

Concept of the new ABAP Editor



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Why it is needed?

Current state of integration

Editor features

System demo of the editor

■ Why it is needed? (Introduction)

The **AB4 Editor** is a new **ActiveX** control written in **C++** which integrates all modern code editing features in one bundle.

The **AB4 Editor** is **universal**. It can work with any programming language with defined syntax schema, as **ABAP**, **eCATT**, **BSP**, **GML**, **C++** etc.

The **AB4 Editor** is **fast**, **flexible** and **easy to use**.

Why it is needed?

- Do you want to program faster?
- Do you want to read code more easily?
- Do you want to get code of better quality?
- Do you want to have good navigation through your changes?
- Do you want to have completely flexible tool?
- Do you want to have comfortable tool?

Just start, and then try to switch back! 😊



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Current status of integration

The **AB4 Editor** come with **SAP GUI release 7.0** and then patched to release 6.40.

The **AB4 Editor** used instead of current editor in all transactions like **SE80, SE38, SE37, SE24** etc. The old functionality still there, but enhanced by new features, driven by **AB4 Editor**.

The **AB4 Editor** used for editing **BSP, eCATT and GML Scripts** in Eclipse.

The **AB4 Editor** integrated in **New ABAP debugger**.



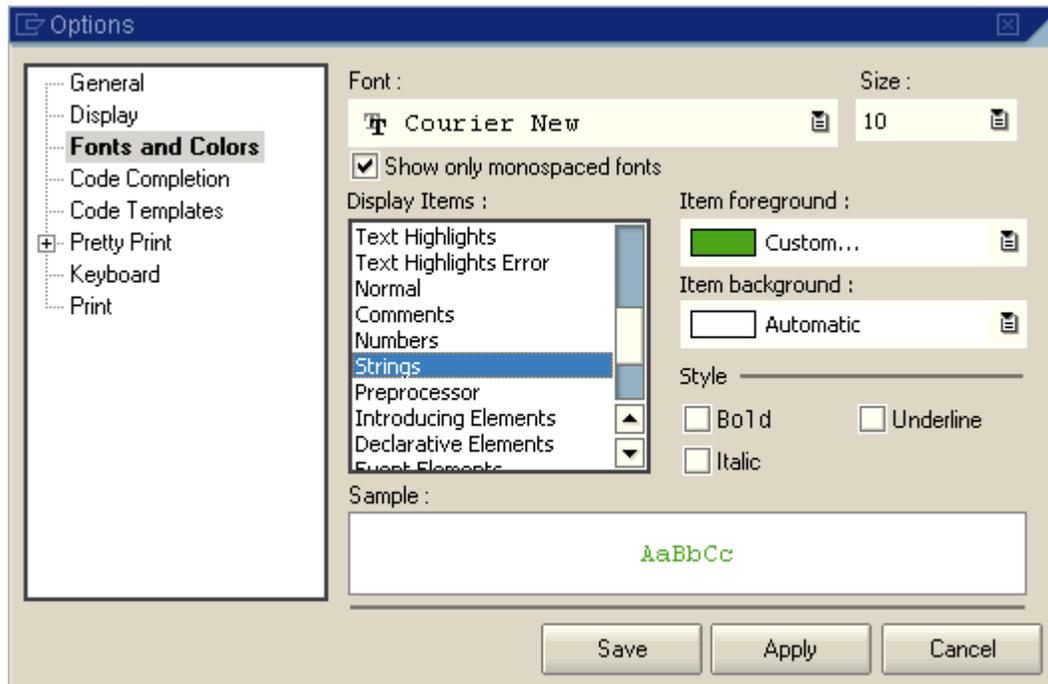
Why it is needed?

