

Screen Definition Facility II for MVS



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Introduction

This presentation will provide an overview of the following features of SDF II:

- Main Menu (Slides 3 to 5)
- Defining a Target System (Slide 6)
- Specify Libraries (Slide 7)
- Panel Editor (Slides 8 to 26)
- List Objects Dialog (Slides 27 to 29)
- Generation of Panels (Slides 30 to 34)
- Import (Slides 25 to 38)

Main Menu - 1

<u>E</u> ×:	it <u>H</u> elp		
		SEL	ECT AN SDF II FUNCTION
Opt	ion ===>		
12345670	PANEL ED PANEL GR PARTITIO AID TABL CONTROL GENERATE LIST OBJ	ITOR OUP EDITOR N SET EDITOR E EDITOR TABLE EDITOR ECTS	Create or edit a panel Create or edit a panel group Create or edit a partition set Create or edit an AID table Create or edit a control table Generate control block source and data structure List objects in the library
8 9 10	UTILITIE PROFILE	S	Print, Import, Convert, Construct, Extract, and Modify Objects Modify editing defaults
11 13 R X	SDF II P PRINT RE REFERENC EXIT	ROTOTYPE FERENCE E	Define and run a prototype Print the online reference Obtain SDF II online reference Terminate SDF II dialog

Use PFSHOW O<mark>N/OFF to show/hide program function key assignment</mark>

Main Menu - 2

Opti	ion ===>	SELECT AN SDF II FUNCTION			
1	PANEL ED	ITOR	Create or edit a panel		
2	PANEL GR	OUP EDITOR	Create or edit a panel group		
3	PARTITIO	N SET EDITOR	Create or edit a partition set		
4	AID TABL	E EDITOR	Create or edit an AID table		
5	CONTROL	TABLE EDITOR	Create or edit a control table		
6	GENERATE		Generate control block source and data structure		
7	LIST OBJ	ECTS	List objects in the library		
8	SPECIFY	LIBRARIES	Access libraries		

Option 1, 2 and 3 are the editors used for the target system CICS/BMS.

Option 4 and 5 are mainly used for target system MFS.

Option 6 is used to create (generate) the BMS source and data structure from the SDF II object.

Option 7 is a list of selected SDF II objects were all commands such as edit or generate can be directly issued against the object (map).

Option 8 is a list of up to 9 SDF II object libraries. Access to the libraries can be controlled via a user exit.

Main Menu - 3

9	UTILITIES	Print, Import, Convert, Construct,
		Extract, and Modify Objects
10	PROFILE	Modify editing defaults
11	SDF II PROTOTYPE	Define and run a prototype
13	PRINT REFERENCE	Print the online reference
R	REFERENCE	Obtain SDF II online reference
Х	EXIT	Terminate SDF II dialog
Hee	PESHOW ON/OFE to show/b	ide program function key assignment

Option 9 contains the utilities such as importing, converting to another target system and printing of SDF II objects.

Option 10 allows customization of SDF II windows and setting of SDF II defaults.

Option 11 allows for prototyping of SDF II panels (also allows for basic application logic by using REXX execs).

Option 13 prints a reference manual (or only certain chapters)

Option R is the online reference.

Defining a Target System

As SDF II supports multiple target systems, the first thing you need to do is to set the target system to let SDF II know which defaults values to apply. This presentation will be based on the target system CICS/BMS.

Enter 10.1 on the command line of the SELECT AN SDF II FUNCTION panel (Main Menu) to display the SPECIFY SYSTEM ENVIRONMENT panel.

Type a 1 in the Target System field to indicate to SDF II that the definition of objects is for CICS/BMS then press PF4 (RETURN) to return to the main menu.

SPEC	IFY SYSTEM ENVIRONMENT
Command ===>	
Specify target system Target system	1 A.AH
	1. CICS/BMS 2. MFS 3. ISPF 4. GDDM 5. CSP



Specify Libraries

On the specify Libraries panel you associate up to 9 libraries for SDF II objects with the given identifiers. You can also specify a short description of each library and a password if the library is password protected. Each library can be a set of partitioned datasets, an SCLM controlled library or an externally controlled library. If you use a set of partitioned data sets, you do not specify the last qualifier (DGIPNL, DGIGRP, DGIPST, DGITBL or DGIOCT). SDF II will append the appropriate suffix depending on the object type. The following example uses library-ID 1 to store the panel. This means, that SDF II will store the ENI panel in a PDS called 'userid.SD4.DGIPNL'.

