

Best of ADT

Ein paar nützliche, aber versteckte Features

ABAPConf 2021

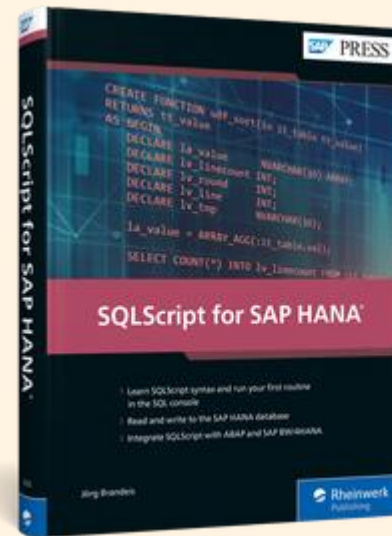
9.12.2021

Selbständig seit 2015

- Trainer
- SAP BW/4HANA Berater
- ABAP & SQLScript Entwickler
- Autor

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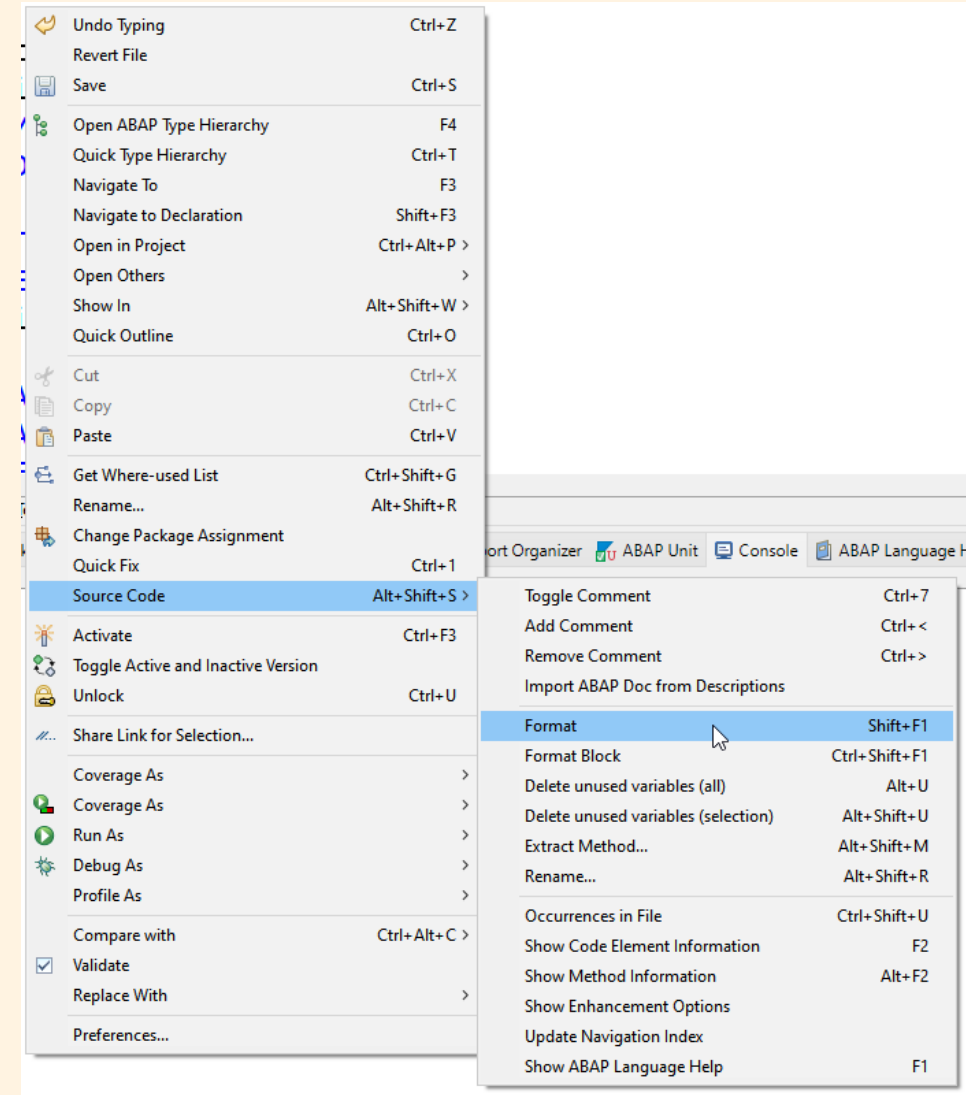
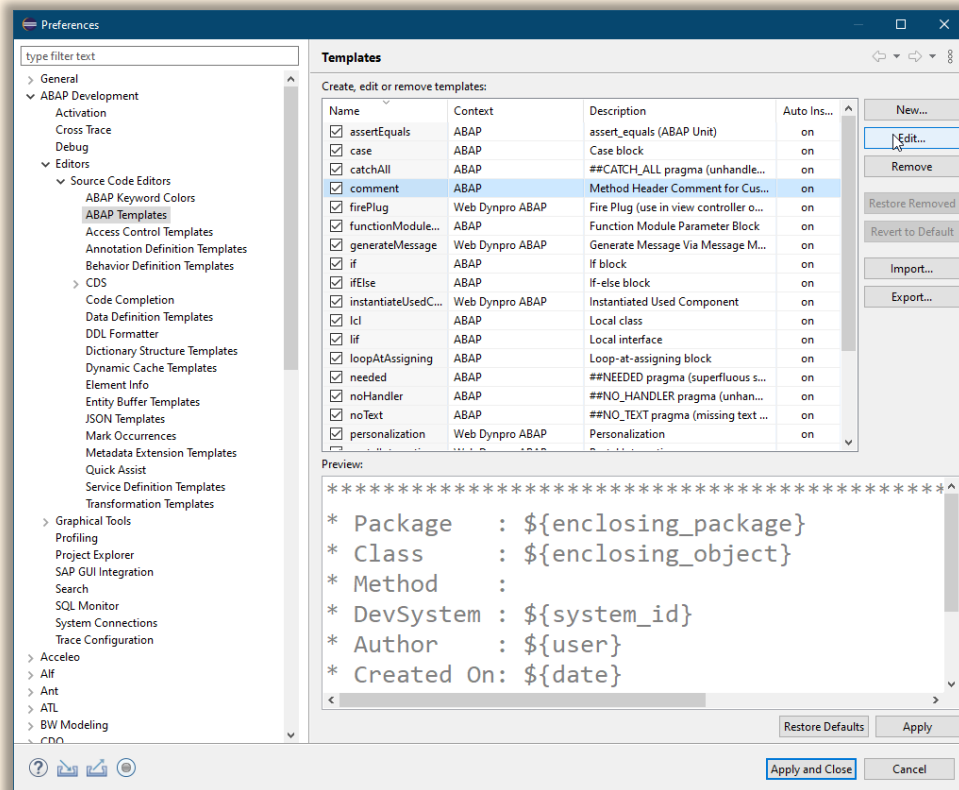


Neu: Videokurse / E-Learning auf www.brandeis-training.de

- ADT sind die bessere Entwicklungsumgebung
- Die Oberfläche ist sehr gewöhnungsbedürftig
- Man kann sich für ADT begeistern, aber das braucht einen Moment...

Die zwei "Verstecke" für die guten Features

- Das Kontextmenü
- Die Preferences



Häufig wie in der SAP GUI!

