

Design and Feature Analysis

Design Overview

FormSprint is a complete laser printer driver for the iSeries. It is far more than a simple forms overlay package.

The input to FormSprint can be any standard spool file produced by the iSeries. The spool file can be used without alteration, so no changes are required to the application program producing the file. FormSprint can also process data files or direct data entry from input screens produced automatically by FormSprint.

The fixed form data as well as the manipulation of the variable input data are defined using the FormSprint designer. FormSprint can simply pass the input data to the printer, or it can completely rearrange and reformat the input, changing fonts, repositioning data, or adding barcodes, MICR check encoding, and graphics. Graphic material can be defined completely on the iSeries or can be uploaded from a PC-based graphics package.

Details of the design are contained below together with a description of major features.

FormSprint Designer - Fixed Text

The graphics portion of the FormSprint Designer defines all of the "fixed" material that will be printed. This includes text, lines, boxes, shading, logos, signatures, photographs, and other images.

The design can be defined either on the iSeries, using simple data table entry screens with built-in word processing support, or using a PC-based graphics package.

When designed on the iSeries, FormSprint provides full text processing, including automatic text word wrap and justification, automatic centering, and text rotation for mixed text orientations on a single page. All printer resident fonts are supported, with complete control over font scaling. The MICR font is downloaded by FormSprint for check printing. Text can be printed in solid black, shaded, or white on a dark background. Graphics can be printed in four sizes and shaded for special effects or simulated watermarks. A graphics editor is provided for modifications to scanned graphic images.

When designed with a PC graphics package, the output is uploaded to the iSeries where it is modified by FormSprint to permit repositioning and combining with other portions of the design. Although the entire form page can be designed with the PC graphics package, it is also possible to design only the fancier portions on the PC and then mix them with iSeries graphics, resulting in the best form design efficiency combined with the flexibility of PC graphics.

FormSprint Designer - Variable Data

The FormSprint Designer provides complete mapping of the input data. Any portion of any line in the input spool file can be positioned, copied, automatically centered or aligned right or left, rotated, or printed in a special font, including shaded and shadow fonts. This capability permits complete redesign of the output form without touching the program producing the spool file. As long as the required data appears somewhere, FormSprint can print it where ever desired. You can even instruct FormSprint to eliminate blank lines to produce a clean appearance when using spool files formatted for variable numbers of data lines.

The input can also be converted to any of the popular bar codes or the PostNet code. All bar codes (except the PostNet code) are scalable and can be rotated.

Graphics, such as logos and signatures, can be called directly from the input file. This, for example, permits a single Accounts Payable run to produce checks drawn on various banks by various business entities.

The input data can also call FormSprint macros, which are mini form definitions that can contain lines, fixed text, boxes, shading, and graphics. This capability permits the "fixed" part of the form to be not fixed at all, but totally controlled by the input spool file.

Work areas called buffers can be loaded with spool file data that can then be manipulated by special functions, combined with fixed data or data from another buffer. It can then be output from the buffer anywhere on the form and in any format.

Input Data Streams

FormSprint accepts three types of variable data input: conventional spool files, data files, and direct data entry.

Spool files produced by in-house or third-party application programs can usually be used without alteration, since FormSprint has the capability of remapping the spool file if required. With spool files, the FORMTYPE parameter for the spool file is used to select the FormSprint form design and variable mapping instructions.

Data files are processed by an optional module that allows the fields in the file to be defined. A spool file is then produced which can be manipulated like any other spool file by FormSprint.

FormSprint automatically creates data entry screens and a data base system for each form design. This permits manual entry into any FormSprint form.

Design and Feature Analysis (Continued)

Integrated Job Controller

FormSprint incorporates an integrated job controller to manage the FormSprint automatic processing system. The job controller ensures that FormSprint operates efficiently without using undue system resources or interfering with interactive users while still driving the printers at rated speed. FormSprint operation is completely automatic, requiring no user intervention.

On the basis of user input, the job controller creates virtual input queues, each paired with a physical printer. Once the batch jobs and their queues have been defined, invoking FormSprint processing is as simple as placing the application program output into one of the FormSprint input queues and setting the FORMTYPE parameter to the name of the FormSprint form definition.

The job controller includes a simple entry screen for each batch job for selecting operating options and for performance tuning. Options include saving or deleting the input data after processing; selection of the appropriate print driver to match the laser printer characteristics; and selection of the EBCDIC/ASCII translation table (which is user definable).

Performance tuning parameters include pool selection, run priority, and time slice. In addition, the job controller permits selection of FormSprint jobs for automatic startup during a system IPL.

Distributed Printing, Faxing, and Emailing

When producing multipart forms with FormSprint, the output can be produced on a single printer in collated sets, produced on a single printer in uncollated sets, or distributed so that each form part is sent to a different printer. Bursting and distributing multipart forms is completely eliminated.

FormSprint can also output to a variety of PCL-based fax devices and email solutions to provide totally automatic document delivery. Either spool file output or data file output is available for the fax/email software. Control sequences can be defined as a part of the form definition or imbedded in the variable data, depending on the requirements of the fax/email product. When combined with the distributed print function, in-house copies can be automatically distributed to the correct work location and outside copies can be automatically faxed or emailed directly to the recipient.

An optional FormSprint PDF module converts FormSprint forms and data into a PDF file which can be emailed as an attachment or published to a Web site. The module can also convert to a TIF file for display or integration with most imaging solutions.

Special Print Features

The FormSprint processor incorporates important features for professional form production, including conditional printing, check signature control, page tiling, and color support.

Conditional printing permits suppression of printing of data unless the data contains a designated word or character code. This simplifies the coding of the spool file by maintaining consistency between records while still permitting the printed output to contain only the desired data.

Check signature control permits FormSprint to read the amount of a check and output a signature only if the amount is below a selected value. Check signatures are also suppressed if the value field has invalid characters.

Page tiling permits FormSprint to output several input pages to a single output page. Tiling is valuable for multipart forms where the parts are printed on a single perforated sheet, production of labels, and production of multipage printouts in a folded book format.

FormSprint supports PCL5C color printers using the full palette of color combinations. Included is a color palette designer to define unique color palettes for each application.

Archive Database System

The archive database system provides an indexed database of documents processed by FormSprint. Documents can be retrieved and printed, viewed in Adobe Reader, emailed as an attachment or faxed including a cover page. Archiving is controlled entirely by the FormSprint form definition. No outside indexing program is required and users will see no difference in operation from simply printing a form.

The document is indexed with up to 10 searchable parameters. The archive database system builds a database from data extracted from the spool file, which, in itself, if the parameters are chosen appropriately, will be valuable without actually printing or viewing the original - e.g., to check the date of an invoice, or the amount, or maybe the invoice number based on the customer name.

The FormSprint archiver database system provides FormSprint users a simple and effective way to archive copies of checks, W2s, 1099s, and other forms for quick retrieval and on-line display. It provides an efficient way to reproduce copies as needed and deliver them easily in response to inquiries. In many cases, cumbersome hardcopy files can be eliminated.