



Enhancement Framework - Explicit Enhancement - How to create an enhancement section? - Concept and Simple Scenario



Anonymous
Feb 09, 2009

Watch

Enhancement Framework → **Explicit Enhancement** → **Enhancement section**

Enhancement Framework -

Enhancement framework is a new technology which brings all the enhancement techniques under a single roof.

→ It has a very good advantage of the 'SWITCH' Framework as it acts like a switch.

There are various techniques which come under the enhancement framework which are,

1. Source code enhancements (plug-ins)
2. Function group enhancements
3. Class Enhancements
4. Kernel-BADI enhancements

 Here our main concern is '**Source code enhancements**'.

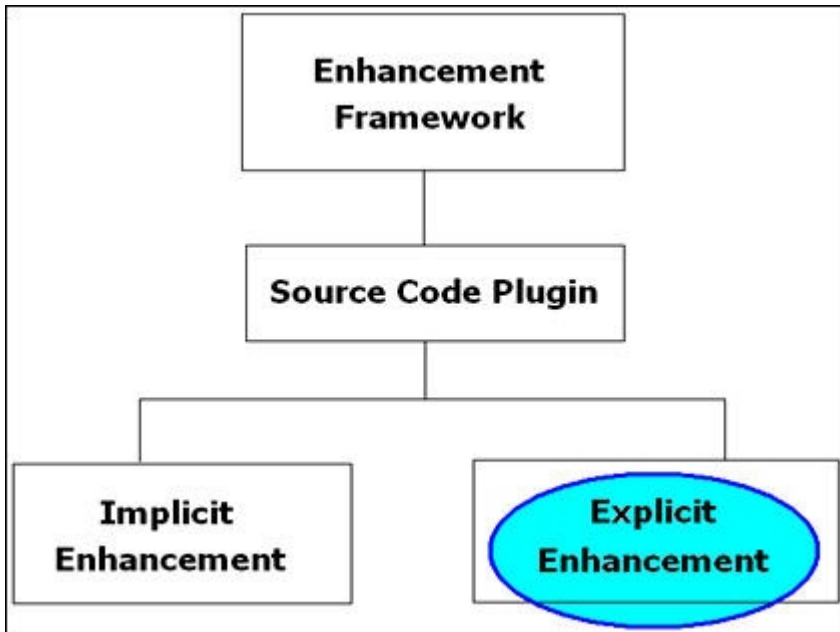
→ Source code enhancements (plug-ins) allow us to directly enhance the standard source code without any modifications in the source code.

There are two possible source code enhancements,

1. Implicit Source code enhancement option
2. Explicit Source code enhancement option

★ → **Enhancement Source Code Plugin -**

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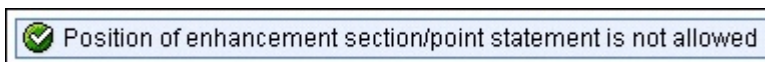
i Here our main concern is '**Explicit Enhancement technique**'.

→ **Explicit Enhancement -**

As implicit enhancements are predefined enhancements provided by SAP in the source code, the explicit enhancements can be implemented by the customers or partners.

Note - Explicit enhancements though can be placed anywhere in the source code but, not just anywhere except some areas where SAP would allow (program allows).

💡 → **Example - (Enhancement not allowed)**



i In Explicit Enhancements there are more two ways of enhancing,

1. Enhancement point (Syntax - **ENHANCEMENT-POINT**)
2. Enhancement section (Syntax - **ENHANCEMENT-SECTION**)

Finally, the Wiki will deal with only '**ENHANCEMENT-SECTION**'