SPECIFY LIBRARIES				
Command ===>				
ID Library name 1 <u>SD4</u> 2 <u>SD4.PROT</u> 3 4 5 6 7 7 8 9	Description <u>test objects</u> prototype library	Password		
Optionally, specify AUTOSAVE library Library name		Password		
Search for related objects <u>1</u> 1. Search 2. Start v 3. Same l:	all libraries with library of primary ibrary as primary objec	object t		



Panel Editor - Identify Panel Dialog

When you start the panel editor, you need to specify the name of the panel you are defining or updating and the library into which the new panel is to be stored or from which the existing panel is to be retrieved. For a new panel you must either specify the device type if you want to create it from scratch or an existing skeleton panel with its associated library. In the following example a new panel named ENI which is to reside in library number 1 is created from scratch for the device type 3279-3B.



Panel Editor - Select a Panel Editor Dialog

The *Select a Panel Editor Dialog* is displayed and the message **New object created** appears on the top line. FIELD EDITING is marked with an (*) because this selection is not available for CICS/BMS. Enter 1 to display the *Define panel characteristics* panel.

Opt	SELE	ECT A PANEL EDITOR DIALOG	E New object created
1	CHARACTERISTICS	Define panel characteristics	
2	FORMAT	Define the format of the pane	el
3	FIELDS	Define the fields for the for	rmat
4	ATTRIBUTES	Define the attributes for the	e format
5	STRUCTURE	Define the data structure of	the panel
6	SYSTEM	Define target system depender	nt information
7	TEST	Show panel in execution time	format
8	INSTANCES	Define the panel instances	
*	FIELD EDITING	Define field editing and veri	ification rules



Panel Editor - Define Panel Characteristics 1

If you do not use the Define Panel Characteristics dialog, the default characteristics as displayed below, are used:

DEFINE PANEL CHARACTERISTICS	ENI	3279-	ЗВ
	More	2:	+
Description			
Target system CICS/BMS Generation name			
Format size			
Depth			
Data structure characteristics			
Data structure name ENI			
Storage class 1 1. AUTOMATIC			
2. BASED on			
Field name prefix			
Field name case 1 1. Upper			
2. Lower			
3. Mixed case			
Data structure level numbers			
Start number 01 Increment number 01			
Dunamic field attribute modification			
Enter '/' to select attributes			
Color			
Programmed sumbol set			
Highlight			
Validation			

The following slide shows some common modifications to the panel characteristics.

Panel Editor - Define Panel Characteristics 2

•Enter a Description of the panel to help you identify the object on an SDF II object list.

•The **Field name prefix** is used as the first part of all field names in the data structure.

•In the **Dynamic field attribute modification** fields you define the attributes that can be dynamically modified by the application program (here **Color** and **Highlight**).

e.g. because colour was selected, the programmer can design the program to change the colour of any field in which the user enters incorrect data.

DEFINE PANEL CHARACTERISTICS	
Description <u>eni panel</u> Target system CICS/BMS Generation name	
Format size Depth <u>32</u> Width	<u>80</u>
Data structure characteristics Data structure name <u>ENI</u> Storage class <u>1</u> 1. AUTOMATIC 2. BASED on	
Field name prefix <u>ENI</u> Field name case <u>1</u> 1. Upper 2. Lower 3. Mixed case	
Data structure level numbers Start number <u>01</u> Increment number	<u>01</u>
Dynamic field attribute modification Enter '/' to select attributes <u>/</u> Color _ Programmed symbol set <u>/</u> Highlight _ Validation	

Panel Editor – Format 1

Enter **2** on the command line to display the *Define Format* panel. The text and field layout of the panel is defined in the Format dialog of the panel editor. A format can consist of any of the following elements:

- Background text Text that you want to appear all the time and is not part of any field. It takes the default set of attributes.
- **Constant fields** Fields that contain constant text and that have attributes different from background text.
- Variable fields Input and output fields in which data can be changed by the program or the user.
- **Include panel** An SDF II object, such as standard header or trailer.
- **Repeat formats** A block of format that is repeated down the panel.



