Overview Guide

Lotus.

Approach 97 EDITION

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Introducing Lotus Approach 97

The Best Database for Today's Connected World.

Since its introduction in 1992, Approach® has garnered more than 50 awards and honors worldwide and grown to an installed base of more than four million users. This fast growth has been fueled by Lotus®' groundbreaking emphasis on usability, which propelled databases into the everyday world of business users and out of the exclusive realm of programmers and computer experts.

Approach is designed around common graphical business items and everyday terminology — so that anybody can use it successfully. Its award-winning user interface is so intuitive, that the average new Approach user produces real results within two hours of opening the box.[1]

With Approach, users of all levels can accomplish the following tasks and more with ease, and *without* the help of the MIS department:

✧ Query data stored virtually anywhere using simple to complex selection criteria.

✧ Generate professionally-designed, true WYSIWYG reports by simply pointing and clicking. Choose report layouts, fields, sort order, calculations, and more.

✧ Perform sophisticated analyses by dragging and dropping fields to create enlightening crosstabs.

✧ Display data in compelling, colorful charts with a single mouse click.

✧ Create finished mailings in seconds, including multi-page form letters, address labels, or envelopes.

✧ Build complete, customizable solutions for common business functions, such as order entry, inventory maintenance, customer management using SmartMaster™ applications that come with the product.

✧ Seamlessly connect to almost any data file format, including dBASE®, DB2®, Lotus Notes®, Paradox®, Oracle®, SQL Server, and more.

Approach 97 builds on this tradition of superior usability, yet reflects the new ways that people work today. As a result, Approach users enjoy uninterrupted productivity, while at the same time leveraging the latest and most powerful developments in the industry. Specifically, several important technologies and trends have had a significant influence on the new features and enhancements of Approach 97:

✧ **Internet/intranet**: Because the driving force behind the Internet and intranets is the distribution and acquisition of information, there is a natural desire on the part of users to marry these environments with the market-leading data management and analysis tools.

✧ **Continued Growth of Client/Server Computing**: As more and more PCs are networked to servers, there is increased demand for desktop database tools that provide easy, efficient, and extensive connectivity to centralized server-based data. This demand is further amplified by the explosive growth of data warehousing, a process which provides multiple users with a single, consistent data store from which to query and analyze historical data using best-of-breed desktop tools.

✧ **Downsizing/Rightsizing**: The need to do more with less has never been more important than in today's highly competitive climate. Thus, the demand for productivity tools that help users develop new skills and push beyond their own limits is at an all time high. Tools that let users leverage the knowledge and expertise of colleagues are becoming indispensable. And, features that streamline application development and help grow systems at pace with businesses are increasingly more valuable.

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[1]   Market Probe International, February, 1995

This Overview Guide provides background information on Lotus Approach, as well as more detail on the major features in Approach 97. The features are organized into the following categories and chapters:

✧ **Productivity:** Automated computing tools that help users do their jobs quickly and easily.

✧ **Internet/intranet Functionality:** Powerful, easy-to-use tools that help users exploit the Internet directly from within Approach.

✧ **Collaboration:** Unmatched capabilities for sharing ideas and work-in-progress with coworkers and associates via LANs and WANs, e-mail, or Lotus Notes.

✧ **Information:** Fast, easy, seamless connectivity to information wherever it resides — locally on the PC, centrally in a server-resident SQL database, or even in Lotus Notes.

✧ **Customizability:** Intuitive end user tools and powerful programming capabilities that let users, applications developers, and corporate IS groups determine their own preferred ways of working by easily building custom applications.

Lotus Approach: The Perennial Users' Favorite

Lotus Approach is renowned worldwide as the most usable of the high-powered PC database products. This chapter discusses the importance of this distinction, and highlights the features and characteristics of Approach that have earned it.

Market Demand for Ease of Use

Market research shows that requirements for desktop databases have evolved away from their historic focus on programmability. In fact, a study of business users in large corporations showed programmability to be less important than other criteria, such as ease of use, data compatibility, and reporting and analysis, in purchasing database software.

The following chart summarizes how respondents replied to the question: "Let's assume you need to purchase a Windows® database and have $100 to do so. I'm going to read you a list of capabilities and I'd like you to allocate a dollar amount to each according to how important you feel each is. The total should add up to exactly $100."

Dollar Allocation Per Category[2]

Dollars
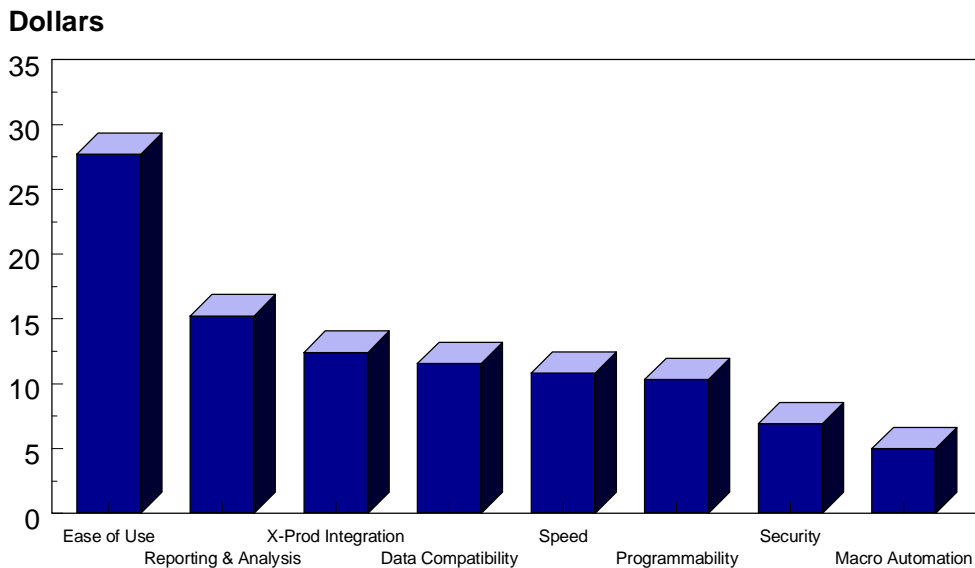
As you can see, ease-of-use was the resounding winner above all other capabilities. These results drive home the importance of ease-of-use to the desktop database marketplace, and explain why Approach has received the following acclaim:

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[2]   *Riley Rowe and Associates*, August, 1995

Awards and Honors

LOTUS APPROACH HAS RECEIVED MORE THAN 50 AWARDS AND HONORS WORLDWIDE

PC Magazine Editors' Choice Award (May, 1996)

Ziff Davis European Software Excellence Awards, Grand Award Usability Excellence (June, 1996)

PC/Computing Editors' Picks (May, 1995)

PC/Computing Database Shootout (March, 1995)

Home Office Computing, **Editors' Pick** (1995 & 1994)

PC Magazine Editors' Choice (October 25, 1994)

Home Office Computing Database Best Buy (January, 1994)

PC Magazine Top 50 Best Products of 1994 (January 10, 1995)

PC World Best Buy Award (July, 1996)

Windows Magazine Windows 100 Award (1994, 1995, 1996)

What PC? (UK), **Database Software Award** (May, 1995)

Compatibles PC Magazine (France), Best Database Software (April, 1995)

PC Magazine (UK), **1994 Technical Innovation Award** (January, 1995)

Windows Magazine Database Shootout (November, 1994)

Press and Analyst Comments

"If there's an effective database product that surpasses all others in ease of use, it's Lotus Approach 96."

— PC Magazine, May 28, 1996

"Lotus Approach 96 focuses on one of software's hardest tasks — persuading non-experts that databases are easy. ... Approach 96 remains a highly accessible, useful and compelling product for skill levels zero and up. Databases really are easy now."