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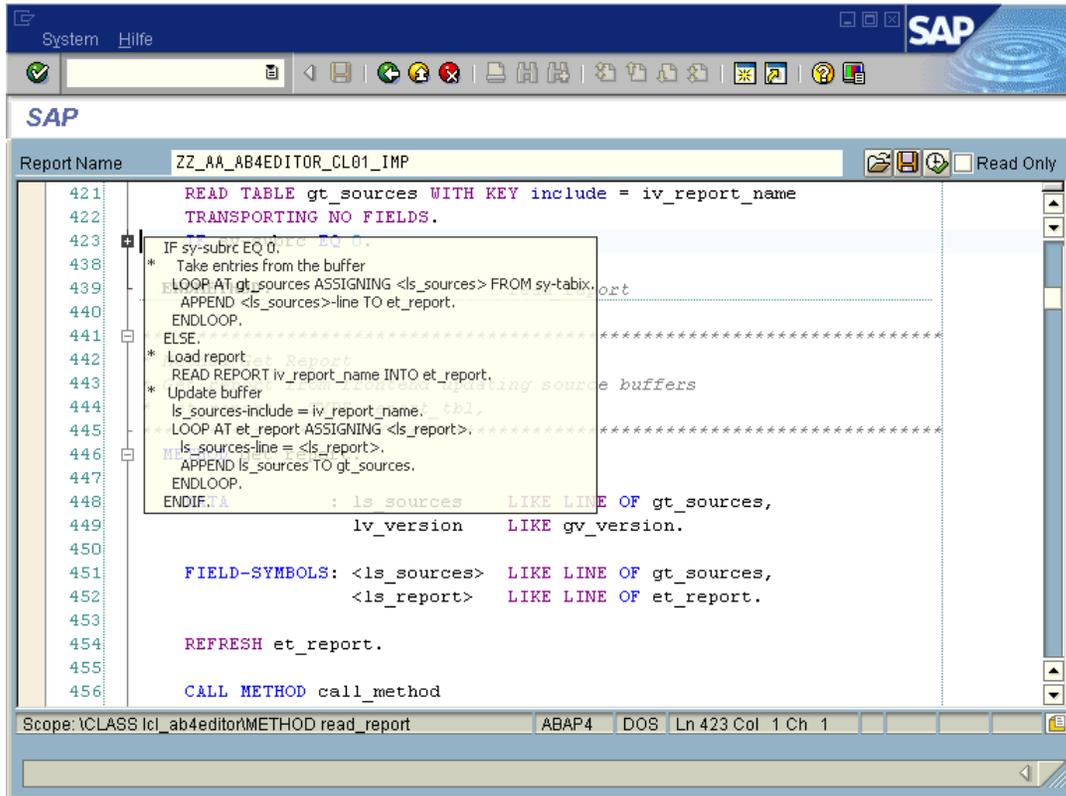
System demo of the editor

Editor Features (Syntax highlighting)



- Define colors for text blocks
- Define styles for text blocks
- User defined text blocks
- Use of any font and size
- Only mono spaced option