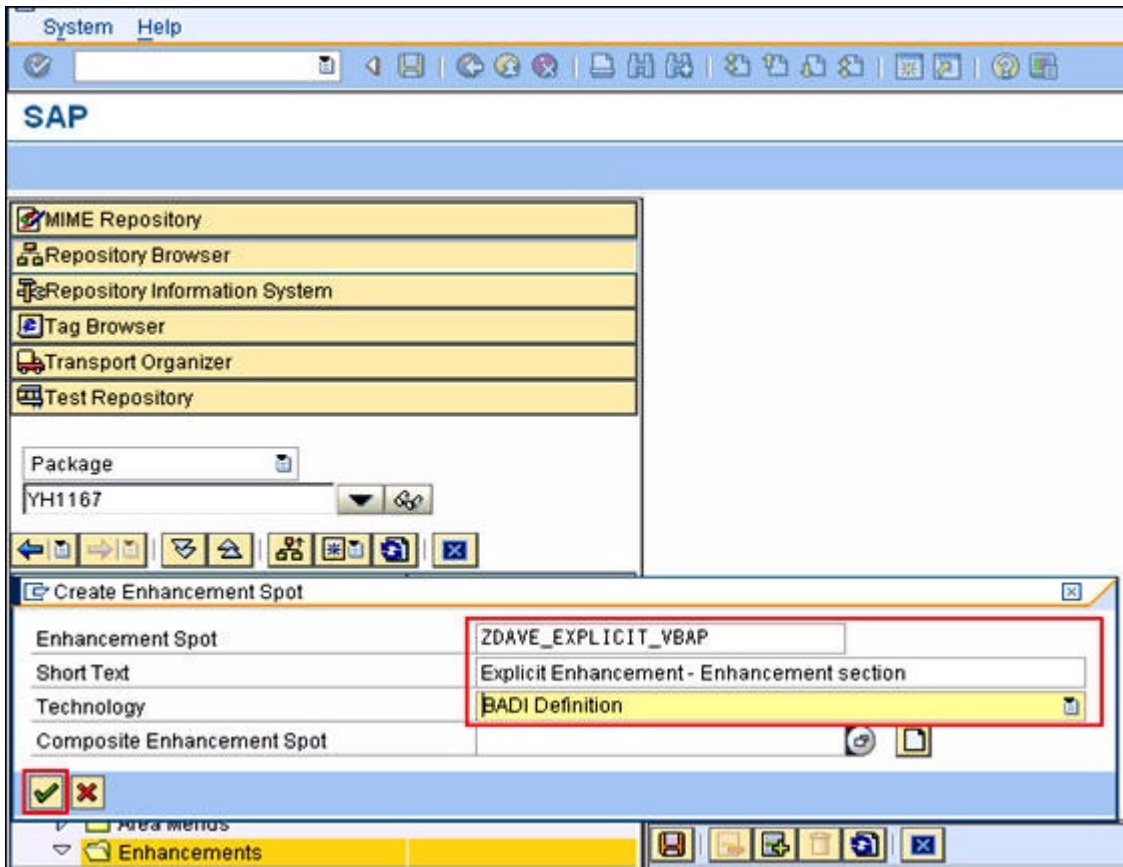
Enhancement section is used to replace a set of code or statements with the customer (custom code).


In this technique the original source code does not get executed but, the customer implementation (custom code) gets executed.

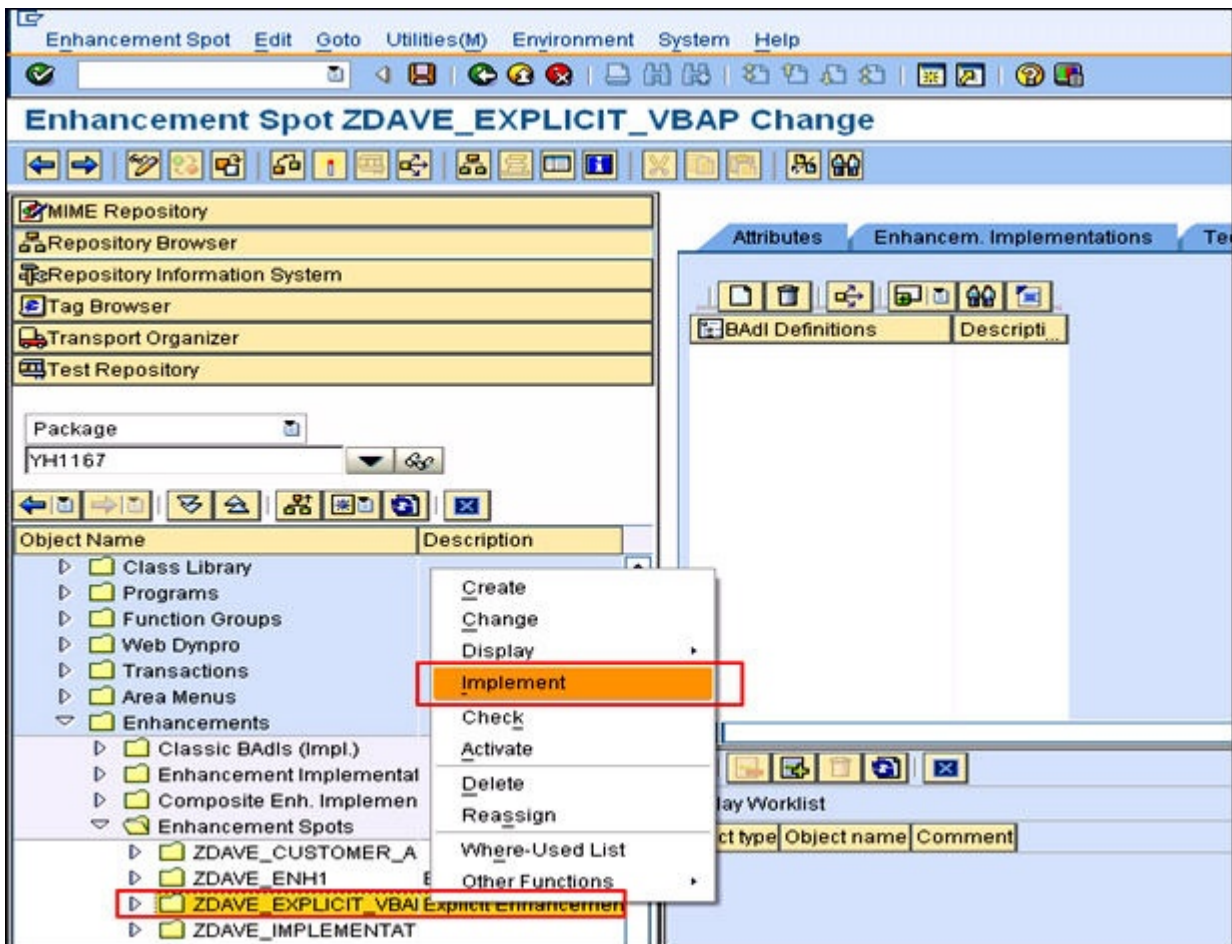
💡 To find out how this really works observe a simple scenario,