— Ziff Davis European Sftwre. Excellence Awards, June, 1996

"Approach runs around the other databases."

— PC/Computing, March, 1995

"Approach was our usability testers' favorite, hands down. They found it the least intimidating and the most intuitive..."

— PC World, July, 1996

"It's the kind of database whole companies can standardize on — especially organizations running Lotus Notes."

— Windows Sources, December, 1995

"It's the most complete programming-free database so far, is easy to use, and has great connectivity to everything."

— PC Plus, March, 1995

Lotus Approach Users

With so many awards and quotes recognizing Approach for its superior ease-of-use, it is worth noting who actually uses Approach.
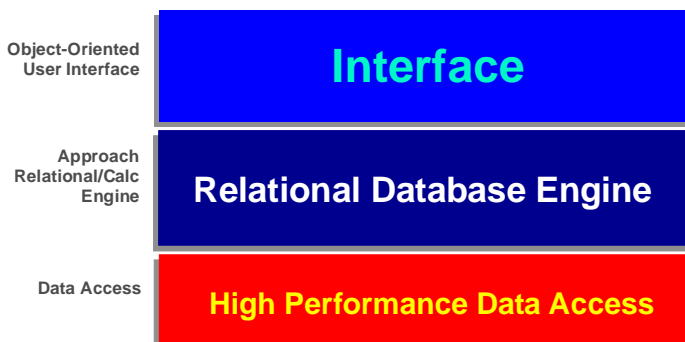
Approach is primarily designed for general business users who utilize word processors and spreadsheets, and who are not computer experts. These users typically use a database to manage their departments or businesses, produce reports, invoice customers, analyze markets, track personnel, and more. More than 26% of new Approach users have never used a database before. As a result, Approach's design is focused around familiar graphical items and terminology. It includes a number of Assistants, that guide the user through multi-step processes such as complex queries and the creation of reports, charts, and crosstabs.

With the rise in networked computing, the number of Approach users working with existing corporate data has grown to 49%. Of these users, 14% use Oracle SQL, 13% use DB2, and 9.5% use Microsoft SQL Server. Approach addresses the growing needs of this group with seamless and immediate connectivity to any data file format, as well as an SQL Assistant that helps the user select specific rows and columns from SQL tables for enhanced performance. Approach 97 includes a variety of new features for more advanced SQL users, and numerous specialized features for the DB2 user community.

Despite its overwhelming appeal to the general business user, Approach is a favorite among programmers and power users as well. In fact, more than 10% of current Approach customers are programmers who selected Approach for its ease of prototyping and straightforward application development. For these users, Approach delivers LotusScript®, a complete, object-oriented programming language which allows development of sophisticated, cross-product business solutions. Point-and-click macros promote fast application automation, and are even easily employed by the large end user community. Transcripting, new with Approach 97, lets users create macros and LotusScript programs more easily than ever before by "recording" user actions and automatically generating the scripts. And because end users do represent the majority of Approach users, all of these advanced programming capabilities have been carefully crafted to be unobtrusive to this audience.

Lotus Approach Architecture

In addition to ease-of-use, Approach is also celebrated for its unparalleled flexibility in working with different database formats. Its achievements in this area are due largely to the unique, three-tiered architecture shown below which allows for seamless integration with all popular database formats.

Object-Oriented User Interface	**Interface**
Approach Relational/Calc Engine	**Relational Database Engine**
Data Access	**High Performance Data Access**

As you can see, Approach features an object-oriented user interface that is consistently applauded by industry experts and product reviewers for its superior intuitiveness. The relational database engine is where actual data processing takes place such as calculations, indexing, and relational joins. And the data access layer manages the live connection to the database. There are actually many varieties of this layer to correspond with the variety of different data formats that Approach supports.

This architecture provides the following advantages:

◇ High performance data access technology that lets users open databases of virtually any file format with no importing or "attaching" required. All data types are as fast and transparent as if they were a native data type.

◇ With its own database engine, Approach is not limited to being a database front-end. Users can build and manage databases from scratch and choose which format to store them in. If a format is not designated, Approach defaults to dBASE IV®.

◇ Because the database engine resides above the data access technology, users can transparently mix data from multiple file formats on a single report, form, or application.

◇ Regardless of what data format data is stored in, users can rapidly convert it from one format to another by simply saving it to the new format. For example, a user might begin with a database in Paradox and later convert it to Notes™ and place it on a server, all with a few mouse clicks. Approach protects both current and future investments by allowing companies to scale up or down as desired.

Lotus Approach and a History of Innovation

Lotus Approach enjoys a rich history of breakthrough engineering and innovation. Since the product's introduction, Approach has been updated at an aggressive pace to ensure its position as the top-rated end user database. Ideas for new product features and usability enhancements come from traditional engineering sources as well as extensive customer collaboration, as shown below.

◇ Following each version release, selected registered users of Approach are asked detailed questions on various topics including usage patterns, feature feedback, and desired future capabilities.

◇ Intensive in-lab usability testing informs the interface design.

◇ Customers are encouraged to contact 1-800-5MY-IDEA to provide feedback to Approach technical support and Approach product management.

This commitment to built-in usability throughout the design process has allowed Approach to be the first Windows database to introduce a number of technology and usability breakthroughs, as shown in the following chart:

Approach Innovations. . .1992 to the Present		
TECHNOLOGY AND USABILITY BREAKTHROUGHS IN THE WINDOWS DATABASE MARKET		
FEATURE	BENEFIT	INTRODUCED
High performance data access technology	Transparently open, manipulate, and combine data from virtually any file format.	April, 1992
Query by form	Easily create queries by using the same form that is used for entering and updating data.	April, 1992
Intelligent forms creation	Streamline data entry with a rich set of data entry and validation options, obtainable by simple mouse clicks.	April, 1992
Tight links to spreadsheet applications	Create reports, forms, mailing labels, and crosstabs from within 1-2-3® menus.	July, 1994
Replication and advanced support for Lotus Notes	Analyze and report on Notes data and build distributed groupware applications.	July, 1994
PowerClick reporting	Create true WYSIWYG reports by simply pointing and clicking to specify groups, totals, fonts, and more. This contrasts with typical database banded report writers that use abstract representations.	July, 1994
Fast Format	Automatically apply the attributes of a given object to multiple other objects.	July, 1994
Dynamic crosstabs	Drag and drop fields interactively to create cross tabular analyses. Modify the crosstab by repositioning, adding, or deleting fields.	July, 1994
Find Assistant	Perform sophisticated finds, including finding duplicates or unique records, top or lowest value finds, formula finds, and more — all with guided ease.	December, 1995
SQL Assistant	Query, manage, and report on SQL data quickly and easily.	December, 1995
Innovative new interface for Named Finds and Sorts	Store and reuse queries with unprecedented ease.	December, 1995
Performance-tuned Notes data access, and support for the Notes workspace	Create Notes reports, analyses, and groupware applications with maximum speed.	December, 1995
Notes Rich Text support	View Notes Rich Text from within Approach.	December, 1995
Drill Down to Data	Drill down on a section of a chart or crosstab to instantly see the underlying data.	December, 1995

The next section of this Overview Guide provides a quick look at the highlights of the newest version of Approach: Approach 97.

Approach 97 Highlights

Productivity

✧ **SmartMaster Applications** reduce the time needed to generate custom business solutions by supplying complete, customizable applications for common tasks such as customer tracking, order entry, inventory management, and much more.

✧ **Lotus Common User Interface** makes SmartSuite® users productive quickly, with SmartIcons®, menu items, and other features that are common across all products. If users are familiar with one SmartSuite product, they instinctively know how to perform many tasks in all products.