Panel Editor – Format 2: Define Marks

Enter **MARKS** on the command line of the Format Window to display the define *Marks panel*. Marks are used to define the type (variable, constant etc.) and BMS attributes of a panel field. All defined marks characters are displayed in the header line of the format window. The default set of marks on the right is provided for new panels.

To allow the use of the period character (.) which is currently used as a constant mark in the ENI panel, you have to change it to a different character by typing the new character over the period(.). Here it is changed to a plus (+) character. So from now on the + is used to mark constants.

			DEFINE MARKS	5	ENI 3279-3
ommand	===> _				Scroll ===> <u>PA</u>
larks .				COLUMNS 1-6	OF 6, ROW 1 OF
Mar	Type	CUA	Attributes	Resulting at	tributes Commen
	BACKGRND		PR NOR	PR NOR	
	VARIABLE		UNP NOR	UNP NOR	
- 0	VARIABLE		MI UNP NOR	MI UNP NOR	
	CONSTANT		PR BR	PR BR	
· · ·	SPACER				
· · /	SPACER				
· · / · · /	SPACER SEPARATR				
''/ '', ''***	SPACER SEPARATR END OF DAT	А жжж	*****	*****	*****
· / · · , · · ,	SPACER SEPARATR END OF DAT	A ***	*****	*****	****
	SPACER SEPARATR END OF DAT	A ***	*****	**************************************	**************************************
'' / '' **** Marks . Mar	SPACER SEPARATR END OF DAT	A ****	**************************************	**************************************	*************** OF 6, ROW 1 OF tributes Commen
'' / '' **** Marks . Mar	SPACER SEPARATR END OF DAT	A ***;	**************************************	******************** COLUMNS 1-6 Resulting at PR NOR	************** OF 6, ROW 1 OF tributes Commen
'' / '' **** Marks . Mar	SPACER SEPARATR END OF DAT Type BACKGRND VARIABLE	A ****) 	**************************************	******************** COLUMNS 1-6 Resulting at PR NOR UNP NOR	*************** OF 6, ROW 1 OF tributes Commen
'' / '' **** Marks . Mar	SPACER SEPARATR END OF DAT Type BACKGRND VARIABLE VARIABLE	A ***;	**************************************	******************** COLUMNS 1-6 Resulting at PR NOR UNP NOR MI UNP NOR	************** OF 6, ROW 1 OF tributes Commen
, , , Marks . Mar , Mar ,	SPACER SEPARATR END OF DAT Type BACKGRND VARIABLE VARIABLE CONSTANT	A ****) 	**************************************	******************** COLUMNS 1-6 Resulting at PR NOR UNP NOR MI UNP NOR PR BR	************** OF 6, ROW 1 OF tributes Commen
, , , Marks . Mar , , , ,	SPACER SEPARATR END OF DAT Type BACKGRND VARIABLE VARIABLE CONSTANT SPACER	A ****	**************************************	********************** COLUMNS 1-6 Resulting at PR NOR UNP NOR MI UNP NOR PR BR	**************************************

Panel Editor – Format 3

To define the ENI panel do the following:

First type the line command **col** over the 001 and 017 line numbers to display a horizontal scale and press Enter.

Now type in the text on the right hand side to define the ENI panel.

Use the SEPARATR (,) mark to separate tokens. e.g. to define a 8 character constant field type +,8 (or +++++++ where (+) is the CONSTANT mark) and to define a variable named **item** with the length of 8, type _,8,item (where (_) is the VARIABLE mark).

Use the SPACER (/) mark to justify text. Use it on the left hand side of text to be right-justified and on both sides to be centered.