→ Create a package in transaction **SE80** (Obj **e**) **Open in app**

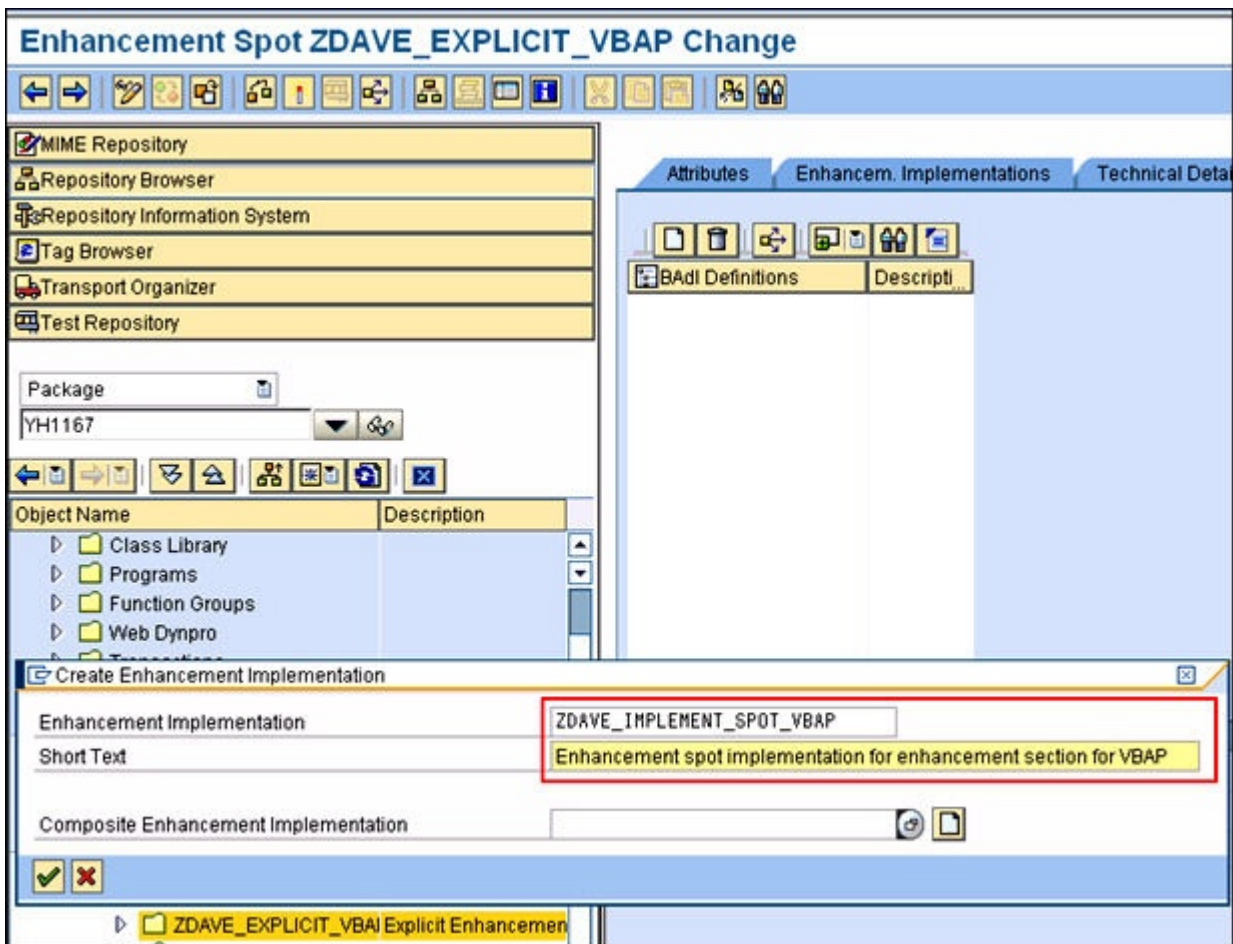
- Navigate to '**Enhancements**' folder of your package.
- **Package** (say ZDAVE) → **Enhancements**.
- Right click the '**Enhancements**' → '**Create**' → '**Enhancement Spot**'.
- Fill in the details in the '**Create Enhancement Spot**' dialog.