✧ **Default Application Creation** lets users begin working with their data immediately, by simply opening any database. A default form and worksheet are created automatically, so that end users don't have to learn how to build them manually, or wait for the MIS department to intervene.

✧ **Action Bar** provides centrally-located buttons for the most frequently-used commands right at the user's fingertips.

✧ **InfoBox** is a compact palette of field attribute options that can be activated when users are designing new views of your data.

✧ **Find Assistant** easily guides users through the process of creating and storing complex queries in a step-by-step fashion.

✧ **PowerClick Reportwriter** generates professional reports with WYSIWYG, point-and-click ease.

✧ **Crosstabs** enable better decision-making by allowing users to quickly perform dynamic data analysis.

✧ **Lotus Chart** lets users easily review and present data with the benefit of compelling graphics — all through a single mouse click.

✧ **Drill Down** to data lets users instantly see the detailed information that makes up summarized results.

Internet/Intranet

✧ **Web Site Database** lets users catalog their favorite Web sites, search for them using keywords that they assign, and visit sites with a single mouse click.

✧ **Internet SmartIcon Palette** gives Approach users direct links to the Internet, including fast access to Lotus Web pages featuring timely Lotus news, product information, and technical support.

✧ **Build an Interactive Web Site** with Approach and IBM® Net.Data. Users build interactive forms and reports that connect to live DB2 or other SQL data from within Approach, and can be accessed over the Web using popular Web browsers.

✧ **Open & Save to the Internet/intranet** lets users open and work with Internet files from within Approach, or save Approach files to the Internet/intranet, as a way to quickly distribute and share Approach information with a broad or remote audience.

✧ **Publish to the Internet/intranet** allows users to automatically turn Approach reports, charts, and forms into attractive Web pages, without having to learn HTML. Users can even publish their results to the Internet/intranet, all in a single step.

Collaboration

- ✧ **TeamMail™** lets users share the results of their work by sending or routing Approach information using any VIM- or MAPI-compliant e-mail system.

- ✧ **NotesFlow™** lets users develop robust workgroup applications that leverage Notes development efforts from within Approach.

- ✧ **Team Security** lets users assign passwords and control data access rights to ensure integrity and confidentiality of shared data.

Information

- ✧ **Heterogeneous database support** provides users with the ability to directly query, update, manipulate, and report on virtually all of their team's information, regardless of file format.

- ✧ **SQL Assistant** helps users select subsets of SQL tables to improve client/server performance when working with large amounts of data.

- ✧ **Notes Release 4 PowerKey** gives users high-performance direct access to all of their stored Notes data, without requiring assistance from a computer support staff.

- ✧ **SQL back end error message support** saves time spent troubleshooting SQL data by letting users view actual SQL back end error messages.

- ✧ **Pass-Through SQL** unlocks the power of SQL by using Approach to pass any SQL statement to the back end. This includes the calling of stored procedures.

- ✧ **Full transactional database support** lets users take greater advantage of DB2 by creating transactions that can be committed and/or rolled back.

- ✧ **DB2 Binary Large Object (BLOB) support** allows users to store and retrieve pictures, sounds, and OLE objects in DB2 databases.

- ✧ **DB2 QMF support** automatically converts legacy data in DB2 Query Management Facility (QMF) definitions to Approach forms and reports.

Customization

- ✧ **Point and Click Macros** enable easy automation of Approach applications. So easy, even end users can produce customized results.

- ✧ **Automated LotusScript and Macro Recorder** reduces time and training needed to create scripts and macros by recording your actions and generating the appropriate code.

- ✧ **LotusScript Programmability** offers sophisticated task automation and custom application development using an object-oriented BASIC programming capability.

- ✧ **Object Linking and Embedding (OLE)** provides users with the ability to seamlessly share data with other OLE 2.0 applications.

Productivity: Getting Work Done Quickly and Easily

Productivity gains are dependent on the effectiveness of every team member in contributing to the overall success of the business. Approach 97 enables team members with various levels of technical expertise to track, manage, and analyze business information.

This section details key features which are largely responsible for the award-winning usability which has characterized Approach since its very first release. The features are categorized as follows:

✧ Getting off to a quick start.

✧ Making day-to-day tasks easier than ever.

Getting Started

Most users who give up on a product do so within the first couple of hours of trying to use it. Why? Because they become frustrated with their inability to produce results quickly. This is almost never the case with Lotus Approach. Approach's highly acclaimed user interface and rich feature set get users up and running fast, and turn those first few hours into a successful, productive experience.
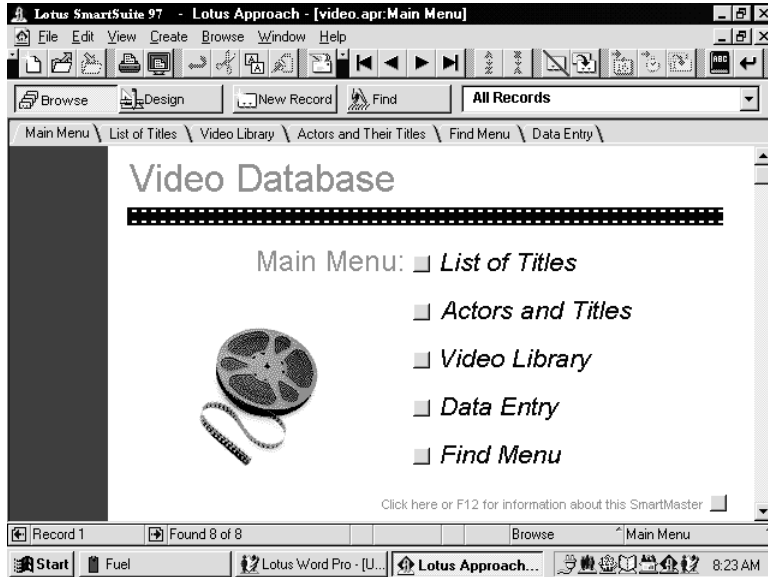
SmartMaster Applications

SmartMaster sets, a Lotus innovation, are complete, customizable business applications that contain all the database files, relational joins, professional reports, forms, and analyses needed to solve a particular business problem. A SmartMaster can be used right out of the box, or can be used as a starting point for building custom business applications.

✧ SmartMaster solutions address a variety of common database tasks such as order processing, customer and contact management, survey systems, inventory maintenance, meeting planning, loan amortization, and many more.

✧ Users can customize any SmartMaster to meet their specific needs, using a variety of design options and programming tools available in Approach.

Benefits:

- Reduces the time required to generate custom solutions by giving users a significant head start.

- Reduces learning costs as SmartMaster Applications demonstrate how to apply relational power to real business problems and let users learn by example.

Use Approach SmartMaster applications to get a head start on common database tasks.
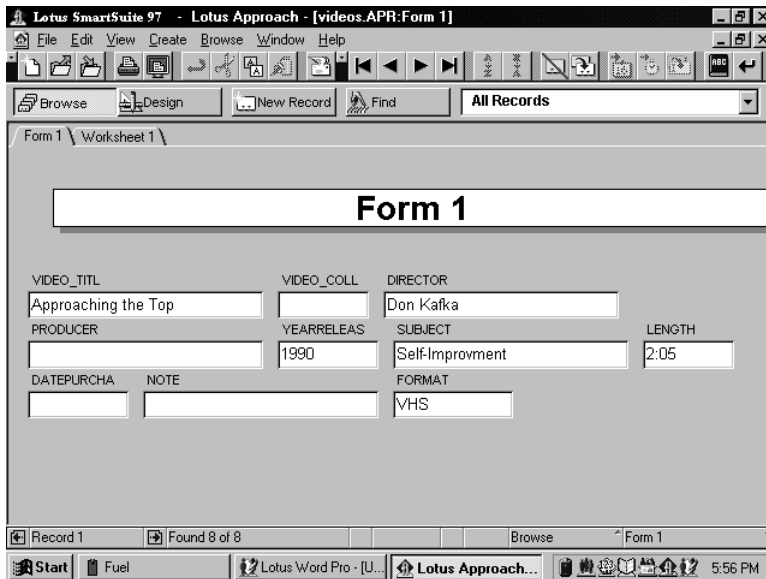
Default Application Creation

Unlike competitive products that are less automated, when a user opens a database for the very first time, Approach instantly creates and displays a default data entry form and worksheet. Both of these views can be used immediately to browse, query, and update the database.