Comma	DEFINE FORMAT	ENI 3279-3B Scroll ===> CSR
Forma	1 <mark>at</mark>	OSITIONS 1-75 OF 80, LINE 1 OF 32
MARKS	(S: V _@ CO + SE , SP /	CONTENTS: FORMAT
''' (<: <u>1</u> :2:3:4	;5;6;7;
001		
002 /	/ * * * * * * * * * * * * * * * * * * *	*****
003 /	/** UNIVERSAL MAIL ORDE	R H O U S E ** /
004 /	/ * * * * * * * * * * * * * * * * * * *	*****
005		
006		
007 /	/This program is designed for entering new	1
008 /	/items into the database./	
009 /	/Complete each field and then press Enter.	/
010		
011		
012	Category: _,20,categ	Price
013		
014	Item number: _,8,item	US.\$: _,8,us
015		F.Fr: <u></u> ,8,ffr_
016	Price valid until: _,8,date	
''' (<:::	:5:6:7:
017		

Panel Editor – Format 4

After pressing Enter, the Format of the ENI panel looks like this:

	DEFINE FORMAT	ENI 3279-3B
Comm	nand ===>	Scroll ===> <u>CSR</u>
<mark>Form</mark> MARK	nat	F 80, LINE 1 OF 32 CONTENTS: FORMAT
001		в. г.
002	******	*****
003	** UNIVERSAL MAIL ORDER	H O U S E **
004	***********	****
005		
006		
007	This program is designed for entering	new
008	items into the database.	
009	Complete each field and then press En	ter.
010		
011		
012	Category: Price	
013		
014	Item number: US.\$:	
015	Price valid until:	
	<:	6:7
017		



Panel Editor – Format: Initial and Sample

The initial or sample values for the variable fields can be defined by entering either the **Initial** or **SAMple** command in the command line of the Format window.

Initial Values, these are the values used in the DFHMDF BMS macros for the INITIAL operand.

Sample Values, these are the values used by the TEST command, the printing facility or Prototyping. The sample window together with some sample values is displayed below.

	DEFINE FORMAT	ENI 3279-3B
Command $===>$	_	Scroll ===> <u>CSR</u>
	DOST	
MARKS: V 0	CO + SE . SP /	CONTENTS: SAMPLE
001		
002	*****	*****
003	** UNIVERSAL MAIL OF	DER HOUSE **
004	******	*******
005		
006		
007	This program is designed fo	or entering new
008	items into the dat	abase
009	Complete each field and the	en press Enter.
010		
011		
012	Category: <u>dress</u>	Price
013	71	
	ltem number: <u>12345678</u>	US.\$: <u>34.56</u>
015	Drine welid wrtil: 01010005	F.Fr: <u>120.00</u>
017	Price Valid Until: <u>31012005</u>	
018		

Panel Editor - Define Fields 1

The Define Fields dialog consists of two independently scrollable windows:

Define Fields

It can be used to change the name, position or size of format elements (variables) or insert and delete format elements.

Format

The same window as option 2 of the panel editor. All changes made in the Define Fields window, are also reflected here.

Changes to the map can either be made in the Format dialog or the Define Fields dialog, whichever is preferred.

Panel Editor - Define Fields 2

DEFINE FIELDS	ENI 3279	9-3B
Command ===>	Scroll ===> (<u>SR</u>
Fields	COLUMNS 1-10 OF 10, ROW 1	0F 5
Name Ref Mar Line Column Depth Width Occ	curs Array dir Tupe	0. 0
''' CATEG 12 27 20		
<u>ITEM 14 27 8</u>		
<u> </u>		
<u>''' FFR 15 8</u>		
<u>''' DATE16338</u>		
''' ******** END OF DATA **********************************	**********************************	кжжжж
E-mat DOS		
MADKS V A CO + SE SD /	CONTENTS: NAME	אר טע א⊏
001	CONTENTS: NHI	

002 *** IINTVERSAL MATI		
004 ******************	****	
005		
006		
007 This program is designed	d for entering new	
008 items into the	database	
009 Complete each field and	then press Enter.	
010		
011		
012 Category: <u>CATEG</u>	Price	



Panel Editor - Define Attributes 1

The Define Attributes dialog can be used to change field attributes and define attribute descriptors. The attributes can also be changed in the Format dialog by entering the command **FI**eldattr **ON**. When importing BMS source, SDF II will allocate field attributes based on field attributes in the BMS source. No attribute descriptors are defined for new panels, the attributes are the same as the mark attributes:

Command ===>	DEFINE ATTRI	BUTES	ENI 3279-3B _ Scroll ===> <u>PAGE</u>
Attribute descrip Des CUA At ''' *** TOP OF Do ''' *** END OF Do	ptors tributes Resul ATA ***********************************	COLUMNS 1- ting attributes Comme ***********************************	5 OF 5, ROW 0 OF 0 nt ********************************
Format MARKS: V _@ CO + 013		POSITIONS 1-75 OF	80, LINE 13 OF 32 CONTENTS: INITIAL
014	Item number:	U	JS.\$:
015		F	.Fr:
016	Price valid until:		
017			



Panel Editor - Define Attributes 2

If you would like to change the attributes of field date from the default UNP NOR (set by the variable mark _) to **PR**otected **BR**ight **RED** you can define an attribute descriptor (here **a**) and assign it to the field **DATE** in the attribute line.

