

SmartPlant[®]

Instrumentation

Enhanced Smart Report
Templates and Border
Customization

FLUOR

SmartPlant[®]

Implementation Team



FLUOR[®]

INTERGRAPH



Enhanced Report Templates

Templates are files that determine the sheet size, orientation, and border for Enhanced Reports. These files have an .sma extension.

The Enhanced Report Utility comes shipped with several standard templates.

File	Description
A3tall.sma	A3 portrait
A3wide.sma	A3 landscape
A4tall.sma	A4 portrait
A4wide.sma	A4 landscape
Atall.sma	11 in x 8.5 in portrait (Letter)
Awide.sma	11 in x 8.5 in landscape (Letter)
Btall.sma	11 in x 17 in portrait
Bwide.sma	11 in x 17 in landscape

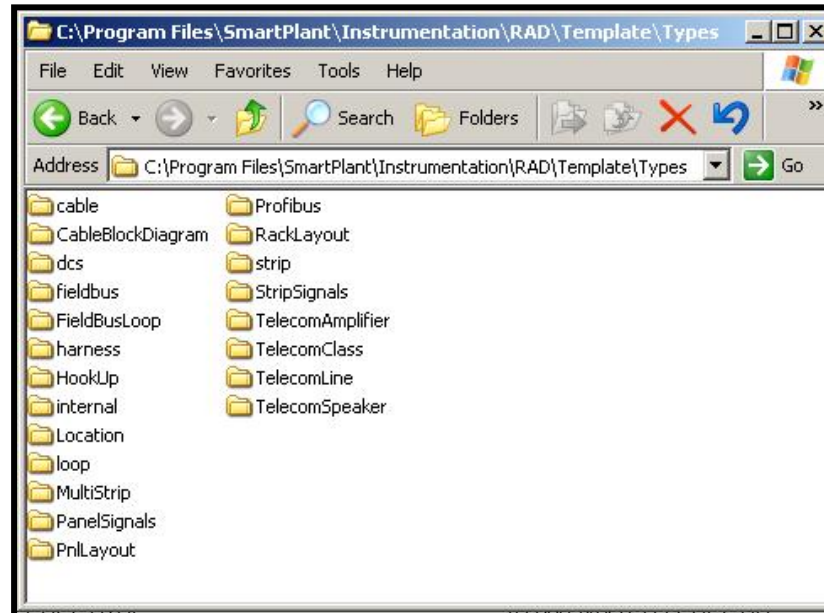
And of course, Normal.sma

Customizing ESR Templates



- ◆ Before starting, locate and make a backup copy of the ESR drawing template files Normal.sma. They can be found in:
<SPI root directory>/RAD/Template/Types/Loop, Fieldbus Loop, Strip, etc.

Note: There are multiple folders with “Normal.sma” files. You will need to copy each of the files that you plan to use. You do not have to modify all Normal.sma files, only those you will use for your project. **Do not copy Normal.sma files between folders**



Customizing ESR Templates

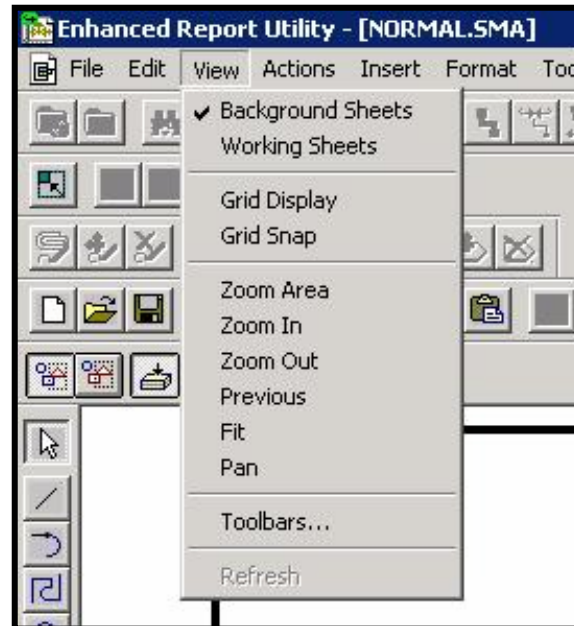


Commonly Used “Normal.sma” (Template) file directories;

- ◆ **Loop** – The Normal.sma file in this folder is used as the background template for Conventional I/O Loops. This is NOT used for “Bus” Loops.
- ◆ **Strip** – This folder has three Normal.sma files located in it, two of which are located under sub folders Style 1 and Style 2. The Normal.sma files under these folders are used as the background templates to generate Panel-Strip reports with adjacent connections. The Style 1 and Style 2 folders give the user additional options for templates, do not confuse these with Smart Reports, style 1 and style 2 (Panel-Strip w/o adjacent Connections)
- ◆ **Fieldbus** – The Normal.sma file located in this folder is used as the background template for Segment Reports.
- ◆ **FieldbusLoop** - The Normal.sma file located in this folder is used as the background template for Loops that have Fieldbus I/O devices in the Loop. This is the Loop template that SPI will pull even if your Loop has conventional and Fieldbus devices assigned to the same Loop number. You can copy the Normal.sma file for Loops into this folder.