Users can open data files of almost any kind, including 1-2-3, Microsoft Excel, dBASE, Paradox, Access, Lotus Notes, DB2, Oracle, and other SQL databases.

✧ Approach automatically reads the database definition to determine field names and characteristics.

✧ A default form and worksheet can be used "as is" or can be completely customized to the user's liking.

Benefits:

- • Makes new users productive almost immediately by giving them an intuitive and fully-functional form right from the beginning.

- • Eliminates end users' reliance on the MIS department for simple data manipulation tasks.

- • The investment in existing data is preserved, by allowing users to access existing files directly. No importing is required.

Approach 97 generates forms automatically so you can be productive instantly!

Lotus Common User Interface

The Lotus Common User Interface provides a common look and feel across the entire set of SmartSuite applications. So if users are familiar with how to use Approach, they know a lot about how to use all the other suite products.

✧ Consistent menus, dialogs, welcome screens, and a task-sensitive interface make it easy for users to transfer knowledge of one product to another.

✧ SmartIcons make most SmartSuite features only a mouse click away.

Benefits:

- • Reduces the learning curve and cuts training costs, since experience with one product translates into experience with the others as well.

- • Helps users work more productively, since they become quickly familiar with how to accomplish tasks.

Day-to-Day Tasks

Although getting off to a quick start is important, the most significant productivity gains are those that are realized while using Approach 97 for everyday tasks. The features below are used regularly, and thus result in incremental productivity gains.

Action Bar

The Action Bar displays many of the most commonly-used Approach menu items as push buttons on a graphical bar. This makes it easier for users to choose popular features when working in Approach.

✧ Find, Add, Browse, and Design buttons give quick access to these frequent commands.

✧ Named Finds drop-down menu lets users assign a name to a set of selection criteria and reuse it.

✧ Users have the option to view or hide the Action Bar, depending upon their needs.

Benefits:

• Reduces time spent learning icons and menus as the Action Bar clearly presents the most commonly-needed database controls.

• Delivers fast results by letting users quickly complete common database tasks without fumbling through pull down menus to find the feature they need.
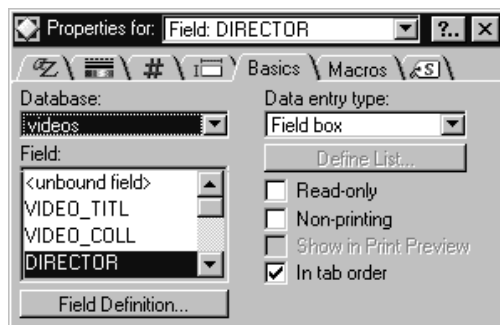
InfoBox

Lotus InfoBox is a compact, floating palette, consistent across all SmartSuite products, that lets users easily and quickly refine multiple properties of any view or object. Everything users need to achieve precisely the look they want for any Approach object is found in the InfoBox.

✧ Users can apply fonts, color, macros, field order, check boxes, radio buttons, and more, all in a consistent, familiar fashion.

✧ The InfoBox is context-sensitive, and presents properties that pertain to the object being refined.

Benefits:

• Makes it quick and easy to design and customize any object as all design options are presented in a single palette.

• Reduces the learning curve as users intuitively know how to customize the look and behavior of any object or view, after using the InfoBox just once.

You can refine many object or view properties efficiently with the Lotus InfoBox.
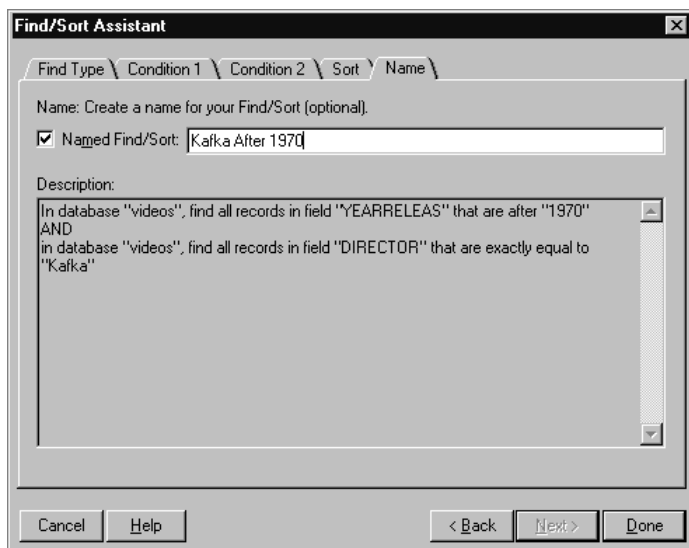
Find Assistant

The Find Assistant supplements Approach's Query by Form technology to let users accomplish sophisticated database searches that involve more complex selection criteria. In guided fashion, and using point-and-click or fill-in-the-blank techniques, Find Assistant lets users:

♦ Easily define searches which require data from multiple fields or multiple databases.

♦ Choose from a variety of specialized Find types, including find unique values, find duplicates, find based on formulas, and more.

♦ Lets users see the defined search/sort, no matter how complex, spelled out in English text.

♦ Gives complex search and sort definitions a meaningful name using the Named Find capability.

Benefits:

•   Provides quick results. Users can specify sophisticated search and sort criteria, and obtain the desired result easily — with less reliance on computer support staff.

•   Improves accuracy by letting users verify selection criteria written in an English language format.

Approach 97 Find Assistants are useful for searches involving multiple criteria.
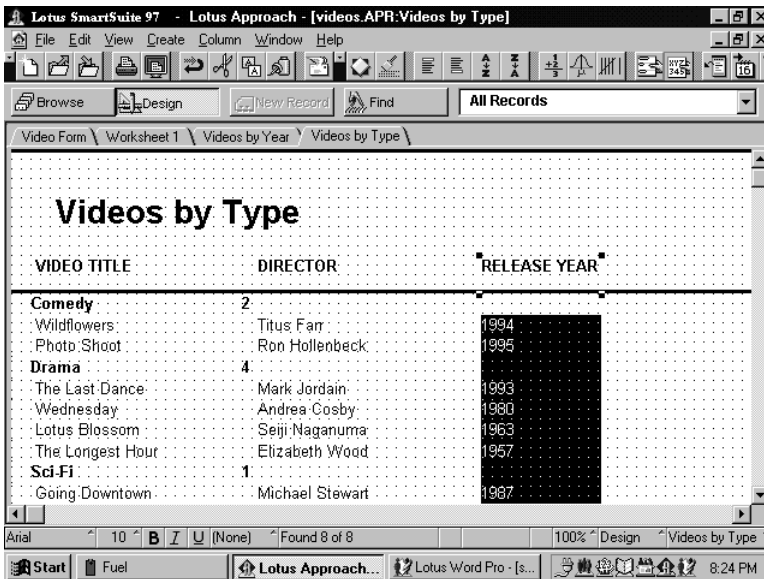
PowerClick Reporting

Approach's innovative reporting technology helps users of all levels produce sophisticated reports with ease. It is the only report writer featuring true WYSIWYG technology, which lets users see *exactly* what their reports will look like as they customize them.