In den Folien hervorgehoben

- [Hier ist eine super Übersicht](#)

```
funktion mergesort(liste);  
1 falls (Größe von liste <= 1) dann antworte liste  
   sonst  
2     halbiere die liste in linkeListe, rechteListe  
3     linkeListe = mergesort(linkeListe)  
4     rechteListe = mergesort(rechteListe)  
5     antworte merge(linkeListe, rechteListe)
```

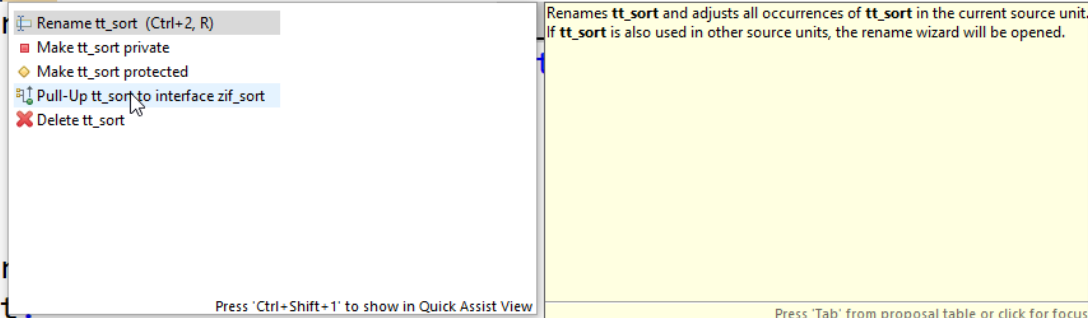
(Quelle: Wikipedia)

- Spaghetticode
- Nicht formatiert
- Unterschiedliche Begriffe (1, 2 und left, right)
- Überflüssige Variablen
- Methode und Typ könnten in ein Interface ausgelagert werden

```
[A4H] ZABAPCONF [A4H] ZCL_MERGESORT x [A4H] ZIF_SORT [A4H] ZCL_MERGESORT_ORIG
ZCL_MERGESORT
1 CLASS zcl_mergesort DEFINITION
2   PUBLIC
3   FINAL
4   CREATE PUBLIC .
5
6   PUBLIC SECTION.
7
8   types tt_sort type STANDARD TABLE OF string WITH DEFAULT KEY.
9   methods sort importing it_data type tt_sort
10                  returning value(rt_data) type tt_sort .
11 ENDCLASS.
12
13
14
15 CLASS zcl_mergesort IMPLEMENTATION.
16   METHOD sort.
17
18   DATA lt_LEFT LIKE it_data.
19   DATA lt_RIGHT LIKE it_data.
20   DATA lv_length_IT TYPE i.
21   DATA out TYPE REF TO if_oo_adt_classrun_out.
22   DATA lv_LENGTH TYPE i.
23   DATA lv_splitpoint TYPE i.
```

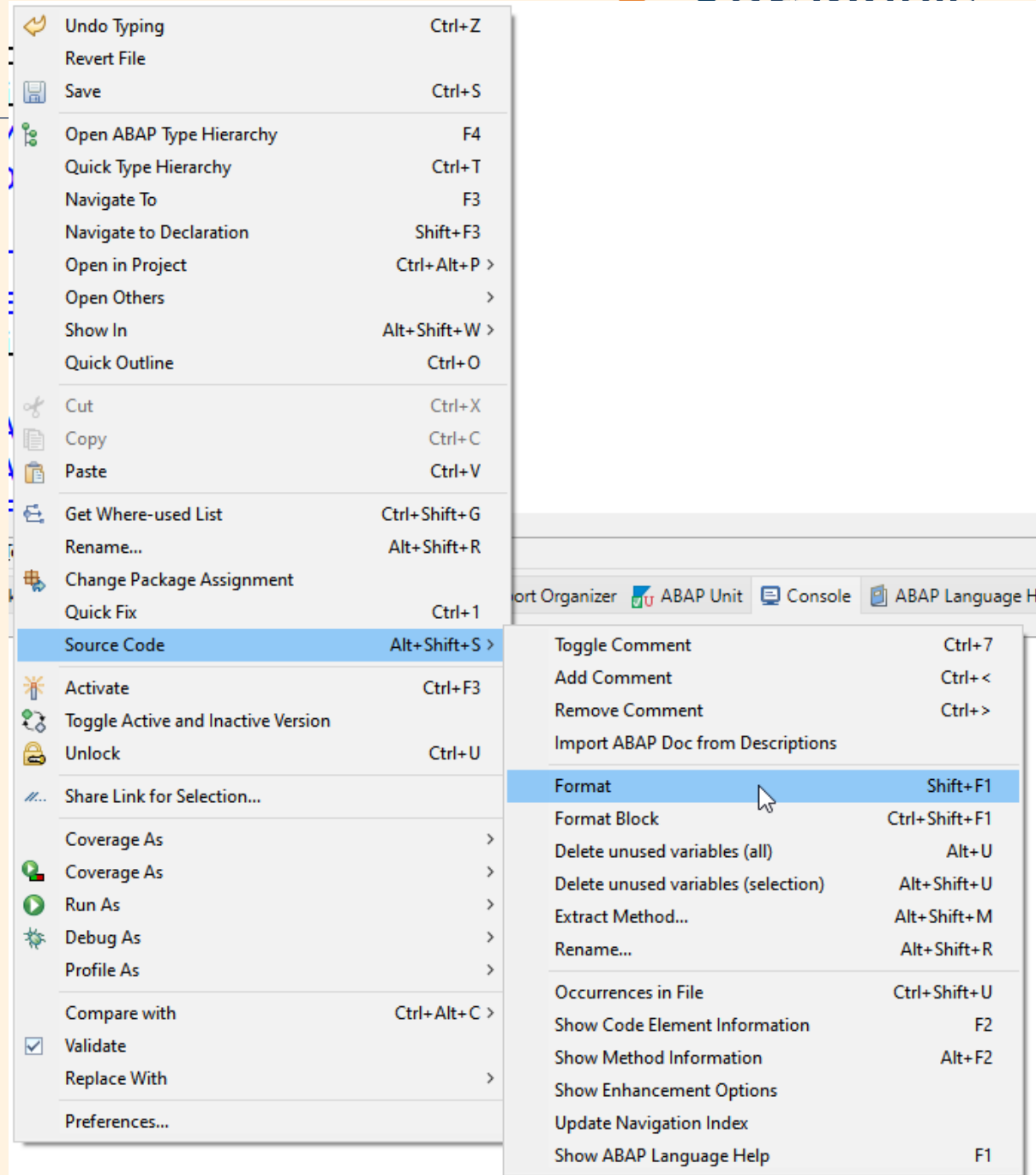
- Interface leer anlegen: ZIF_SORT
- Interface in der Klasse einbinden
- Quickfix (**Strg. + 1**) aufrufen für den Datentyp TT_SORT, Pull-Up...
- Genauso mit der Methode SORT verfahren

```
1 CLASS zcl_mergesort DEFINITION
2   PUBLIC
3   FINAL
4   CREATE PUBLIC .
5
6   PUBLIC SECTION.
7   INTERFACES zif_sort.
8
9   types tt_sort type STANDARD TABLE OF string WITH DEFAULT KEY.
10  methods sort
11
12 ENDCLASS.
13
14
15
16 CLASS zcl_mer
17 METHOD sort.
18
```



