report templates are present in the source code : example of *PurchaseOrder.rptdesign* which is in the module *axelor-purchase* | *src/main/resources* | *reports*



All the report templates present at the different levels of the source code can be exported and grouped into an archive file *[Nom Application]-reports.zip* using the specific gradle command: `archiveReports`

`./gradlew archiveReports`

More generally, the `./gradlew build -xtest` command generates the archive file of the complete `.war` application and the `.zip` archive file of all the report templates, in the application library `/build/libs`

[Nom Application].war

[Nom Application]-reports.zip

You can then unzip *[Nom Application]-reports.zip* in an Eclipse working directory, to be able to modify these report templates.

It is important not to modify the original report templates present in the application tree.

At the same time, you have to create a directory on the server that hosts the Axelor application.

In this case, this directory is located at the same level as *attachments* and *exports*, but it is not mandatory.

`~/travail/axelor/data`

reports

exports

index

attachments



This path must be specified in the *application.properties* file via the *reports.design.dir* property

```
.../..  
# external directory for birt rptdesign (internal engine)  
# if the directory does not exist or the report is not found  
# then reports in axelor modules will be used.  
# axelor.report.dir = {user.home}/travail/axelor/data/reports  
  
reports.design.dir = {user.home}/travail/axelor/data/reports  
.../...
```

Note: it is necessary to relaunch the *Tomcat/Axelor* application for the *application.properties* file to be taken into account.

Use of the Eclipse BIRT IDE

The following operations do not require you to be an application developer.

For this example, we are going to make modifications to the *PurchaseOrder.rptdesign* file. Before modifying a standard report template, you must make sure that you have toured the settings possible by Axelor: *headers* and *footers* of the report concerned; *application management indicators / Configure Purchases*.

Apps management × App purchase × Purchase configuration ×

Manage purchases unit on products

Manage supplier consultations

Enable product description copy

Display purchase order line number

Default unit

Manage purchase order versions

Manage multiple purchase quantity

Manage supplier catalog

Generate purchase configurations

Purchase configurations

Company
Axelor

Purchase configuration ×

Company: Axelor

Purchase orders ATI/WT: Always W.T.

Printing settings

Display buyer on printing

Display tax detail on printing

Display supplier code on printing

Supplier box in purchase order

Display product code on printing

Display product detail on printing

Display price on requested purchase printing

Message for requesting prices: Merci de faire le meilleur prix !

Analytic distribution

Analytic distribution required on purchase order line

Do what I say, but don't do what I do : I will disregard the precautions I just outlined. The goal is to show some minimal changes by *Eclipse / Birt*.

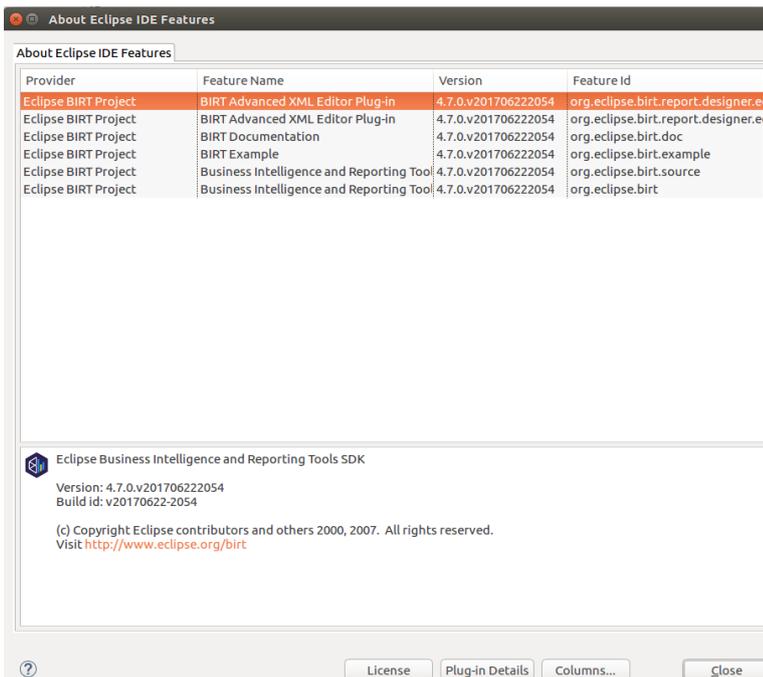
These changes do not necessarily have functional significance and can most likely be made by configuration.

