

Using REXX and Notrix for Lotus  
Notes Data Manipulation

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## Using REXX and Notrix for Lotus Notes Data Manipulation

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## Agenda

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- Lotus Notes**
  - A review
  - Issues
- Notrix**
  - A Core Technology
- Notrix Composer**
  - A Notrix Application
- Percussion Software, Inc.**

## Agenda

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- Lotus Notes**
  - Client components**
    - Workspace, Databases, Replication
  - Typical Applications**
  - Server Components**
    - Architecture, Network, Mail, Administration
  - Good & Bad !**
  - Issues**

## User Interface Components

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- Workspace Desktop**
  - Folders
- Database Icons**
  - Mail
  - Name & Address

## Databases

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- Views
  - Main & Response Documents
- Forms
  - Fields & Formulas
- Searching
  - Full-text, linear
- Macros
- Importing & Exporting

## Replication

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- Replica ID
- Selective Replication
- Architecture
  - Hub & Spoke
  - Serial
- Conflicts

## **Typical Notes Applications**

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- Discussion databases**
- Reference databases**
- Workflow applications**
  - Centralized**
  - Peripheral**
- Broadcast applications**
- Mail**

## **Lotus Notes Database Architecture**

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- Document Architecture**
- Document (“Note”) Types**
  - Data notes**
  - Filter notes**
  - Form notes**
  - View notes**
  - Icon, Policy, Help, ACL etc**

## Mail

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- Workstation or Server
- MAIL.BOX
- Name & Address Book
  - People & Groups
  - Program Documents
  - Connection Documents
  - Server Documents

## Server Components

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- Database
- Login
- Replication
- Mail router
- Add-in processes

## **Network**

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- SPX**
- Vines**
- NetBios**
- TCP/IP**
- Local**

## **Lotus Notes Security**

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- Access Control List**
- RSA Encryption**
- Authentication**

## **Lotus Notes Administration**

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- Certificates**
- Domains**
- Mail Gateways**
- Monitoring**
  - Logs, Statistics**
- International**

## **Inside Track**

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- Good things**
  - Platforms (Windows, OS/2, Mac, UNIX)**
  - Replication**
  - Authentication**
- Bad things**
  - Relational Capabilities**
    - No unique fields, No relational link**
  - Macro Language**
  - API - Complexity**



## **Product Issues (Front End)**

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- Data Importing & Exporting**
- No Notes Programming Model**
- Version Control**

## **Product Issues (API)**

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- Requires 'C' Programming**
- Contains over 200 calls**
- Inconsistent interface**
- Specialist skills - \$\$\$\$\$\$**

## Enterprise Issues

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- Unstructured data
  - Non-relational model
  - Response Documents
  - Non-standard field types
- Workflow Integration
- N & A Synchronization
- Production Control
- Infrastructure Planning
  - Certificate types

## Integration Issues

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- Notes is good at:
  - Anecdotal information storing
  - Reference information
  - Customer service
- Notes is *not* good at:
  - Transactional data
  - Structured data
  - Relational data

## **Notrix - Agenda**

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- Why does it exist ?**
- What is it ?**
  - Overview**
  - Functions**

## **Notrix - Why does it exist ?**

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- Customer demands for data manipulation**
- Scheduling of jobs**
- Centralization**
- Complexity of the API**
- Triggers & Event Notification**

## **Notrix - Overview**

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- **The Notrix Database**
  - REXX Program Document
  - Program Log
- **Other Notrix Features**
  - Event Manager
  - Trigger Mechanism
- **REXX Programming**
  - Standard REXX Language
- **Present Environment**
  - OS/2

## **Notrix - Interface Variables**

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- **note\_stem.**
  - server, database, notelDs
- **field\_stem.**
  - name, value, type, flags

## **Notrix - Functions 1**

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**FindView()**

**FindNote()**

**ReadNote()**

**WriteNote()**

**DeleteNote()**

## **Notrix - Functions 2**

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**NotesFieldList()**

**NotesEvaluateFormula()**

**File Attachment Support()**

**NotesSetStatus()**

## **Notrix - Internals**

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- Notrix reads program document**
- Registers functions**
- Calls RexxStart() to execute**
- Uses System Exits for I/O**

## **Notrix - Extensions**

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- Many existing libraries of REXX functions**
  - Communications**
  - Monitoring**
  - Report Writers**
  - User Interface Systems**

## Agenda

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- **Notrix Composer**

- **Overview**

- **Functions**

- **Forms**

- **Internals**

## Notrix Composer

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- **Notrix Application**

- **Notes Import/Export Manager**

- **Accesses over 50 datasources**

- **Utilizes Standard Notes Form-  
requiring no programming**

## Notrix Composer

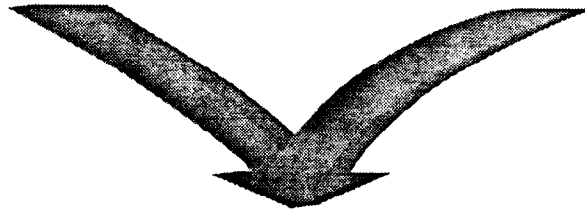
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- ❑ Composer Program
- ❑ Runs on server
- ❑ Uses Event Manager

## Importing External Data Sources to Notes

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SQL and Hierarchical Databases, Native Files, External Objects, Records, etc.