Aufräumen (1/3) – Formattieren

- Pretty Printer – **Shift + F1**



- Delete unused Variables – **Alt + U**

```
17 DATA lt_LEFT LIKE it_data.  
18 DATA lt_RIGHT LIKE it_data.  
19 DATA lv_length_IT TYPE i.  
20 DATA out TYPE REF TO if_oo_adt_classrun_out.  
21 DATA lv_LENGTH TYPE i.  
22 DATA lv_splitpoint TYPE i.  
23 DATA lv_count : TYPE i.  
24 DATA lv_index TYPE i.  
  
25  
26 DATA lv_p1 TYPE i VALUE 1.  
27 DATA lv_p2 TYPE i VALUE 1.  
28 DATA lv_length1 TYPE i.  
29 DATA lv_length2 TYPE i.  
30 DATA lv_value1 TYPE string.  
31 DATA lv_value2 TYPE string.
```

```
17 DATA lt_left LIKE it_data.  
18 DATA lt_right LIKE it_data.  
19 DATA lv_length TYPE i.  
20 DATA lv_splitpoint TYPE i.  
21 DATA lv_p1 TYPE i VALUE 1.  
22 DATA lv_p2 TYPE i VALUE 1.  
23 DATA lv_value1 TYPE string.  
24 DATA lv_value2 TYPE string.
```

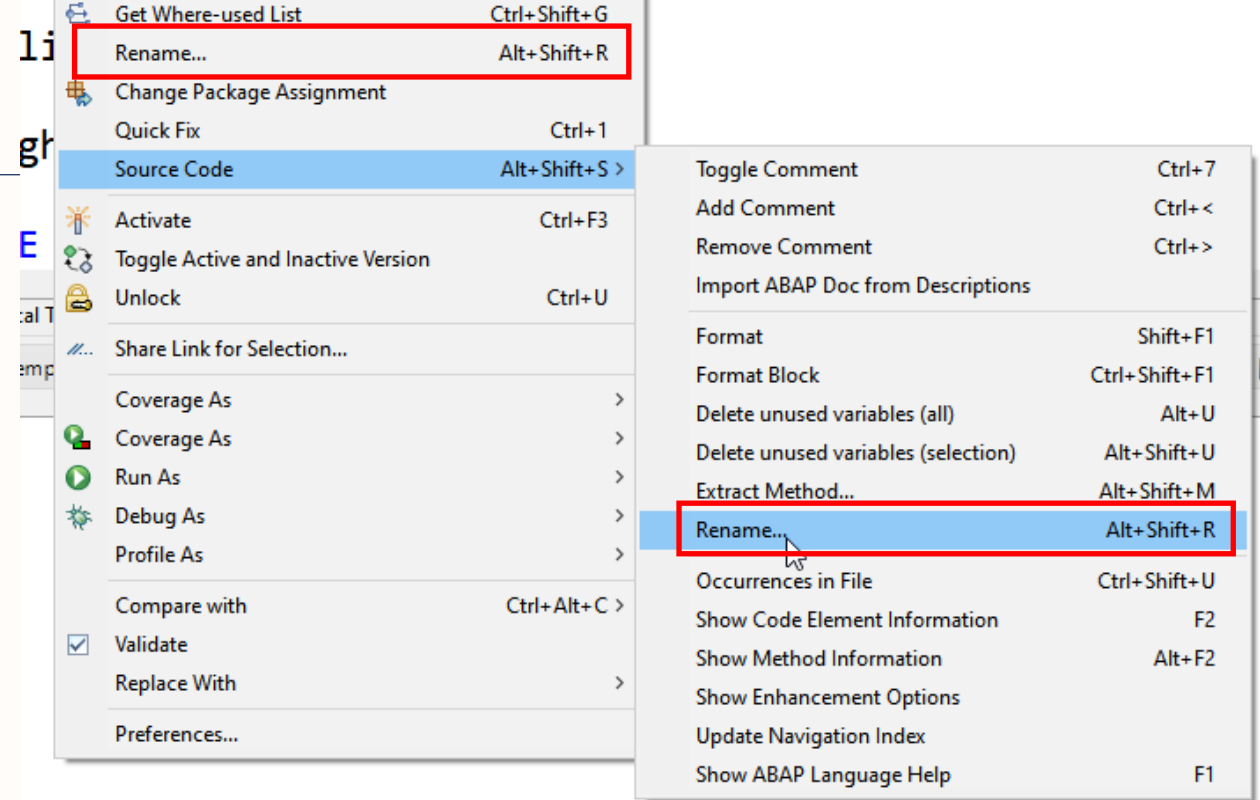
Aufräumen (3/3) - Umbenennen

Nur ein Konzept/Name zum Splitten:

- Entweder Links und Rechts
- Oder 1 und 2

→ Rename **Alt + Shift + R**

→ Oder Suchen / Ersetzen **Strg + F**



```
17 DATA lt_left LIKE it_data.  
18 DATA lt_right LIKE it_data.  
19 DATA lv_length TYPE i.  
20 DATA lv_splitpoint TYPE i.  
21 DATA lv_p1 TYPE i VALUE 1.  
22 DATA lv_p2 TYPE i VALUE 1.  
23 DATA lv_value1 TYPE string.  
24 DATA lv_value2 TYPE string.
```

```
17 DATA lt_left LIKE it_data.  
18 DATA lt_right LIKE it_data.  
19 DATA lv_length TYPE i.  
20 DATA lv_splitpoint TYPE i.  
21 DATA lv_pointer_left TYPE i VALUE 1.  
22 DATA lv_pointer_right TYPE i VALUE 1.  
23 DATA lv_value_left TYPE string.  
24 DATA lv_value_right TYPE string.
```

```
funktion mergesort(liste);  
1 falls (Größe von liste <= 1) dann antworte liste  
sonst  
2     halbiere die liste in linkeListe, rechteListe  
3     linkeListe = mergesort(linkeListe)  
4     rechteListe = mergesort(rechteListe)  
5     antworte merge(linkeListe, rechteListe)
```

(Quelle: Wikipedia)

Halbiere die Liste und **Merge** könnten als Methode ausgelagert werden.