These changes are as follows:

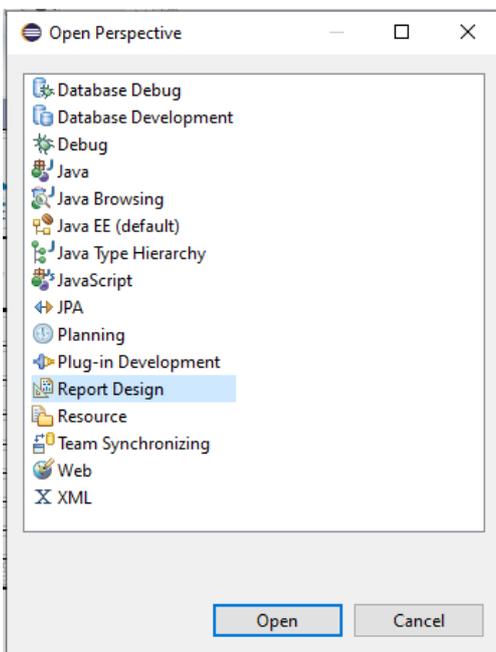
- 1) Show the *unit price* between *Qty* and *Amount HT* regardless of the status of the file, because in my current version it does not appear
- 2) Put a *teal* color at the *unit price*
- 3) Add a logo at the bottom of the page
- 4) Add information about the buyer

Below is the original report:

Bon de commande Référence : ACH0009 Date de commande : 31/05/21 Date de livraison : 14/06/21 Statut : Validé Condition de paiement : 15 jours nets Mode de paiement : Dec. Virement		MASSON SA 4 BD D'ARCOLE 31000 TOULOUSE FRANCE	
Adresse de facturation 12 RUE ALBERT EINSTEIN 77420 CHAMPS-SUR-MARNE FRANCE		Adresse de livraison 12 RUE ALBERT EINSTEIN 77420 CHAMPS-SUR-MARNE FRANCE	
Description	Qté / Unité	Montant HT	Date de réception souhaitée
Cartouche jet d'encre FLUID - Ref: C.MH0100	60,00 Unité	1 260,00 EUR	
Cartouche encre laser POWDER - Ref: C.TH0850	50,00 Unité	2 700,00 EUR	
Ramette 500 Feuilles A4 Standard 80 g - Ref: P.AS8005	30,00 Unité	148,80 EUR	
Total HT		4 108,80 EUR	
Total TVA		821,76 EUR	
Total TTC		4 930,56 EUR	



BIRT is a perspective in Eclipse. To open it, use the *Window* item of the Eclipse main menu. Choose *Open Perspective*, then *Report Design*. If the *report design* does not appear directly in the *Open Perspective* window, choose *Other ...* A list of perspectives will appear. Choose the *report design*.