	DEFINE ATTRIBUTES	ENI 3279-3B
Command	===>	Scroll ===> <u>PAGE</u>
Attribu Des ''' a	te descriptors	COLUMNS 1-5 OF 5, ROW 1 OF 1 butes Comment
***	END OF DATA **********************************	*****
<mark>Format</mark> MARKS: 013		ONS 1-75 OF 80, LINE 13 OF 32 CONTENTS: INITIAL
014	Item number:	US.\$:
015		F.Fr:
016	Price valid until:	
017	a	

Panel Editor – Define Structure

This dialog can be used to define and edit the data structure that will be used by the application program. The structure is independent of the programming language used in the application program. SDF II uses this structure when it generates the data structure for a particular language. Variable fields can be divided into subfields and fields can be combined into minor structures. The display can be customized by entering the command VIEW in the command line.

	DEFINE STRUCTURE	ENI 3279-3B
Command ===>		_ Scroll ===> <u>CSR_</u>
Structure		-6 OF 6, ROW 1 OF 5
Le Name	Leng Occ Type Comment	
''' <u>02</u> CATEG	<u>20FIELD</u>	
''' <u>02</u> ITEM	<u>8 FIELD</u>	
''' <u>02</u> US	<u>8 FIELD</u>	
''' <u>02</u> FFR	<u>8</u>	
''' <u>02</u> DATE	<u>8FIELD</u>	
**********	END OF DATA **********************************	******

Panel Editor – Define Structure: Defining Subfields 1

Now you define subfields for the day, month and year that make up the date field of the ENI panel to enable the application using the ENI panel to transmit data to or receive data from each subfield separately. First enter the i3 line command to insert three blank lines.

		DEFINE STRUCTURE	ENI 3279-3B				
Comn	nand ===>	{	Scroll ===> <u>CSR</u>				
Stru	ucture		OF 6, ROW 1 OF 5				
	Le Name	Leng Occ Type Comment					
• • •	<u>02</u> CATEG	20 FIELD					
• • •	<u>02</u> ITEM	<u>8FIELD</u>					
	<u>02</u> US	<u>8FIELD</u>					
	<u>02</u> FFR	<u>8FIELD</u>					
i3'	<u>02</u> DATE	8 FIELD					
· · ·	*****	END OF DATA **********************************	*****				

Now enter the dd, mm and yyyy fieldnames together with a level number higher than 02 (here 05) and the length of the fields and change the type of date to group to create the subfields of the date field.

	<u>02</u> FFR	8		FIELD		
	<u>02</u> DATE	8		<u>group</u>		
	<u>05</u> <u>DD</u>	2				
	<u>05 MM</u>	2				
	<u>05 YYY</u>	4				
• • •	*****	END	OF DA	ТА жжжжж	******	*****



Panel Editor – Define Structure: Defining Subfields 2

After pressing the Enter key, SDF II names the level 05 field type as SUBFIELD, because it recognizes that they are at a deeper level than the 02 level of the DATE field.

	DEFINE STRUCTURE	E	NI 3279-3B
Command ===>		Scroll	===> <u>CSR</u>
Structure		6 OF 6,	ROW 1 OF 8
Le Name	Leng Occ Type Comment		
''' <u>02</u> CATEG	<u>20FIELD</u>		
''' <u>02</u> ITEM	<u>8FIELD</u>		
''' <u>02</u> US	<u>8FIELD</u>		
''' <u>02</u> FFR	<u>8FIELD</u>		
''' <u>02</u> DATE	<u>8GROUP</u>		
''' <u>05</u> DD	<u>2</u> <u>SUBFIELD</u>		
''' <u>05</u> MM	<u>2</u> <u>SUBFIELD</u>		
''' <u>05</u>	<u>4</u> <u>SUBFIELD</u>		
***	«ж» END OF DATA жжжжжжжжжжжжжжжжжжжжжжжжжжжж	******	*****

Panel Editor – Define Structure: Defining a Minor Structure 1

Now you combine the US and FFR fields into a minor structure to enable the application program to move data to and from the US and FFR fields in one operation. To do this, first enter the line command **i** in front of ITEM to insert a line in which to define the minor structure.