Customizing ESR Templates

- ◆ Open the Normal.sma file in the folder of your choice.
 - NOTE: It is best to NOT be in the Loops module of SPI while editing this file.
- ◆ Switch to the desired border by choosing “View > Background Sheets” from the menu.



Customizing ESR Templates



- ◆ There is a separate border graphic background Template for various sheet sizes
- ◆ Pick the size on which you wish to work by selecting the tab along the bottom edge of the work area
 - NOTE: If you wish to anchor a report to a paper size, remove all the other sheet size tabs from the normal.sma after you have modified it

The screenshot shows a software interface for creating ESR templates. It features a large grid area with a 'NOTES' section on the left and a table on the right. Below the grid is a navigation bar with tabs for different sheet sizes: A4wide, A4tall, Awide, Atall, A3tall, and A3wide. The A3wide tab is currently selected.

no:	By:	Date:	Revision:

Creating new ESR Borders

- ◆ If you wish to create a new background sheet (border) of a different sheet size, do the following:
 - From the menu, choose “Insert > New Sheet”

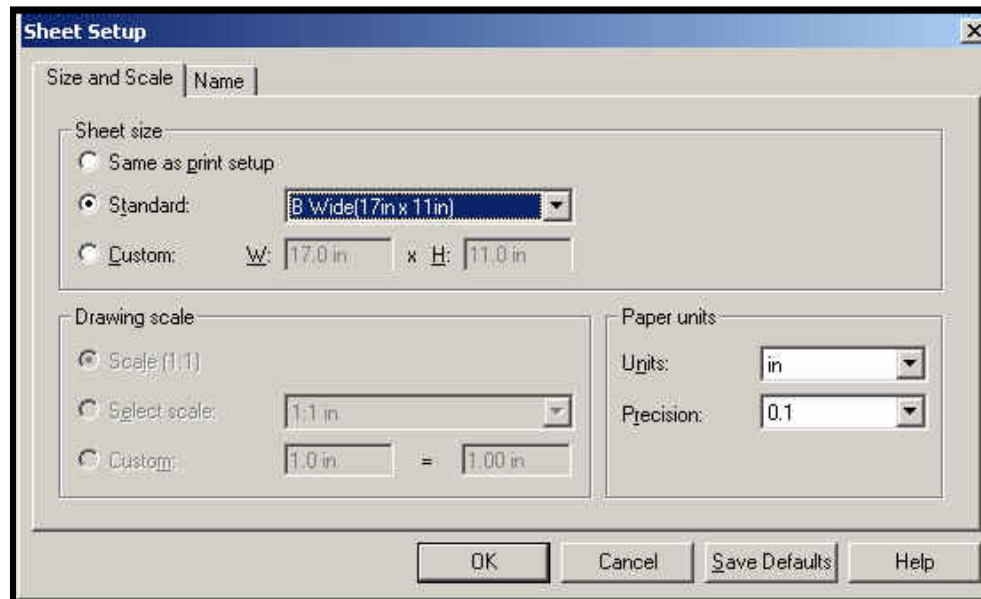


- Double-click on the new “Background1” sheet tab at the bottom of the SmartLoop screen. This will open the Setup screen for this page.