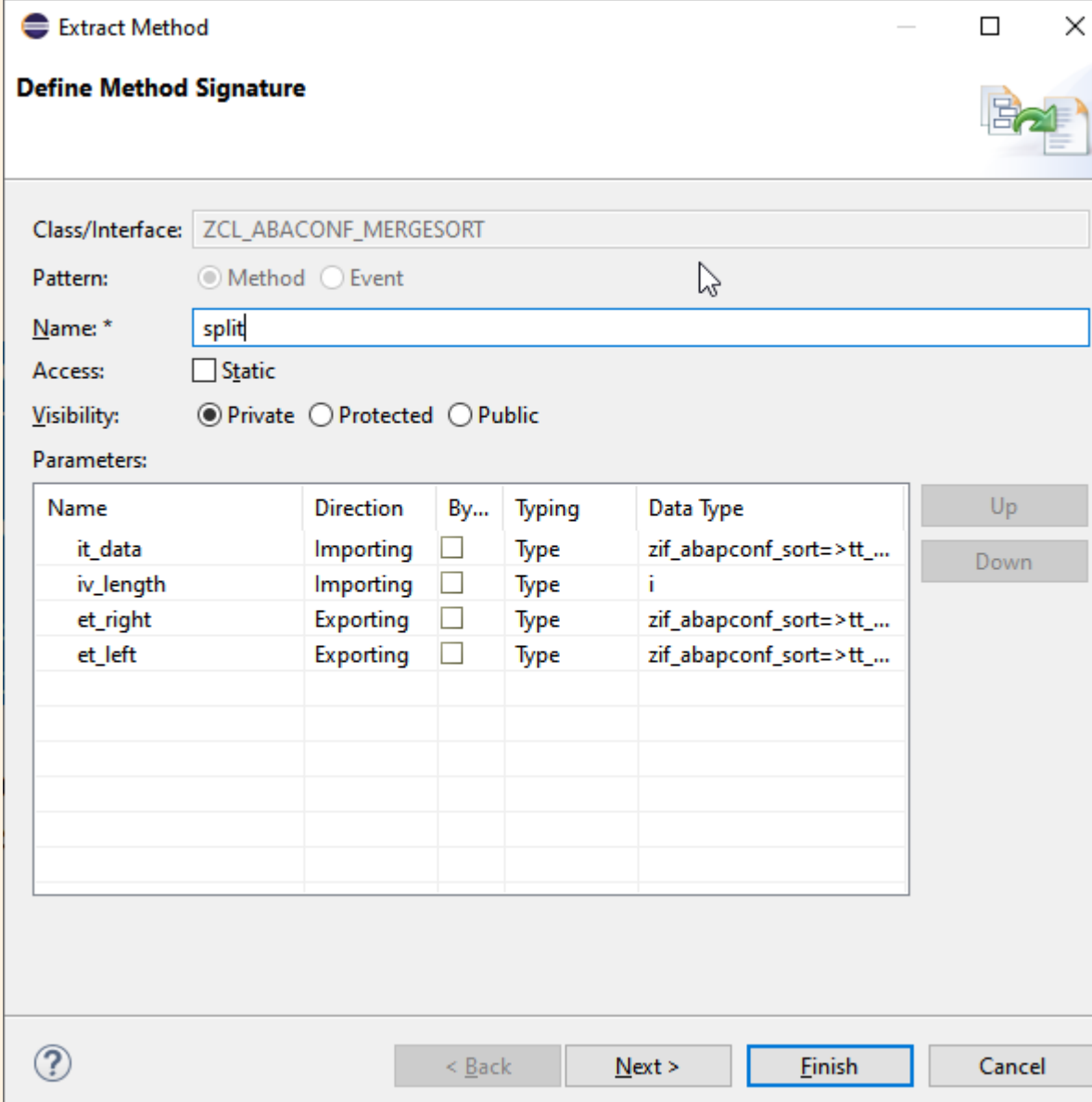
Extrahieren einer Methode – **Alt + Shift + M**

Toggle Comment	Ctrl+7
Add Comment	Ctrl+<
Remove Comment	Ctrl+>
Import ABAP Doc from Descriptions	
Format	Shift+F1
Format Block	Ctrl+Shift+F1
Delete unused variables (all)	Alt+U
Delete unused variables (selection)	Alt+Shift+U
Extract Method...	Alt+Shift+M
Rename...	Alt+Shift+R
Occurrences in File	Ctrl+Shift+U
Show Code Element Information	F2
Show Method Information	Alt+F2
Show Enhancement Options	
Update Navigation Index	
Show ABAP Language Help	F1

```
28 IF lv_length <= 1.  
29  
30     rt_data = it_data.  
31  
32 ELSE.  
33  
34 *Split  
35     lv_splitpoint = lv_length / 2.  
36  
37     lt_right = lt_left = it_data.  
38  
39     DELETE lt_right FROM lv_splitpoint + 1.  
40     DELETE lt_left TO lv_splitpoint.  
41  
42     lt_left = zif_abapconf_sort~execute( lt_left ).  
43     lt_right = zif_abapconf_sort~execute( lt_right ).  
44  
45
```

Toggle Comment	Ctrl+7
Add Comment	Ctrl+<
Remove Comment	Ctrl+>
Import ABAP Doc from Descriptions	
<hr/>	
Format	Shift+F1
Format Block	Ctrl+Shift+F1
Delete unused variables (all)	Alt+U
Delete unused variables (selection)	Alt+Shift+U
Extract Method...	Alt+Shift+M
Rename...	Alt+Shift+R
<hr/>	
Occurrences in File	Ctrl+Shift+U
Show Code Element Information	F2
Show Method Information	Alt+F2
Show Enhancement Options	
Update Navigation Index	
Show ABAP Language Help	F1

- Der Kommentar in der 1. Zeile gibt einen Vorschlagswert für den Methodennamen
- Die Parameter werden mit passenden Präfixen (I/E) versehen.



Extract Method

Define Method Signature

Class/Interface: ZCL_ABACONF_MERGESORT

Pattern: Method Event

Name: * split

Access: Static

Visibility: Private Protected Public

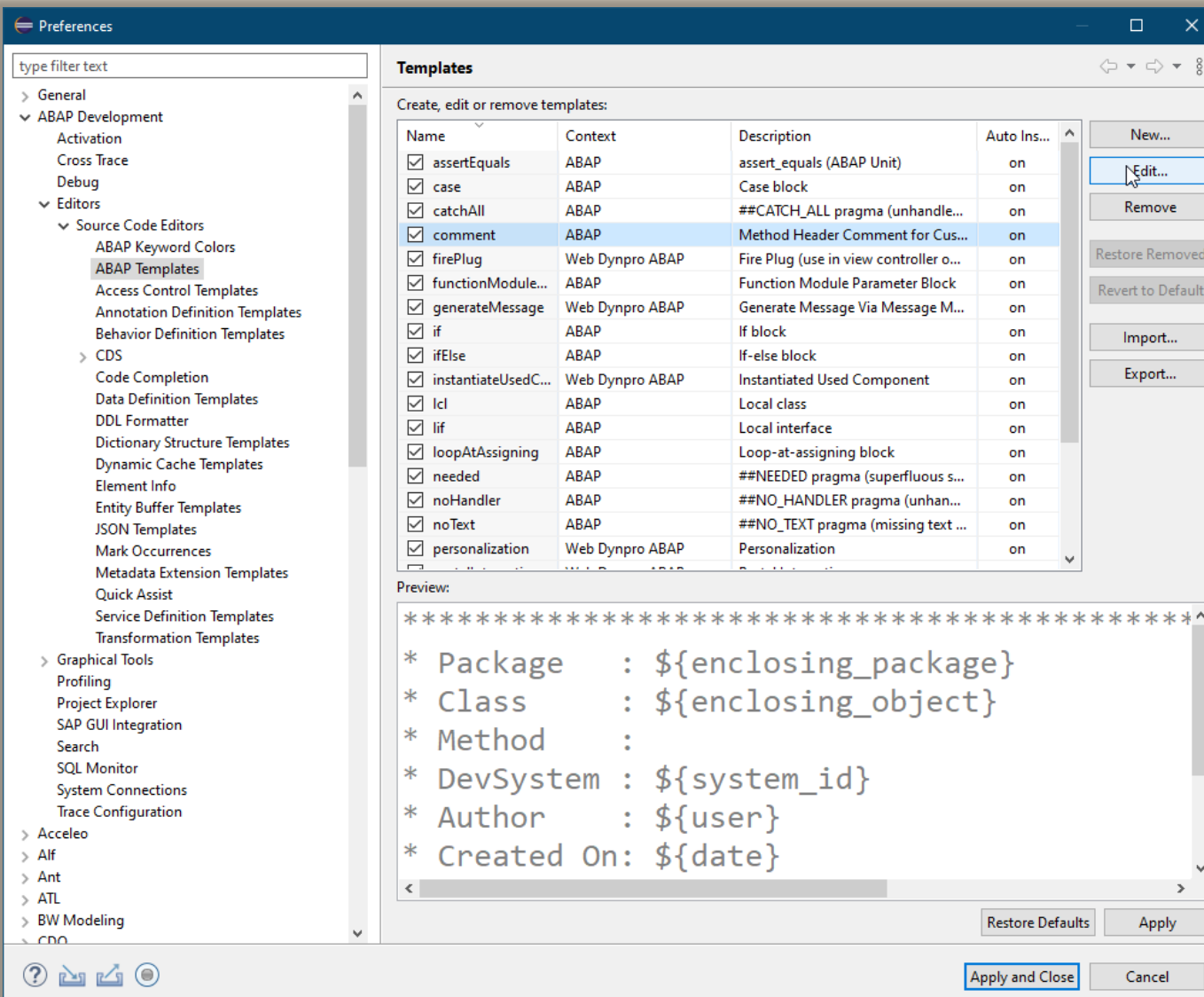
Parameters:

Name	Direction	By...	Typing	Data Type
it_data	Importing	<input type="checkbox"/>	Type	zif_abapconf_sort=>tt_...
iv_length	Importing	<input type="checkbox"/>	Type	i
et_right	Exporting	<input type="checkbox"/>	Type	zif_abapconf_sort=>tt_...
et_left	Exporting	<input type="checkbox"/>	Type	zif_abapconf_sort=>tt_...

Up

Down

? < Back Next > Finish Cancel



The screenshot shows the SAP Preferences dialog, specifically the 'Templates' tab. The left sidebar lists various preference categories, with 'ABAP Development' expanded to show 'Source Code Editors' and 'ABAP Templates'. The main area displays a table of templates with columns for Name, Context, Description, and Auto Ins... The 'comment' template is selected. Below the table is a 'Preview' section showing the rendered code for the selected template, which includes placeholders for package, class, method, system ID, user, and date.

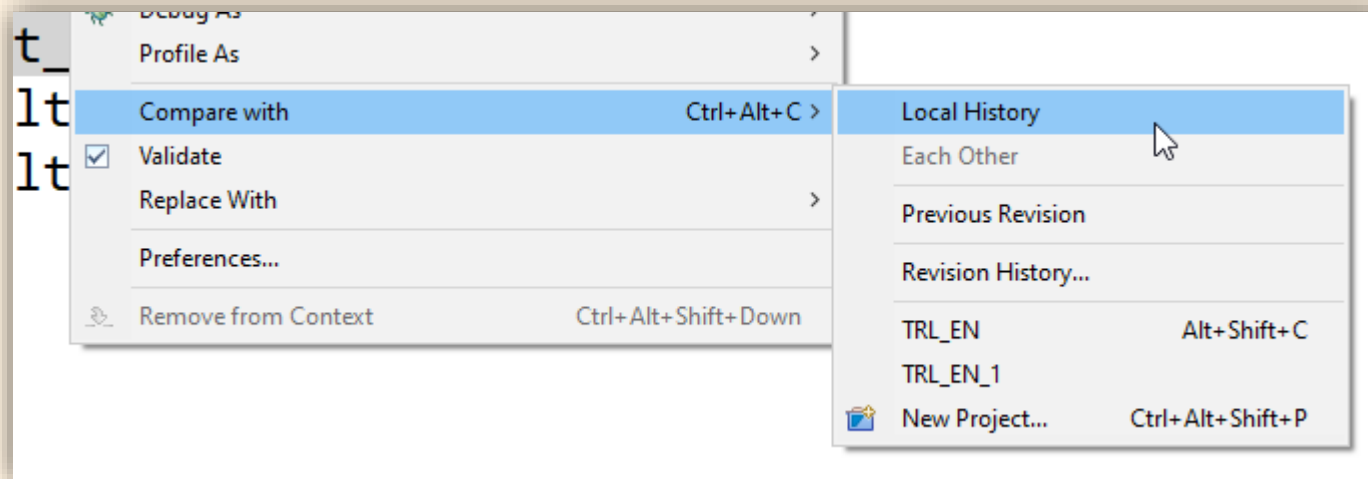
Name	Context	Description	Auto Ins...
<input checked="" type="checkbox"/> assertEquals	ABAP	assert_equals (ABAP Unit)	on
<input checked="" type="checkbox"/> case	ABAP	Case block	on
<input checked="" type="checkbox"/> catchAll	ABAP	##CATCH_ALL pragma (unhandle...	on
<input checked="" type="checkbox"/> comment	ABAP	Method Header Comment for Cus...	on
<input checked="" type="checkbox"/> firePlug	Web Dynpro ABAP	Fire Plug (use in view controller o...	on
<input checked="" type="checkbox"/> functionModule...	ABAP	Function Module Parameter Block	on
<input checked="" type="checkbox"/> generateMessage	Web Dynpro ABAP	Generate Message Via Message M...	on
<input checked="" type="checkbox"/> if	ABAP	If block	on
<input checked="" type="checkbox"/> ifElse	ABAP	If-else block	on
<input checked="" type="checkbox"/> instantiateUsedC...	Web Dynpro ABAP	Instantiated Used Component	on
<input checked="" type="checkbox"/> lcl	ABAP	Local class	on
<input checked="" type="checkbox"/> lif	ABAP	Local interface	on
<input checked="" type="checkbox"/> loopAtAssigning	ABAP	Loop-at-assigning block	on
<input checked="" type="checkbox"/> needed	ABAP	##NEEDED pragma (superfluous s...	on
<input checked="" type="checkbox"/> noHandler	ABAP	##NO_HANDLER pragma (unhan...	on
<input checked="" type="checkbox"/> noText	ABAP	##NO_TEXT pragma (missing text ...	on
<input checked="" type="checkbox"/> personalization	Web Dynpro ABAP	Personalization	on

Preview:

```
*****  
* Package      : ${enclosing_package}  
* Class       : ${enclosing_object}  
* Method      :  
* DevSystem   : ${system_id}  
* Author      : ${user}  
* Created On  : ${date}
```

```
53 METHOD split_list.  
54 *****  
55 * Package      : ZABAPCONF  
56 * Class       : ZCL_MERGESORT  
57 * Method      :  
58 * DevSystem   : A4H  
59 * Author      : JBRANDEIS  
60 * Created On  : 03.12.2021  
61 * -----  
62 * Description:  
63 *  
64 *****  
65 DATA lv_length TYPE i.
```

- Local History - Im Eclipse Workspace gespeichert
- Revision History - Versionsverwaltung im ABAP
- Vergleich mit anderen Systemen möglich, ohne SM59 Systemverbindung!