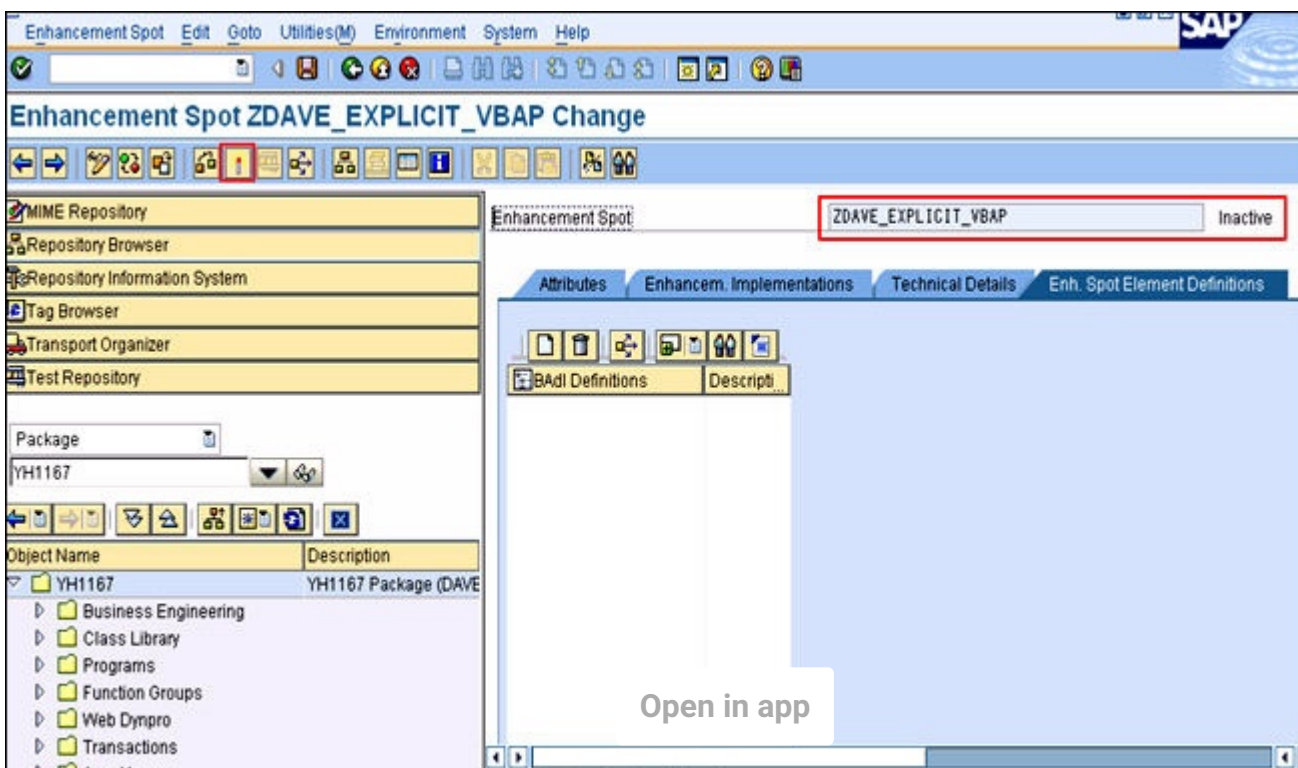
-  Observe the enhancement spot created under the '**Enhancement Spots**' folder.
- We need to '**Right Click**' the spot created and '**Implement**' it (Create an Implementation).



→ Fill in all the details in the '**Create Enhancement Implementation**' dialog.



→ Now, we need to 'Activate' the enhancement spot.





⚠ **Note** - In addition with the Enhancement spot the '**Enhancement Implementation**' will get activated.