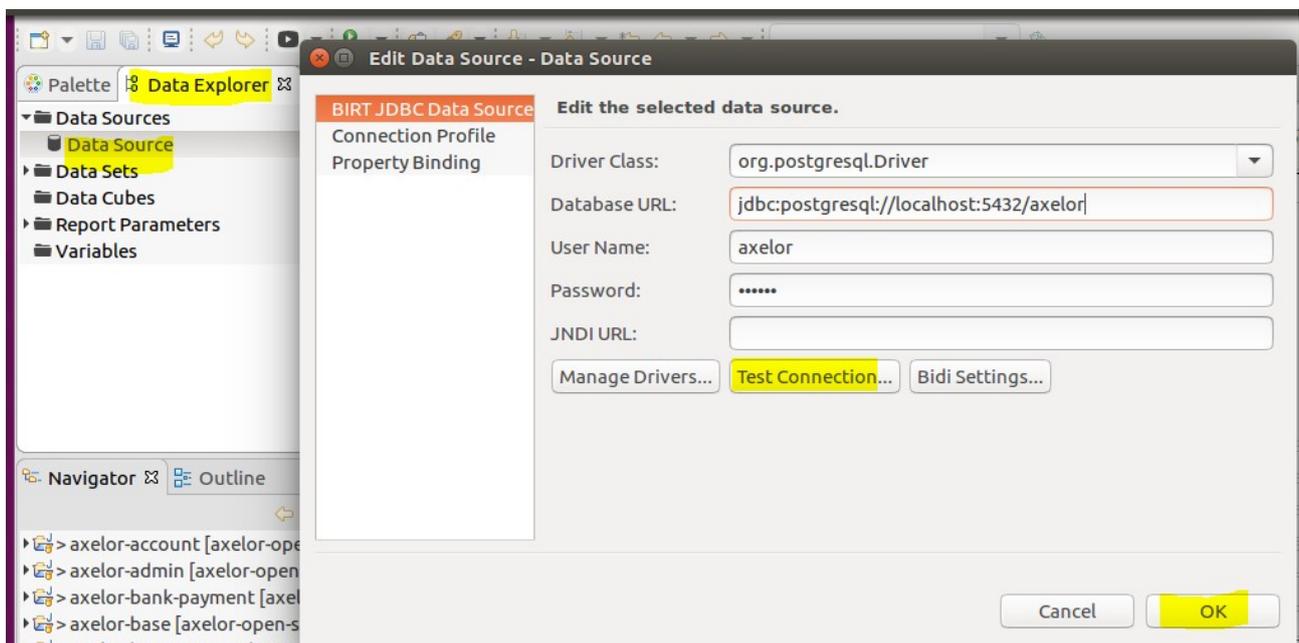


Eclipse will toggle to display the BIRT *report design* perspective.

Data source

BIRT reports use a *data source* element to connect to a *database* or other *data provider*. BIRT uses a *dataset* item to retrieve data from the *data provider*. Think of the *data source* as a connection and the *dataset* as a query.

To Build a *data source*, Open the *Data Explorer* view, Select the *Data Sources* node in the tree structure, *Right-click* to open the contextual menu,



To change the *data source*, Open the *Data Explorer* view, Open the *Data Sources* node, Double-click on the *data source*, the *data source editor* opens and you can make the necessary changes. Click OK to save your changes. Choose the *database* (here *axelor*), the *username* (here *axelor*) and the *password*

Click on « *Test Connection* » to check that the connection is correct « *Connection Successful* » Then do OK

Note: make sure you have the *org.postgresql.Driver* driver corresponding to your database

Layout Editor

The central area is the *layout editor*. This is where you create your report design. The editor has four tabs: *Layout*, *Master Page*, *Script*, *XML Source*

Layout

Layout: Allows you to change the design of your report.

Properties View - A standard Eclipse view that displays all the properties of a report item as a simple list.

Position yourself on the *Unit Price* column, then on **visibility**

The column is hidden according to a Boolean configuration indicator

The screenshot shows the Report Layout Editor interface. On the left is the Navigator tree showing the report structure. The central area displays a table with columns containing XML expressions like `<VALUE-OF-row["c...]`. The Properties View for a selected column is open, showing the **Visibility** section. The **Hide Element** checkbox is checked, and the expression field contains `row_outer["display_price_on_quotation_request"] != true`.

For the example, display this column in all cases at report level, regardless of the status and configuration.

This screenshot is similar to the previous one, but the **Hide Element** checkbox is unchecked, and the expression field is set to `true`, indicating that the column is now visible.

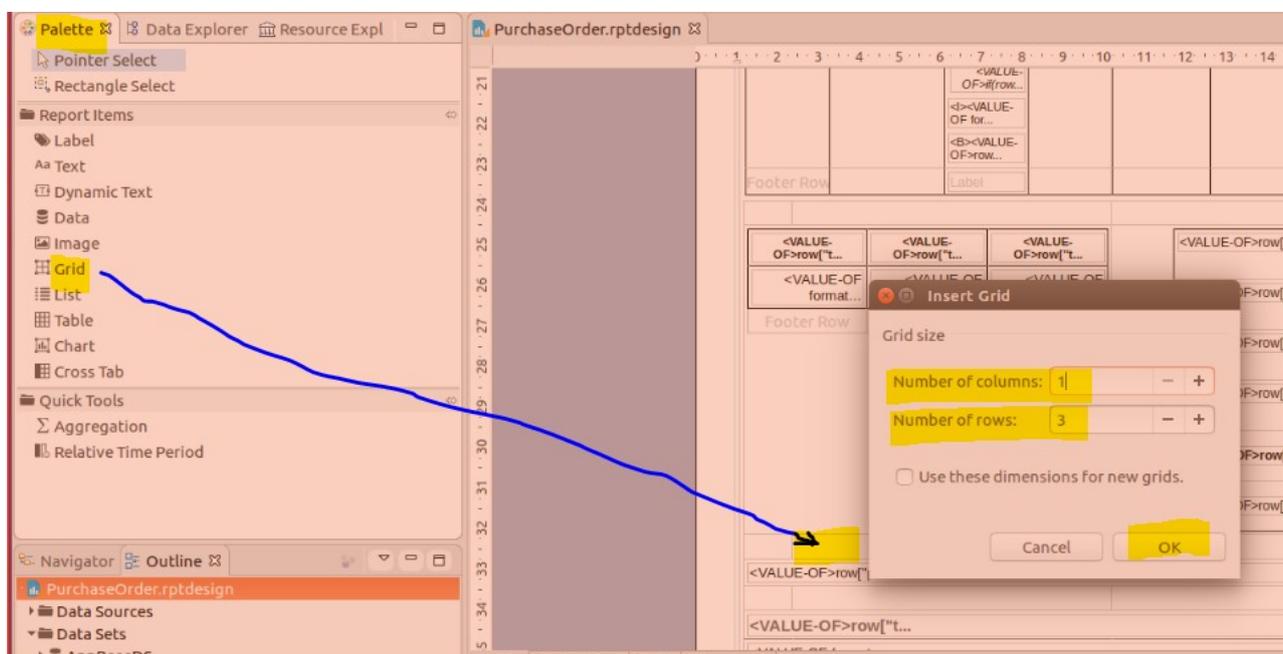
For fun, switch on *Teal* color at *unit price*.