Stru	ictu	ıre .								COLUMN	6 1-6	0F	6,	ROW	1	0F	8
	Le	Name		Leng	0cc	Type		Comm	ent	 							
	<u>02</u>	CATEG	i	20		FIELD)										
i''	<u>02</u>	ITEM		8		FIELD)										
1 1	<u>02</u>	US		8		FIELD)										
	<u>02</u>	FFR		8		FIELD)										

Then enter the minor structure name **price** together with the level number **02** in the inserted line and change the level numbers of the fields US and FFR to **05**.

Stru	icti	ure					COLUMNS	1-6	0F	6,	ROW	1	0F	9
	Le	Name	Leng	0cc	Type	Comment	 							
	<u>02</u>	CATEG	20		FIELD									
	<u>02</u>	ITEM	8		<u>FIELD</u>									
	<u>02</u>	<u>price</u>												
	<u>05</u>	ÜS	8		<u>FIELD</u>									
	<u>05</u>	FFR	8		FIELD									
	<u>02</u>	DATE	8		<u>GROUP</u>									



Panel Editor – Define Structure: Defining a Minor Structure 2

The minor structure has the name PRICE and the same level number (02) as the other fields. The US and FFR fields are redefined at a deeper level than the PRICE minor structure. When you press the Enter key, SDF II displays the type of the field (TYPE) for the PRICE field as a minor structure (MINOR). The *Define Structure* dialog panel now looks like this:

	DEFINE STR	UCTURE	ENI 3279-3B
Command ===>			Scroll ===> <u>CSR</u>
Structure		COLUMNS	1-6 OF 6, ROW 1 OF 9
Le Name	Leng Occ Type	Comment	
''' <u>02</u> CATEG	<u>20 FIELD</u>		
''' <u>02</u> ITEM	<u>8 FIELD</u>		
''' <u>02</u> PRICE	<u>MINOR</u>		
''' <u>05</u> US	<u>8</u>		
''' <u>05</u> FFR	8 FIELD		
''' <u>02</u> DATE	8 GROUP		
''' <u>05</u> DD	2 <u>SUBFIELD</u>		
''' <u>05</u> MM	2 <u>SUBFIELD</u>		
''' <u>05</u> YYY	4 <u>SUBFIELD</u>		
***	END OF DATA *****	*****	*****



Panel Editor - Test

The TEST Option (which can also be entered as line command in any of the editor dialogs) is used to display the panel in the form it will be when the application uses it. It will also display any defined sample values.

**************************************	**************************************
This program is designed fo items into the dat Complete each field and the	or entering new tabase en press Enter.
Category: dress	Price
Item number: 12345678	US.\$: 34.56 E.Er: 120.00
Price valid until: 31012005	1.111.120.00



List Objects - 1

With the List Objects dialog (Option 7 from the Main Menu), you can display a list of SDF II objects and perform operations in them, such as editing, renaming and printing. When the dialog is selected, the Define Object List panel is displayed first to define which objects are to appear in the list and in which order the list is sorted. Here only objects starting with an E from library 1 will be displayed.

```
DEFINE OBJECT LIST
Command ===>
Identify the objects
 Object types
                                    Target systems
 Enter '/' to select object type
                                    Enter '/' to select target system
 / PANEL GROUP
                                    / CICS/BMS
 / PANEL
                                      GDDM
 AID TABLE
                                      MFS
 _ CONTROL TABLE
                                      CSP
 / PARTITION SET
                                      ISPF
                                      ALL
Sort sequence
 Enter one or more sort criteria
 LN N - Name
         L - Library
         <u>T</u> - Type
         D - Description
         G - Generation name
         M - Last modified
```

List Objects - 2

As we currently have only one object called ENI in library 1, the list consists of only 1 object:

command>	Scroll	===> <u>PAGE</u>
<mark>Objects</mark>	COLUMNS 1-7 OF 7, Syst DescriptionCOLUMNS 1-7 OF 7, CICS eni panel	ROW 1 OF 1 Last modifi 2004/11/20
Search argument: Name=E* Type	<pre><=== Work here on another ==GPS Library=1 System=B</pre>	object

The list objects panel has the following columns. It can be customized with the command View.