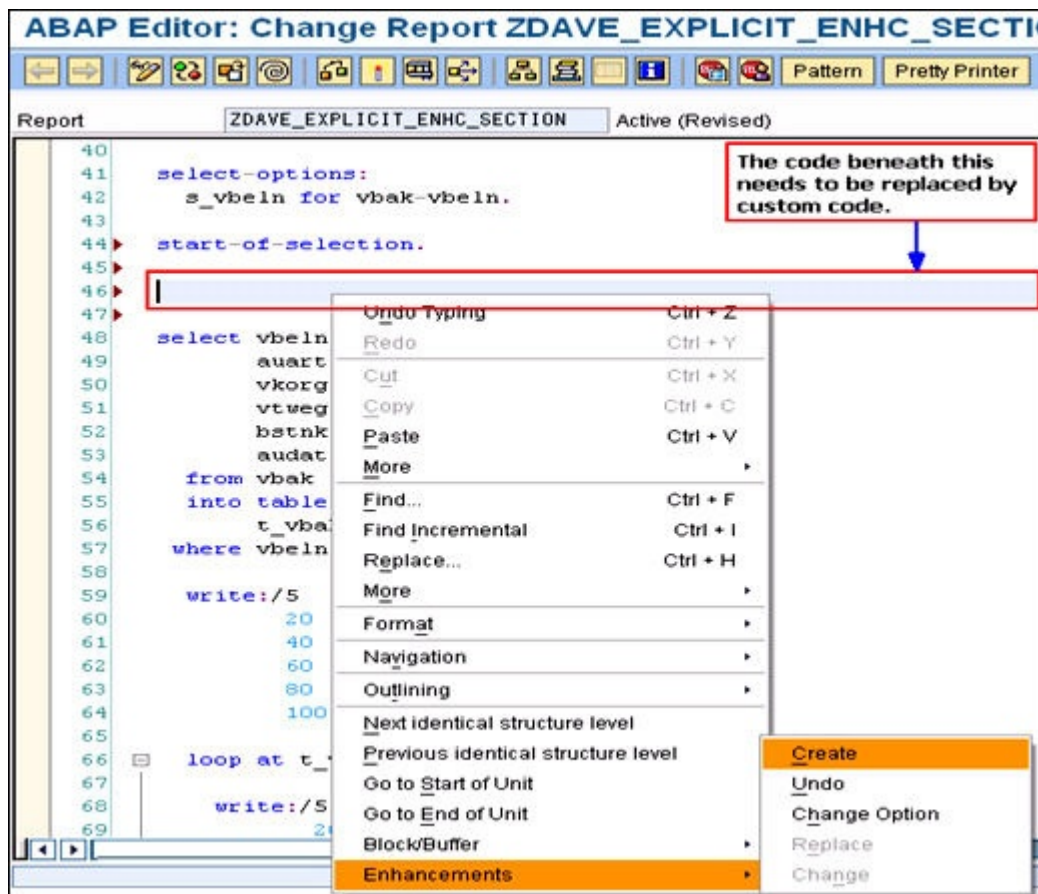
⚠ **Note** - Here we are applying enhancements to a '**Z**' program not a standard program to demonstrate the functionality.

➕ In our program, the scenario goes like -

In the original program '**ZDAVE_EXPLICIT_ENHC_SECTION**' (say) it is retrieving records from the database table '**VBAK**' (**Sales Document Header**) and displaying a few records.

Now, if the customer wants to replace the set of logic with his own logic (say) like retrieving records from database table '**VBAK**' (**Sales Document Item**) and then display a few records, he/she will create an enhancement section which goes like,

→ Right click the area which is appropriate to apply the enhancement (**Refer the Example of Enhancement not allowed**).



→ Now, in the '**Create Enhancement Option**' fill in the details,

→ Fill the name under '**Enhancement-section**' only.

→ Fill in the enhancement spot implementation name.

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Create Enhancement Option

Type and Name

☐ Enhancement Point

☒ Enhancement Section

ZDAVE_ENHC_SECTION

Enhanceable Object

Ty. Program

Name ZDAVE_EXPLICIT_ENHC_SECTION

Program ZDAVE_EXPLICIT_ENHC_SECTION

Inclusion in Source Code

☐ as unconditional call (addit. "STATIC")

☒ as conditional call (suitable for non-declarative statements)

Enhancement Spot

Select or Create Assigned Enhancement Spot

Enhancement Spot	Short T...	Int.Use	Package	Reque...	Composite Enhancement Spot	Short T...	Packa...	Reque...
ZDAVE_IMPLEMENT_SPOT_VBAP		<input type="checkbox"/>	YH1167					

Note - Make sure that the code which has to be replaced is within the 'ENHANCEMENT-SECTION...' and 'END-ENHANCEMENT-SECTION'.

