



► Spice - The SCS Development Language

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Spice is a collection of platform-independent software tools for developing publishing applications. This fourth generation language for database-oriented applications development includes a forms data entry package, a relational database manager, a hypertext help system, a text editor with spell-checking, a dictionary and thesaurus, a composition engine, a report writer and a graphical user interface (GUI) with a multi-language dialog manager.

Spice data management supports forms with dates, calendars, numbers with optional decimal fractions, alphanumerics, value lists, logicals, text (including memos and fields with extended character sets), enumerated sets, math (expressions and executable methods) and binary large objects (blobs).

At the heart of Spice is the Formula language, which is syntactically and structurally similar to Pascal but uses advanced features for handling database record operations and user interface design. Programs written in the Formula language are compiled into byte codes and executed by the Spice virtual machine. The Spice virtual machine is portable to virtually any operating system server or user input/output device, thus making applications built in Spice platform-independent.

In addition to performing application logic, the Formula language features a graphical user interface that responds to user interaction requests by providing many Common User Access (CUA) effects, including scrolling, cascading multi-level menus, menu bars (including multi-level drop-down menus), message boxes (both static and editable), WYSIWYG screen editing, image windows, user-definable function keys (hotkeys), combo boxes, scrolling, radio buttons, selection tabs, icons with tool tips, etc. To facilitate data entry, Spice provides forms and tabbed dialogs with fields, checkboxes, radio buttons, drop-down lists and buttons. The Formula language helps automate and simplify data entry

by providing validation for individual fields and for the entire form, field entry range and uniqueness testing, forced uppercase, date conversions, default values, required values, skip-to fields, auto-duplicates, auto-increments, auto-decrements, calculations, prior record recall, interactive and script-driven text editing, etc. Application-specific "formulas" can be attached to every field to validate field entry or to provide a list of choices to the user. Forms entry is event-driven. Indices can be made unique, non-unique, partial field and compound. You can search databases with Spice by index look-up and multiple field matching.

Like Oracle, MS SQL and most other relational databases, Spice's underlying record manager is an implementation of the b-tree indexing algorithm. We use Faircom's (www.faircom.com) c-tree implementation of b-trees. Faircom's technology is available in source and requires no ongoing or per seat licensing.

Spice databases are compatible with SCS's report writer, SpiceRAQ, and any ODBC-compatible program. Other utilities include database management, construction, debugging, recovery and data replication tools, system-independent command language, online help system (user-definable, context-sensitive, hypertext linked), scriptable text editor with spell checking, international thesaurus and dictionary, multi-language composition engine, expression evaluator, menu handler, dialog subsystem and batch processor. SCS's tools support multiple national languages.

SCS was founded by, and continues to include, nationally recognized computer scientists who have dedicated their careers to providing the unique solutions that publishers need and the tools to make them.

SCS uses its software tools to tailor its development environment to the needs of publishing applications while preserving platform independence. For publishers, the SCS advantage means higher levels of system integration, increased reliability and performance, reduced layered system costs and the availability of SCS's application development environment for their own use.

SCS's advertising applications are built with Spice, its Formula language and the SCS Report Writer.

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