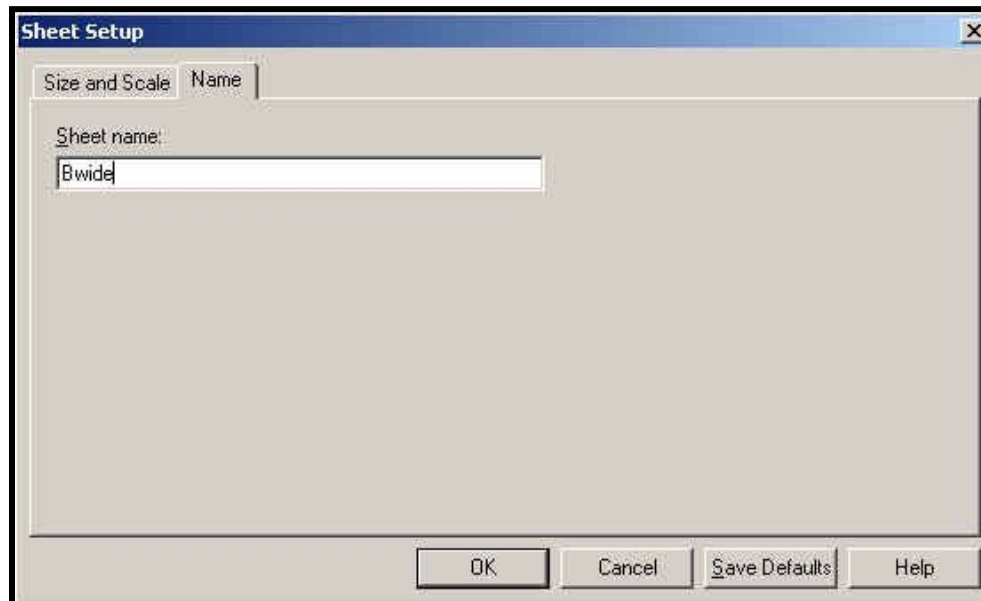
Creating new ESR Borders

- ◆ In the Sheet Setup for this page, select the Size and Scale tab, choose the sheet size. This example uses “B Wide”



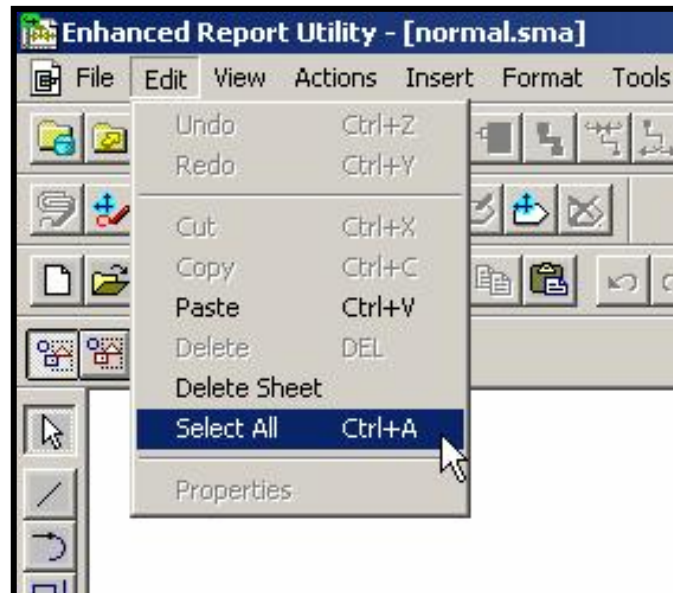
Creating new ESR Borders

- ◆ **Select the Name tab and type the name of the background sheet.**
 - It is REQUIRED that the sheet be named by its' size.
 - This is case sensitive (with wide or tall in LOWER CASE).
 - Failure to do this will result in the MACROS associated with the border not resolving.



Creating new ESR Borders

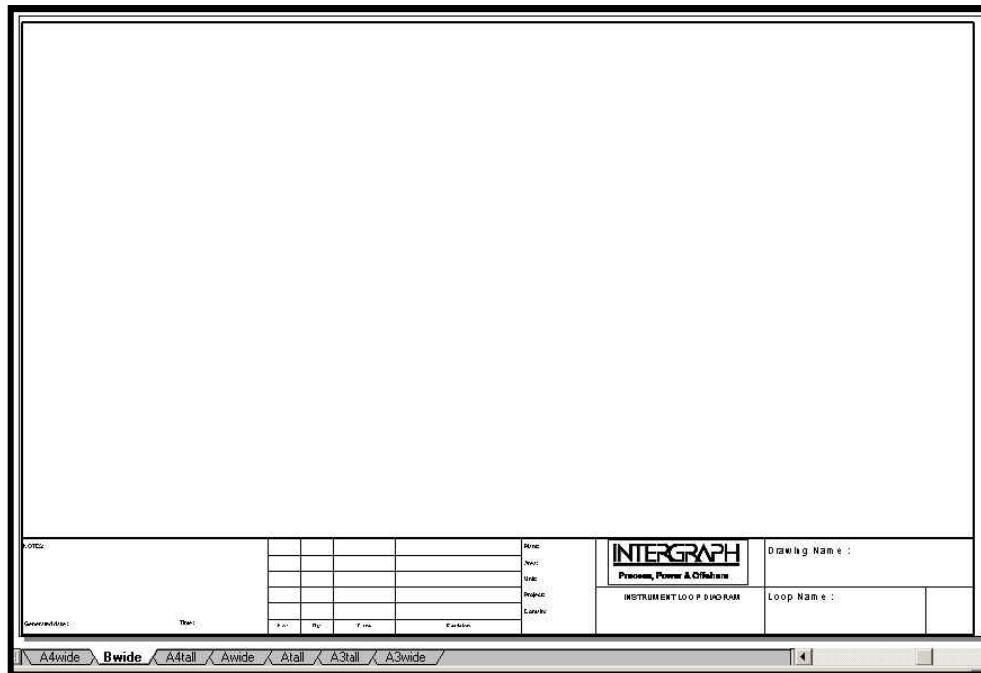
- ◆ If you wish to copy the graphics and macros from one of the delivered examples and then modify (recommended) start by selecting the source sheet tab from the bottom of the ESL screen.
- ◆ Choose Edit -> Select All from the menu.