♦ The Report Assistant guides users through the basic steps of report writing, including formatting, field selection, grouping, sort specification, and totaling.

♦ Context-sensitive SmartIcons let users refine their reports with point-and-click ease, sort and group information, as well as generate totals, averages, counts, minimums, maximums, standard deviations, variances, and more.

♦ Unlike other databases, which display symbolic representations of data that make it difficult to visualize how the resulting report will look, Approach lets users see actual data while modifying reports.

Benefits:

- Empowers end users to generate their own reports *without* assistance from the MIS department. PowerClick Reportwriter is so easy to use, that users of all levels can produce sophisticated reports with ease.

- Reports are literally generated in seconds. Exact specifications can be modified at any time using point-and-click tools, such as SmartIcons and the InfoBox.

You can see reports take shape instantly as you customize them. Then, generate them instantly!
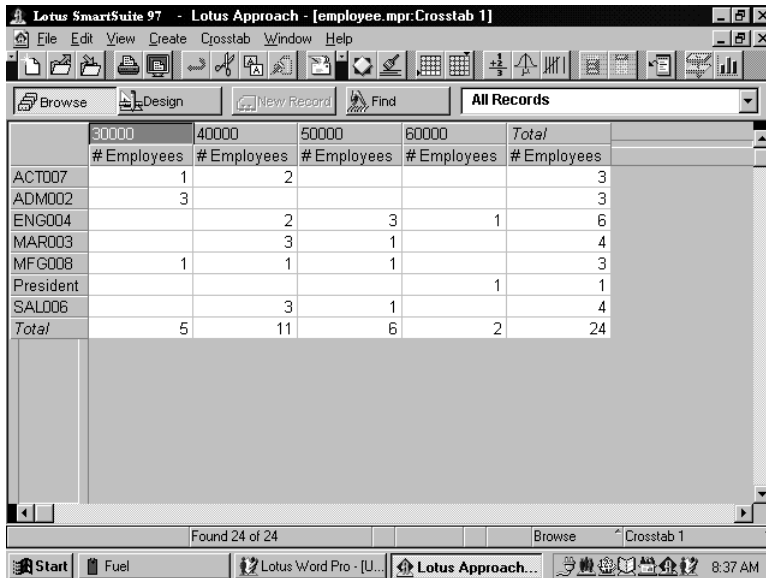
Crosstabs

Approach's powerful Crosstab capability lets users organize and analyze dynamic summaries of database information in the form of an interactive matrix. For example, to analyze the performance of products and sales associates, a user might create a crosstab or matrix that lists sales associates down the left-hand side, products across the top, and total sales in the middle where each sales associate and product intersect. Users can easily:

- ◇ Generate crosstabs from scratch using the Crosstab Assistant, or drag and drop fields to the edges of a worksheet in order to build the matrix.

- ◇ Dynamically modify crosstabs by dragging and dropping in new fields, or by rearranging existing fields.

- ◇ Customize crosstabs to show a variety of summary calculations including totals, counts, averages, minimums, maximums, variants, and more.

- ◇ Turn the crosstab into a colorful, compelling chart with a single mouse click.

Benefits:

- • Improves analysis and decision making, giving users an easier understanding of their business by summarizing large quantities of information in meaningful and easily modifiable ways.

- • Delivers ease and flexibility, letting users perform ad hoc analysis by simply dragging in new fields and moving the relative position of fields on-screen.

You can analyze database information easily by quickly generating interactive matrices.

Lotus Chart

Lotus Chart is a high-quality tool for charting data, found in all SmartSuite applications. It lets users get a "true picture" of the information by letting them instantly present and review data graphically.

- ✧ Users can choose from more than 120 different chart styles, including a variety of bar charts, pie charts, and graphs, as well as two- or three-dimensional displays.
- ✧ Multiple data sets and multiple series can be placed on an axis.
- ✧ A single click of the mouse generates colorful, enlightening charts from crosstabs.
- ✧ Lotus Chart is a shared component of Lotus SmartSuite® applications.

Benefits:

- • Enhances decision-making as charts and graphs help users spot trends and anomalies faster and easier than traditional reports.

- • Helps users deliver more compelling reports that effectively communicate the results of their data analyses with others.

- • Provides seamless chart-sharing and uses fewer resources across Lotus SmartSuite applications.

Drill Down to Data

Studying charts or crosstab information can make users want to know more about the data which underlies one or more of the summaries. Approach helps satisfy users' curiosity immediately with its Drill Down to Data feature that automatically displays the requested information. Drill Down to Data lets users:

◇ Move from a summarized data point (e.g., a bar or pie-slice in a chart) to the underlying detailed information with a single mouse click.

◇ Display the detailed data using a default worksheet view, or specify any other Approach view through the InfoBox.

Benefits:

• Provides superior data analysis by letting users easily navigate between detailed data and higher levels of aggregation.

• Delivers flexibility without programming. A single mouse click is all it takes to look behind the data summary.

The Internet/Intranet at Work

As noted earlier, there is a natural desire to marry database products with the Internet/intranet because of the role that each plays in the effective use of information. Approach 97 users can take full advantage of both the Web and Approach using new integration features that leverage the strengths of both environments. This section describes the features in Approach 97 that let users easily and quickly:

✧ Find and use relevant Internet- and intranet-based information.

✧ Publish and share database views and information over the Internet/intranet.

Finding and Using Internet Information

Without effective tools for locating and using it, the oceans of information available on the Internet would have little value. Approach 97 provides innovative and practical tools for maximizing the value users get out of this vast store.

Web Site Database

Databases are naturally adept at locating information through keywords. Approach 97 includes a SmartMaster application that can be used to catalog Web sites, and visit them with a single click.

✧ Users can log their favorite Web sites and categorize them using custom keywords.

✧ With Approach 97, users can visit a Web site with a single click from within the Approach application. They reach URLs through an automatic launch of their favorite browser.

✧ Users can incorporate Approach Internet features into their own customer or vendor applications. For example, to view a customer or vendor record, a user can visit an associated Web site with a single click.

Benefits:

- Saves time by helping users locate Web sites quickly, using search words that are meaningful to them.

- Helps users bridge the gap between their existing database information, and the wealth of related data on the Internet.
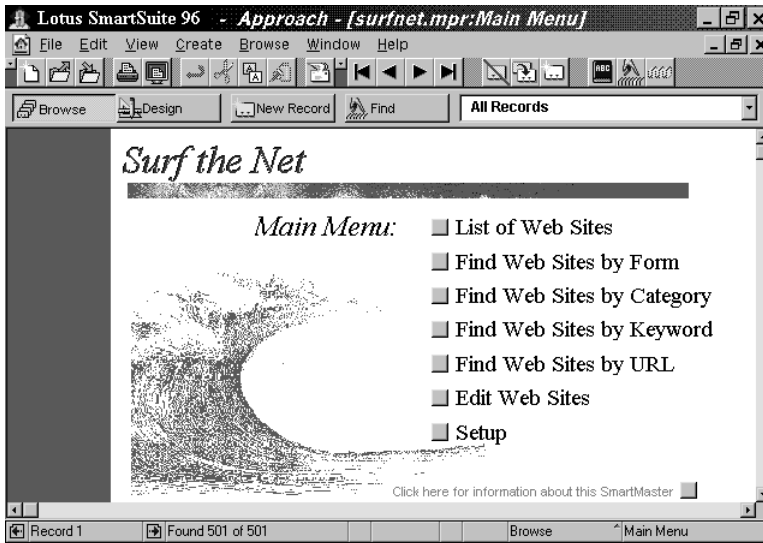
You can maintain a database of useful URLs, categorize URLs with keywords, and reach sites with a single click!