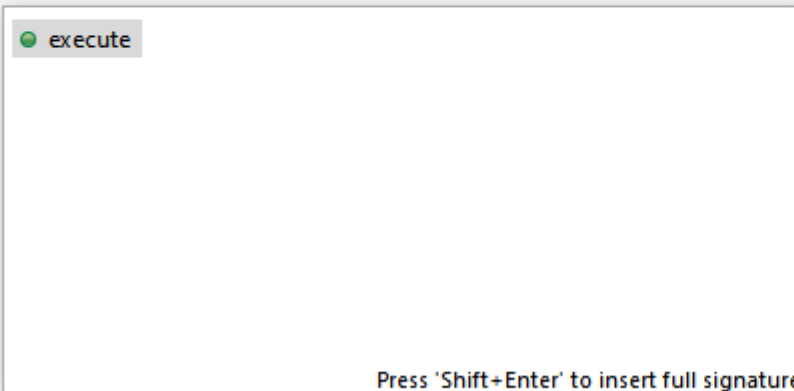
- Rechteckige Bereiche Markieren, Ausschneiden & Einfügen
- Cursor über mehrere Zeilen

```
109  lt_tmp =
110  select *, '001' as fiscper3, amount_01 as amount from :intab union all
111  select *, '001' as fiscper3, amount_01 as amount from :intab union all
112  select *, '001' as fiscper3, amount_01 as amount from :intab union all
113  select *, '001' as fiscper3, amount_01 as amount from :intab union all
114  select *, '001' as fiscper3, amount_01 as amount from :intab union all
115  select *, '001' as fiscper3, amount_01 as amount from :intab union all
116  select *, '001' as fiscper3, amount_01 as amount from :intab union all
117  select *, '001' as fiscper3, amount_01 as amount from :intab union all
118  select *, '001' as fiscper3, amount_01 as amount from :intab union all
119  select *, '001' as fiscper3, amount_01 as amount from :intab union all
120  select *, '001' as fiscper3, amount_01 as amount from :intab union all
121  select *, '001' as fiscper3, amount_01 as amount from :intab union all
```

```
"! <p class="shorttext synchronized" lang="en">Method to execute a sort algorithm on the given data.</p>
"!
"! @parameter it_data | <p class="shorttext synchronized" lang="en">The data to be sorted</p>
"! @parameter rt_data | <p class="shorttext synchronized" lang="en">The sorted result</p>
METHODS execute IMPORTING it_data          TYPE tt_string
                 RETURNING VALUE(rt_data) TYPE tt_string.
```

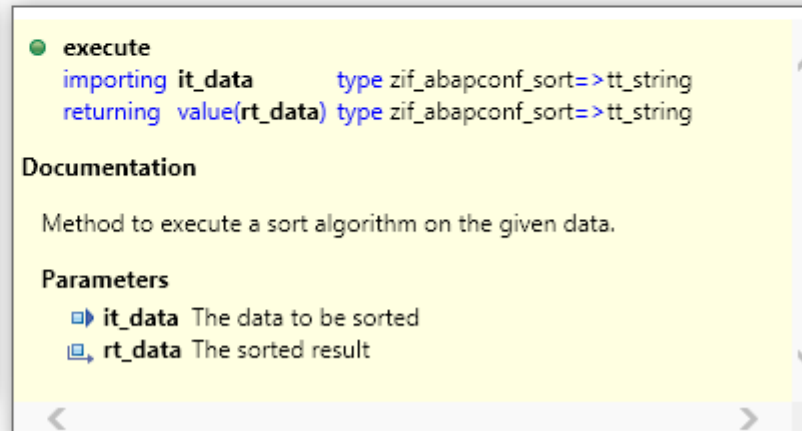
- Wird generiert mit einem Quick-Fix: **Strg. + 1**

```
CLASS zcl_abapconf_run_sort IMPLEMENTATION.  
  
METHOD if_oo_adt_classrun~main.  
  data lo_sort type ref to zif_abapconf_sort.  
  lo_sort = new zcl_abapconf_mergesort( ).  
  
  lo_sort->  
ENDMETHOD.  
  
ENDCLASS.
```



execute

Press 'Shift+Enter' to insert full signature



execute

importing it_data type zif_abapconf_sort=>tt_string
returning value(rt_data) type zif_abapconf_sort=>tt_string

Documentation

Method to execute a sort algorithm on the given data.

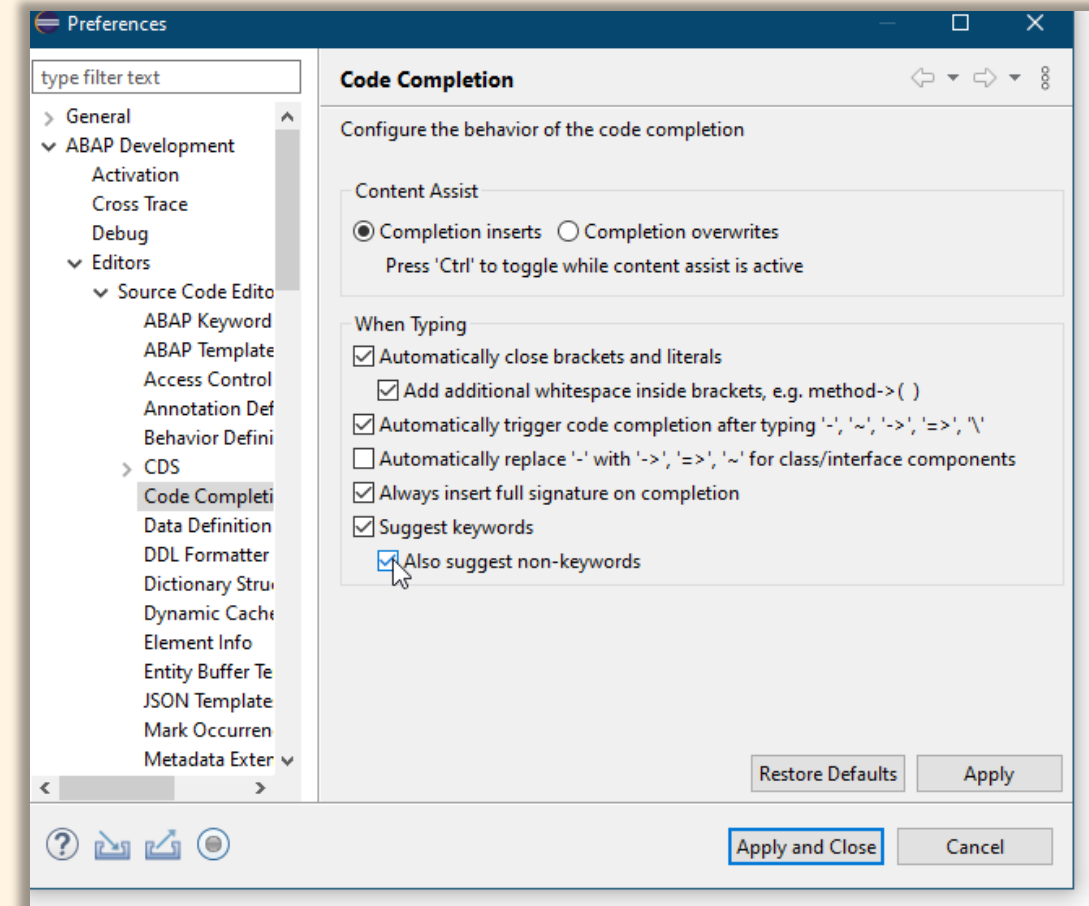
Parameters

- it_data The data to be sorted
- rt_data The sorted result

CodeCompletion mit Strg. + <Space> anfordern
Vorschlag der Ergänzungen mit Element Information

- Das System schlägt Schlüsselwörter und Bezeichner beim Tippen vor.
- Wenn der falsche angezeigt wird, hilft Strg. + <Space>

```
112     APPEND lv_value_right TO rt_data.  
113     lv_pointer_right = lv_pointer_right + 1.  
114  
115     ELSE.  
116         EXIT.  
117     ENDIF.  
118     lv  
119     END lv_pointer_left  
120     ENDDO.  
121  
122     ENDMETHOD.  
123
```



```
15  
16 METHOD if_oo_adt_classrun~main.  
17     data lo_sort type ref to zif_abapconf_sort.  
18     lo_sort = new zcl_abapconf_mergesort( ).  
19  
20     lo_sort->execute.  
21 ENDMETHOD.  
22  
23 ENDCLASS.
```

Type "ZCL_ABACONF_MERGESORT" is unknown.