Positioning on *Layout / Properties / General* allows you to format the different standard report elements.

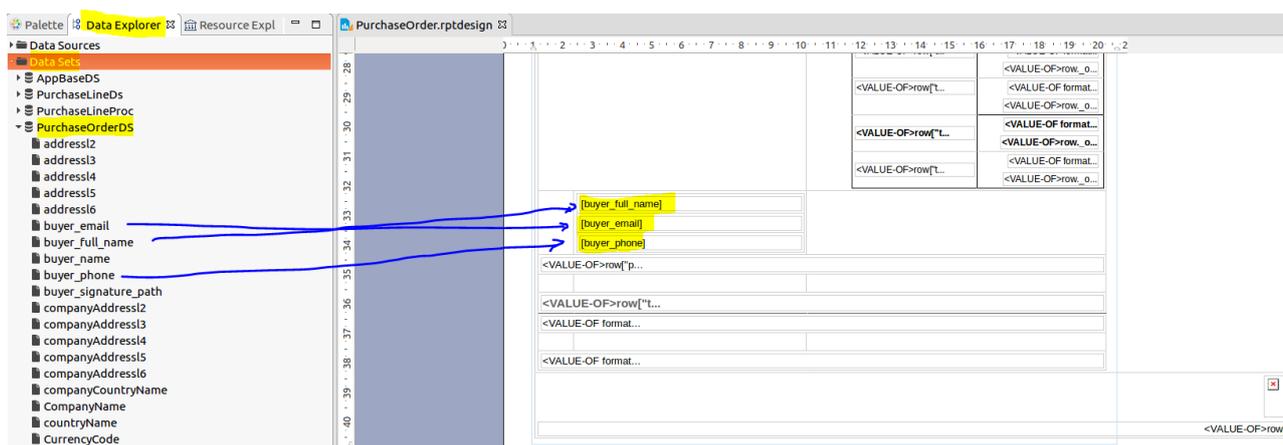
Position yourself in the *Unit Price* field Choose the color *Teal*.

The screenshot shows a report editor interface. At the top, a table is displayed with several columns. The column containing the text 'Unit Price' has a teal highlight. Below the table, the 'Property Editor - Text' window is open, showing the 'General' tab. The 'Color' property is set to 'Teal', and the 'Background color' is set to 'Auto'. The 'Name' field is empty, and the 'Element ID' is '3460'. The 'Content Type' is 'HTML', the 'Font' is 'Sans Serif', and the 'Size' is '8 points'. The 'Whitespace' is set to 'Auto', and the 'Display' is 'Block'.

