



# SAP List Viewer

## The New Programming Model in SAP NetWeaver 04

## History and Scope

The New Object Model

Demo

Summary

## SAP provides different reporting tools in an operational system

- Report Painter
  - ◆ Report Writer
  - ◆ Drill Down reporting
- SAP Query
- Information systems like
  - ◆ LIS
  - ◆ FIS
  - ◆ PIS
  - ◆ ...
- ...

## Common approach of all these tools

- Support of data retrieval
- Support of report design/definition/layouting
- Offer a set of generic services

## Prerequisites for using these tools

- The data you want to report on has to fit into the data retrieval philosophy of the chosen tool
- The provided tool services are sufficient for the business goal of the report

## Requirements not supported by these tools

- Reporting on any kind of data (e.g. selected in a 'report')
- End-user defined content  
(What columns do I really want to see out of a large set of provided information/columns)
- Combination of generic services with application specific functionality

These requirements have been addressed by the **SAP List Viewer** (ALV) formerly known as ABAP List Viewer

- For **SAP internal usage** (not released for customers) available from Basis release 4.0 based on ABAP list processor technology
- For **SAP internal usage** (not released for customers) available from Basis release 4.6 also based on SAP Control Framework technology.  
Class CL\_GUI\_ALV\_GRID also **released for customer usage**
- In SAP NetWeaver 2004 (Basis 6.40) for **customer- and SAP internal usage** based on a new object oriented programming model supporting ABAP list processor and SAP Control Framework technology

## What is the SAP List Viewer (ALV)?

### ■ End-user perspective:

- ◆ An UI element
- ◆ for displaying tabular data
- ◆ that provides a rich set of standard functionality like sorting, filtering, aggregation, choose columns, persistence of settings, ...

### ■ Developer perspective:

- ◆ A set of APIs
- ◆ Can be used in any application
- ◆ Offers the rendering functionality for tabular data
- ◆ Provides a rich set of generic services like sorting, ...
- ◆ Generic services can be enhanced by application specific functionality
- ◆ Supports different flavors of presentation/UI technologies

## The different ALV flavours

- ABAP list processor based
  - ◆ Simple list
  - ◆ Hierarchical sequential list
- SAP Control Framework based
  - ◆ Display as Fullscreen
    - Grid (Simple list)
    - Tree (New in SAP NetWeaver 2004!)
  - ◆ Display in a container (part of a dynpro)
    - Grid (Simple list)
    - Tree

History and Scope

**The New Object Model**

Demo

Summary

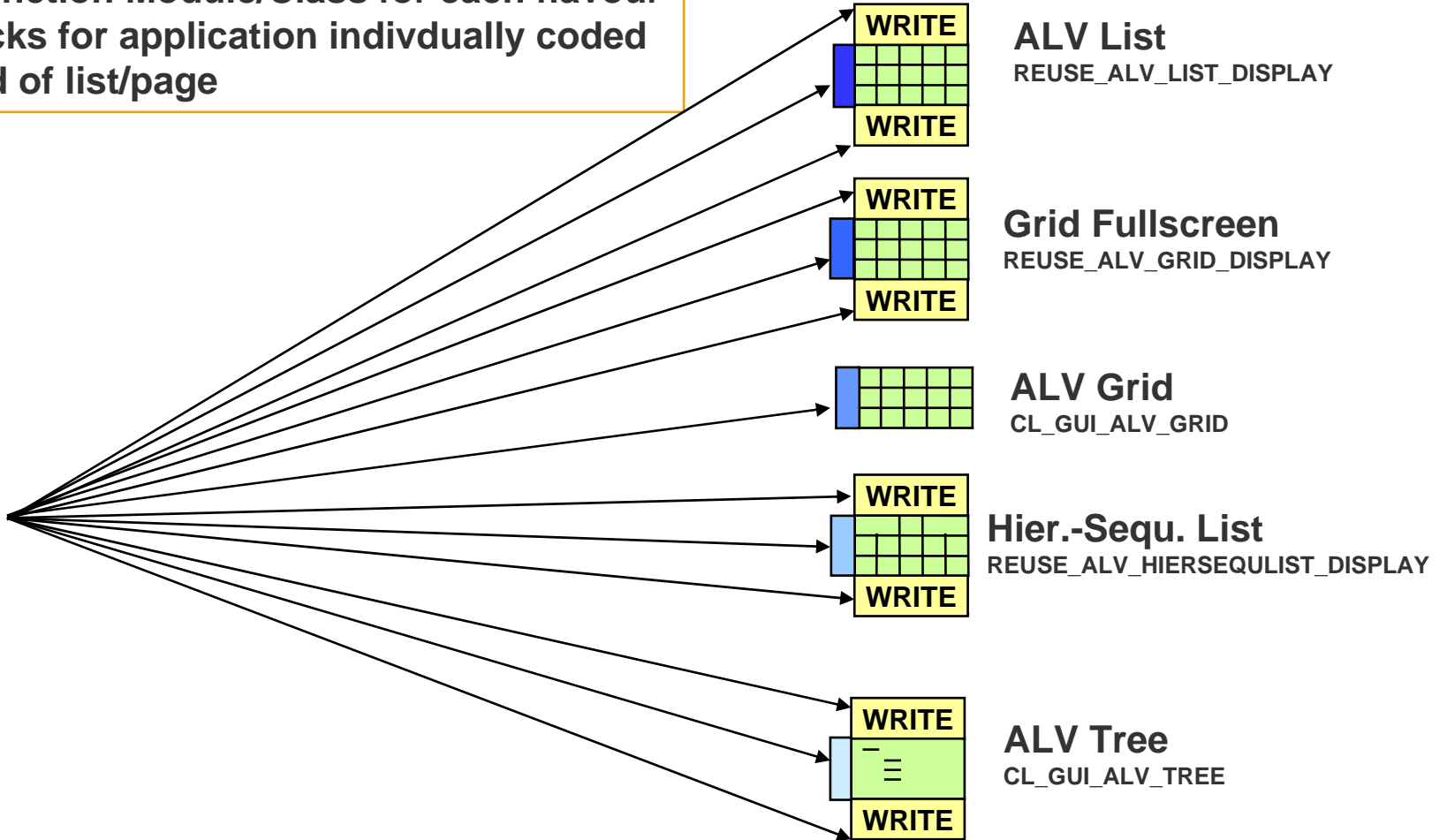
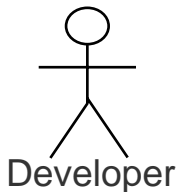


## New object oriented API

- Simplifies programming (fits to the oo skill set of nowadays developers)
- Error robustness
  - ◆ Data-type information about internal table is determined by the ALV
  - ◆ Wrong parameterization raises exceptions
  - ◆ Backend/Frontend update due to meta data changes are handled by ALV object model (Refresh\_table\_display)
  - ◆ Constants for correct parameterization provided
- Unified object model for all ALV flavours (Grid, Tree, etc.)
  - ◆ Completely data and meta data driven interface for top/end of list/page areas
  - ◆ Single class for handling tabular data
  - ◆ Unified constants definition
  - ◆ Common meta data model for all ALV flavors
- Released for customer usage