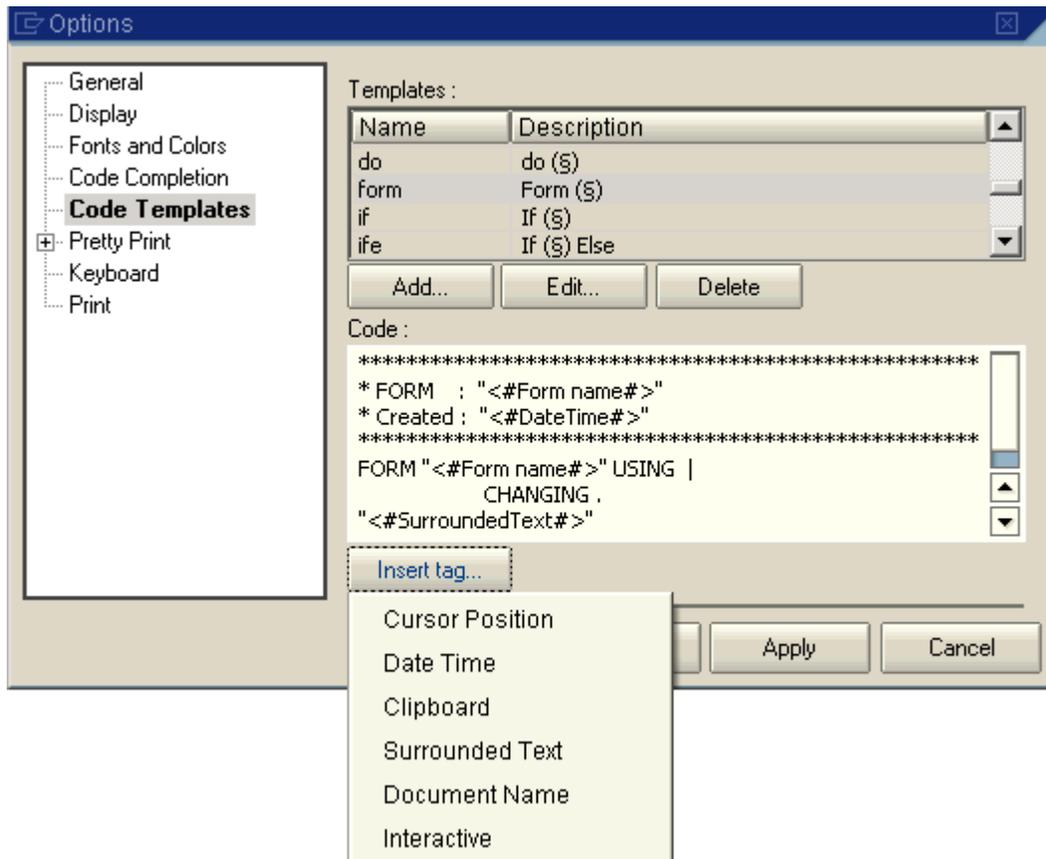
Editor Features (Outlining)



```
421 READ TABLE gt_sources WITH KEY include = iv_report_name
422 TRANSPORTING NO FIELDS.
423
424 IF sy-subrc EQ 0.
425 * Take entries from the buffer
426 LOOP AT gt_sources ASSIGNING <ls_sources> FROM sy-tabix.
427   APPEND <ls_sources>-line TO et_report.
428 ENDLOOP.
429 ELSE.
430 * Load report
431 READ REPORT iv_report_name INTO et_report.
432 * Update buffer
433   ls_sources-include = iv_report_name.
434 LOOP AT et_report ASSIGNING <ls_report>.
435   APPEND ls_sources TO gt_sources.
436 ENDLOOP.
437 ENDIF.
438
439 : ls_sources LIKE LINE OF gt_sources,
440 lv_version LIKE gv_version.
441
442 FIELD-SYMBOLS: <ls_sources> LIKE LINE OF gt_sources,
443               <ls_report> LIKE LINE OF et_report.
444
445 REFRESH et_report.
446
447 CALL METHOD call_method
```

- See Start / End / Middle of language block
- Collapse/Expand Block
- Collapse same type blocks
- Collapse Comments
- User defined “Outlining Regions”
- See current scope
- See collapsed text

Editor Features (Templates)



- User and language dependent
- Expandable by Ctrl + Enter
- Built in runtime tags (Date Time, Clipboard Content, Document Name)
- Interactive tags
- Suggested by Code Hints
- Extract template from selected text
- Surround by template

Editor Features (Code Hints)

