

ALVRobot.com.ar: ALV Report Generator

Applies to:

ABAP – Reporting - ALV

Summary

After having written some ALV reports, starting a fresh new one can be a really tedious task. Declaring the internal table to hold the data, defining the field catalog, creating the selection screen, writing the query. You feel you have done it hundred times before, although every time is slightly different. That doesn't make you feel motivated at all.

Through this document I will present you www.ALVROBOT.com.ar. This site is intended to help ABAP programmers on the creation of ALV reports by automatically generating source code using a specially designed template.

This way ALV reports get done easier and faster. Also, as they are all made from the same template, standards get honored. The generated source is neither messy nor complicated. Is as readable, simple and straight-forward as any other program created by yourself!

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Author Bio



Gabriel Jenik has a bachelor degree on system analysis, given by University of Buenos Aires, Argentina. Is a certified SAP ABAP Consultant currently working as Developer and Technical Analyst at Atos Origin Argentina in a public/government administration project.

Gabriel has several years of experience as technical leader on Internet/Intranet developments and Content Management. Also had lot of experience at billing and pricing applications for the telecommunications industry, working with major companies of LATAM and USA. Since March 2006, he has dived into the ERP world, working as ABAP consultant.

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Overview

As we have said previously, ALV robot is intended to help the programmers in the programming of ALV reports.

Using a template and a couple of questions, it takes care of most of the typing needed to create the source code of the report.

As the reports generated are neither complex nor contain complex queries, you may find useful to use this site to create a base report for later enhancement. Since the source code given is simple, clean and straightforward, you may easily do that and won't get messed in the source code.

This site is not intended to replace programmers but to help them in their daily job. By letting the software do the tedious and repetitive stuff, the programmers can focus on more challenging tasks such as design or non-usual algorithms.

Step 1: General Information

During the first step, general information about the report is required. You will be asked for:

- Program name
- ALV title
- Author name (Your name)
- Program description

Step 1: General information

Please, enter the following information about the report.

Name:	<input type="text" value="ZGJTEST"/>	Author:	<input type="text" value="Gabriel Jenik"/>
Title:	<input type="text" value="Test Report"/>		
Brief description:	<input type="text" value="Test Report"/>		

Multiple templates / Personalized templates

In the future (the tool is still under construction) you will also need to select the template to be used. This way you will be able to create an ALV report using the 'REUSE_ALV_GRID_DISPLAY' function module (as you can now) or use other approaches, as the O.O. paradigm.

Personalized templates: If you want to use your own template, please, send it to me! It will be added to the template library. If you want to keep it private, you will be provided with a password for you to be the only one allowed to handle the template.

Step 2: Tables involved

At this step, the tool needs to know the tables that are going to be involved in the query. As we list them, you also be asked to fill in the relationship among them:

- Alias: Just as we do, the tool uses aliases to refer to the tables. Then, we have to give each table an alias.
- Join type: Is the table going to be joined using an inner join, a left outer join or a right outer join?
- Join condition: After selecting the join type, we can freely enter the join condition for each of the tables.

Step 2: Tables involved

Please, fill in the tables involved in the report base query. If more than one, please also fill in the join conditions among them.

You may find an example below the first 2 rows, using a join between EKKO and LFA1.

#	Table / Join conditions	+ add more tables >>
1	<input type="text" value="ekko"/> as <input type="text" value="e"/> <i>EKKO</i> <i>E</i>	
2	<input type="text" value="inner join"/> <input type="text" value="lfa1"/> as <input type="text" value="l"/> on <input type="text" value="e~lifnr = l~lifnr"/> <i>inner join</i> <i>LFA1</i> <i>L</i> <i>E~lifnr = L~lifnr</i>	
3	<input type="text" value="inner join"/> <input type="text" value="ekpo"/> as <input type="text" value="p"/> on <input type="text" value="p~ebeln = e~ebeln"/>	
4	<input type="text" value="select join type"/> <input type="text"/> as <input type="text"/> on <input type="text"/>	
5	<input type="text" value="select join type"/> <input type="text"/> as <input type="text"/> on <input type="text"/>	

Step 3: Fields of the selection screen

We need to build the selection screen.

Again, you will be provided a textbox for each of tables entered in step 2. Please, use the textboxes to list the fields you want to appear in the selection screen.

Note this is not the right time to specify the appearance of the fields, as parameters or select-options. That will be done later.

Step 3: Fields of the selection screen

Please, fill in the selection screen fields, the ones that are going to be part of the filtering criteria. Separate each of the fields using a single space.

1) ekko

2) lfa1

3) ekpo

Step 4: Selection fields properties

After listing the fields of the selection, we are configuring them.

You will be shown a list of all the selection screen's fields. For each of the fields, please choose if you want them to appear as a:

- Text Parameter
- Select-Option
- Checkbox
- Radio Button.

Also, you will be able to define if it is obligatory and may enter a default value.

In case you have chosen to use a Radio Button, you will need to enter the "radio button group".

Step 4: Selection fields properties

Please, set the attributes for each of the selection screen fields.