## Usage of ALV Function Modules/Class

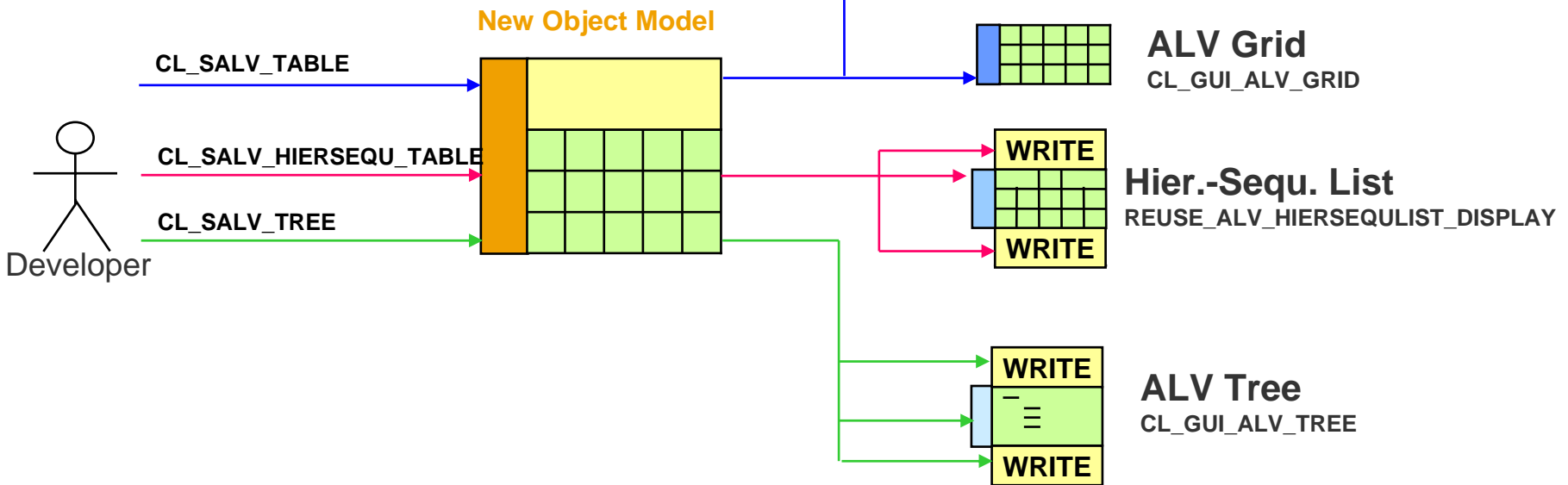
- One Function Module/Class for each flavour
- Callbacks for application individually coded top/end of list/page



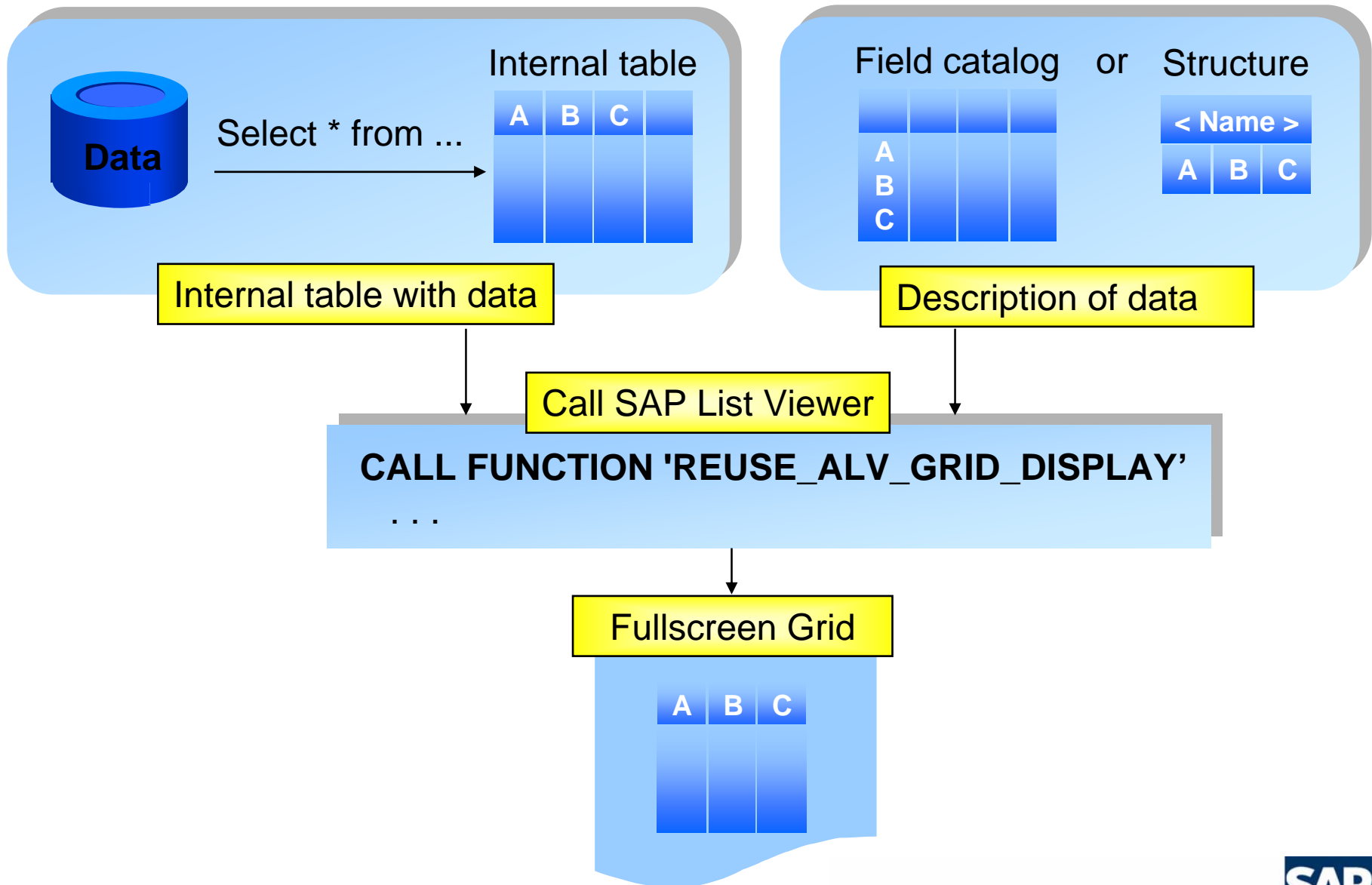
# The New Object Model

## SAP NetWeaver 2004

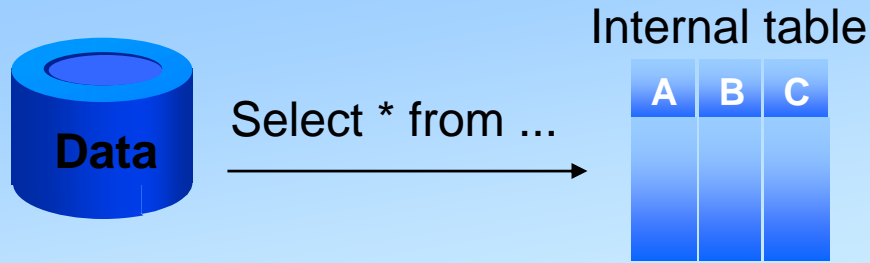
- Optimized, consistent, robust API for presentation of data for all ALV flavours
- Completely data and meta data driven interface for top/end of list/page areas
- Single class for handling tabular data



# Main Principle prior to the New Object Model



# Main Principle of the New Object Model (Simplest call)



Create ALV instance by calling factory method and hand over internal table with data

call method `cl_salv_table=>factory`

...