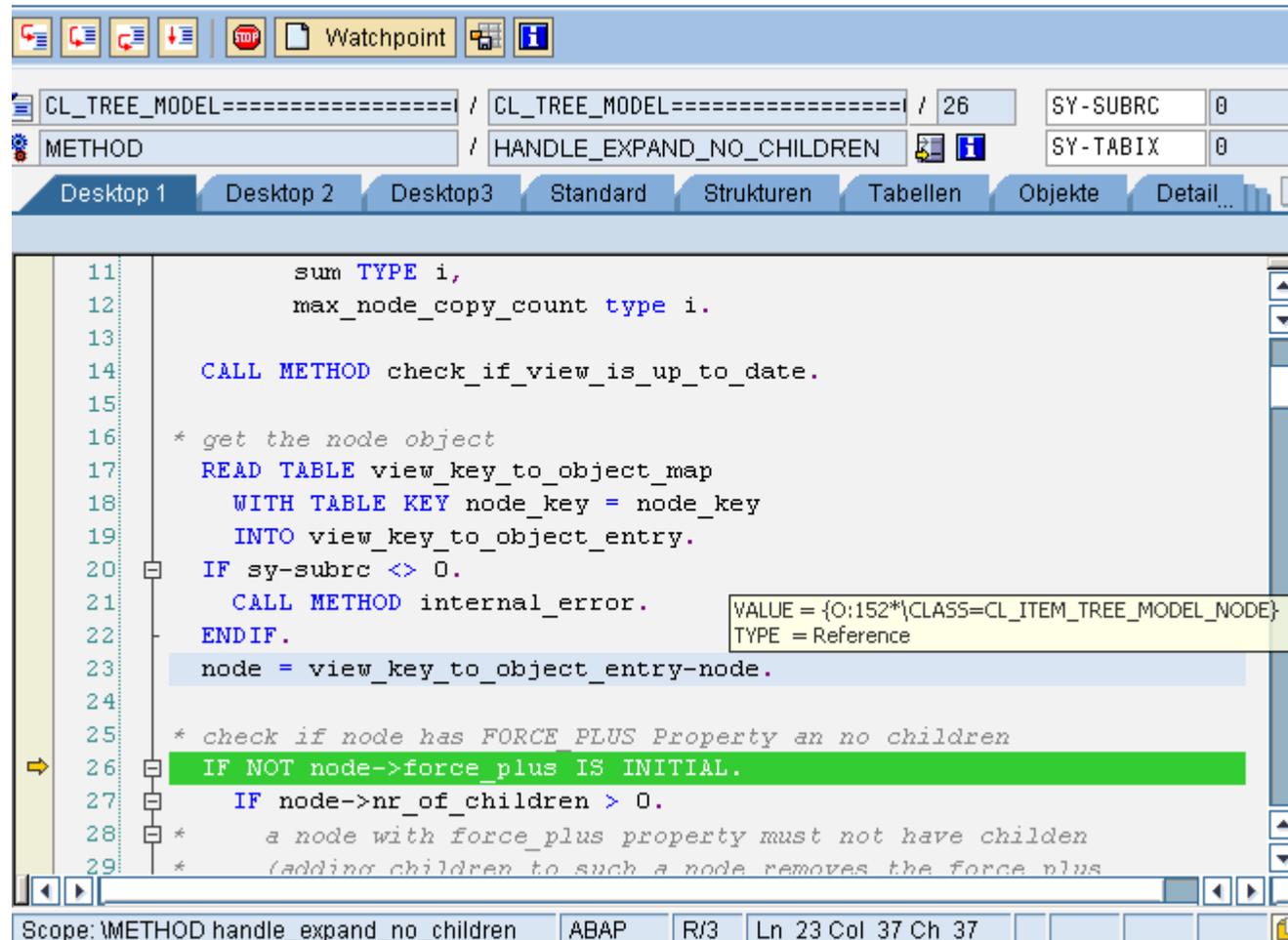
```
135 | DATA : lv_result TYPE c.  
136 |  
137 | DATA: lo_obj TYPE REF TO /sapapo/rrp_pt_alv_grid.  
138 | Loop (S)  
139 | loop  
140 |  
141 | IF parent IS INITIAL.
```

Enable Code Hints _____
Display know completions when they save 2 chars
 AutoHide tooltips after 3000 msec