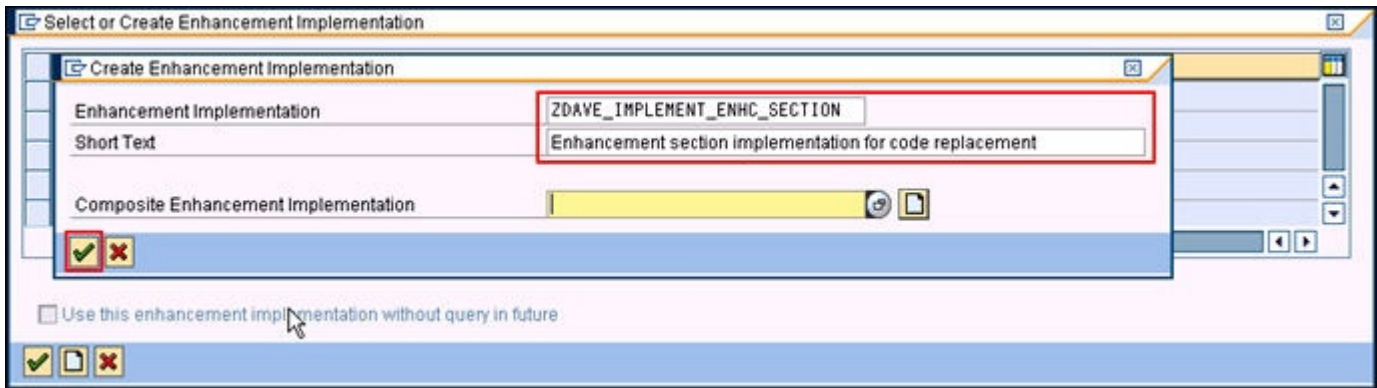
→ ★ Now to include the custom code in the program which will replace the original code, enable the 'Enhancement Mode' by clicking on the 'Spiral' button.



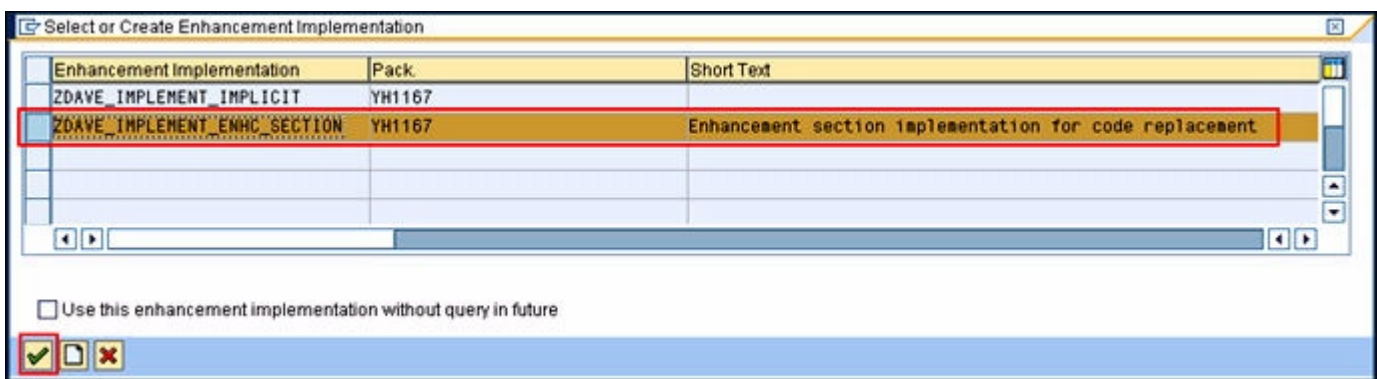
→ Place the cursor on the 'Enhancement-section' and navigate to 'Edit' → 'Enhancement Operations' → 'Create'.

→ Create the Enhancement operation.

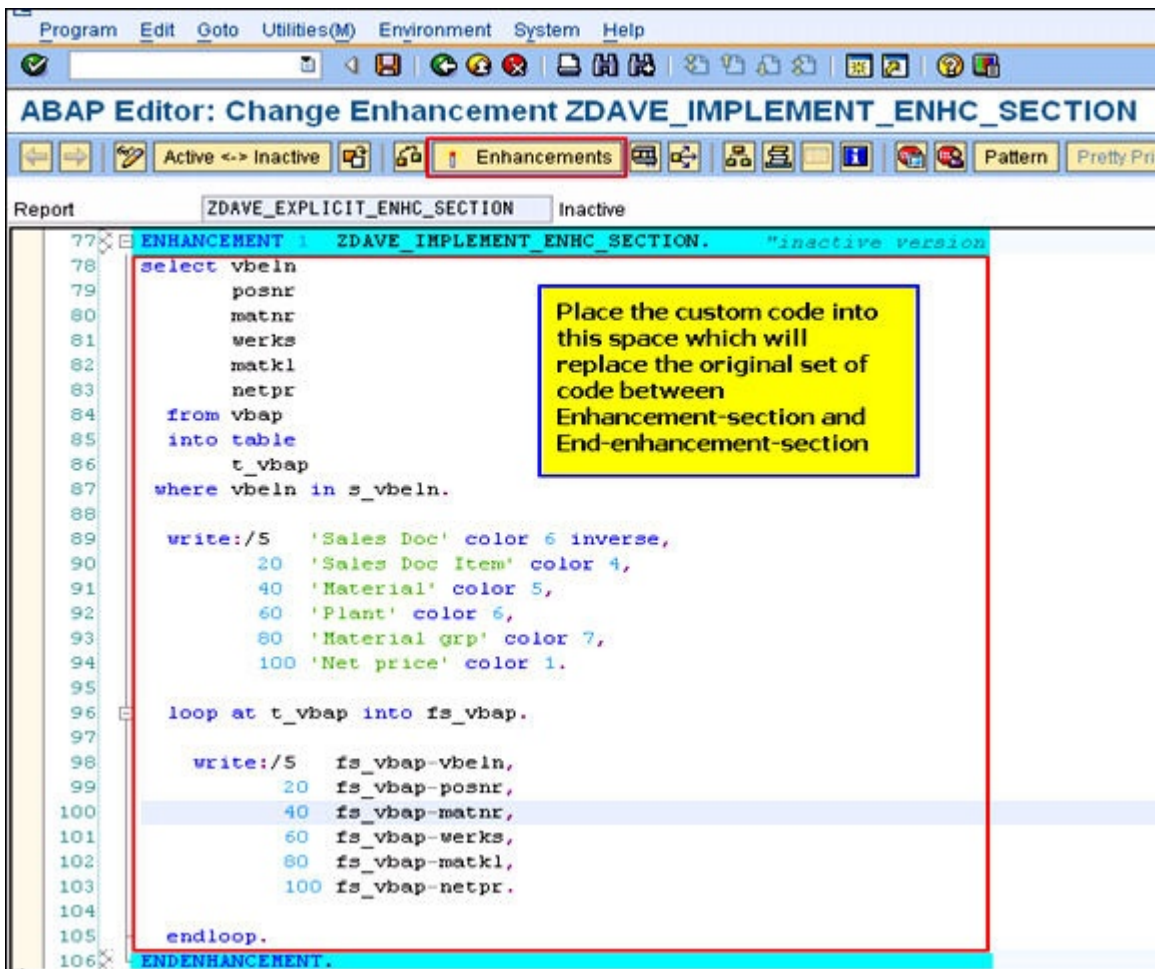
→ Click on 'Create' button for the 'Select or Create Enhancement Implementation' dialog.