Creating new ESR Borders



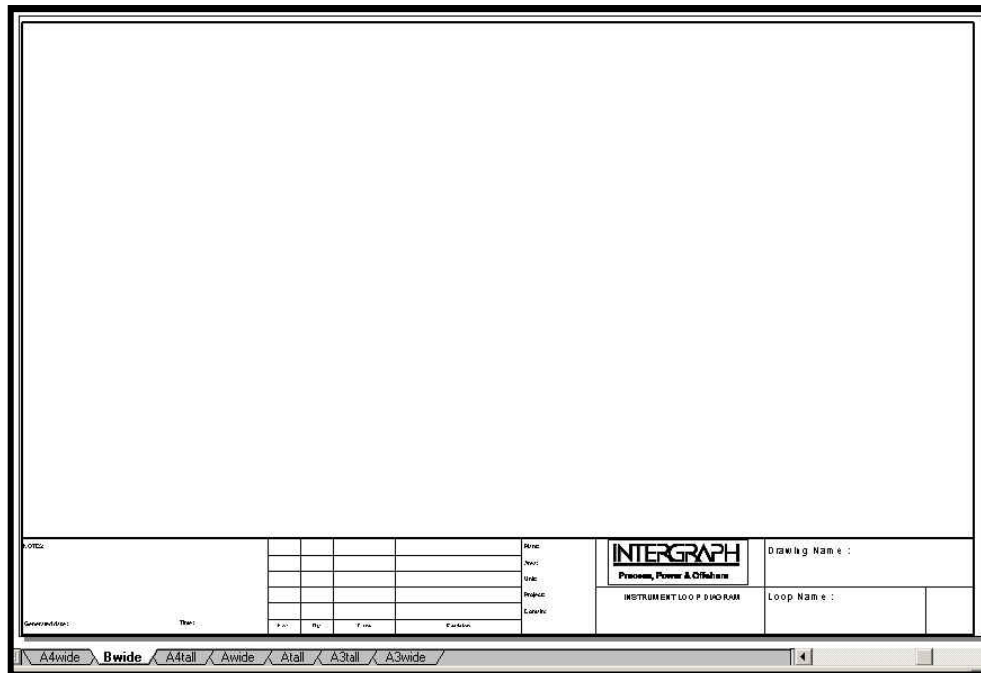
- ◆ All the border graphics should redraw in the 'select' color Now hit Ctrl+C
 - (or choose Edit -> Copy from the menu).
- ◆ Switch to your new custom page and paste the copied graphics with Ctrl+V
 - (or choose Edit -> Paste from the menu).





Creating new ESR Borders

- ◆ With all the graphics still selected, use the scale command, if desired, to resize the border graphics to fit the existing page
- ◆ You can also edit individual elements if required/desired
- ◆ End of new ESR Borders creation.





Modifying ESR Border Logos


- ◆ Adding logos to the Border.
- ◆ The example below was created by copying and pasting a Logo into the border (either a .bmp or a .jpg file).

Before:

Rev:	By	Date	Revision	Date	bp Eng.	bp App.	Date	Contr. Eng.	Contr. App.	INST	MEC	PIP	PRO	ELEC	STR
THIS DRAWING IS THE PROPERTY OF AND EMBODIES CONFIDENTIAL INFORMATION OF bp TRINIDAD AND TOBAGO. THE DRAWING AND THE INFORMATION THEREON SHALL NOT BE REPRODUCED OR DISCLOSE TO ANY OTHER PARTY OR USED FOR ANY PURPOSE OTHER THAN FOR THE BENEFIT OF AS AUTHORIZED BY bp TRINIDAD AND TOBAGO															

After: (added the "Fluor" logo)

Rev:	By	Date	Revision	Date	bp Eng.	bp App.	Date	Contr. Eng.	Contr. App.	INST	MEC	PIP	PRO	ELEC	STR
THIS DRAWING IS THE PROPERTY OF AND EMBODIES CONFIDENTIAL INFORMATION OF bp TRINIDAD AND TOBAGO. THE DRAWING AND THE INFORMATION THEREON SHALL NOT BE REPRODUCED OR DISCLOSE TO ANY OTHER PARTY OR USED FOR ANY PURPOSE OTHER THAN FOR THE BENEFIT OF AS AUTHORIZED BY bp TRINIDAD AND TOBAGO															





Modifying ESR Borders

- ◆ Making additional required graphical changes by modifying ESR Borders.
- ◆ The example below was created by copying and modifying the revision "No." and "By" columns.