Create global class zcl_abapconf_mergesort

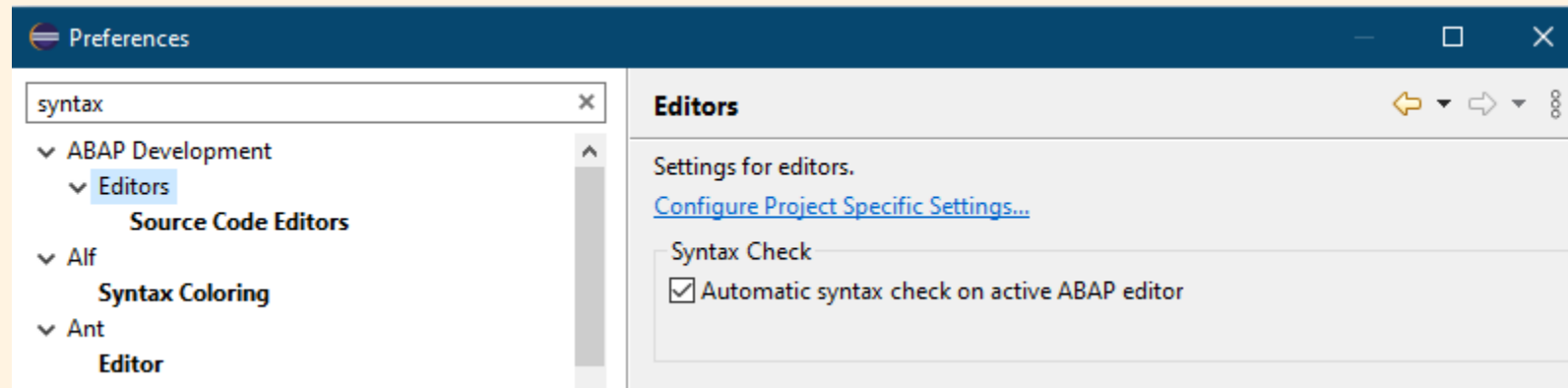
Starts the creation wizard to create the global class `zcl_abapconf_mergesort`.

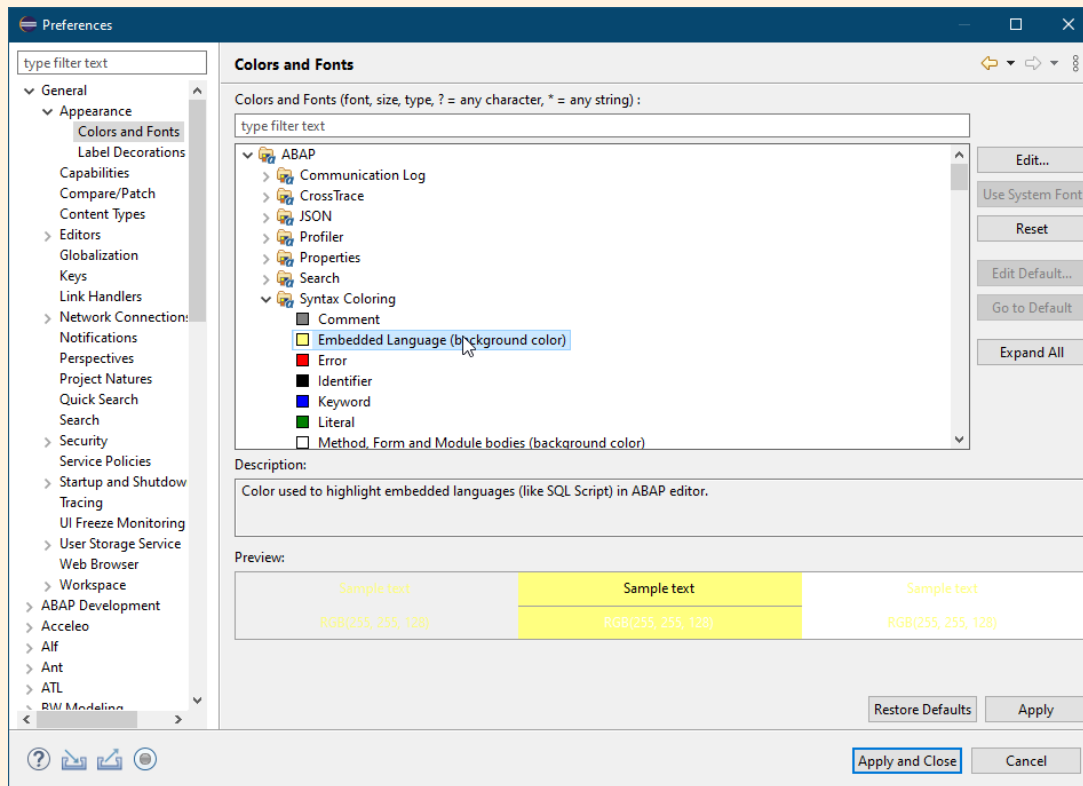
```
1 CLASS zcl_abapconf_mergesort DEFINITION  
2     PUBLIC  
3     FINAL  
4     CREATE PUBLIC .  
5  
6     PUBLIC SECTION.  
7         interfaces zif_abapconf_sort.  
8     PROTECTED SECTION.  
9     PRIVATE SECTION.
```

Add implementation for execute

Creates an empty method implementation for method `execute` in class `zcl_abapconf_mergesort`.

- Bei sehr vielen offenen Tabs oder schlechter Netzwerkverbindung kann das stören.





```
69=CLASS /BIC/ETBT0DZHGC8LNFL0Y264_M IMPLEMENTATION.  
70  
71  
72=METHOD GLOBAL_END BY DATABASE PROCEDURE FOR HDB LANGUAGE SQLSCRIPT OPTIONS READ-ONLY.  
73 -- *** Begin of routine - insert your code only below this line ***  
74  
75 -- Note the _M class are not considered for DTP execution.  
76 -- AMDP Breakpoints must be set in the _A class instead.  
77  
78 -- outTab = SELECT * FROM :inTab;  
79  
80 -- *** End of routine - insert your code only before this line ***  
81 ENDMETHOD.  
82 ENDCCLASS.
```

- **Strg. + F**

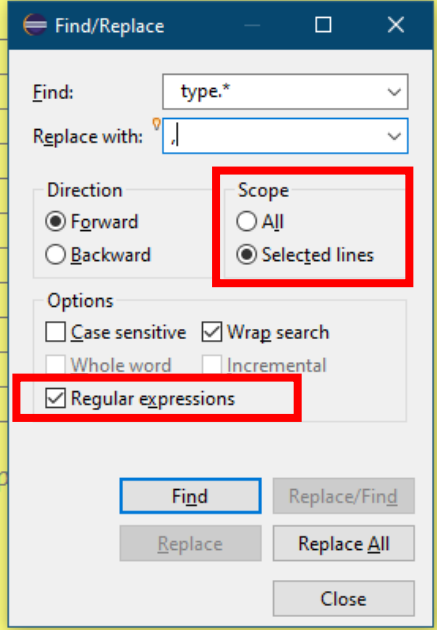
Beispiel: Feldliste im AMDP

" type.*" ersetzen durch ", "