Name	object name
Li	library identifier (set with option 8 on the main menu)
Ту	object type (such as P for panel, G for group)
Operands	operands for the line commands
Syst	target system of the objects (such as CICS, MFS)
Description	description of the object
Last modified	date and time when the object was last modified



List Objects - Line Commands

The following line commands can be issued in front of an object in the *List Object* list.

set top line	/
test an object	Т
repeat previous command	=
generate an object	G
print an object	Р
rename an object	R
delete an object	D
convert an object	CV
copy an object	С
edit an object	E

When E is issued against an object, SDF II will automatically invoke the correct Editor.



Generation of Data Structure and BMS Macros - 1

Within SDF II all objects (maps, map sets, partition sets etc) are stored in an internal representation. To use them in the target system they have to be generated first, either by selecting option 6 from the main menu or by entering the line command g(enerate) in front of the object in the List Objects dialog.





Generation of Data Structure and BMS Macros - 2

The Specify Generation Parameters entry panel lets you specify:

1. which generation function to run (data structure, BMS macros or both)

SPECIFY GENERATION PARAMETERS		ENI
Lommand/	More:	+
Object name : ENI Object type : PANEL Target system : CICS/BMS		
Enter '/' to select the generation function. / Generate data structure / Generate CICS/BMS macros		



Generation of Data Structure and BMS Macros - 3: Data Structure

- 2. Which programming language to generate the data structure for.
- 3. Options for the generation of the data structure, e.g. to generate the field names as defined in the panel editor and not to substitute them with DFHnnnn names.
- 4. The output dataset for the data structure.
- 5. A user exit which is invoked after successful generation of the data structure (DGICXBRW is a sample exit to browse the generated structure).

```
More:
Specify the options and output libraries.
Then press ENTER to generate, or press END to exit.
Options for data structure
  Language . . . . . . . <u>COBOL</u> ASM, C, COBOL, PLI, RPG
 Enter '/' to select option
   Alignment
                           Ignored for C language
   Graphic
                           DBCS panels only
   Trigraph
                           C language only
 / SDF/CICS Compatible
                           COBOL language only
   Length statement
                           COBOL language only
                           Field names generated as defined
  / Field names
Output library for data structure
 Dataset name or . . . . <u>SD4.DGIDATA</u>
 DDname . . . . . . . . .
 User exit . . . . . . . DGICXBRW
```



Generation of Data Structure and BMS Macros - 4: BMS macros

- 6. Which device type to generate the BMS macros for (the map has to be defined for this device type with option 8 (Instances) of the panel editor).
- 7. The output dataset for the BMS macros.
- 8. A user exit which is invoked after successful generation of the BMS macros (DGISUB is a sample exit to submit a batch job to assemble and linkedit the generated macro control block to create the physical CICS map).

Options for BMS macros Device type <u>*</u> *	for all devices
Output library for BMS macros Dataset name or SD4.DGIBMS	
DDname	



Generation of Data Structure and BMS Macros - 5

After the generation a popup panel with the generation messages is displayed. In this instance, the messages indicate, that the data structure generation was successful and that the data structure is stored in:

Output library: SD4.DGIDATA member: ENI

The CICS/BMS map set was created for device type 3279-3B and stored in

Output library: SD4.DGIBMS member: ENI3

The suffix 3 is added to the member name, because it is the BMS terminal code for device 3279-3B.