Internet SmartIcon Palette

With the addition of the new Internet SmartIcon palette, Approach users are just one click away from the Web. This palette contains direct links to Lotus Web pages featuring timely Lotus news, product information, and technical support.

✧ By simply highlighting a word or phrase and clicking the Internet SmartIcon, users can search the Internet from within Approach.

✧ A single click from within Approach takes users straight to the Lotus Customer Support Web site for access to Technical Support and the SmartSuite Knowledge database. Here, users can post questions or browse the database for answers and solutions.

✧ The Lotus FTP SmartIcon takes users to the Lotus FTP site, where they can quickly download new files, such as the most recent API.

✧ Approach supports popular Web browsers, including Netscape™, Microsoft Internet Explorer, GNNWorks, and the Lotus Web Navigator.

- Gives users easy access to Lotus product and support information from anywhere, anytime.

- Increases productivity as users enjoy uninterrupted Approach usage when using the Internet to post questions or browse for answers.
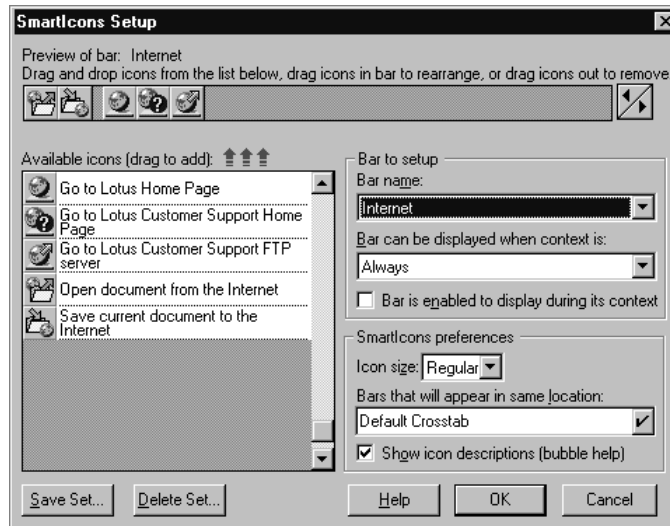
Approach 97 lets you get directly to Lotus news and support through the new Internet SmartIcon Palette.

Building an Interactive Web Site

New with the 97 edition, Approach can be used to build interactive Web sites, where end users can actually query and display live data stored in DB2 or other SQL databases.

✧ Approach's powerful and intuitive design tools let users create attractive forms, reports, charts, and other views that can be used with data stored on a Web server.

✧ Approach views are automatically translated into HTML pages that provide the same functionality on the Web as in the original Approach views.

✧ Data is stored on a server in DB2 or other SQL databases, which are dynamically accessed by the Web pages through IBM's Net.Data Internet technology.

Benefits:

- Provides easy connectivity to information stored in databases anywhere in the world. Approach and Net.Data make live data accessible to anyone, using their favorite Web browser.

- Leverages existing Lotus Approach expertise in letting users easily design interactive Web pages. HTML and Net.Data code is generated automatically so no additional training is required.

Publishing and Sharing Information

Without effective tools for locating and using it, the oceans of information available on the Internet would have little value. Approach 97 provides innovative and practical tools for maximizing the value users get out of this information.
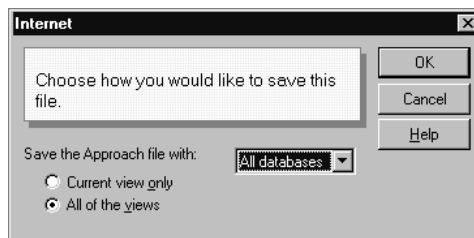
Open & Save to the Internet/Intranet

New with Approach 97, this feature lets users easily distribute and work with Approach applications over the Internet. A user can save a compact bundle of data and views from an Approach application to the Internet using the standard File-Save command, and another user can access the saved application bundle using the standard File-Open command.

♦ With File-Save, Approach data and views are packaged up into a single, compact file for saving to the Internet, so that separate application and database files are unnecessary.

♦ Users have the option to save only selected data in order to distribute subsets of their database if appropriate.

Benefits:

• Saves time and money by leveraging the Internet to let users quickly and inexpensively work with online information within Approach.

• Lets users easily share Approach applications with customers and coworkers, or work with their own Approach files remotely, via the Internet.

• Reduces storage requirements as a single compact file requires less storage than the entire Approach application plus database files.

With the 97 edition, you can easily and efficiently distribute and work with Approach applications over the Internet.

Publish to the Internet/Intranet

Now users can turn their Approach reports, charts, and forms into attractive Web pages without doing any HTML coding *and* instantly publish their results!

♦ Approach automatically generates the HTML code needed to represent any view.

♦ Pages can be created locally for further customization, or can be moved directly to users' default FTP server with a single mouse click.

Benefits:

• Maximizes ROI by putting users' Approach views and information to work for them on the Web.

• Reduces training time as users generate and publish Web pages without needing to learn HTML programming.

Staying Connected: Collaboration Made Easy

Since the creation of the first shared database on a computer network, traditional databases have been at the heart of collaborative team efforts. It is not uncommon to have hundreds, or even thousands of users all querying, browsing, and updating data in a single, centralized database.

Approach takes the notion of team computing beyond standard expectations of databases with features that not only let everyone on the team work with the same data, but share and communicate their results more effectively as well. This is accomplished primarily through unique, strategic integration with Lotus Notes, the market leader in groupware technology. Approach also provides advanced security options for ensuring the integrity and confidentiality of team-shared data.

TeamMail

TeamMail lets users send messages that include Approach information using any VIM- or MAPI-compliant e-mail package, such as Lotus Notes or cc:Mail™, directly from within Approach. With TeamMail users can easily:

◇ Send a single record, a set of records, an entire database, or a unpopulated version of a database.

◇ Send a snapshot of an Approach report, chart, or other view to team members, so that they do not have to launch Approach or have Approach installed.

◇ Include TeamMail in automated workflow processing via macros.

◇ Route data views to team members in a specified order.

Benefits:

• Speeds team decision-making as users share valuable, timely information without exporting or re-keying data.

• Reduces costs as users can share database analyses electronically rather than through the less efficient process of sharing printed reports or charts. Additionally, the ability to share snapshots of data reduces network requirements.
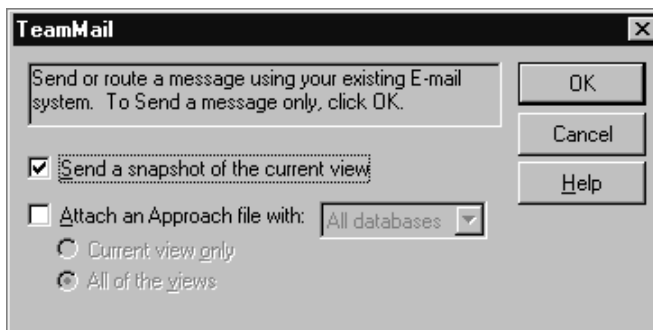
Approach 97 lets you share information efficiently through Notes, cc:Mail, or other e-mail systems.

Open & Save to Notes

From within Approach's File-Save dialog box, users can automatically save Approach files to a Notes database for sharing with other Notes users. Approach users can also work directly with Notes' vast store of legacy data, by opening Notes files directly from the File-Open Menu.

✧ Users can specify the Notes database, form, and field to which their Approach file will be saved.

Benefits:

- Leverages Notes' security and replication.
- Allows Notes to be used as a document manager.

TeamSecurity

Approach's TeamSecurity features give users full control over access rights to shared data.

✧ Security privileges can be customized for individual team members or entire groups.

✧ Passwords allow for maximum flexibility in assigning rights.