- Code Hints for templates shortcuts
- Code Hints for misspelling from auto correction dictionary
- Customizing of suggestions

Editor Features (Quick Info)

(1) - ABAP Debugger kontrolliert Session 1 (exklusiv)



The screenshot shows the ABAP Debugger interface. At the top, there are navigation icons and a 'Watchpoint' button. Below that, the current object and line number are displayed: 'CL_TREE_MODEL' / 'CL_TREE_MODEL' / 26. The current method is 'HANDLE_EXPAND_NO_CHILDREN'. The code editor shows the following code:

```
11      sum TYPE i,  
12      max_node_copy_count type i.  
13  
14      CALL METHOD check_if_view_is_up_to_date.  
15  
16      * get the node object  
17      READ TABLE view_key_to_object_map  
18          WITH TABLE KEY node_key = node_key  
19          INTO view_key_to_object_entry.  
20      IF sy-subrc <> 0.  
21          CALL METHOD internal_error.  
22      ENDIF.  
23      node = view_key_to_object_entry-node.  
24  
25      * check if node has FORCE PLUS Property an no children  
26      IF NOT node->force_plus IS INITIAL.  
27          IF node->nr_of_children > 0.  
28          * a node with force_plus property must not have children  
29          * (adding children to such a node removes the force plus
```

A Quick Info popup is visible over line 21, showing: VALUE = {0:152*}\CLASS=CL_ITEM_TREE_MODEL_NODE\ TYPE = Reference. The line 26 is highlighted in green. The status bar at the bottom shows: Scope: \METHOD handle_expand_no_children ABAP R/3 Ln 23 Col 37 Ch 37.

- Quick Info for variables on hovering
- Quick Info for variables by Ctrl-Shift-Space
- Customizing of quick info

Editor Features (Clipboard)

```
123
124 | *****
125 | * FORM      : new_form
126 | * Created  : 15.12.2004 18:03:18
127 | *****
128 | FORM new_form USING
129 | CHANGING .
130 |
131 | ENDFORM. "new_form
132 | *****
133 | CLASS lcl_ab4editor IMPLEMENTATION.
134 | ENDFORM. "new_form
135 | FORM new_form USING
136 | *****
137 |
138 | *****
139 | * Method Constructor
140 | .....
```

- Clipboard Ring
- Extended Paste Menu
- Normal and block format
- Multiple Clipboard Formats:
 - Paste in MS Outlook with syntax highlighting
 - Paste in MS Word with syntax highlighting
- Copy/Cut Append to clipboard
- Insert Special
- Unicode or ASCII format support

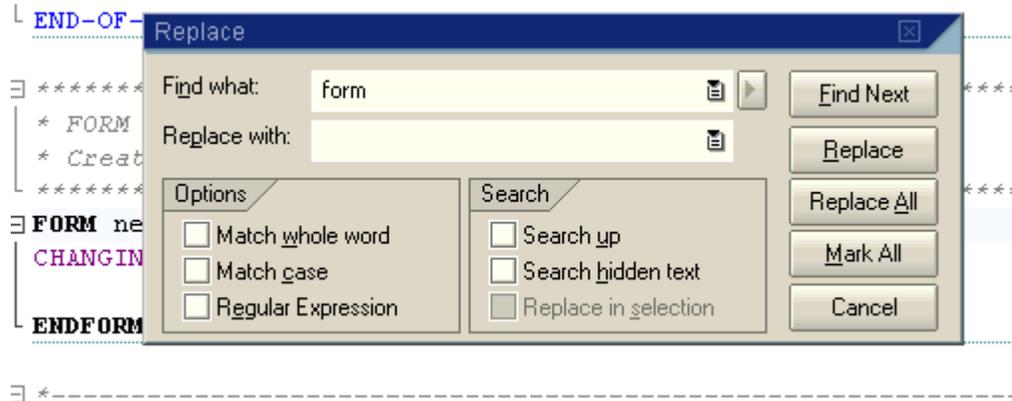
Editor Features (Current Scope)

```
586 LOOP AT ftab_program_file.  
587     lc_program_file = ftab_program_file.  
588     CASE lc_program_file(9.  
589     WHEN mc_trdir_identifier.  
590         lc_datatype = mc_trdir_short.  
591     WHEN mc_report_identifier.  
592         lc_datatype = mc_report_short.  
593     WHEN mc_text_identifier.  
594         lc_datatype = mc_text_short.  
595     WHEN mc_doc_identifier.  
596         lc_datatype = mc_doc_short.  
597     WHEN mc_thead_identifier.  
598         lc_datatype = mc_thead_short.  
599     WHEN OTHERS. " Actual contents of repor  
600         CASE lc_datatype.  
601             WHEN mc_trdir_short.  
  
606             ev_int_type = mc_wt_attribute_  
607             WHEN mc_ext_method.
```

