Screen Definition Facility II for VSE

Introducing SDF II for VSE

Release 6

GH12-6314-00

What is SDF II and why use it?

SDF II is an interactive application development tool that helps you to efficiently develop, maintain, and import screen objects, such as panels or panel groups.

Figure 1 shows the tasks you can perform and the systems under which objects defined with SDF II can be used (target systems).

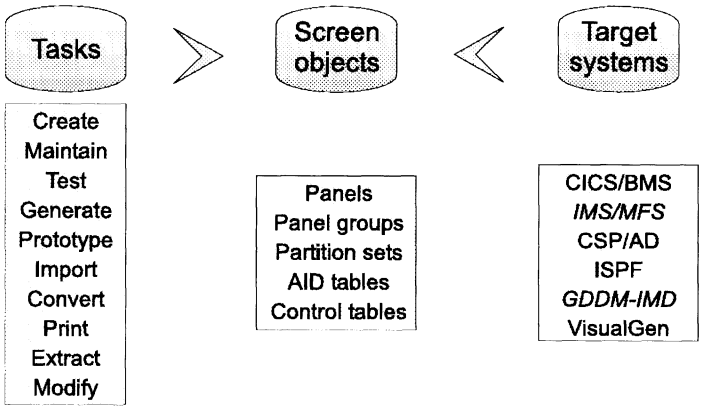

Figure 1. SDF II tasks, screen objects, and target systems. The tasks that can be performed, and the objects that are produced, depend on the target system. Only CICS/BMS, CSP/AD, ISPF, VisualGen, and SDF/CICS objects can be imported into SDF II VSE Release 6. Only CICS/BMS, CSP/AD, ISPF, and VisualGen objects can be generated in SDF II VSE Release 6.

Tasks you can perform using SDF II

Create and maintain panels and other screen objects. You type the panel text and define fields where you want them to appear on the screen. You then specify each field's attributes, such as color, highlighting, and protection.

You can also create panels by constructing them from predefined elements. Other screen objects can be defined in a similar manner.

You can define and maintain objects in either or both EBCDIC and DBCS character sets.

Test the layout and appearance of an object on the screen. You can test a panel while you are creating it. The SDF II test function displays the panel as it would appear in your application.

Generate the object for your target system. Panels are stored in a common SDF II source format that makes them independent of target systems. From this source, you generate a panel for use in specific target systems.

Build a prototype to validate the sequence and layouts of the objects. You can show the panel flow of an application controlled by test data at an early stage of development.

Import an object into SDF II from a target system. You can import CICS/BMS, CSP/AD, and ISPF screen definitions, and SDF/CICS dump data sets into SDF II. SDF II can import a large number of panels easily and quickly.

Convert an object. You can convert an object imported from one target system for use in another target system.

Print objects. You can print screen objects for documentation and review.

Extract and modify panel data. You can extract panel data, such as background text or field information, and make it available to a user exit. The extracted data can be used for measurements or for automated translation, for example.

Target systems and programming languages supported

SDF II supports the following environments:

- Customer Information Control System/Basic Mapping Support (CICS/BMS)
- Information Management System/Message Format Service (IMS/MFS)
- Interactive System Productivity Facility (ISPF)
- Graphical Data Display Manager–Interactive Map Definition (GDDM–IMD)
- Cross System Product/Application Development (CSP/AD)
- VisualGen Developer

SDF II VSE Release 6 supports IMS/MFS and GDDM–IMD only for object definition. To generate IMS/MFS or GDDM–IMD objects, import them into SDF II MVS Release 4 or later, and generate them there.

SDF II can generate data structures for the following programming languages: Assembler, C, COBOL, PL/I, and RPG.

Benefits of SDF II

Improved usability through user participation. Using the test and prototyping functions of SDF II, you can verify your interface design with your users before any application code is developed.

Using the test function, you can review, at any time, the layout of a panel that you are developing. The panel is shown as it would appear to your application users.

Using the SDF II prototyping function to link the panels and call routines, you can simulate the user interface of an entire application and get immediate user feedback. You can then make and review the required updates. This can help reduce your maintenance costs and cycle time, and can help to improve the quality of your application.