Get back the reference to the ALV instance

ALV instance  $\rightarrow$  display

...

Fullscreen Grid

A B C

# Most Simple ALV Using New Object Model

```
*&-----*
*& Report SALV_DEMO_TABLE_REAL_SIMPLE
*&-----*
*& This is the most simple form of calling the new ALV object model
*& Isn't it REALLY simple?
*&-----*
```

```
REPORT SALV_DEMO_TABLE_REAL_SIMPLE.
```

```
data: gt_outtab type table of SFLIGHT.
```

```
data: gr_table type ref to cl_salv_table.
```

## \*... Select data

```
select * from SFLIGHT into corresponding fields of table gt_outtab.
```

## \*... Create Instance

```
call method cl_salv_table=>factory
```

```
IMPORTING
```

```
  R_SALV_TABLE = gr_table
```

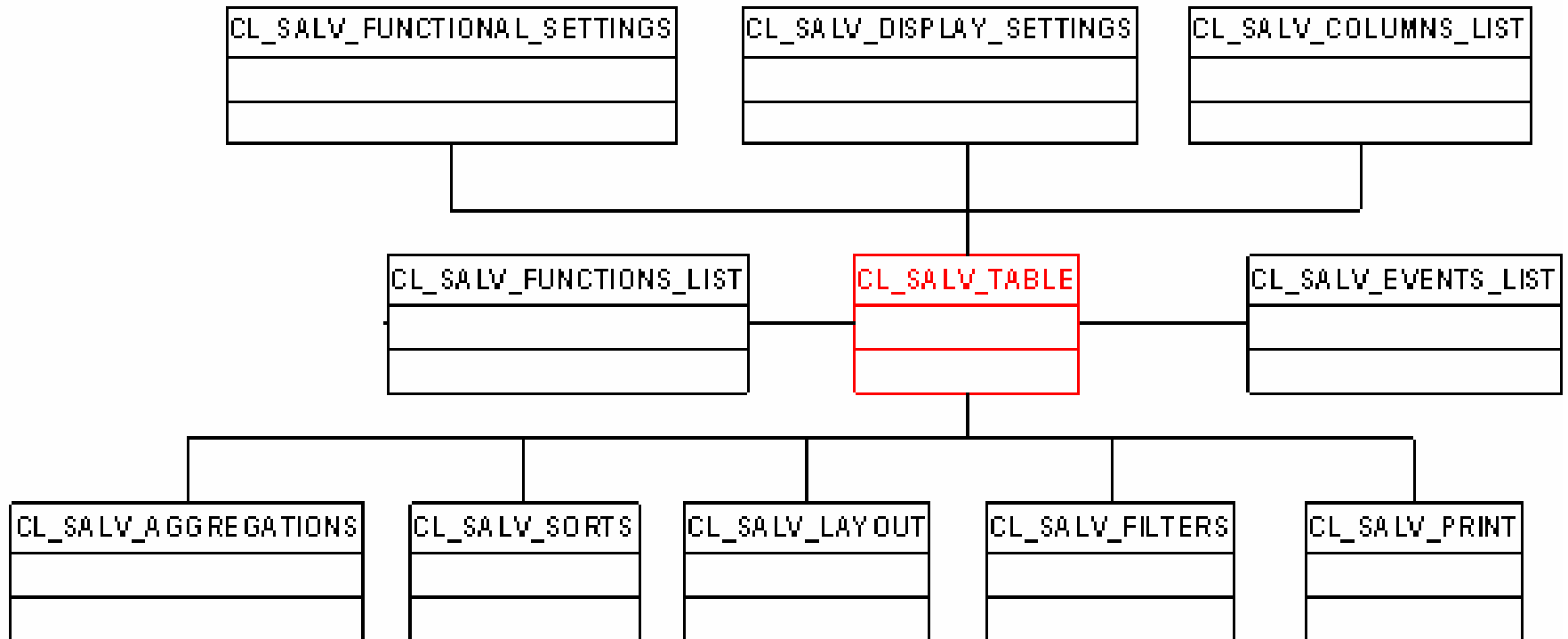
```
changing
```

```
  t_table = gt_outtab.
```

## \*... Display table

```
gr_table->display().
```

# UML Diagramm SALV\_TABLE



## Object for Columns definition

(CL\_SALV\_COLUMNS\_TABLE)

- Describes general meta data settings e.g. optimize columns, column order
- Assignment of technical columns e.g. assign column containing color information for cell coloring
- Holds column objects (for each column)  
(CL\_SALV\_COLUMN\_TABLE)
  - ◆ Column specific properties e.g. visibility, alignment

## Object for Sort information

(CL\_SALV\_SORTS)

- Definition of Sort criteria
- Holds sort objects (for each criterion)  
(CL\_SALV\_SORT)
  - ◆ Sort order
  - ◆ Subtotal
  - ◆ ...



## Object for Filter information

(CL\_SALV\_FILTERS)

- Definition of filter criteria
- Holds filter objects (for each criterion)  
(CL\_SALV\_FILTER)
  - ◆ Select-options

## Object for Aggregation information

(CL\_SALV\_AGGREGATIONS)

- Definition of cumulative keyfigures
- Holds aggregation objects (for each keyfigure)  
(CL\_SALV\_AGGREGATION)
  - ◆ Aggregation type e.g. Total, Min, Max

## Object for Functional Settings

(CL\_SALV\_FUNCTIONAL\_SETTINGS)

- Defines functional settings e.g. sort on header click

## Object for Display Settings

(CL\_SALV\_DISPLAY\_SETTINGS)

- Defines display settings e.g. striped pattern, horizontal lines

## Object for Print information

(CL\_SALV\_PRINT)

- Definition of information relevant for printing e.g. do print coveragepage

## Object for Layout information

(CL\_SALV\_LAYOUT)

- Definition of key for persistence of table configuration e.g. visible columns, sort and filter information
- Definition of authority aspects e.g. user specific layouts only
- Use of default layouts during start-up

## Object for Event handling

(CL\_SALV\_EVENTS\_TABLE)