Scope: \CLASS lcl_ab4editor\METHOD convert_types\IF\IFCASE ABAP4

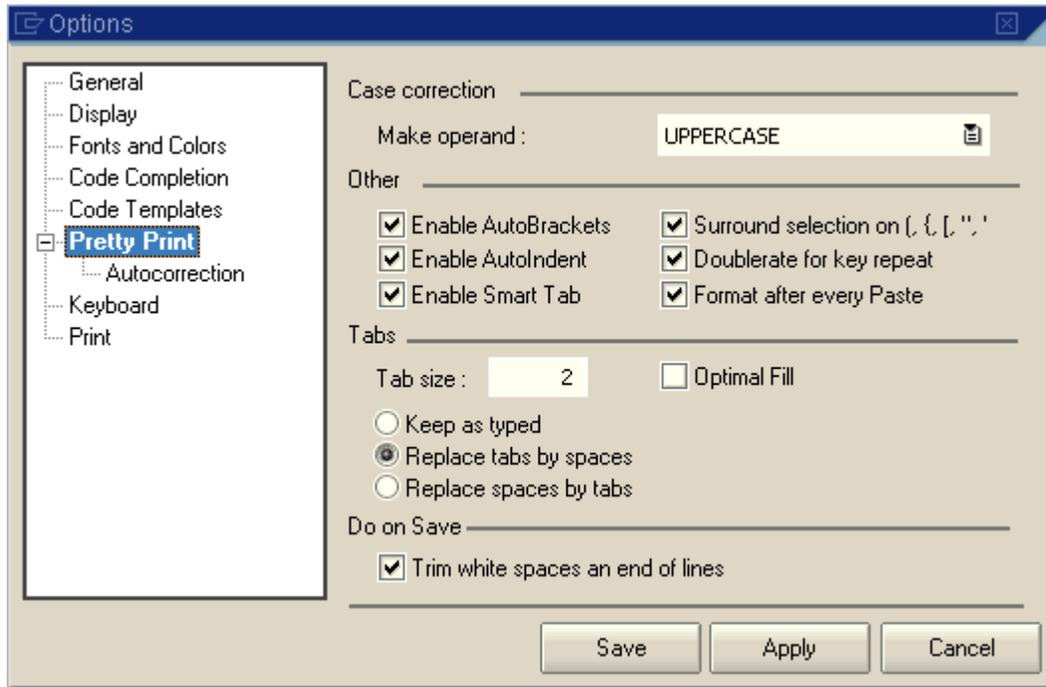
- Highlight of current scope tags in source
- Highlight current scope on outline margin
- See current code hierarchy in status panel
- See current brackets highlighted in source
- See mismatching brackets highlighted in error color

Editor Features (Extended Find/Replace)