Before:

NOTES:							Plant:
							Area:
							Unit:
							Project:
							Domain:
Generated date :	Time :	No :	By	Date	Revision		

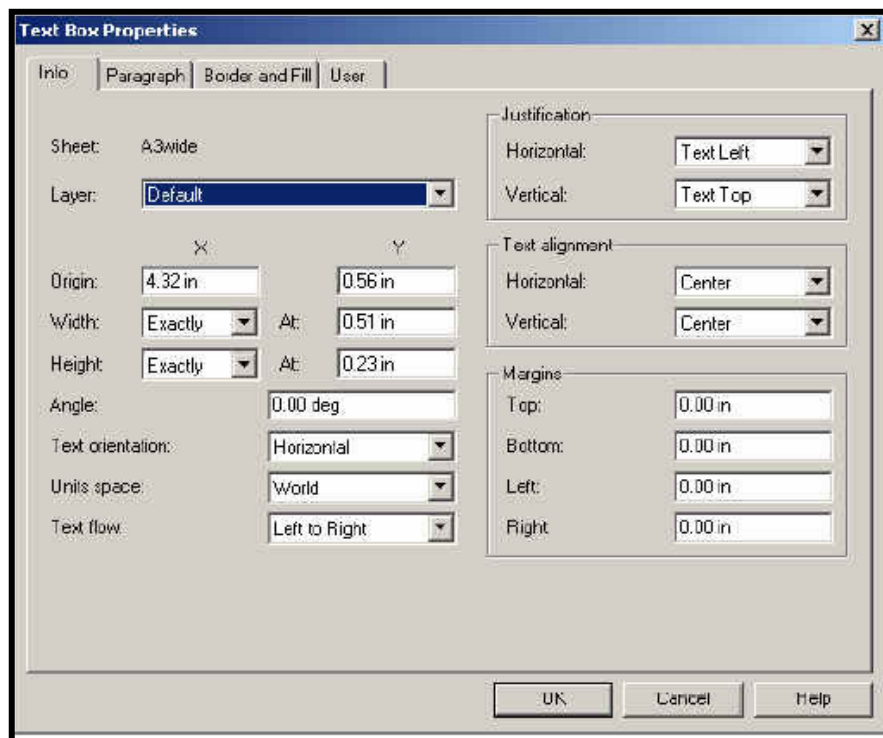
After: (added "Chk'd" and "Appr" Initial columns)

NOTES:								Plant:
								Area:
								Unit:
								Project:
								Domain:
Generated date :	Time :	No :	By	Chk'd :	Appr	Date	Revision	



Modifying ESR Borders – Copy Macro

- ◆ For Macro addition, two methods exist. One is to copy and modify an existing macro text or by adding a new macro from scratch.
- ◆ To Copy a Macro - Select a copied macro box, right-click and choose Properties. The Text Box Properties window will display:





Modifying ESR Borders – Copy Macro

- ◆ Choose the User tab to modify the specific macro information.
 - NOTE: Some modifications (such as box Width and Height settings) may be required on the Info page as well, based on the length of the macro data to be retrieved.

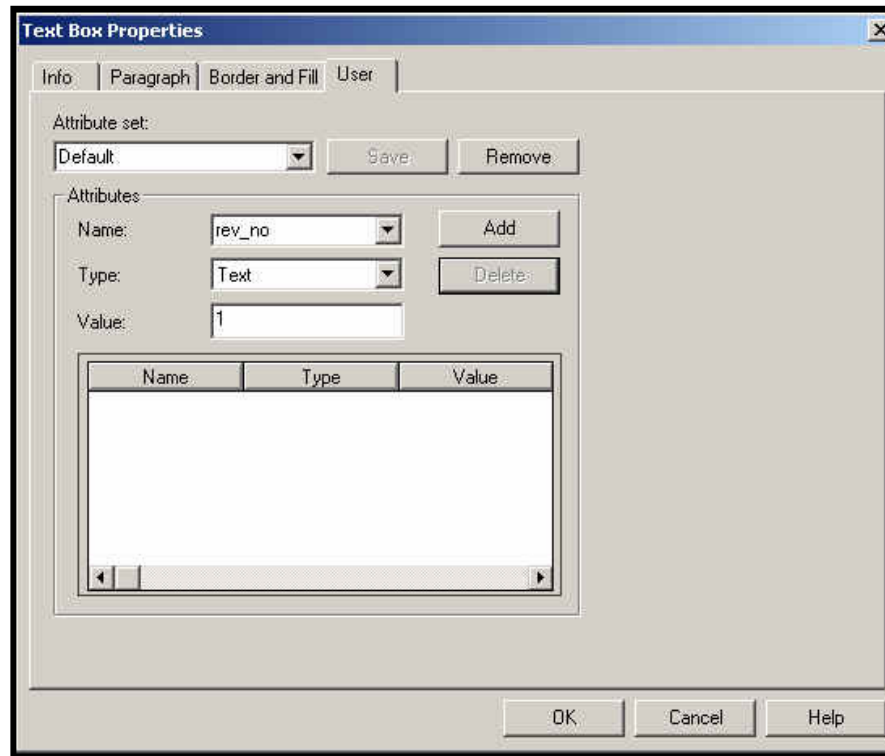
The screenshot shows the 'Text Box Properties' dialog box with the 'User' tab selected. The 'Attribute set' is 'Default'. The 'Attributes' section shows a single attribute with Name 'rev_no', Type 'Text', and Value '1'. The 'Attributes' table is as follows:

Name	Type	Value
rev_no	Text	1

Modifying ESR Borders – Copy Macro



- ◆ Choose Delete to remove the old macro from the Attributes list.