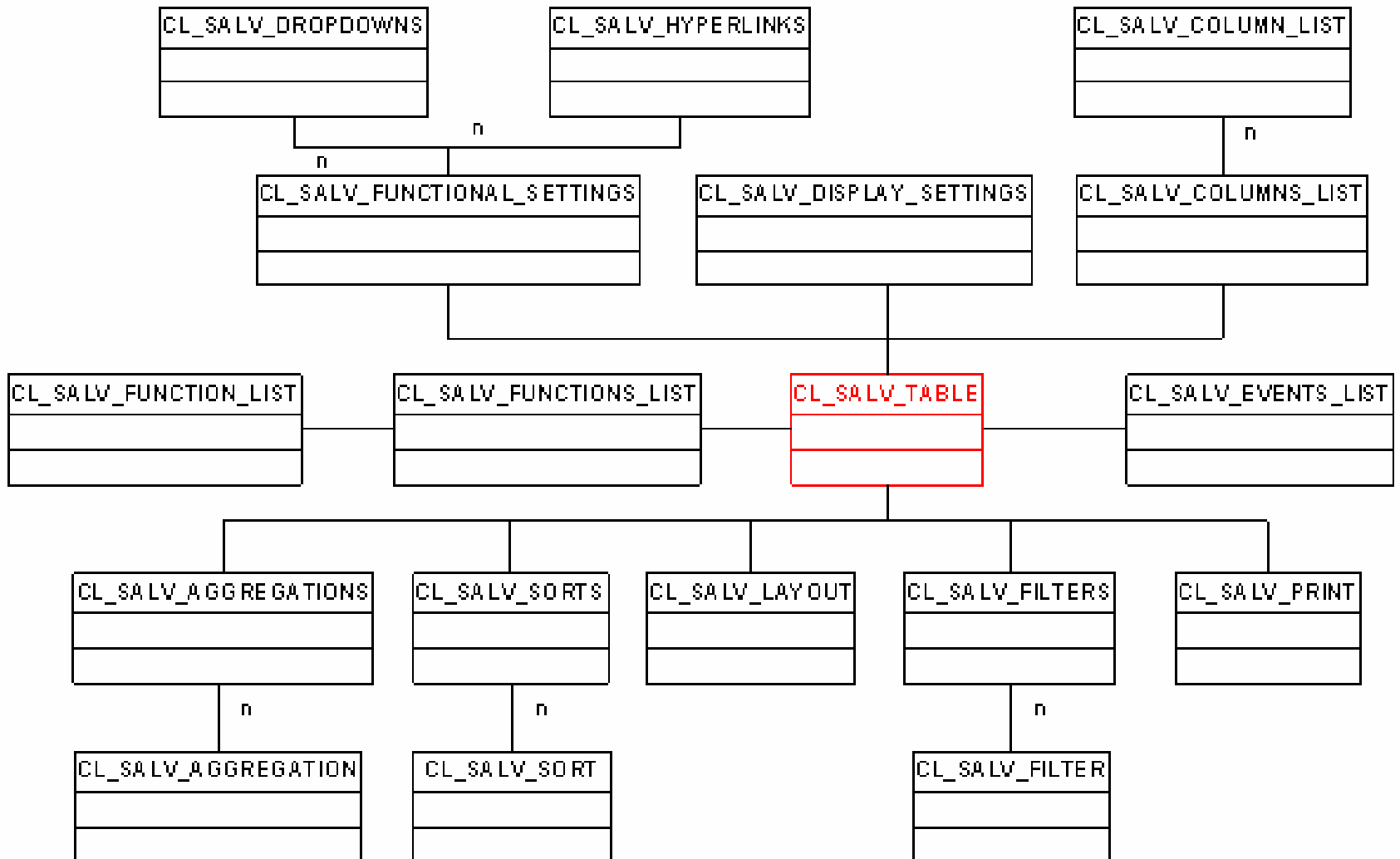
- Registration on events e.g. link click, double click

## Object for User Interaction handling

(CL\_SALV\_FUNCTIONS\_LIST)

- Enabling/disabling of generic ALV Function e.g. sort, filter
- Definition of application specific functions

# UML Diagramm SALV\_TABLE



## Create ALV instance

(CL\_SALV\_TABLE)

- handing over data table

## ALV->Get Columns

(CL\_SALV\_TABLE)

- receiving reference to columns object

## Columns->Get Column

(CL\_SALV\_COLUMNS\_TABLE)

- handing over column name
- receiving reference to column object

## Column->Set Visible = false

(CL\_SALV\_COLUMN)

## ALV->Display

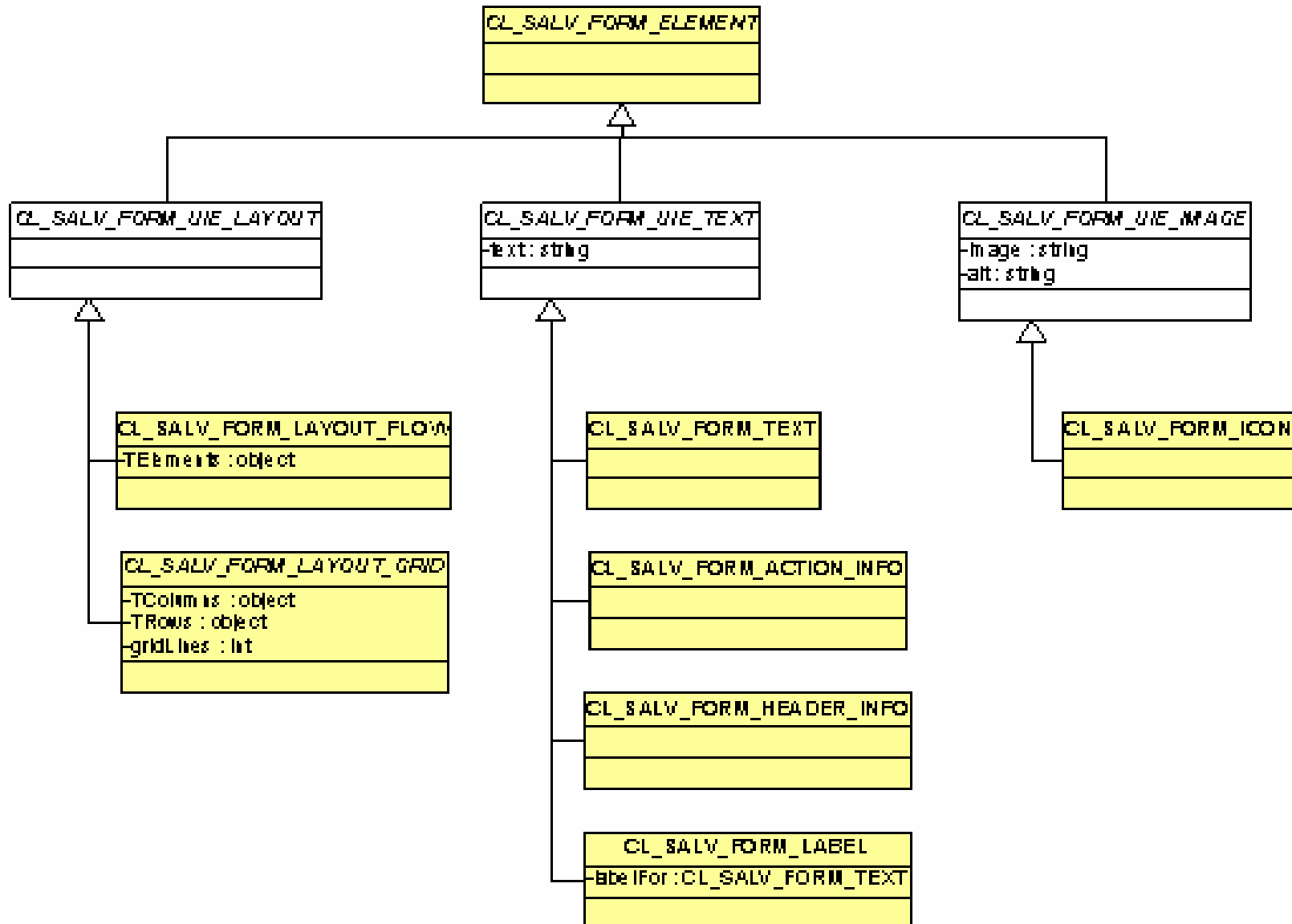
(CL\_SALV\_TABLE)