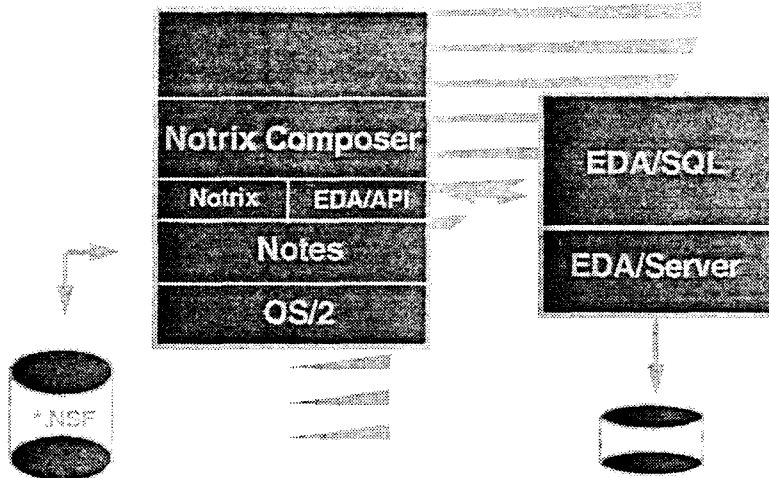
Notrix Composer  
Lotus Notes



## Notrix Composer Functions

- ❑ EdaOpen()
- ❑ EdaExecSQL()
- ❑ EDAExecRPC()
- ❑ EdaFetchData()
- ❑ EdaFieldList()
- ❑ TransferEDA2Notes()

## Composer Data Flow



## **Notrix Composer User Interface**

- Complete access through Notes Interface**
- Forms-based definition of Notes and SQL**
- No need for users to be aware of Notrix**
- Notrix handles requests in background**

## **Notrix Composer Job Form**

- Specify Source and Target DBs**
- Catalog Retrieval**
- Column/Field Definitions**
- Record Selection**
- Calculated Fields**
- Scheduling**

## **Notrix Composer - Features and Benefits**

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- Scheduled Data Importing**
  - Production Control**
  - Change Control**
- Single Interface for Data Import**
- No Programming Required**

## **Current Development**

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- Notrix**
  - Available on OS/2**
  - Coming : Novell NLM, Microsoft NT, UNIX variants**
- Notrix Composer**
  - Coming: Bi-directional SQL**

## **Percussion Software**

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- **Focus on Software Development to help customers access, integrate, and manipulate information**
- **Lotus Notes Development and Business Partner**
- **Headquarters: Boston, Massachusetts**
  - **Audrey Augun [617] 267-6700**



**PRODUCT NAME:** Notrix Version 1.0

Notrix is a programming tool that lets you do complex manipulation of Lotus Notes data WITHOUT Lotus Notes API or 'C' programming. Lotus Notes database administrators or designers, can quickly develop applications that easily manipulate Lotus Notes database documents and their fields. Within Lotus Notes, you can compose a REXX program document, store it in a Notes database, and schedule it to run automatically on the Lotus Notes server via the Lotus Notes Name and Address Book. The program accesses Lotus documents by searching views and manipulates fields by reading/writing documents in a Lotus Notes database. Notrix runs on the Lotus Notes server and uses the Lotus Notes front-end.

Notrix implements REXX, IBM's powerful command processing language that possesses a rich set of built-in functions. REXX is supplied with OS/2 and its advantages include readability, available source code, and easy source-level debugging. Notrix extends the REXX language to work within Lotus Notes, also adding functions that make it simple to manipulate Lotus Notes databases.

**KEY FEATURES/BENEFITS:**

- o Notrix is completely 'Notes-centric' and takes advantage of Lotus Notes replication and security features; giving you a distributed code base and a secure development environment.

- o Notrix does not require knowledge of the Lotus Notes API or complex "C" programming so that the project development cycle is reduced by 80%, saving hundreds of hours and thousands of dollars in outside consulting and technical support time.

- o Notrix eases the implementation of large Lotus Notes data manipulation projects since it utilizes standard REXX Dynamic Link Libraries (DLLs) to minimize programming time and provides sample programs to enhance ease-of-use and supply instant productivity.

- o With the Notrix Event Manager, you can build Notrix applications that automatically trigger when documents in Lotus Notes databases are opened, updated, or deleted. Also, a job log can provide an audit trail for system management tracking purposes.

- o Notrix is server-based and no additional software is required on the Lotus Notes client so that any Lotus Notes client (Windows, OS/2, Macintosh, etc.) can be used -- on a LAN or dial-up.