✧ Users have the option to control read/only versus read/write privileges, selectively hide or reveal Approach views, and regulate design rights for individuals or teams.

Benefits:

- Improves system administration and maintenance by letting administrators give team members appropriate levels of access to data while allowing them to share a single Approach file.
- Delivers greater flexibility in maintaining data security by allowing custom views for specific users or teams.
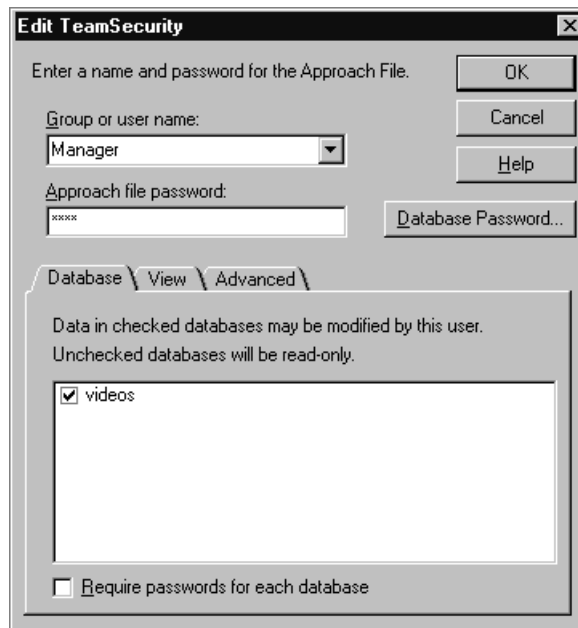
Approach delivers maximum security for sharing files with individuals or groups.

NotesFlow

NotesFlow is a collection of tools in Notes Release 4 that allows developers to customize workflow applications by adding Notes 4.0 commands to Approach menus.

✧ Notes commands are associated with a given Notes form and automatically become available on the Approach Actions Menu whenever Notes is used to launch an embedded Approach view of the Notes form.

✧ Application developers can easily customize menus in both Notes 4.0 and Approach.

✧ Information modified on the Notes form is automatically updated on the Actions Menu's embedded Approach views.

Benefits:

- Increases productivity by giving users access to Notes menus directly from within Approach.

- Streamlines and speeds development of robust workgroup solutions, such as workflow applications.

Information You Need: Anytime, Anywhere

Until the mid-1980s, most companies used a single database management system for all MIS applications. If additional systems were present, they were usually used for specific applications that could to be isolated from all the others.

Today, organizations employ a variety of databases, depending on the needs of individual applications, without worrying about any database becoming isolated. This is because networks, open systems, and standards have significantly changed the way we work with data. Products and technologies are available to enable integration between disparate data types.

Lotus Approach is the best in its class at providing a solution to this challenge. Approach was designed from day one to be database independent, allowing users to connect to whatever data they need, no matter where it is, or what format it's in. Approach also does an excellent job at shielding the common business user from the complexities of SQL, without limiting advanced SQL users.

High Performance Heterogeneous Data Connectivity

Approach lets users connect to almost any database format, including dBASE, DB2, Lotus Notes, Oracle, SQL Server, Paradox, 1-2-3, and many more. Approach's seamless integration with these databases requires no importing, converting, or attaching. Users work directly with the data to:

♦ Query, update, and analyze it without having to convert it to another file format.

♦ Join up to 50 tables of any supported file format in a single Approach application.

♦ Enjoy native database speed and functionality.

Benefits:

• Maximizes productivity as users do not have to convert data to a new format in order to work with it in Approach.

• Reduces training requirements and costs. Approach provides the same extensive capabilities regardless of the database format so that users do not have to learn a variety of query and reporting tools to accommodate multiple database systems.
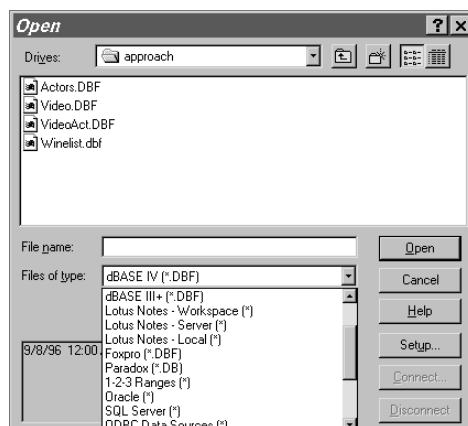
You can work with a wide variety of database formats in Approach 97 — without converting files.

Notes Release 4 PowerKey

The Notes Release 4 PowerKey gives users high performance, direct access to all of their Notes data from within Approach. It lets them:

✧ Create reports, forms, worksheets, and mailings on live Notes data.

✧ Analyze live Notes data with crosstabs and colorful charts.

✧ Combine information stored in Notes with data stored in virtually any database format.

✧ View and update data based on security privileges.

Benefits:

- Maximizes a company's investment in Lotus Notes with all the query, reporting, and analysis capabilities of Approach.

- With Approach, Notes users can get more out of data on their own, reducing user reliance on the MIS staff.

SQL Assistant

Users can select subsets of SQL tables to improve performance when working with large tables.

✧ With guidance from the SQL Assistant, users can easily identify which SQL tables, rows, and columns they need, and can join them to other tables as desired.

✧ The SQL Assistant lets users review and modify an automatically-generated SQL expression — or even write their own.

Benefits:

- Optimizes performance by offloading data processing to the server, and by giving users the ability to restrict which rows and columns are downloaded.

- Maximizes accessibility as all team members — regardless of their technical expertise — can query, analyze, and report on SQL data.

SQL Back End Error Message Support

This feature takes the guesswork out of application development by letting users see the details behind SQL error messages.

✧ When an SQL error occurs in an Approach 97 application, the SQL back end error message is displayed.

Benefits:

- Reduces time normally spent troubleshooting SQL problems.

Pass-Through SQL

Now users can pass any SQL statement directly through Approach, and to the back end SQL database that they are working with. Pass-Through SQL lets users:

✧ Query and update SQL databases directly using familiar commands and syntax.

✧ Call SQL stored procedures.

Benefits:

- Leverages the advanced knowledge of seasoned SQL users by enabling them to unleash the full power of SQL while using Lotus Approach.

Specialized Support for DB2

When it comes to connecting to DB2 data, Approach is unrivaled by other desktop databases. Approach 97 includes many new features designed specifically for the DB2 community, including support for transactions, QMF, and DB2 Binary Large Objects (BLOBs). DB2 support lets users:

✧ Create DB2 transactions that can be fully controlled through commit and rollback.

✧ Store and retrieve Binary Large Objects such as pictures, sounds, and OLE objects using DB2 databases.

✧ Automatically convert QMF queries and reports to Approach forms and reports or use QMF as a server.

Benefits:

- Provides maximum flexibility by giving users greater control over DB2 applications with full transactional support.

- Lets users build sophisticated, multimedia applications using BLOBs that are effectively stored in DB2 databases.

- Reduces costs as conversion from QMF to Approach 97 is complete and automatic, eliminating a substantial amount of programming time.

- Maximizes ROI by letting users leverage previous development efforts by converting QMF queries and reports to Approach.

Customization: Working the Way You Want and Creating Custom Solutions

Database users work within an application environment that was either generated for them automatically, or created with built-in programming and customizing tools. Most users get started using a default application that is created for them, but almost always proceed to customize it to meet their specific needs. New reports are created, action buttons are added to forms, fields are rearranged and reformatted, and programming scripts are included to solve more advanced, complex application problems.

It used to be that building or customizing an application required involvement from the MIS department or others with solid programming skills. Graphical user interfaces changed all that by allowing anyone who knew how to point and click to build simple applications. More sophisticated solutions still require a somewhat higher skillset.