**UI independent information for rendering (ABAP list processor based or HTML based for Control Framework usage)**

**Accessibility of information (Section 508 compliance)**

**The information is displayed in agreement with the SAP ergonomic guideline**

# UML Diagramm SALV\_FORM\_ELEMENT



## Objects for layouting

### ■ Grid layout

(CL\_SALV\_FORM\_LAYOUT\_GRID)

- ◆ Columns
- ◆ Rows
- ◆ Span of Rows and Columns
- ◆ Alignment (left justified, right justified)

### ■ Flow layout

(CL\_SALV\_FORM\_LAYOUT\_FLOW)

- ◆ Sequence of elements
- ◆ Alignment (left justified, right justified)

### ■ Nested layout of Grid and Flows possible (e.g. Grid in Grid, Flow in Grid)

## Objects for (textual-) content based on SAP's ergonomic Guideline

- **Header Information**  
(CL\_SALV\_FORM\_HEADER\_INFO)
  - ◆ Determines standard font and color
- **Label (for text)**  
(CL\_SALV\_FORM\_LABEL)
  - ◆ Determines standard font and color
  - ◆ Assignment to corresponding text
- **Text**  
(CL\_SALV\_FORM\_TEXT)
  - ◆ Determines standard font and color
- **Action information**  
(CL\_SALV\_FORM\_ACTION\_INFO)
  - ◆ Determines standard font and color
  - ◆ E.g. "Sort in descending order"

## Object for Images

- **Icon**  
(CL\_SALV\_FORM\_ICON)
  - ◆ Determines rendering as icon



# Example for Using the Form Object

Header information: 2 fields, action info

Purch. group	Mr. Meyer	Vendor	Sester Transport
--------------	-----------	--------	------------------

Sort in descending order: Amnt

L i s t

In this example 5 lines are required. Therefore a **grid layout with one column** is appropriate for holding the content of this top of page:

- The first line holds the header information
- The second line is empty
- The third line is a **grid with one row and 4 columns**
- The fourth line is empty
- The fifth line holds an action information

# Pseudo-Code for Header Example

## Create Grid

(CL\_SALV\_FORM\_LAYOUT\_GRID)

## Create Header Information in cell (1,1)

(CL\_SALV\_FORM\_HEADER\_INFO)

**(Add row)** (CL\_SALV\_FORM\_LAYOUT\_GRID)

## Create Grid in cell (3,1) (CL\_SALV\_FORM\_LAYOUT\_GRID)

- Create label in cell (1,1) (CL\_SALV\_FORM\_LABEL)
- Create text in cell (1,2) (CL\_SALV\_FORM\_TEXT)
- Create label in cell (1,3) (CL\_SALV\_FORM\_LABEL)
- Create text in cell (1,4) (CL\_SALV\_FORM\_TEXT)

**(Add row)** (CL\_SALV\_FORM\_LAYOUT\_GRID)

## Create Action Information in cell (5,1)

(CL\_SALV\_FORM\_ACTION\_INFO)

## Set Top/End of List/Page

(CL\_SALV\_TABLE)

History and Scope

The New Object Model

**Demo**

Summary

**Select Data and present them using the ALV**

- SALV\_LEARN\_MAP\_TABLE\_1

**Hide a column**

- SALV\_LEARN\_MAP\_TABLE\_2

**Enable generic ALV services like sorting, filtering**

- SALV\_LEARN\_MAP\_TABLE\_3

**Register on Double click and raise info message 'Hello World' with information about the clicked cell (row, column)**

- SALV\_LEARN\_MAP\_TABLE\_4

History and Scope

The New Object Model

Demo

**Summary**

## SAP List Viewer

- API
- for displaying tabular data
- that provides a rich set of standard functionality eg. sorting
- Generic services can be enhanced by application specific functionality
- Supports different flavors of presentation/UI technologies
- With SAP NetWeaver 2004 SAP provides an optimized, consistent, robust, simple to use API for all kind of ALV flavors
- This New ALV Object Model in SAP NetWeaver 2004 is released for customer usage

## SDN (SAP Developer Network)

- <http://www.sdn.sap.com>
- Documentation
- How to guides

## Documentation

- SAP Library
- Class Documentation

## SAP NetWeaver 2004 Demo Reports

- SALV\_DEMO\*
- SALV\_FORM\_DEMO\*



# SAP List Viewer

## The New Object Model in SAP NetWeaver 04

# Additional Information



# ABAP List Processor Based Simple List

Liste Bearbeiten Springen Zusätze Einstellungen System Hilfe

**Auftragsselektion: Ergebnisliste**

Werte in Kostenrechnungskreiswahrung EUR Wahrung der EWU (Euro)

Aktuelle Daten

Auftrag	Materialnummer	Plankosten ges.	Sollkosten	Istkosten	Abweichung	Wahrung	Ist Entl. var.	Istkosten fix
%000000000001	R-1150							
502826	R-1160	0,00	0,00	0,00	0,00	EUR	0,00	0,00
503252	R-1160	0,00	0,00	0,00	0,00	EUR	0,00	0,00
503253	R-1160	0,00	0,00	0,00	0,00	EUR	0,00	0,00
503254	R-1160	0,00	0,00	0,00	0,00	EUR	0,00	0,00
503255	R-1160	0,00	0,00	0,00	0,00	EUR	0,00	0,00
503256	R-1160	0,00	0,00	0,00	0,00	EUR	0,00	0,00
503257	R-1160	0,00	0,00	0,00	0,00	EUR	0,00	0,00
503261	R-1160	0,00	0,00	0,00	0,00	EUR	0,00	0,00
503985	R-1160	0,00	0,00	0,00	0,00	EUR	0,00	0,00
700026	P-103	1.767,85	0,00	1.178,57	0,00	EUR	0,00	1.178,57
700036	P-103	140,09	0,00	65,44	0,00	EUR	0,00	65,44
700038	P-103	140,09	0,00	65,44	0,00	EUR	0,00	65,44
700039	P-103	140,09	0,00	65,44	0,00	EUR	0,00	65,44
700040	P-103	98,16	0,00	65,44	0,00	EUR	0,00	65,44
700044	P-100	1.940,14	1.754,40	34,35	1.720,05-	EUR	0,00	34,35
700045	P-100	1.940,14	0,00	44,75	0,00	EUR	0,00	41,40
700046	P-100	436,20	1.940,25	2.228,78	288,53	EUR	0,00	699,20
700047	P-100	1.940,14	1.940,25	458,05	1.482,20-	EUR	0,00	458,05
700048	P-100	436,20	1.754,40	2.386,93	632,53	EUR	0,00	670,68
700049	P-100	436,20	1.754,40	1.876,42	122,02	EUR	0,00	662,54
700051	P-100	1.010,99	1.011,02	1.052,95	41,93	EUR	0,00	384,47
700057	P-100	18.665,74	16.807,71	5.869,44	10.938,27-	EUR	0,00	65,46
700064	P-100	4.356,97	0,00	933,04	0,00	EUR	0,00	933,04
700080	P-100	271,91	275,87	277,03	1,16	EUR	0,00	261,28
700263	P-100	129,55	0,00	384,64	0,00	EUR	0,00	132,71
700282	P-100	259,96	259,94	254,85	5,09-	EUR	0,00	201,62