→ Fill in the details for the 'Create Enhancement Implementation' dialog.



→ Now, write the code within the 'ENHANCEMENT' and 'ENDENHANCEMENT' statements as the replacement code.

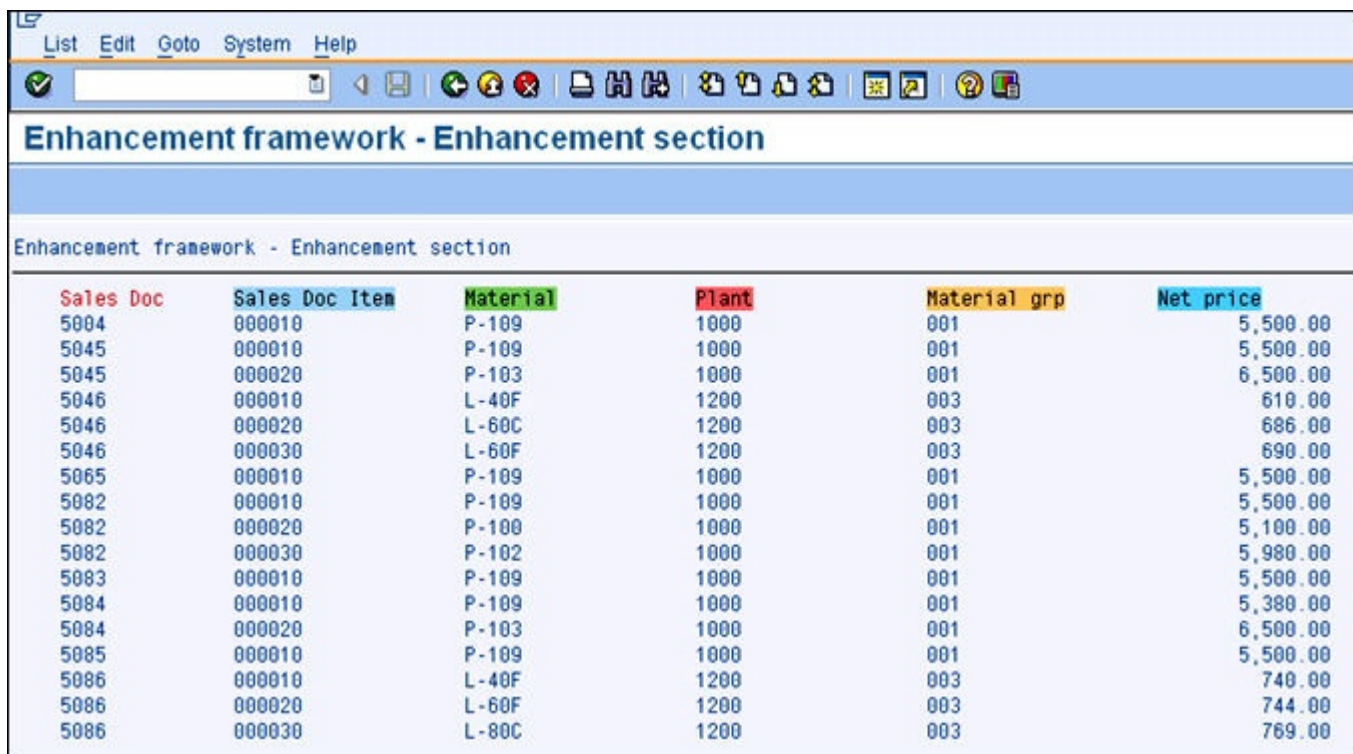


- ⚠ Don't forget to 'Activate' the enhancement.
- 💡 Switch the 'Enhancement' mode OFF and 'Activate' the entire program.
- 😊 Execute the transaction/program to find out the difference,
- 💡 Before the Enhancement -