Approach 97 provides new, powerful programming capabilities, so that the easiest database to *use*, is also the easiest to program.

Point-and-Click Macros

Almost any user can automate Approach applications using powerful macro commands that are selected and attached to objects in point-and-click fashion. These macros let users easily:

✧ Perform actions such as automatic querying, creating messages, sending mail, phone dialing, and more.

✧ Add multiple command lines, as well as execute subroutines and conditional branching and looping.

✧ Execute LotusScript routines with Approach macros, and vice versa.

Benefits:

- Empowers end users. Approach macros are so easy to build that end users can automate their own applications with ease — *without* the help of the MIS department.

- Reduces programming time. Programmers of all levels benefit from Approach macros since functions can be scripted in a fraction of the time it would take using traditional languages.

- Reduces database maintenance as any changes made to the data are automatically applied to all affected macros; spares users from making the changes manually.
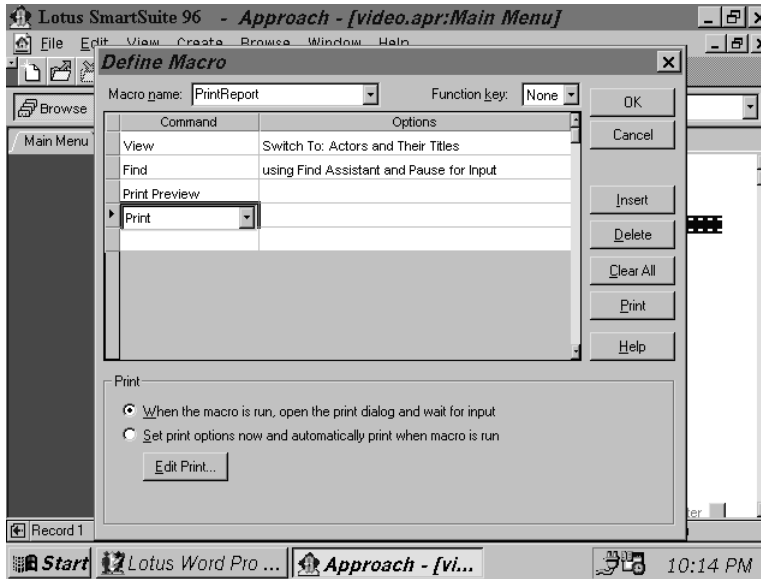
End users and programmers alike can easily create and use macros to automate many common functions.

LotusScript Programming Language

LotusScript is an object-oriented, BASIC scripting language that is common across all Lotus desktop productivity and communication products, including SmartSuite 97 applications, Notes Release 4, and cc:Mail Release 7. LotusScript lets power users and corporate developers rapidly build powerful, custom applications, automate data management tasks, control workflow, and modify the appearance of Approach applications.

LotusScript delivers a high degree of flexibility that lets users control the flow of custom-built applications. It allows users to communicate with and pass data to and from other Lotus applications that support LotusScript, or any software that supports OLE. With LotusScript, power users and developers can write programs that store and manipulate data. They can also test conditions when actions are performed. And LotusScript provides users with a rich scripting interface, which ensures that all elements of an Approach application are fully programmable.

✧ LotusScript code uses the Lotus Integrated Development Environment (IDE), a rich set of tools for creating and debugging script applications. The IDE includes a browser for keywords, script components, type library, and classes for OLE automation.

✧ Approach provides the ability to call macro applications from LotusScript, preserving a company's investment in existing database applications.

✧ Each LotusScript-based product has its own set of LotusObjects™ that can be manipulated with the application. Some objects are similar across products, while others are unique to a product, based on the available functionality.

- ◇ Global workbook subroutines can be promoted to a special Lotus menu called the "Actions Menu" for easy access to frequently-used LotusScripts.

- ◇ Approach 97 has a graphical, integrated dialog editor. With Approach 97, this dialog editor has many new controls, including a Progress Bar, Spinners, and the ability to use any available OCX controls.

- ◇ All SmartSuite applications and Notes have the unique ability to load code modules (called LSXs), expanding the objects that are available to the current script. IBM, Lotus, and third parties are delivering LSXs developed with the LSX Toolkit, such as the Notes LSX. With the Notes LSX, all Notes back end classes are available to scripts inside Approach. It's as if Notes back end functionality had been built into Approach, but without the overhead of OLE.

Benefits:

- • Lets users easily create custom applications and automate everyday tasks.

- • Provides the ability, through Approach Events, to start processes based on specific actions, such changing a cell, saving or opening a file, or selecting an object.

- • Leverages developers' knowledge of Visual Basic®, directly applicable to writing LotusScript applications in Approach 97.

- • Lets developers build upon existing macro-driven applications and protect scripts from users.

- • Leverages LSXs originally built for Lotus Notes and the other Lotus SmartSuite products.

Script and Macro Recorder

New in Approach 97, this feature automatically generates scripts and macros by recording the end user's key strokes and mouse clicks.

Benefits:

- • Reduces programming time by automatically coding actions.

- • Delivers improved coding accuracy by eliminating syntax errors or typos that normally leave users to do more bug-fixing than programming.
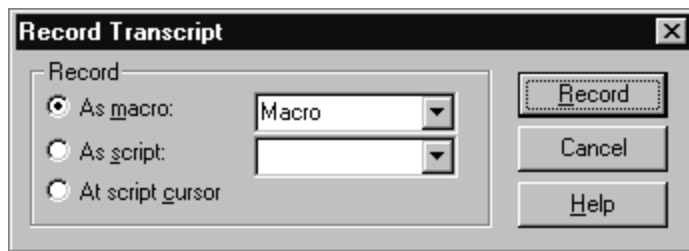
Script and Macro Recorder lets you code by doing!

Full OLE 2 Support

Support for Object Linking and Embedding (OLE) in Approach 97 provides users with the ability to seamlessly share data between Approach and other OLE 2.0 applications. For example, users can leverage Approach and OLE to place an Approach chart based on live DB2 data into a Word Pro® document, or to program other OLE applications, such as Lotus Word Pro and Lotus 1-2-3.

- ✦ Approach serves as both an OLE 2.0 server and container.

- ✦ At the most basic level, Approach acts as an OLE 2 *client,* allowing users to embed and launch objects created with other OLE applications.

- ✦ As a full-featured OLE 2 *automation client,* however, Approach goes beyond basic OLE functionality, permitting users to control the methods and properties of other OLE 2 objects from within Approach.

- ✦ Approach also acts as an OLE 2 *automation server,* which lets users provide other sophisticated OLE 2 applications with the full range of control available in Approach.

- ✦ Approach includes support for OLE 2.0 visual editing, as well as bubble help for OLE custom controls (OCXs).

- ✦ Approach can be used to automate tasks in other applications.

Benefits:

- • Increases productivity as users can view and edit data from a specific source from within any OLE 2 application.

- • Streamlines OLE 2 development by giving users the power and flexibility of the new LotusScript programming language for managing OLE 2 objects.

- • Speeds cross-application development by letting users leverage valuable features in other applications.

System Requirements

Hardware

- IBM PC or compatible (80486/50 MHz or higher).
- Windows-compatible video adapter (VGA or higher) and monitor.
- CD-ROM drive or 3.5" high-density disk drive.
- Mouse or other pointing device.

Operating System

- Microsoft Windows 95 or Microsoft Windows NT 4.0.

Memory

- Windows 95: 8MB RAM minimum; 12MB recommended if running more than one application.
- Windows NT 3.51 or 4.0: 16MB minimum.

Disk Space

- 20MB minimum; 45MB for full installation.
- Users can run the application from the CD-ROM.

Thank you for reviewing Approach 97!
For more information, please visit the Lotus Web site at http://www.lotus.com.

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