Palette - BIRT view which shows standard report items that you can add to your report by *drag and drop*
Drag and drop from the *Grid* element to the desired destination *cell*
 A *grid* that has 1 column and 3 rows



In *Data Explorer*, select the *dataset PurchaseOrderDS*
Drag and drop items from the *Buyer* to the relevant cells



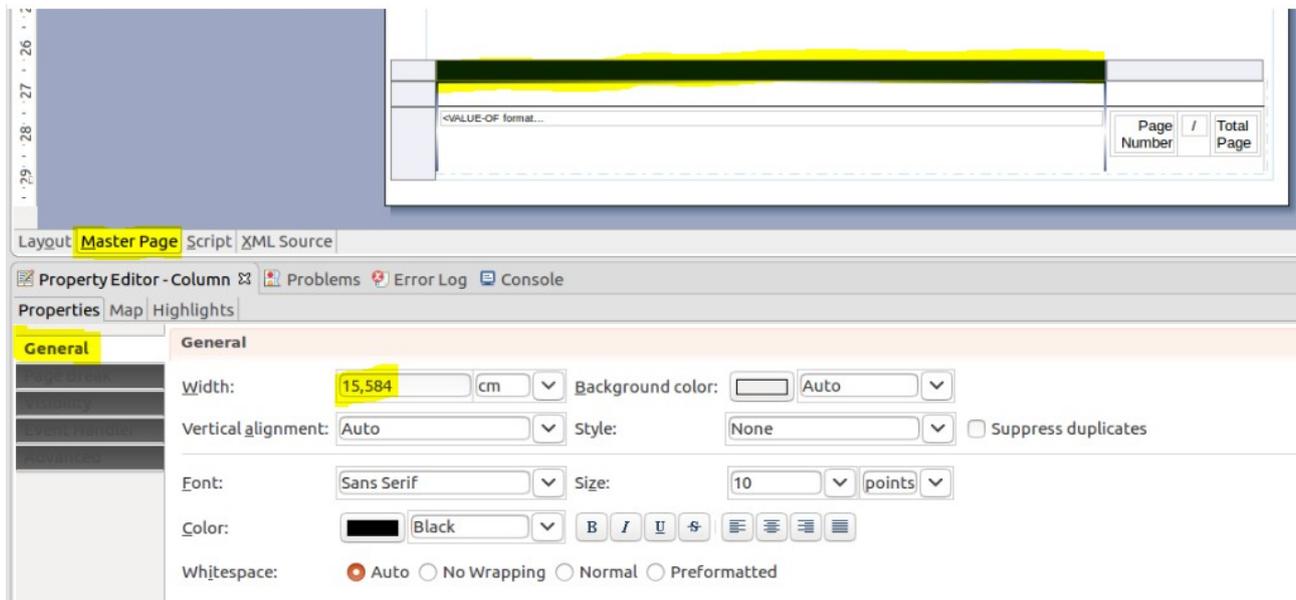
You will notice that the headings internationalization method used by Axelor is not used. Because it is considered that in our case, the report template is only used in one country and this would complicate this quick start guide to use internationalization .

Master Page

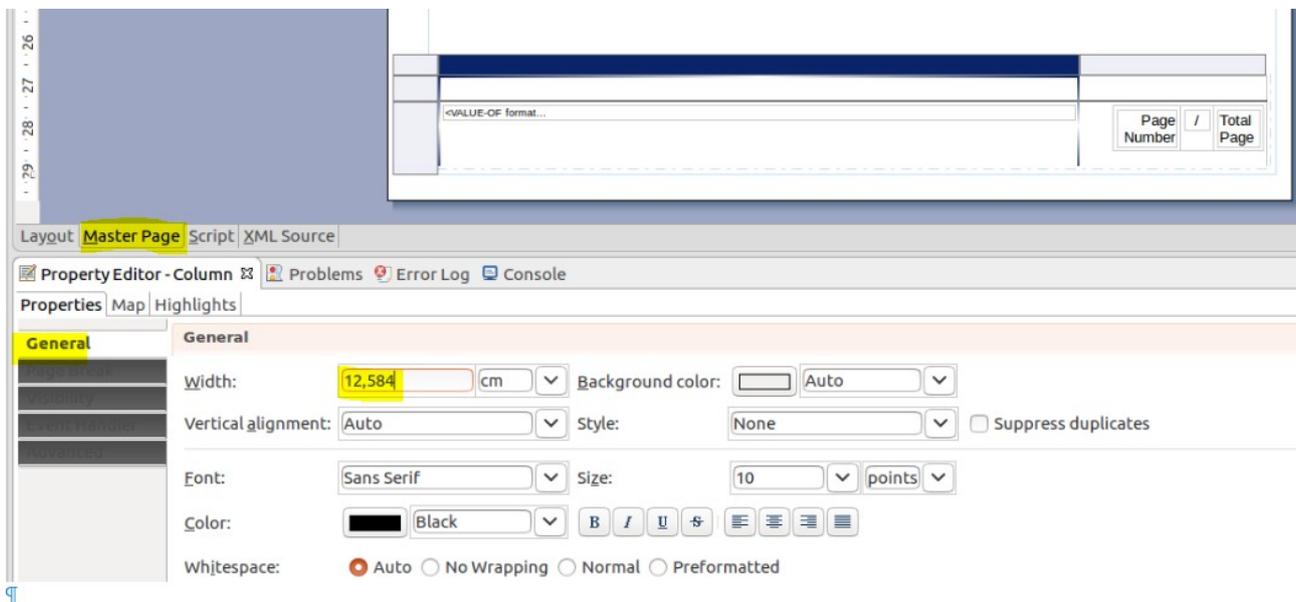
Master Page - Used to format page data such as headers and footers.