Efficient re-engineering and migration. If you are porting your existing applications from one environment to another, SDF II can help you port their user interfaces.

If you are satisfied with an existing user interface and want to keep it for another environment, you can use SDF II to import the interface with little or no intervention. If you want to make changes to the interface while porting it, you can use the SDF II editors.

The source system and the target system of your re-engineering project can be any combination of the supported environments.

Interfacing with development tools. Some application development tools, such as VisualGen and CSP/AD, use external source format. You can import this format into SDF II, where you can add environment-specific properties. In this way, SDF II can help you exploit all the capabilities of your target system.

Users of SDF II

Application programmers use SDF II editors to define screen objects. In addition, they can:

- Establish screen objects that can be used as skeletons to build on
- Import existing objects into SDF II and modify them for further use in other applications
- Convert objects used in one target system for use in another target system

New or inexperienced users can make use of the default values provided by SDF II. Online help information is available to assist in any dialog.

SDF II administrators can use the following SDF II dialogs:

- The Define Devices dialog for defining devices and their features
- SDF II customization dialogs, including dialogs for defining and modifying the emphasis classes and for specifying CUA element attributes

What is new in SDF II VSE Release 6?

Many functional and user interface improvements have been incorporated into SDF II.

SDF II provides the following advantages over SDF/CICS

- Year 2000 Ready
- Exploitation of ESA environments
- Independence from CICS interfaces
- Compatibility with SDF II VM and SDF II MVS
- An enhanced prototyping facility
- Cross-system support (conversion utility)
- Data extraction and modification utilities
- A panel construction utility
- An internal dialog manager
- An improved user interface based on CUA
- An enhanced print utility
- Support for emphasis classes
- Support for include panels
- Support for repeat panels
- Improved editing
- Enhanced documentation

CUA-based user interface for IBM System/390 environments

The fundamental objectives of Common User Access (CUA) guidelines to user interfaces provide better usability and consistency within and across applications. If you have used other CUA products, you should find the SDF II panels familiar.

Action bars
: All data entry panels provide an action bar with pull-down menu choices to display the available functions. You can easily select a function for processing.

Field-level help
: When the cursor is positioned on an entry field within a data entry panel, you can press the Help key for information about this field. This help information is displayed in a pop-up window.

Keylists
: For each panel, an appropriate set of PF keys (keylist) is defined. The currently active PF keys, which are associated with currently available commands, are displayed dynamically.

Use of CUA element types
: CUA types are used for all panel elements (with some exception for dynamic areas). You can thus apply global changes to the appearance of SDF II panels by using the command **cuaattr**.

Scrollable panels
: You can scroll all data entry panels forward and backward to quickly access more information on fewer panels.

What is different in SDF II VSE Release 6?

- Maps cannot be password-protected.
- In block format maps, array elements must be equally spaced.
- The SDF II import utility omits array indexes.
- The SDF II import utility reorders the array elements of formats that contain array elements in a random sequence.
- SDF II imports arrays of structures as repeat formats.
- In SDF II all fields of a repeat format must be entirely contained within the repeat format.
- The SDF II import utility rearranges array-of-structures lines that contain constant characters and puts them after the end of the array.
- SDF/CICS maps that have the same name but belong to different map sets are renamed in SDF II. The original names are retained for generation.
- SDF II imports only the first specification of a partition set defined with more than one suffix for the same partition set device.

Target systems

Figure 2 shows the relationship between SDF II and its target systems.