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# ABAP List Processor Based Hier.-Sequential List

☐ ☐ ☐ **SAP**

Liste Bearbeiten Springen Einstellungen Zusätze System Hilfe

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**Liste vorhandener Materialkalkulationen**

⏪ ⏩ 🔍 🖨️
 Kostenarten Kostenelemente Einzelnachweis Stückliste Partner Auswählen Sichern

Werk 1000 Werk Hamburg  
 Währung EUR Währung der EWU (Euro)

Herstellkosten

Material	Materialkurztext		Wert gesamt	Wert variabel	Wert fix	Wert Vorstufe	Wert additiv	Losgröße	EH
Kalk.Var	Kalk.Datum	Version							
100-100 Spiralgehäuse G6									
PPC1	01.07.2002	1	52.020,03	47.244,21	4.775,82	46.281,50	0,00	100,000	ST
PPC1	01.12.2002	1	8.939.215,38	8.126.512,71	812.702,67	8.125.550,00	0,00	100,000	ST
PPC1	01.07.2003	1	8.938.105,00	8.125.550,00	812.555,00	8.125.550,00	0,00	100,000	ST
PPC1	01.08.2003	1	8.938.105,00	8.125.550,00	812.555,00	8.125.550,00	0,00	100,000	ST
100-110 Rohling für Spiralgehäuse G6									
PPC1	01.02.2002	1	39,69	39,69	0,00	0,00	0,00	1,000	ST
PPC1	01.07.2002	1	39,68	39,68	0,00	0,00	0,00	1,000	ST
PPC1	01.12.2002	1	39,64	39,64	0,00	0,00	0,00	1,000	ST
PPC1	01.07.2003	1	39,64	39,64	0,00	0,00	0,00	1,000	ST
PPC1	01.08.2003	1	39,64	39,64	0,00	0,00	0,00	1,000	ST
100-120 Flachdichtung									
PPC1	01.07.2002	1	4,00	4,00	0,00	0,00	0,00	1,000	ST
100-130 Sechskantschraube M10									
PPC1	01.07.2002	1	7,32	7,32	0,00	0,00	0,00	1,000	ST
PPC1	01.12.2002	1	7,32	7,32	0,00	0,00	0,00	1,000	ST
PPC1	01.07.2003	1	7,32	7,32	0,00	0,00	0,00	1,000	ST
PPC1	01.08.2003	1	7,32	7,32	0,00	0,00	0,00	1,000	ST
100-200 Laufrad G6									
PPC1	01.07.2002	1	0,00	0,00	0,00	0,00	0,00	10,000	ST

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# SAP Control Framework Based Fullscreen Grid



List Edit Goto Settings System Help

Analyze/Compare Material Cost Estimates

Plant 1000  
 No raw materials X  
 Currency DEM German Mark  
 Base Values based on costing lot size

Material	Material description	Plant	Status	Anticip. reval.	Costing result	Costing lot size	Std price	Total stock	Base unit
102-200	Fly wheel--sphere-cast	1000	KA	64,377.86	13,824.68	10	1,498....	51	PC
	Fly wheel--sphere-cast			<b>64,377.86</b>					
103-400	Pressure cover--chrome steel	1000	KA	55,588.50	452.47	1	81.88	150	PC
103-400	Pressure cover--chrome steel	1000	KA	55,588.50	452.47	1	81.88	150	PC
	Pressure cover--chrome steel			<b>111,177.00</b>					
102-400	Pressure cover--sphere-cast	1000	KA	59,525.59	12,570.08	10	422.00	49	PC
	Pressure cover--sphere-cast			<b>59,525.59</b>					
P-101	Pump cast steel IDESNORM 150-200	1000	KA	54,921.60	2,303.99	1	1,083....	45	PC
P-101	Pump cast steel IDESNORM 150-200	1000	KA	54,921.60	2,303.99	1	1,083....	45	PC
	Pump cast steel IDESNORM 150-200			<b>109,843.20</b>					
101-100	Spiral casing--cast steel	1000	KA	69,370.31	1,169.92	10	902.70	2,596	PC
101-100	Spiral casing--cast steel	1000	KA	69,370.31	1,169.92	10	902.70	2,596	PC
101-100	Spiral casing--cast steel	1000	FR	69,365.12	1,169.90	10	902.70	2,596	PC
	Spiral casing--cast steel			<b>208,105.74</b>					
102-100	Spiral casing--sphere-cast	1000	KA	62,870.71	14,847.29	10	2,519....	51	PC
	Spiral casing--sphere-cast			<b>62,870.71</b>					
				<b>615,900.10</b>					

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# SAP Control Framework Based Fullscreen Tree