Open the *footer*: there are 2 columns

Position yourself on the left column: its width is 15.584 cm

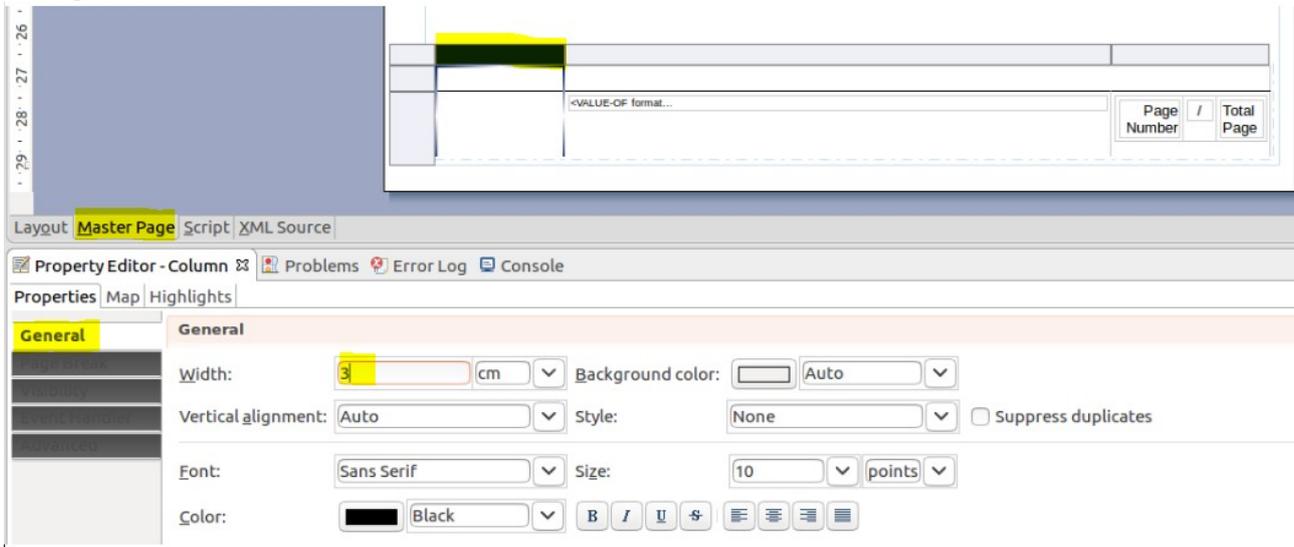


Decrease the column width by 3 cm to be able to create a 3 cm column on the left.