		LIST GENERATION MESSAGES	ENI		
Com	mand $===>$	Scroll =	==> <u>PAGE</u>		
	0 Errors d	detected			
Er	nter '/' to	select action			
	_ Print messages Will be performed on Exit				
Mocr	22405	COLUMNS 1-2 OF 2 P	0U 1 0E 8		
nes	Mages	Message			
	nessagen	Object name: ENI tune: PANEL libraru: 1			
		Data Structure			
		Output libraru: SD4 DGIDATA member: ENI			
	DGICM038	Generation of data structure(s) completed			
	00101000	CICS/RMS map get for device tupe 3279-38			
	DGICM021	PANEL ENI retrieved from library 1			
	00101021	Output library: SD4 DGIRMS member: ENIS			
	DGTCM034	Generation of BMS macros completed			
	END OF DATE	A ************************************	*****		

SDF II Import Utility - 1

You can enter this utility from the Select a Utility panel (Option 9 from the Main Menu). The following input sources can be imported:

- Maps, map sets and partition sets defined with CICS/BMS macros.
- Formats, messages and partition definition blocks defined with MFS control statements.
- Panels defined with ISPF panel syntax.
- Maps, map groups and AID tables defined and exported with GDDM/IMD.
- Maps and map groups defined and exported with CSP/AD and ALFUTIL.
- Maps, map sets and partition sets defined with SDF/CICS and unloaded to a SDF/CICS dump data set.
- Maps and map groups represented in standard or extended external source format.

In the following import example, the BMS/MACRO source of the ENI panel generated by SDF II will be imported back into SDF II.



SDF II Import Utility - 2

When you select the import utility you will see the *Specify Import Utility Parameters w*indow. Here you must specify the input that is to be imported and the library where the imported object is to be stored. The member name on the input source can be a specific member or the wildcard character * (to import all/several members of a dataset). The target library has to be one of the 9 libraries specified in the Specify Libraries dialog (option 8 of the Main Menu).

SPECIFY IMP(DRT UTILITY PARAMETERS
Source	
Type <u>1</u>	 CICS/BMS macros IMS/MFS utility statements ISPF panel GDDM-IMD export data set CSP/AD export data set SDF/CICS dump data set External source format
Dataset name <u>SD4</u>	4.DGIBMS(ENI3)
Copy source library Dataset name Skeleton panel Name Library	(IMS/MFS only)
Target Library <u>1</u> For existing objects specify Option <u>1</u>	1. Use an alternate name automatically 2. Specify option by object individually

SDF II Import Utility - Messages

After the Import is finished, the Import Messages panel is displayed. In this instance, the import completed successfully and SDF II stored the imported object in the specified target library (1).

Because we have selected option *1*. *Use an alternate name automatically* if an object already exists in the target library, SDF II renamed the imported ENI panel into ENI00.

SDF II always creates the MAP and MAP SET for each imported BMS macro.

		LIST IMPORT MESSAGES	
Comma	and ===> .	Scroll ===:	> <u>PAGE</u>
		a datactad	
E		s detected	
En	ter / t	to select action	
	Print mes	ssages Will be performed on Exit	
Messa	ages	COLUMNS 1-2 OF 2, ROW	1 OF 3
	Message#	Message	
	DGIUM244	PANEL ENI has been renamed to ENI00	
'''	DGIUM251	Migration of MAP ENI00 completed	
	DGIUM251	Migration of MAP SET ENI completed	
'''	END OF DA	нто жжжжжжжжжжжжжжжжжжжжжжжжжжжжжжжжжжжж	*****



List Object after Import

If you select the List Object dialog again with the same selection criteria as before, after the import of the ENI CICS/BMS macros, the list will look as follows:

				LIST	OBJECTS				
Com	nand ===>						Scroll	_ === >	PAGE
0bj	ects					. COLUMNS	1-7 OF 7,	ROW	1 OF 3
	Name	Li	Ty Operands	Syst	Description ·			Last	modifi
	ENI	1	G	CICS	BMS: ENI			2004/	/11/21
	ENI	1	Р	CICS	eni panel			2004/	/11/20
	ENI00	1	Р	CICS	BMS: ENI	ENI00		2004/	/11/21

• The first entry in the list is the ENI panel group which was created by the import facility.

• The second entry is the original ENI panel.

• The third entry is the imported ENI panel for which SDF II chose an alternate name. The last two characters of the original name are replaced (or added on if the name is not longer than 6 characters) by a unique suffix in the range of 00 to ZZ. If you'd import the ENI panel again, the name would be ENI01 and the name of the panel group (mapset) ENI00.