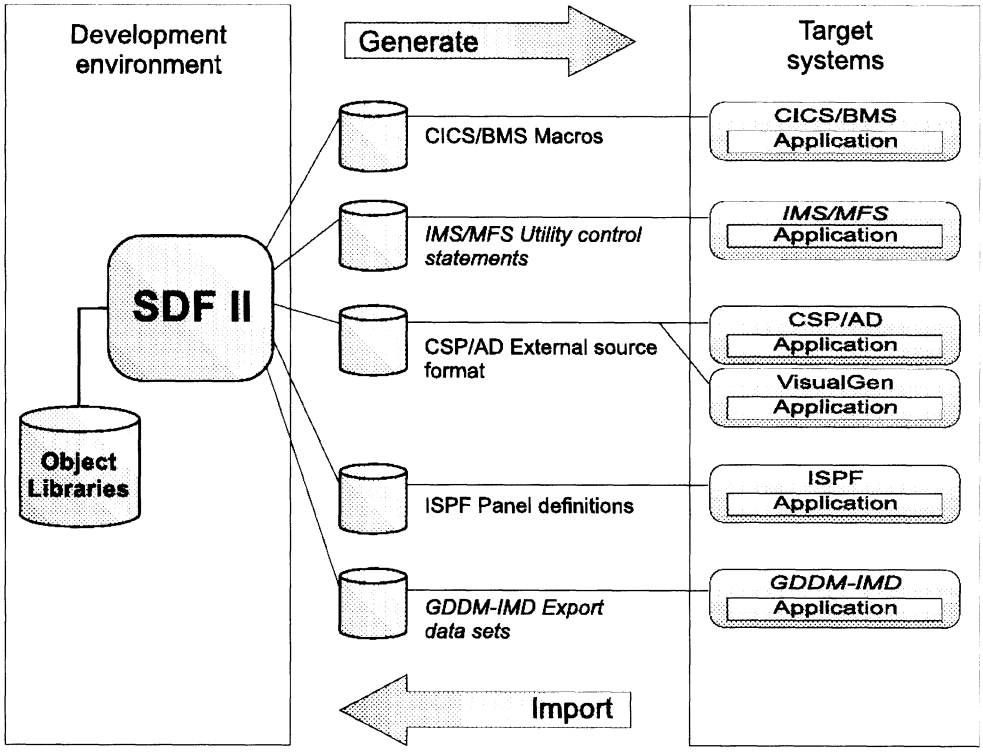

Figure 2. The relationship between SDF II and its target systems. IMS/MFS utility control statements and GDDM–IMD export data sets can be imported and generated only under SDF II MVS Release 4 or later unless otherwise stated.

SDF II VSE Release 6 helps you to define screen objects for applications that run in the following target systems unless otherwise stated:

- CICS/ESA
- CICS/MVS
- CICS/OS/VS
- CICS/VM
- CICS/VSE
- CICS OS/2
- AIX CICS/6000
- CICS/400
- IMS/ESA Transaction Manager
- IMS/VS
- ISPF for MVS
- ISPF/PDF MVS
- ISPF VM
- VisualGen Developer
- CSP/370AD
- CSP/AD
- CSP/2AD
- GDDM–IMD

In addition, objects created with the following IBM licensed programs can be imported:

- SDF/CICS OS/VS Release 5.0 (5740-XYF)
- SDF/CICS VSE Release 5 (5746-XXT)
- SDF/CICS CMS Release 1.0 (5664-178)

What do you need to run SDF II?

Hardware requirements

SDF II VSE Release 6 runs on any IBM System/390 processor supported by Virtual Storage Extended/Enterprise Systems Architecture (VSE/ESA), and on all terminals and workstations supported by VSE/ESA. For IBM System/390 terminals the minimum screen size is 24 lines by 80 columns.

SDF II supports the specification of panels for all terminals and printers supported in the system environments listed under Target systems.

Software requirements

SDF II VSE Release 6 runs on Virtual Storage Extended/Enterprise Systems Architecture (VSE/ESA) Version 2 (5690-VSE) or subsequent releases, unless otherwise stated.

Installation

SDF II VSE Release 6 is distributed on tape, which also contains installation information, such as job control samples.

Security

SDF II uses the security and auditability features of the VSE/ESA operating system.

Problem determination

To help system programmers determine where a problem has occurred, SDF II provides a trace function. SDF II can write trace records to an external data set that can be viewed and printed. No trace formatting program is required.

SDF II VSE publications

Licensed Program Specifications, GH12-6318
General Introduction, SH12-6315
Primer for CICS/BMS Programs, SH12-6313
Run-Time Services, SH12-6312
Administrator's Guide, SH12-6311
Reference Summary, SX12-5012
Program Directory, GI10-0424

Program Number: 5746-XXT

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CUA	GDDM	IBM	IMS/ESA	MVS
SP	System/390	VSE	VisualGen	VM/XA

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