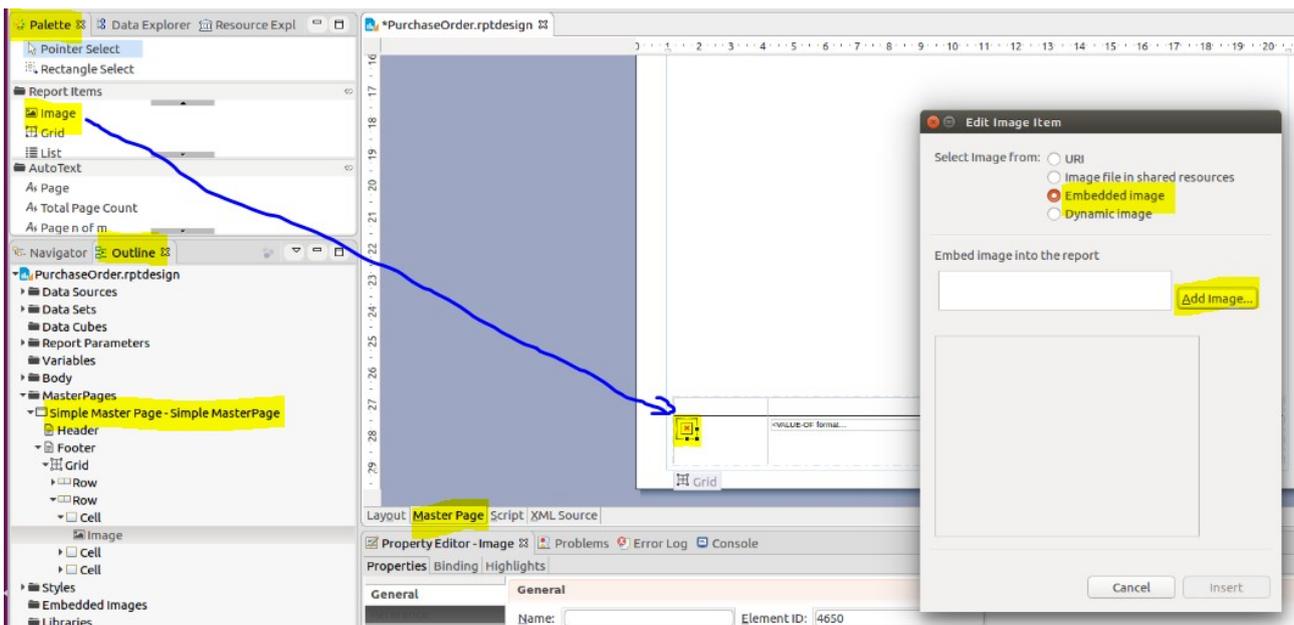


Right click, then select *Insert column on the left*

Then, position yourself on the newly created column
Assign a width of 3 cm



Drag and drop from the *Image* element to the previously created cell



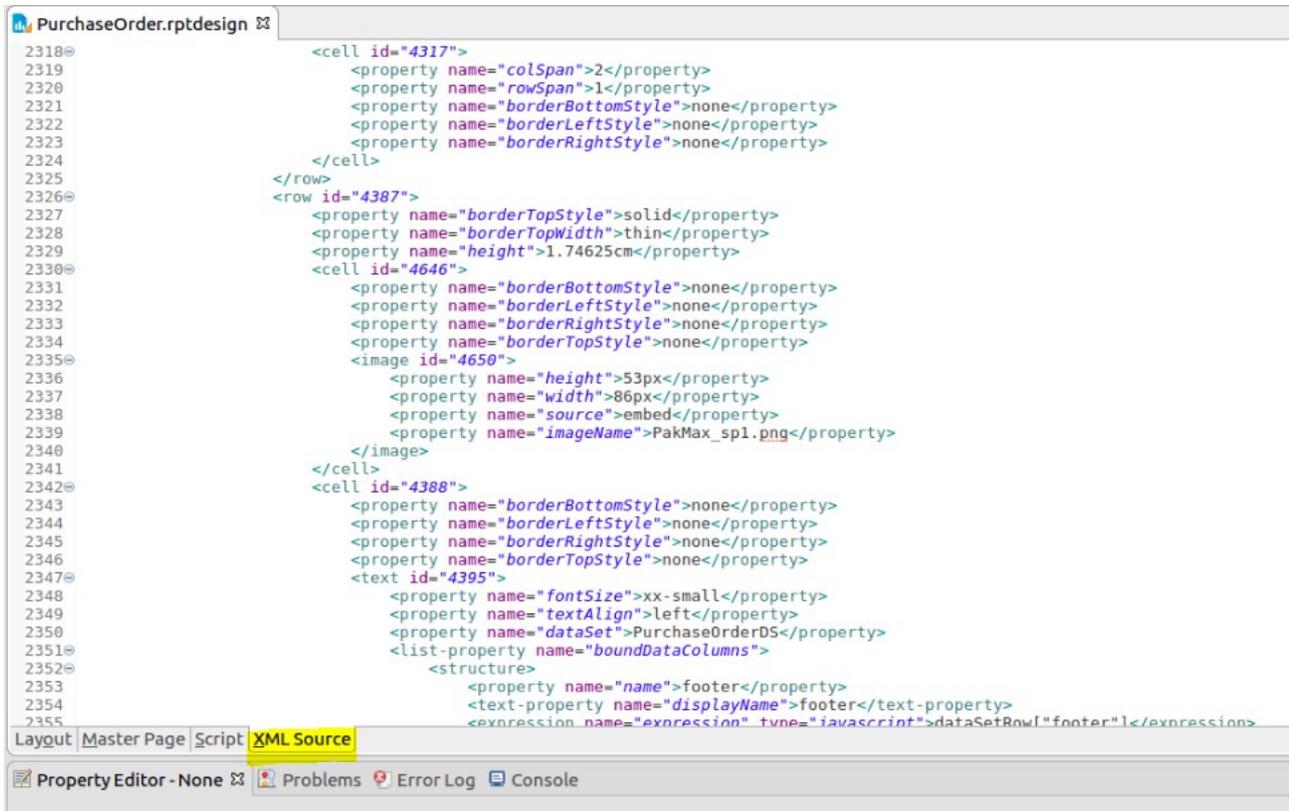
Double click on the element transferred to the created cell.
Search the image in the space where it is stored



