Description of Ad Hoc™
A Database Manager from ExLogica
December 27, 1993

This document describes the Ad Hoc database manager, version 1.10, from ExLogica. Ad Hoc is a database management system that runs under Microsoft Windows[1].

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What is Ad Hoc?

First of all, Ad Hoc is a **SHAREWARE** product. You are invited (and encouraged) to use the program for a 21-day evaluation period without charge. After that time, you have the choice of paying the registration fee and receiving the registered version, or deleting the software from your computer. Registration information can be found in the README.1ST file included with the program, or in the on-line help system. If you want additional information on Ad Hoc, you can contact ExLogica on Compuserve, by sending Email to ID 75136,1033, or by fax at (303) 933-8553.

Ad Hoc is a database management system for Windows. With Ad Hoc you can manage small amounts of data, or large, complex databases. Ad Hoc enables you to determine how your data will be stored, and then interactively design data entry forms, browse lists, and reports that you can print or display on the screen. Ad Hoc is a Windows "multiple-document interface" program, allowing you to have several data entry forms and reports active in the Ad Hoc window at the same time. Ad Hoc also supports data exchange (importing and exporting data) with other programs.

Ad Hoc supports file and record-locking for concurrency control. This allows several users on a network to access the same data concurrently. Although the current version of Ad Hoc is not specifically network-aware, it will operate in a multi-user mode on most networks.

The program includes a context-sensitive help system with step-by-step support for designing a database, forms, browse lists, and reports.

What Can You Use Ad Hoc For?

Ad Hoc is useful for small personal data management needs or for large corporate size data management requirements. You can quickly set up data files, forms and reports for:

- Personal data storage and retrieval
- Small business database applications such as inventory control, customer lists, etc.
- Sales contacts
- Customer support systems and client databases
- Address and mailing lists (Ad Hoc has built in support for printing mailing labels and envelopes)

Ad Hoc is used in-house at ExLogica for our registered user and customer support database, and for our problem-tracking and product development database. A subscription service company is using Ad Hoc to keep records on over 6,000 clients, tracking subscription status and regularly printing envelopes and postcards for client mailings.

Downloading and Installing Ad Hoc

Ad Hoc is available through the normal shareware channels. On Compuserve, Ad Hoc can be found (as of December 31, 1993) in the following forums: WINSHARE (library 10), WINUSER (library 3), IBMAPP (library 3). The program filename is ADHOC.ZIP. Ad Hoc requires Windows version 3.1 and will take up approximately 3MB of disk space, including a sample database.

If you download Ad Hoc from an information service or bulletin board, it will be in a .ZIP file. This file requires PKUNZIP version 2.04g or later to unzip it. The files in this zip file must be unzipped into a subdirectory on your hard disk (c:\adhoc is suggested). If you unzip using the PKUNZIP -d option, this subdirectory will be created automatically. For example, if you have the ADHOC.ZIP file in a directory called C:\DOWNLOAD, enter the following command at the DOS prompt:

pkunzip -d c:\download\adhoc.zip c:

This will create a directory C:\ADHOC and unzip the files into it. It will also create a subdirectory C:\ ADHOC\SAMPLE which will contain a sample database. To make the distribution file as small as possible, there is no separate setup program. Ad Hoc will install itself the first time it is run.

Before you run Ad Hoc, you must run the DOS SHARE program (SHARE.EXE) found in the DOS directory. Share adds file sharing extensions to DOS, and must be loaded before you start Windows. For convenience, put a line in your AUTOEXEC.BAT file to load SHARE when you boot.

To start Ad Hoc the first time, from the Program Manager or File Manager, select the Run command on the File menu and enter the command

c:\adhoc\adhoc

Ad Hoc will ask you if you want to create a program group for it in Program Manager and then make other installation settings. This is only done once, from now on you can click on the Ad Hoc icon in Program Manager to start the program.

Ad Hoc Database Features

An Ad Hoc **database** is a collection of one or more data files, called **tables**. A database also contains any number of data entry **forms** for entering and displaying data, **browse lists** for displaying records from the database in row and column format, and **report** formats that can be printed or displayed on the screen. You can create any number of databases with Ad Hoc. For personal use, you may just create one database with several data files, or tables (e.g. a file for your holiday mailing list, a file for your record collection, etc.). If you have a business, you will want a separate database for your business applications.