List Edit Goto Settings System Help

Demonstration Program for ALV OM Tree

Hierarchy	C	Flight No.	Target	Flight time	Arrival	Date	Airline	Price	Curren...	Pl.type	Capacity	Occupied	Total	Country
▼		17	SFO	3:01	16:31:00	29.12.2000	American Airlines	62.124,45	USD	146-200	112	4	32.587,83	US
▼		17	SFO	3:01	16:31:00	29.12.2000	American Airlines	16.287,41	USD	146-200	112	4	32.587,83	US
		17	SFO	3:01	16:31:00	29.12.2000	American Airlines	7.274,07	USD	146-200	112	4	32.587,83	US
		17	SFO	3:01	16:31:00	28.04.2001	American Airlines	6.758,52	USD	146-200	112	40	302.781,70	US
		17	SFO	3:01	16:31:00	26.08.2001	American Airlines	2.156,05	USD	146-200	112	22	53.125,07	US
		17	SFO	3:01	16:31:00	24.12.2001	American Airlines	98,77	USD	146-200	112	6	663,73	US
▼		26	JFK	1:20	09:50:00	27.12.2000	American Airlines	19.056,80	USD	146-300	128	114	587.265,44	US
		26	JFK	1:20	09:50:00	27.12.2000	American Airlines	4.599,51	USD	146-300	128	114	587.265,44	US
		26	JFK	1:20	09:50:00	26.04.2001	American Airlines	6.220,25	USD	146-300	128	30	209.000,40	US
		26	JFK	1:20	09:50:00	24.08.2001	American Airlines	2.096,79	USD	146-300	128	67	157.343,12	US
		26	JFK	1:20	09:50:00	22.12.2001	American Airlines	6.140,25	USD	146-300	128	55	378.239,40	US
▼		64	JFK	8:21	17:21:00	25.12.2000	American Airlines	26.780,24	USD	737-200SF	13	6	51.058,69	US
		64	JFK	8:21	17:21:00	25.12.2000	American Airlines	7.598,02	USD	737-200SF	13	6	51.058,69	US
		64	JFK	8:21	17:21:00	24.04.2001	American Airlines	8.343,70	USD	737-200SF	13	12	112.139,33	US
		64	JFK	8:21	17:21:00	22.08.2001	American Airlines	7.216,79	USD	737-200SF	13	0	0,00	US
		64	JFK	8:21	17:21:00	20.12.2001	American Airlines	3.621,73	USD	737-200SF	13	1	4.056,34	US
▼		17	SFO	3:01	16:31:00	23.12.2000	Air Berlin	42.285,45	DEM	146-200	112	58	290.507,62	US
▶		17	SFO	3:01	16:31:00	23.12.2000	Air Berlin	22.392,10	DEM	146-200	112	58	290.507,62	US
▶		26	JFK	1:20	09:50:00	21.12.2000	Air Berlin	10.020,75	DEM	146-300	128	31	65.085,07	US
▶		64	JFK	8:21	17:21:00	19.12.2000	Air Berlin	9.872,60	DEM	737-200SF	13	8	38.795,72	US
▼		17	SFO	3:01	16:31:00	17.12.2000	Air Canada	41.863,70	CAD	146-200	112	67	527.466,67	US
▼		17	SFO	3:01	16:31:00	17.12.2000	Air Canada	30.484,94	CAD	146-200	112	67	527.466,67	US
		17	SFO	3:01	16:31:00	17.12.2000	Air Canada	7.029,14	CAD	146-200	112	67	527.466,67	US
		17	SFO	3:01	16:31:00	16.04.2001	Air Canada	9.506,17	CAD	146-200	112	93	990.162,67	US
		17	SFO	3:01	16:31:00	14.08.2001	Air Canada	4.541,23	CAD	146-200	112	17	86.465,02	US
		17	SFO	3:01	16:31:00	12.12.2001	Air Canada	9.408,40	CAD	146-200	112	90	948.366,72	US
▼		26	JFK	1:20	09:50:00	15.12.2000	Air Canada	11.378,76	CAD	146-300	128	82	851.730,59	US
		26	JFK	1:20	09:50:00	15.12.2000	Air Canada	9.274,07	CAD	146-300	128	82	851.730,59	US
		26	JFK	1:20	09:50:00	14.04.2001	Air Canada	2.104,69	CAD	146-300	128	31	73.074,84	US

PSE Management - CN=D029511, O=SAP-AG, C=DE

# SAP Control Framework Based Grid in a Container

Product Cost Collector   Edit   Goto   System   Help

Display Product Cost Collector

Cost   Change   Costing

Selection

Material: SNA\_P-100 to SZG\_FERT  
Plant: WA03 Hamburg

Data   Header   Production Process

Short text: FVersion:0001 - NS  
Company code: BA02 IDES AG  
Material: SPF\_SCHOKOLADE  
Order type: RM01 Product cost collector  
Order: 700101  
External order no.: 546789  
Functional area:

Created by: SCHILLINGR SCHILLINGR  
Created on: 11.01.2000  
Last changed by: SCHILLING SCHILLING  
Changed on: 11.01.2000

Cost element	Cost element (Text)	Origin	Total target costs	Total actual costs	Currency
619000	DILV Fertigung	3300/1540	8.400,00	9.100,00	DEM
625000	DILV Rüsten	3300/1510	10,00	13,34	DEM
<b>Production</b>			<b>8.410,00</b>	<b>9.113,34</b>	<b>DEM</b>
620200	Overhead for Prod.	3300	8.410,00	0,00	DEM
<b>Production overhead</b>			<b>8.410,00</b>	<b>0,00</b>	<b>DEM</b>
890000	Consumption of semi-fi...	WA03/SPF_KAKAOMASSE	22.432,80	22.434,93	DEM
895000	Fact.output of production...	WA03/SPF_SCHOKOLA...	0,00	32.036,50	DEM
<b>Raw materials</b>			<b>22.432,80</b>	<b>9.601,57</b>	<b>DEM</b>
			<b>39.252,80</b>	<b>488,23</b>	<b>DEM</b>

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# SAP Control Framework Based Tree in a Container

Material price analysis Edit Goto Extras System Help

**Material price analysis**

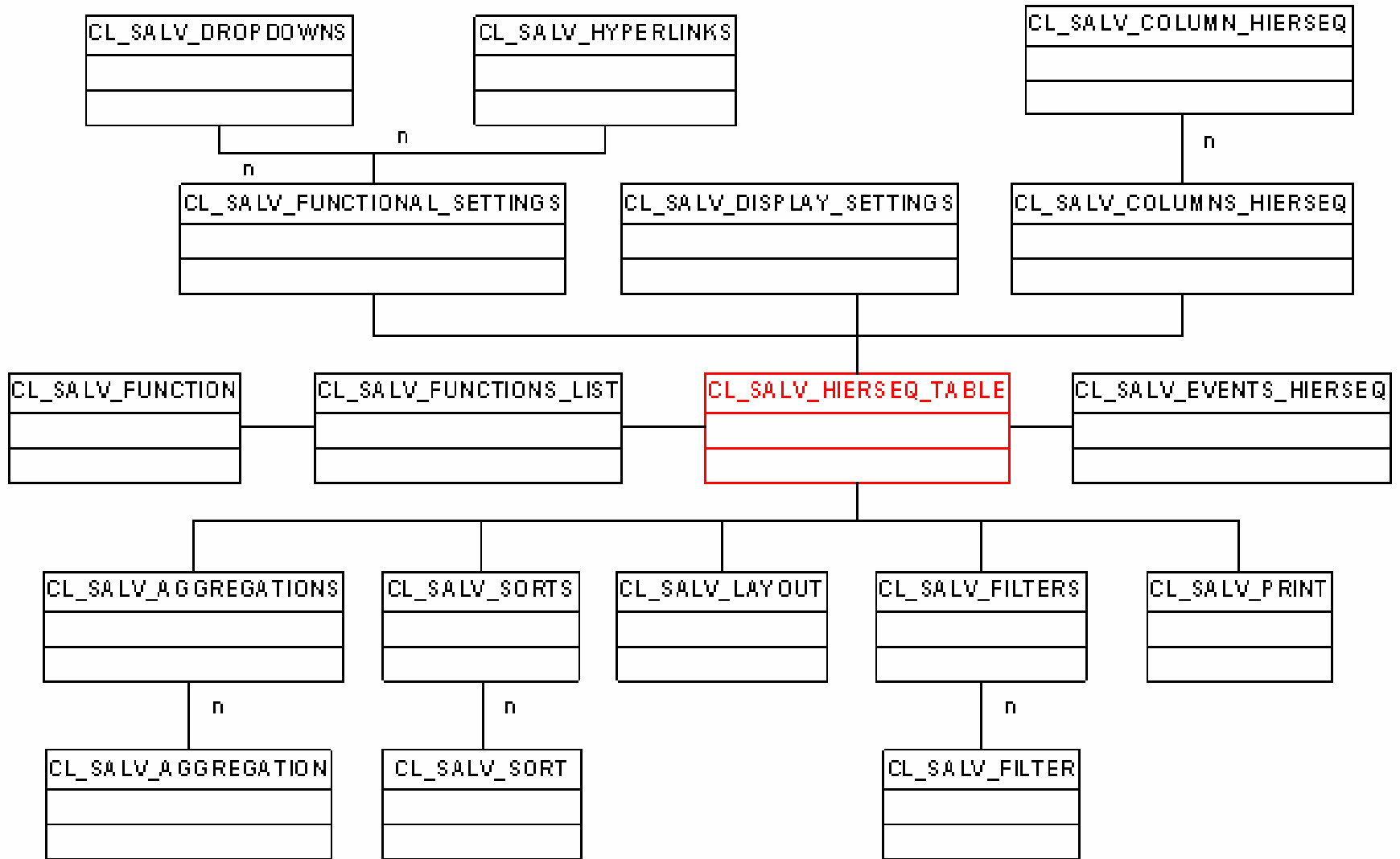
Material: SL4\_100-400  
 Plant: WK03 Hamburg  
 Valuation type: 1  
 Sales order stock/project stock  
 Period/year: 1 2000 Period status: Quantities and values entered  
 Curr./valuation: Company code currency: EUR  
 Value: Actual value Level+lower level Fixed+variable  
 View: Cost components Main cost component