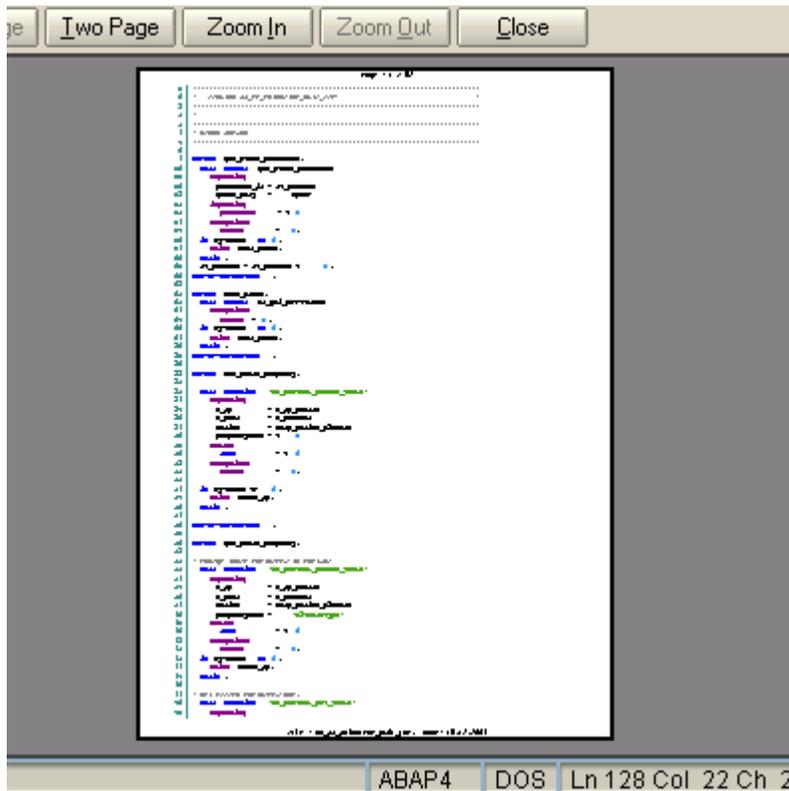
- Incremental search
- History of search/replace items
- Mark all occurrence with bookmark
- Search in collapsed text
- Saving of search parameters between sessions
- Use of regular expression

Editor Features (Edit Functions)



- Block Selection
- Mistyping Correction
- Auto Brackets
- Keyword Case correction
- Auto Indent
- Caps Lock correction
- Smart Tab
- Surround Selection
- Format After Paste
- Line operations
- Sort Lines
- Change Case
- Indent/Unindent
- AutoSave
- ...

Editor Features (Print, Print Preview)



- Print source in color
- Use outlining to hide comments or not interested parts
- Print with Line numbers
- Customize page header and footer
- Wrap lines on printing
- Preview document before printing in-place

Editor Features (Extra Functionality)

Keyboard Shortcuts:

- user defined shortcuts
- different keyboard schemas
- several shortcuts for one command

Export source:

- to Rich Text Format (RTF)
- to HTML
- Adobe PDF

Extended Navigation:

- go to last change
- navigate backward on code
- navigate forward on code

Active Status Bar:

- call Go To Line by double click
- toggle indicator (CAPS, INS, NUM) by double click