As mentioned previously, Axelor allows you to manage headers : this method is only used to introduce you to a BIRT functionality.

XML Source

XML Source - .rptdesign File



```
2318@      <cell id="4317">
2319          <property name="colSpan">2</property>
2320          <property name="rowSpan">1</property>
2321          <property name="borderBottomStyle">none</property>
2322          <property name="borderLeftStyle">none</property>
2323          <property name="borderRightStyle">none</property>
2324      </cell>
2325  </row>
2326@  <row id="4387">
2327      <property name="borderTopStyle">solid</property>
2328      <property name="borderTopWidth">thin</property>
2329      <property name="height">1.74625cm</property>
2330@  <cell id="4646">
2331      <property name="borderBottomStyle">none</property>
2332      <property name="borderLeftStyle">none</property>
2333      <property name="borderRightStyle">none</property>
2334      <property name="borderTopStyle">none</property>
2335@  <image id="4650">
2336      <property name="height">53px</property>
2337      <property name="width">86px</property>
2338      <property name="source">embed</property>
2339      <property name="imageName">PakMax_spl.png</property>
2340  </image>
2341  </cell>
2342@  <cell id="4388">
2343      <property name="borderBottomStyle">none</property>
2344      <property name="borderLeftStyle">none</property>
2345      <property name="borderRightStyle">none</property>
2346      <property name="borderTopStyle">none</property>
2347@  <text id="4395">
2348      <property name="fontSize">xx-small</property>
2349      <property name="textAlign">left</property>
2350      <property name="dataSet">PurchaseOrderDS</property>
2351@  <list-property name="boundDataColumns">
2352@    <structure>
2353      <property name="name">footer</property>
2354      <text-property name="displayName">footer</text-property>
2355      <expression name="expression" type="javascript">dataSetRow["footer"]</expression>
```

You can view and edit the XML source for a report template from this tab. But the modification is not recommended for beginners. The modification can possibly be carried out with caution by experts.

WARNING : At the end of the modification, do not forget to *save* the changes made with *Eclipse/Birt*

Copy the modified XML file from *PurchaseOrder.rptdesign*, managed in the *Eclipse workspace*, into the directory of the server that hosts the Axelor application:

Example in our case: *~/work/axelor/data/reports*

Axelor will now run the modified report template, without any other operation (no relaunching the application, etc.) : the simple copy in the directory of the server makes it possible to take into account the new report. The modification is done in live.

Hereinafter, the modified part of the report.

Condition de paiement : 15 jours nets Mode de paiement : Dec. Virement				
Adresse de facturation 12 RUE ALBERT EINSTEIN 77420 CHAMPS-SUR-MARNE FRANCE		Adresse de livraison 12 RUE ALBERT EINSTEIN 77420 CHAMPS-SUR-MARNE FRANCE		
Description	Qté / Unité	Prix unitaire	Montant HT	Date de réception souhaitée
Cartouche jet d'encre FLUID - Ref: C.MH0100	60,00 Unité	21,00	1 260,00 EUR	
Cartouche encre laser POWDER - Ref: C.TH0850	50,00 Unité	54,00	2 700,00 EUR	
Ramette 500 Feuilles A4 Standard 80 g - Ref: P.AS8005	30,00 Unité	4,96	148,80 EUR	
Total HT			4 108,80 EUR	
Total TVA			821,76 EUR	
Total TTC			4 930,56 EUR	

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If you are not satisfied with the modified report template, you can delete it in the *~/work/axelor/data/reports* directory : then the original report template present in the sources will be executed.

It is magic !