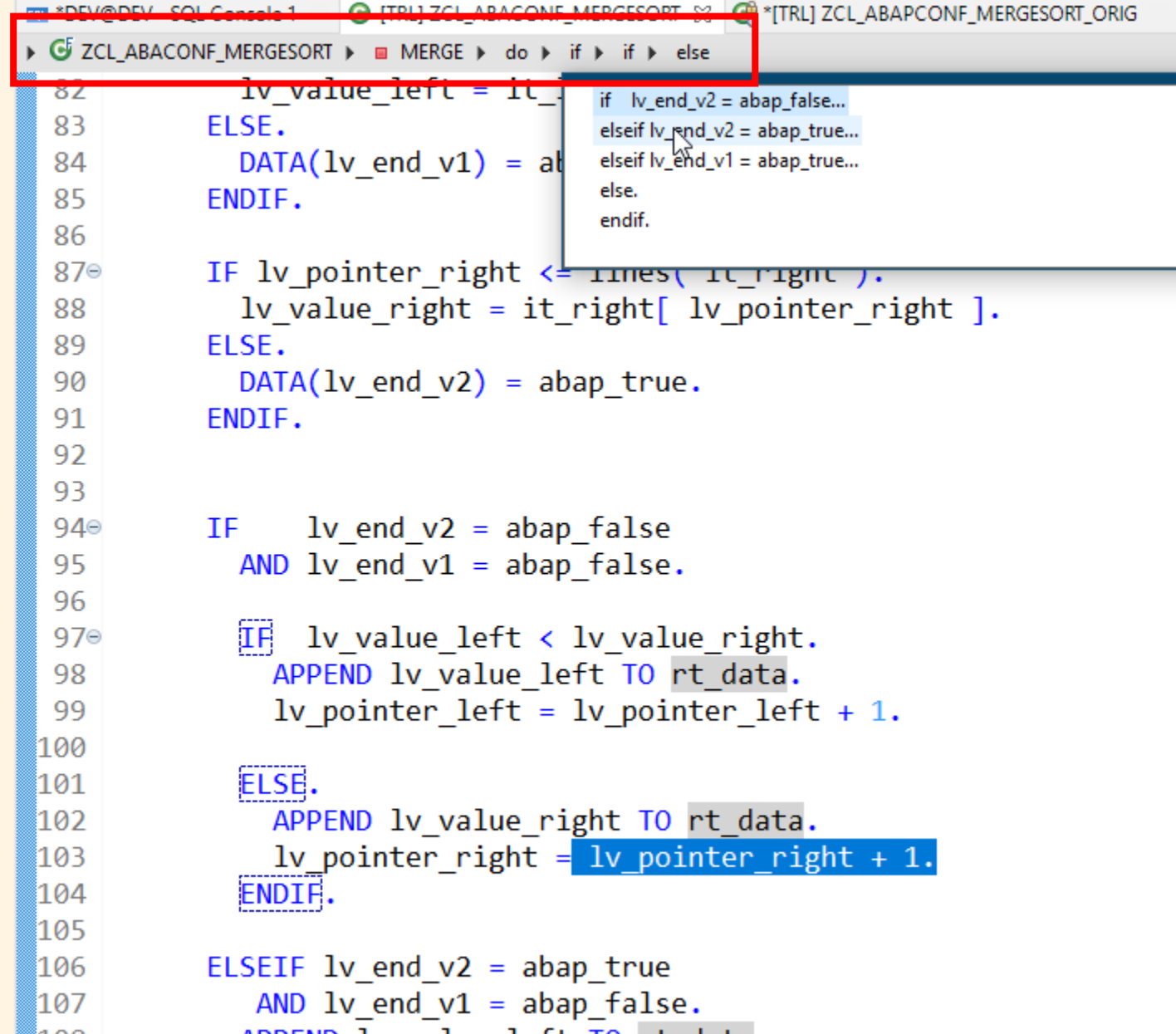
Achtung

Bereich immer markieren und
Scope > Selected lines auswählen

```
93 recordmode type rodmupdmod
94 amount_01 type /bic/of_dec_000017
95 amount_02 type /bic/of_dec_000017
96 amount_03 type /bic/of_dec_000017
97 amount_04 type /bic/of_dec_000017
98 amount_05 type /bic/of_dec_000017
99 amount_06 type /bic/of_dec_000017
100 amount_07 type /bic/of_dec_000017
101 amount_08 type /bic/of_dec_000017
102 amount_09 type /bic/of_dec_000017
103 amount_10 type /bic/of_dec_000017
104 amount_11 type /bic/of_dec_000017
105 amount_12 type /bic/of_dec_000017
106 record type c length 56
107 sql_procedure_source_record type
108 */
109
110 outTab = SELECT * FROM :inTab;
111
112 /*
113 compcode type c length 8
114 account type c length 6
115 curr type c length 5
116 fiscper type c length 7
117 recordmode type rodmupdmod
118 amount type /bic/of_dec_000017_02
119 record type c length 56
120 sql_procedure_source_record type c length 56
121 */
122 -- *** End of routine - insert your code only before this line ***
123 ENDMETHOD.
```



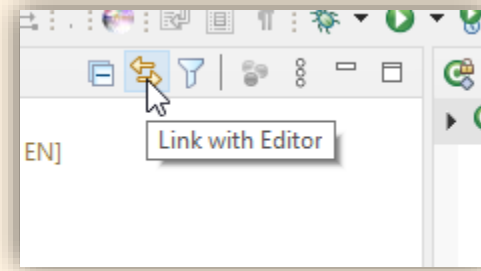
- Für den Cursor wird immer die aktuelle Verschachtelung angezeigt.
- Bei Klick auf die Pfeile ► sieht man alle Gliederungselemente darunter
- Dahin kann man mit Klick direkt navigieren



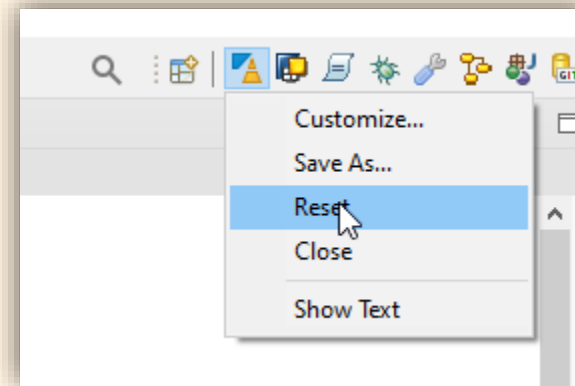
The screenshot shows an IDE window with a breadcrumb navigation bar at the top. The breadcrumb path is: ZCL_ABACONF_MERGESORT > MERGE > do > if > if > else. Below the breadcrumb, a code editor displays ABAP code. A context menu is open over the code, showing a tree view of the current scope: if lv_end_v2 = abap_false... > elseif lv_end_v2 = abap_true... > elseif lv_end_v1 = abap_true... > else. > endif. The code in the editor includes:

```
82 lv_value_left = it_
83 ELSE.
84 DATA(lv_end_v1) = ab
85 ENDIF.
86
87 IF lv_pointer_right <= lines( it_right ).
88 lv_value_right = it_right[ lv_pointer_right ].
89 ELSE.
90 DATA(lv_end_v2) = abap_true.
91 ENDIF.
92
93
94 IF lv_end_v2 = abap_false
95 AND lv_end_v1 = abap_false.
96
97 IF lv_value_left < lv_value_right.
98 APPEND lv_value_left TO rt_data.
99 lv_pointer_left = lv_pointer_left + 1.
100
101 ELSE.
102 APPEND lv_value_right TO rt_data.
103 lv_pointer_right = lv_pointer_right + 1.
104 ENDIF.
105
106 ELSEIF lv_end_v2 = abap_true
107 AND lv_end_v1 = abap_false.
```

- Verknüpfung Navigation Links und Editor Rechts



- Perspektiven zurücksetzen



Vielen Dank für Eure Aufmerksamkeit

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Website: www.brandeis.de