Modifying ESR Borders – Copy Macro

- ◆ Enter the new macro name in the Name box and keep the Type as Text.
- ◆ If the macro is revision related fill in the Value box with the appropriate number, otherwise it should remain blank

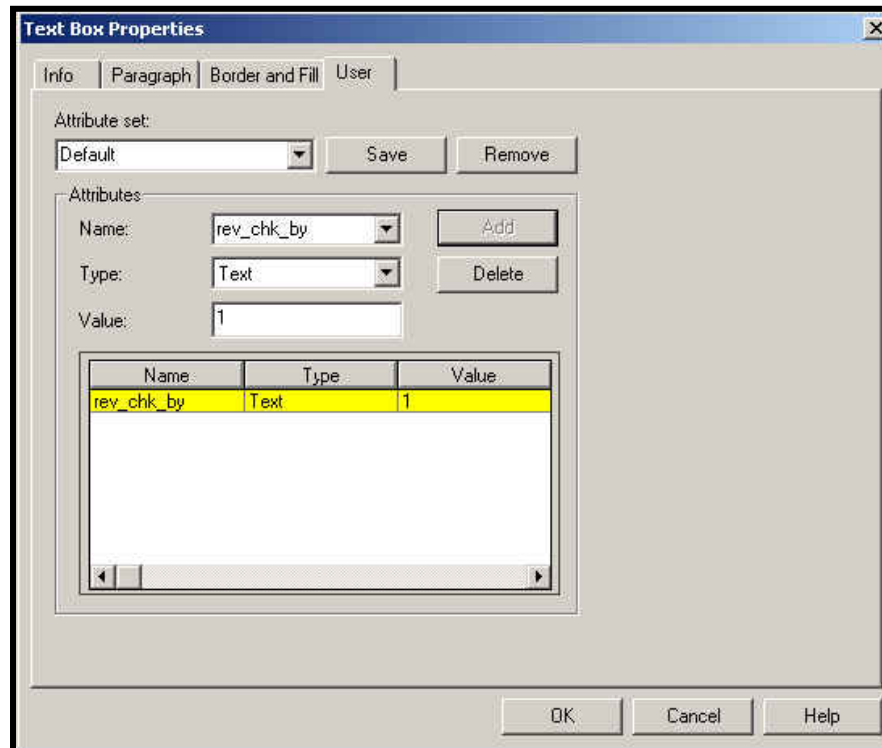
The screenshot shows the 'Text Box Properties' dialog box with the 'User' tab selected. The 'Attribute set' is 'Default'. The 'Attributes' section shows a macro named 'rev_chk_by' with a 'Text' type and a 'Value' of '1'. The 'Add' button is highlighted.

Name	Type	Value
rev_chk_by	Text	1

Modifying ESR Borders – Copy Macro



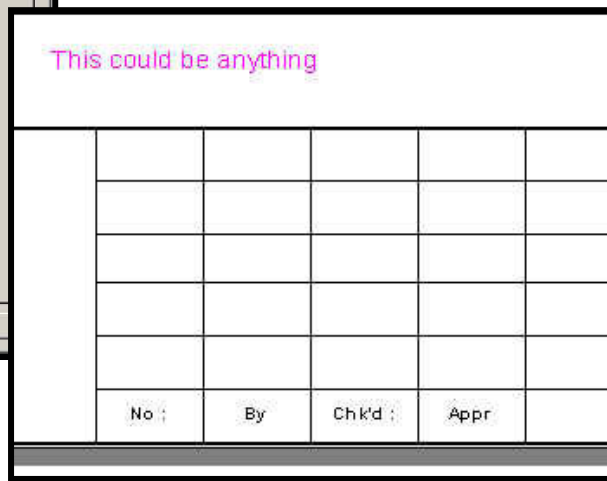
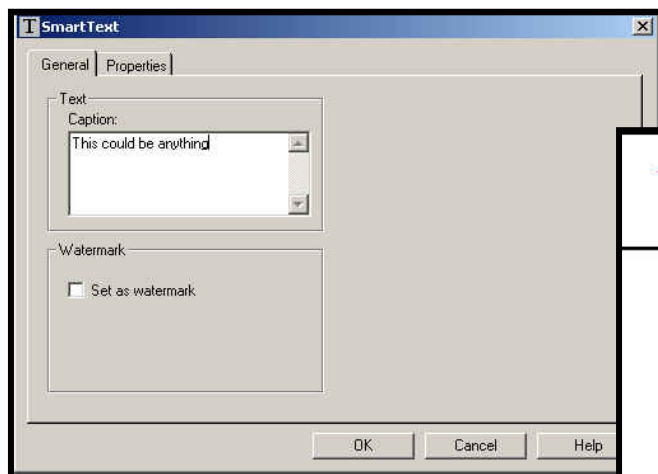
- ◆ Click on the Add button to add the new value to the Attribute list for the selected set.
- ◆ Click OK when done!