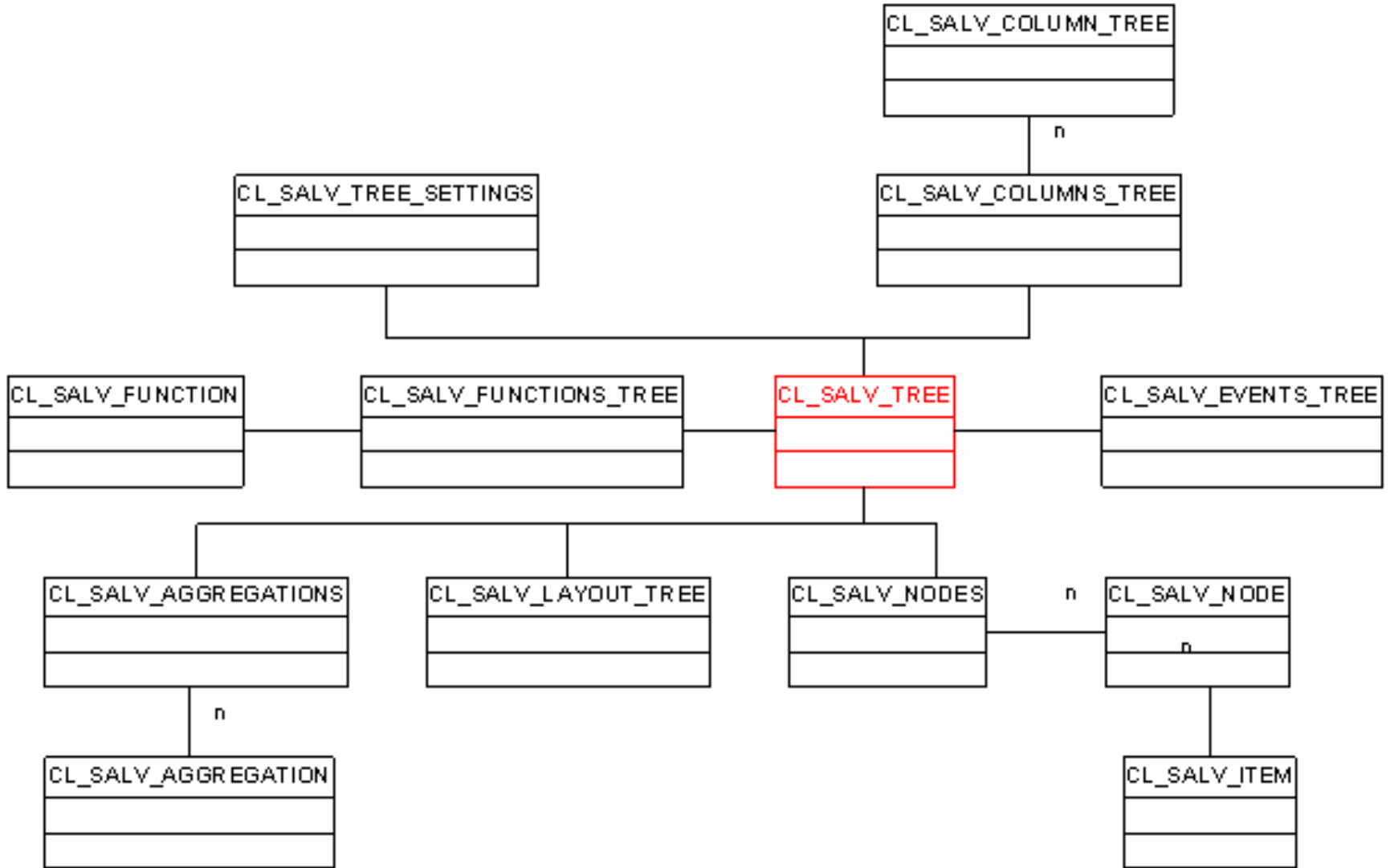
Additional data

Category	Quantity	Unit	Value	Materials	Noble Materials	Delivery Costs	Production	Currency
Beginning inventory	0	ST	0,00	0,00	0,00	0,00	0,00	EUR
Receipts	100	ST	18.078,00	0,00	0,00	941,00	17.042,90	EUR
Production	100	ST	18.078,00	0,00	0,00	941,00	17.042,90	EUR
BOM:1/01 Routing:N/50000085/01	100	ST	18.078,00	0,00	0,00	941,00	17.042,90	EUR
1000000787 GR for order 1001943/1	99	ST	17.897,22	0,00	0,00	931,59	16.872,47	EUR
1000000778 GR for order 1001943/1	1	ST	180,78	0,00	0,00	9,41	170,43	EUR
Cumulative inventory	100	ST	18.078,00	0,00	0,00	941,00	17.042,90	EUR
Consumption	5	ST	903,90	0,00	0,00	47,05	852,14	EUR
Production	5	ST	903,90	0,00	0,00	47,05	852,14	EUR
SL4_P-100 WK03	5	ST	903,90	0,00	0,00	47,05	852,14	EUR
1000000794 GI for order 1001992	5	ST	903,90	0,00	0,00	47,05	852,14	EUR
Ending inventory	95	ST	17.174,10	0,00	0,00	893,95	16.190,75	EUR

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# UML Diagramm SALV\_HIERSEQ\_TABLE







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