[Scroll forward until the footer »](#)

ekko-ebeln

- | | | |
|--|--------------------|--------------------------|
| <input checked="" type="radio"/> Select Option | Default value | <input type="text"/> |
| <input type="radio"/> Parameter | Obligatory | <input type="checkbox"/> |
| <input type="radio"/> Checkbox | Radio Button Group | <input type="text"/> |
| <input type="radio"/> RadioButton | | |

ekko-aedat

- | | | |
|--|--------------------|--------------------------|
| <input checked="" type="radio"/> Select Option | Default value | <input type="text"/> |
| <input type="radio"/> Parameter | Obligatory | <input type="checkbox"/> |
| <input type="radio"/> Checkbox | Radio Button Group | <input type="text"/> |
| <input type="radio"/> RadioButton | | |

Step 5: Fields of the ALV report

It is time to tell the tool which fields are going to be included in the ALV report.

For each of the tables listed in the previous step, you will be provided a textbox, where the table's fields have to be entered.

Please, separate each of the fields with a space.

Step 5: Fields of the ALV report

Please, fill in the fields to be shown for each of the table indicated previously.
Separate each of the fields using one single space.

1) ekko

2) lfa1

3) ekpo

Step 6: ALV report fields properties

As well as we configure the selection screen fields, we are also going to configure the ALV report fields.
You will be shown a list of all the ALV report fields. For each of them, please choose:

Step 6: ALV report fields properties

Please, set up the following output options for the ALV report fields.

[Scroll forward until the footer »](#)

ekpo-netpr

Column Position:

<p>Field Output:</p> <p><input checked="" type="radio"/> Standard (as textbox)</p> <p><input type="radio"/> Show as checkbox</p> <p><input type="radio"/> Show as icon</p> <p><input type="checkbox"/> Hotspot</p> <p><input type="checkbox"/> Initially hidden</p>	<p>Sorting:</p> <p><input checked="" type="radio"/> None</p> <p><input type="radio"/> Up</p> <p><input type="radio"/> Down</p>	<p>Agregate functions:</p> <p><input checked="" type="radio"/> None</p> <p><input type="radio"/> Group by</p> <p><input type="radio"/> Do sum</p>
--	---	--

- **Output options:** Set the appearance of the column.
 - Standard (as textbox)
 - As checkbox
 - As icon
- **Hotspot:** Check this if you want to set this field as a hotspot (The pointer of the mouse will be changed from an arrow to a hand when the mouse gets over this field).
- **Initially hidden:** If you set this option, you hide the column on the list. Nevertheless, the column is available in the field selection and can be interactively selected by the user as a display field. The ALV displays the contents of hidden fields on the detail screen for a row in the grid control.
- **Sorting Criteria.**
 - None
 - Up: Ascending.
 - Down: Descending.
- **Aggregate functions.**
 - None
 - **Group by:** The content of the filed will be used as criteria for grouping and summing other fields. In case you set this option, you will need to set a sorting criteria.
 - **Do Sum:** This field will be grouped and summed according to contents and sorting of the "group by" fields.
- **Other output options:** Set the appearance of the column.
 - **Hotspot:** Check this if you want to set this field as a hotspot (The pointer of the mouse will be changed from an arrow to a hand when the mouse gets over this field).
 - **Initially hidden:** If you set this option, you hide the column on the list. Nevertheless, the column is available in the field selection and can be interactively selected by the user as a display field. The ALV displays the contents of hidden fields on the detail screen for a row in the grid control.

Step 7: Layout

We are close to the goal, but first we have to take care of the layout options:

Step 7: Layout

Please, set up the following output options for the ALV report.

Color pattern

Set Zebra style.

Selecting rows

Please, select the method you prefer for selecting rows on the ALV report.

Don't want any method for row selecting.

Using the standard button on the left side of the ALV.

Add an extra checkbox field for selecting rows.

Name of the field where to hold the selection mark:

- Zebra pattern: Check this if you want the ALV to show alternating cell color for the output.
- Selecting rows: Sometimes we need to select some rows on the ALV and then execute some command / task on them.
In that case we need to define how do we want to select our rows:
 - None: We don't want to select rows.
 - Standard button: A standard ALV selecting row button will be added on the left of the report.
 - Checkbox: A checkbox will be added as the first field of the report to mark selected rows.
- Mark field name: In the last 2 cases, the selected rows will be marked as selected. That mark will be stored on a field in the data internal table of the program. Please, set a name for that field, taking care of no overlapping with the other field's name.

Final Step: Source code of the report

You have given the tool all the information it needs to generate the source code of the ALV report.

We can't get into your SAP console, so please:

- Copy the source code given in the textbox.
- Using the SE38 transaction, create a new program.
- Paste the source code in it.
- Compile.
- Go! You are ready to run the program.

[Download example generated source code](http://www.alvrobot.com.ar/images/ExampleSourceCode.txt) from
<http://www.alvrobot.com.ar/images/ExampleSourceCode.txt>

Final Step: Source code of the report

You are finished! In the textbox below you will find the report source code tailored to the selected criteria.

- Using the SE38 transaction, create the program ZGJTEST and paste the source code in it.
- Compile and Go! You are ready to run the program.

```

=====
* This report was initially created by ALVRobot.com.ar
* Please, read terms and conditions on the site.
=====

```

[« Back to Step 7: Layout](#)

[Feedback / Help support it »](#)

Extra Steps: Enhancements to the report

You may feel the program needs some adjustments, stuff only humans can do.

Please, jump into the code and try to enhance it. I think you won't get any problem finding the perfect spot for you to insert your code.

As I have told you the tool is still under construction. Later, I will update this tutorial, showing you some enhancements examples. If you already have some examples and feel they can be useful, please, send them to me using the contact link! I will be very grateful!

Also, if you think further automation can be done, please let me know. Maybe you can enhance the tool!

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