Modifying ESR Borders – New Macro

- ◆ Select the Add SmartText button (NOT Add Macro!) and the SmartText window will appear
- ◆ Type some data (any data, it will be deleted later) in the Caption field
- ◆ After data entry, hit OK on the form and click in the border at the desired placement location





Modifying ESR Borders – New Macro

- ◆ Select the newly placed SmartText item and right-click. Choose Properties to open the Text Box Properties form

Text Box Properties

Info | Paragraph | Border and Fill | User

Sheet: A3wide

Layer: Default

Origin: X: 2.93 in Y: 2.14 in

Width: Auto At: 1.40 in

Height: Auto At: 0.16 in

Angle: 0.00 deg

Text orientation: Horizontal

Units space: World

Text flow: Left to Right

Justification: Horizontal: Text Left Vertical: Text Top

Text alignment: Horizontal: Left Vertical: Top

Margins: Top: 0.00 in Bottom: 0.00 in Left: 0.00 in Right: 0.00 in

OK Cancel Help



Modifying ESR Borders – New Macro

- ◆ Switch to the User tab to define the actual Macro text you wish to apply to this field:

Text Box Properties

Info | Paragraph | Border and Fill | User

Attribute set:
Date [Save] [Remove]

Attributes:
Name: Type [Add]
Type: Text [Delete]
Value: Text

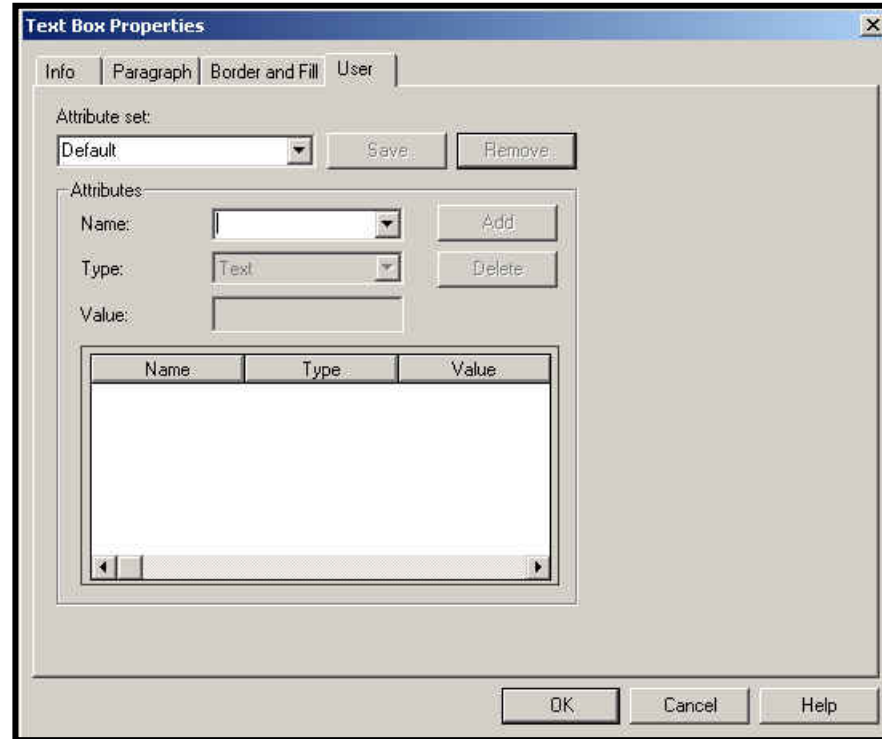
Name	Type	Value
Type	Text	Text
Entity	Text	Text
Macro	Text	743
Filter	Text	545

[OK] [Cancel] [Help]

Modifying ESL Borders – New Macro



- ◆ Click on Remove to get rid of the “Data” attribute set. Type “Default” in its place.