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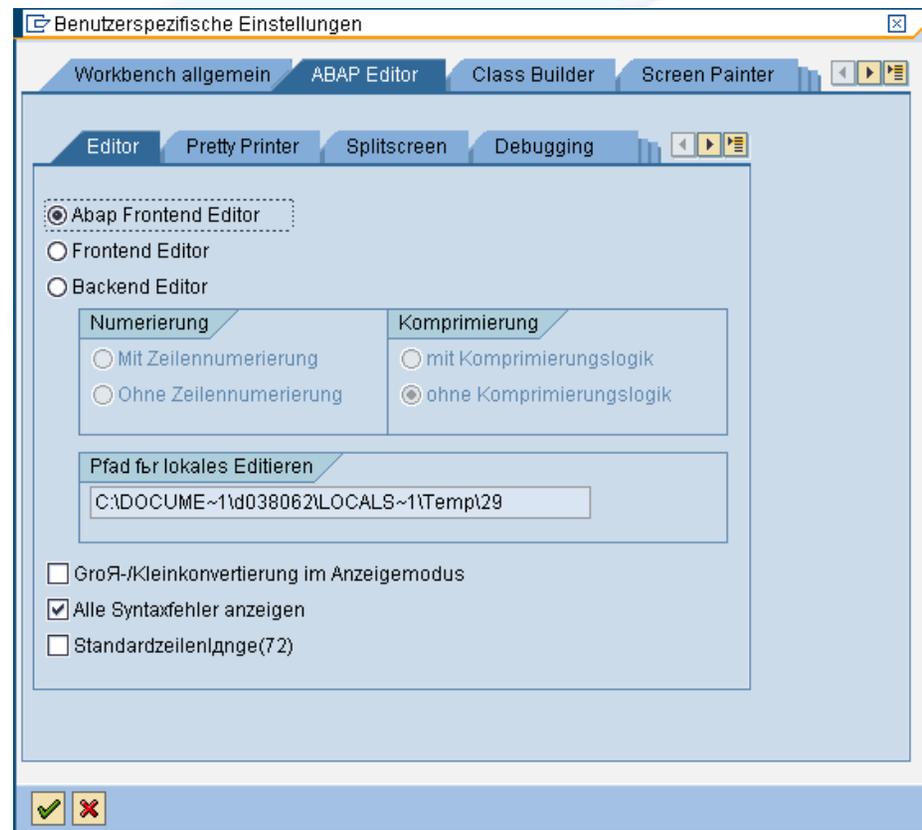
System demo of the editor

The editor concept can be found here:

R/3 System : B20

Transaction code : SE80, SE38, SE24, SE37

Prerequisites:



System demo of the editor (Quick Start)

Quick Start Guide

The screenshot shows the SAP ABAP editor interface for report `ZZ_AA_AB4EDITOR_CL01_IMP`. The editor displays the following code:

```
586 * Some "Special" stuff
587 IF ev_ext_type IS INITIAL.
588     CASE iv_int_type.
589         WHEN mc_wt_attribute_all.
590             ev_ext_type = mc_ext_attribute.
591         WHEN mc_wt_method_all.
592             ev_ext_type = mc_ext_method.
593     ENDCASE.
594 ENDF.
595 ENDF.
596
597 * Internal to external
598 IF ev_int_type IS REQUESTED AND iv_ext_type IS SUPPLIED.
599     SEARCH mc_translate_ids FOR iv_ext_type.
600     IF sy-subrc EQ 0.
601         ev_int_type = sy-fdpos.
602     ELSE.
603 * Some "Special" stuff
604     CASE iv_ext_type.
605         WHEN mc_ext_attribute.
606             ev_int_type = mc_wt_attribute_all.
607         WHEN mc_ext_method.
```

Annotations and callouts:

- Click on margin to set breakpoint**: Points to the red stop icon in the left margin.
- Notice your changes by Changed line Indicator**: Points to the red background highlighting the code on line 587.
- Use bookmark for fast navigation**: Points to the blue bookmark icon in the left margin.
- Collapse /Expand block**: Points to the square icons in the left margin used for folding code blocks.
- See where you are by Current Scope**: Points to the status bar at the bottom showing the current scope: `Scope: \CLASS lcl_ab4editor\METHOD convert_types\IF\IF\CASE ABAP4 DOS Ln 590 Col 44 Ch 44 *`.
- Call Template with Ctrl-Enter**: Points to the `METHOD convert_types` callout box.
- Split view to see different parts of the document in same time**: Points to the vertical scrollbar on the right side.
- Scroll to see Scroll Info**: Points to the scroll bar's status area.
- Double click on status to change indicator or call Go To Line dialog**: Points to the status bar.
- Press button to check user settings**: Points to the gear icon in the bottom right corner.

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