Enhancement framework - Enhancement section					
Enhancement framework - Enhancement section					
Sales Doc	Sales Doc Type	Sales Org	Distr Channel	Customer PO	Sales Doc
5004	RO	1000	10	CA-653267	27.01.1997
5045	RO	1000	10	BE-876001	27.02.1997
5046	RO	1000	12	CI-753621	27.02.1997
5065	RO	1000	10	TS-655342	01.04.1997
5082	RO	1000	10	CA-342565	28.04.1997
5083	RO	1000	10	BES-142541	28.04.1997
5084	RO	1000	10	PI-543211	28.04.1997
5085	RO	1000		AIT-432990	28.04.1997
5086	RO	1000		BY-543621	28.04.1997

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→ 💡 After the Enhancement - ✅👍



The screenshot shows the SAP Enhancement Framework - Enhancement section table. The table has a menu bar (List, Edit, Goto, System, Help) and a toolbar with various icons. The table title is 'Enhancement framework - Enhancement section'. The table contains 6 columns: Sales Doc, Sales Doc Item, Material, Plant, Material grp, and Net price. The data is as follows:

Sales Doc	Sales Doc Item	Material	Plant	Material grp	Net price
5004	000010	P-109	1000	001	5,500.00
5045	000010	P-109	1000	001	5,500.00
5045	000020	P-103	1000	001	6,500.00
5046	000010	L-40F	1200	003	610.00
5046	000020	L-60C	1200	003	686.00
5046	000030	L-60F	1200	003	690.00
5065	000010	P-109	1000	001	5,500.00
5082	000010	P-109	1000	001	5,500.00
5082	000020	P-100	1000	001	5,100.00
5082	000030	P-102	1000	001	5,980.00
5083	000010	P-109	1000	001	5,500.00
5084	000010	P-109	1000	001	5,380.00
5084	000020	P-103	1000	001	6,500.00
5085	000010	P-109	1000	001	5,500.00
5086	000010	L-40F	1200	003	740.00
5086	000020	L-60F	1200	003	744.00
5086	000030	L-80C	1200	003	769.00

⚠️ **VERY IMPORTANT NOTE** - As this scenario deals with the enhancement of a 'Z' program it is possible to 'CREATE' an 'ENHANCEMENT-SECTION'. But, in case of a 'STANDARD SAP' program there are certain places (provided by SAP) like 'ENHANCEMENT-POINT...' and 'ENHANCEMENT-SECTION...' where we can create implementations based on customers business functionality.

⚠️ **Caution!** - There can be only one and only one '**ACTIVE**' implementation for an 'ENHANCEMENT-SECTION'.

INFORMATION - ALSO REFER TO MY OTHER TWO WIKIS,

1. [Enhancement Framework - Function group and Function module enhancement - Concept and Simple Scenario](#)
2. [Enhancement Framework - Class Enhancements - Pre-exit, Post-exit and Overwrite-exit methods - Concept and Simple Scenarios](#)

Like



Unknown User (vu5pqkw)

I appreciate your effort to make it clear about enhancement-section. It would have been great if you have also given a small example on Enhancement-point or atleast mentioned the basic difference between both the methods.

- **Enhancement Point**
Multiple active implementations of an Enhancement-Point, can exist.
All the implementations will be executed in the order of execution.
- **Enhancement Section**
There can be only one active implementation of an Enhancement Section.

There can be only one active implementation of an Enhancement Section

Only the implementation gets executed and the original code doesn't get executed.

Regards,

Vinod Kumar Pattaparla

vinodkumarp@intelligroup.com

Feb 19, 2009

[Reply](#) · [Like](#)



Unknown User (qrzwaeb)

Enhancement is to modify standard SAP programs without access key. What would be the business / technical reason to enhance a Z Program

Sanjay

Aug 01, 2009

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Ujjwal Raj Singh

Hi,

Your post is very helpful.

It helped me a lot.

Oct 27, 2013

[Reply](#) · [Like](#)



Akanksha Dave

Very nice and simple example.. Can you please explain ENHANCEMENT POINT also like this with basic difference and simple example.

Also can you explain any specific standard requirements where this can be used.?

Thank you.