Modifying ESR Borders – New Macro

- ◆ Enter the new macro name in the Name box and keep the Type as Text.
- ◆ If the macro is revision related fill in the Value box with the appropriate number, otherwise it should remain blank

Text Box Properties

Info Paragraph Border and Fill User

Attribute set:
Default Save Remove

Attributes:
Name: loop_udf_c10 Add
Type: Text Delete
Value: <Unpopulated>

Name	Type	Value
loop_udf_c10	Text	<Unpopulated>

OK Cancel Help



Modifying ESR Borders – New Macro

- ◆ Click the Add button to add the new value to the Attribute list for the selected set.
- ◆ New sets can be created if desired.
- ◆ Choose OK when done and Save the new Attribute set.
- ◆ Remove any text you may have placed in the SmartText box as a placeholder

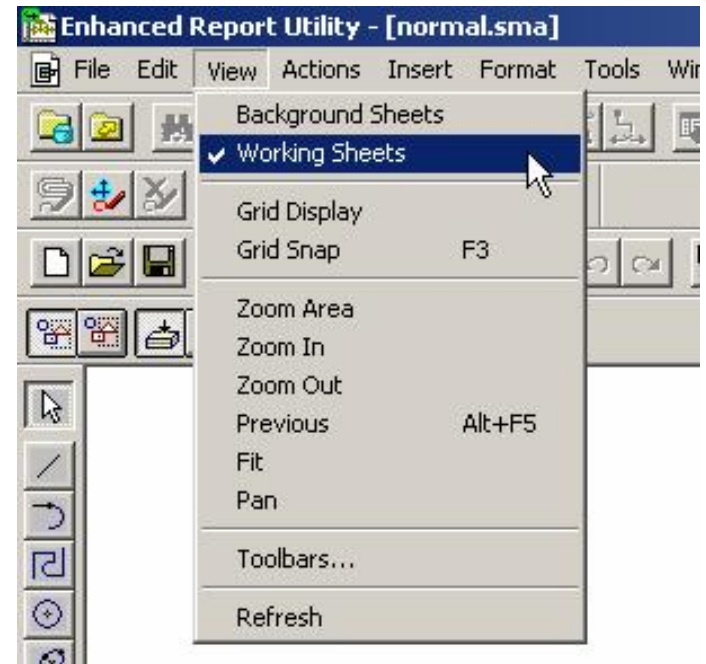
The screenshot shows a software interface with a table at the bottom. The table has four columns labeled 'No :', 'By', 'Chk'd :', and 'Appr'. Above the table, there is a text box containing the placeholder text 'This could be anything'.

The screenshot shows the same software interface as the previous one, but with a macro being added to the attribute list. A pink horizontal line with a square handle on the left and a square handle on the right is positioned above the table. The table below has the same four columns: 'No :', 'By', 'Chk'd :', and 'Appr'.

Customizing ESR Borders

- ◆ When alterations/additions are complete, **SWITCH THE VIEW BACK TO THE WORKING SHEET**

NOTE: Failure to do the will result in generated ESR wiring to not appear completely. Typical indication of this is that the document will only display the first device panel.





Customizing ESR Borders

- ◆ Save the changes you made to normal.sma.
- ◆ Select a Loop and generate a test Enhanced SmartLoop Drawing.
- ◆ Check your results:

Contents, loop with c10						
No :	By	Chk'd :	Appr	Date	Revision	
0	b0	c0	a0	11/26/1998	For constructio	
1	b1	c1	a1	10/30/2001	For Testing	

Customizing ESL Borders



Valid Border macro values are limited, and have been tested to include the following:

- ◆ proj_name
- ◆ proj_desc
- ◆ proj_num
- ◆ eng_proj_name
- ◆ eng_proj_desc
- ◆ plnt_name
- ◆ area_name
- ◆ unit_name
- ◆ unit_note
- ◆ unit_num
- ◆ owner
- ◆ owner_name
- ◆ city
- ◆ Location
- ◆ pid_name
- ◆ loop_name
- ◆ loop_note
- ◆ loop_serv
- ◆ sheetcount
- ◆ date
- ◆ time
- ◆ dwg_name
- ◆ dwg_rev_date 1 to 5
- ◆ dwg_rev_num 1 to 5
- ◆ dwg_rev_desc 1 to 5
- ◆ ref_desc 1 to 5
- ◆ rev_appr_by 1 to 5
- ◆ rev_chk_by 1 to 5
- ◆ rev_drawn_by 1 to 5
- ◆ curr_rev_name 1
- ◆ ven_appr_by
- ◆ ven_appr_date
- ◆ ven_ck_by
- ◆ ven_ck_date
- ◆ ven_drwn_by
- ◆ ven_drwn_date
- ◆ ven_dsgn_by
- ◆ ven_dsgn_date
- ◆ ven_prop_by
- ◆ ven_prop_date
- ◆ ref_name 1 to 5
- ◆ dwg_udf_c01 to c102
- ◆ rev_udf_c01 to c20
- ◆ rev_desc 1 to 5
- ◆ rev_date 1 to 5
- ◆ rev_create_by 1 to 5
- ◆ rev_no 1 to 5

Customizing ESL Templates & Borders



- ◆ Questions & Comments

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