- o Notrix includes a Notrix Discussion Database for users who wish to exchange information with Percussion Software around topics such as feature wishlist items, bug reporting, and application examples built with Notrix. To receive updates to this database, a user needs only to replicate with Percussion's Lotus Notes server.

- o An Online Help Database is included with each copy of Notrix to streamline the development process.

**SOFTWARE REQUIREMENTS AND PACKAGING:**

Notrix requires OS/2 Version 2.1 or later, OS/2 REXX, Lotus Notes Version 3.0 or later.

Notrix is supplied on 1 3.5-inch PC-formatted diskette containing the Notrix database (Notrix.NSF), DLLs and the Help Database. A user manual describing Notrix use and the installation process is also included.

**PRICING AND AVAILABILITY:**

Notrix is priced at \$3,500 and will be available in May, 1994.

**Percussion Software**, headquartered in Boston, Massachusetts, develops software products to help customers access, integrate, and manipulate information they need in their day-to-day business operations. Percussion is both a Lotus Notes Business Partner and a member of the Lotus Professional Developer's Program. Percussion offers programs for Lotus Notes VARs and consultants who wish to use our products in their solutions for a price/performance advantage.

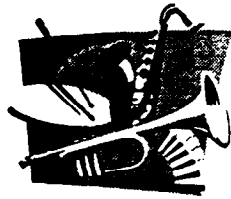
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# Notrix Composer for EDA/SQL

**PRODUCT NAME:** Notrix Composer for EDA/SQL Version 1.0

## **OVERVIEW:**

Notrix Composer for EDA/SQL is a non-programming tool that lets you define bulk data movement between enterprise databases and Lotus Notes. Using a standard Lotus Notes form, you pull data from external sources into Notes by specifying the source database and target Lotus Notes database. You can map fields, select records, calculate new fields and determine job frequency, all without programming. Also provided is a Lotus Notes database that acts as a repository and log for all Notrix Composer activities.

Notrix Composer consists of a set of program libraries and a Lotus Notes database that lets you call functions that interface with the Information Builder's EDA/SQL Server. The Lotus Notes database provided with Notrix/Composer contains a server program that runs on the Lotus Notes

server and fulfills requests for EDA/SQL data. Requests are issued by clicking on one of the buttons of the supplied Lotus Notes Form. Buttons are provided to Catalog Jobs, Schedule Jobs for later execution, and Run Jobs for immediate processing.

## **KEY FEATURES/BENEFITS:**

- o Notrix Composer lets you bring information from external data sources into Notes with no programming. You can now access information from your company's databases and bring them right into your Lotus Notes documents through an easy-to-use Notes Forms Interface that is supplied with Notrix Composer.

- o Notrix/Composer contains a Lotus Notes Forms Interface that lets you specify the tables to access within the enterprise database, the Notes server and the target database name. You can also design how the original fields map to Lotus Notes fields and apply selection criteria to extract only the data you want.

- o Notrix Composer works with Information Builder's EDA/SQL Server to provide access to over 50 different relational, hierarchical and native file systems. Data throughout your corporate information systems, such as customer profiles, financial results or marketing information is now available for your Lotus Notes users and can be distributed across the enterprise using the facilities of Notes database replication.

- o Familiar Notes facilities are used throughout Notrix Composer and all Notrix/Composer functions are integrated with the Lotus Notes environment. You can enter your information request into a Lotus Notes Form and defer processing to a schedule of your choosing.

- o Notrix Composer is server-based and no additional software is required on

the Lotus Notes client so that any Lotus Notes client (Windows, OS/2, Macintosh, etc.) can be used -- on a LAN or dial-up.

- o Notrix Composer runs on OS/2 today; future releases will add NT, NLM and UNIX platforms for cross platform coverage.

- o Notrix Composer includes a Notrix Composer Discussion Database for users who wish to exchange information with Percussion Software around topics such as feature wishlist items, bug reporting, and application examples built with Notrix Composer. To receive updates to this database, a user needs only to replicate with Percussion's Lotus Notes server.

- o An Online Help Database is included with each copy of Notrix Composer to streamline the development process.

#### **SOFTWARE REQUIREMENTS AND PACKAGING:**

Software Requirements: Notrix Composer requires OS/2 Version 2.1 or later, OS/2 REXX, Lotus Notes Version 3.0 or later.

Notrix Composer is supplied on 1 3.5-inch PC-formatted diskette containing the EDA job definition database (NXEDA.NSF), DLLs, and the Notrix-EDA/Link interface library.

#### **PRICING AND AVAILABILITY**

Notrix Composer is priced at \$5,000 and will be available in May, 1994.

**Percussion Software**, headquartered in Boston, Massachusetts, develops software products to help customers access, integrate, and manipulate information they need in their day-to-day business operations. Percussion is both a Lotus Notes Business Partner and a member of the Lotus Professional

Developer's Program. Percussion offers programs for Lotus Notes VARs and consultants who wish to use our products in their solutions for a price/performance advantage.

#### **FOR MORE INFORMATION, PLEASE CALL:**

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