An important feature of an Ad Hoc database not found in all database managers is the ability to define and store **relationships** (called **links** in Ad Hoc) between the tables. Pre-defined links make possible the following features:

- A table can be used as a validation lookup table for a field in another table. Ad Hoc will automatically use this lookup table to validate data entered into a field, unless you disable the validation for a particular field.
- When you design a form, Ad Hoc automatically adds a look-up browse list for each field that has a link described to another table. When you are entering data, a mouse click displays the field's lookup list, when you select an entry from the list, it and all related fields from the lookup table are pasted into the fields on the form. You can specify the fields that appear in the lookup list and the sort order.
- Pre-defined links make it easy to assemble multi-table forms, reports, and queries. A data view edit dialog allows you to browse through the tables connected by links and select fields for the form or report with a mouse click.

You can specify validation rules for a field which are used when data is entered through a form or imported from another application. Data types supported in version 1.1 include:

- **Character**   fixed-length alphanumeric fields up to 4000 characters in length
- **Text**   variable-length alphanumeric fields with a maximum size of 55,000 characters
- **Short Integer**   integers between -32,767 and 32,676
- **Long Integer**   integers between -2,147,483,646 and 2,147,483,647
- **Numeric**   a general number format that ranges from $1.7x10^{-308}$ to $1.7x10^{308}$ with 15-digit precision
- **Date**   date fields - supporting dates up to December 31, 9999.

Additional data types are planned for future versions, including picture, large binary, and OLE fields.

Some other statistics for Ad Hoc:

- unlimited number of tables in a database
- unlimited number of records in a table, up to a table size of 4 gigabytes
- the number of fields in a record is limited only by a maximum record length of 4,096 bytes total for all the fixed length fields and 55,000 bytes total for all the variable-length fields.
- up to 8 indexes per table, each index defined by up to eight sort fields, with a limit of 24 index sort fields per table
- unlimited number of relations between tables and validation rules for fields
- unlimited number of forms and reports

Data Entry Forms and Browse Lists

You can design two types of data entry/display windows in Ad Hoc, both of which can display multi-table views of data with custom sort and filter specifications.

Forms
A form is a data entry window, or screen, that has a layout of data entry fields similar to a printed form. Forms are used to enter and edit data, and display data in custom formats. Forms include user-designed pop-up search windows for locating a record to edit and pop-up lookup windows for fields that have validation rules or a lookup table defined. You can also design any number of scroll regions (embedded lists) on a form, that contain records displayed in a row and column format. Each form contains a control pad, or tool bar, to allow you to control record display and editing

You design a form by selecting the fields to be included, the sort specification, and filter (record selection) rules from lists displayed in design dialogs. Fields are sized and positioned on the form by dragging and sizing them with the mouse, and several form layout tools are provided on a tool palette. Forms are designed interactively, so that you can see the actual data and scroll through records in the database as you design the form.

Browse Lists
Browse lists (called simply "lists" in Ad Hoc) are display windows that show data records in a scrolling row-and-column format. Like forms, lists can display multi-table data views. A list can have a drop-down list of sorts and indexes, so that you can quickly change the sort order of records in the list. Lists in Ad Hoc also have "keystroke navigation", meaning that you can locate a record by typing a search key. As each letter is typed, Ad Hoc adds it to the key and progressively highlights the record with the closest match. Using the mouse, you can format the column widths and alignments (left, right, center, and decimal align) in the list and override the default column headings. You can also attach a pop-up form to a list so that you can add, edit and delete records in the list.

For both forms and lists, you can specify size, layout, colors, and fonts. Forms and lists are stored in the database and can be displayed quickly with a couple of mouse clicks.

Any number of forms and lists can be open at the same time. Changes to data made in one form are instantly reflected in all other windows, and you can link one or more forms or lists together so that the current record selected in one window affects the selection of records displayed in other forms or lists that are linked to it.

Reports

Report formats are designed interactively in a **report design window**. Like forms, report designs are stored in the database and quickly recalled for printing or screen display. Reports can have quite simple columnar list or mailing label layouts, or have complex multi-table data views with multiple report breaks for headers, total lines, and footers. There are quick report design tools for both row and column type reports and for mailing labels. Ad Hoc supports a number of built-in label formats, and you can easily specify your own layouts to .001 inch precision.

Complex reports can be designed with any number of regions on the page layout where repeating data can be placed. You have control over data placement, fonts, repeat direction, page and region margins, page orientation, and placement of tabs. Word wrap and paragraph tabbing is supported for large text fields.

Reports can include report headers and footers, page headers and footers, detail lines (data printed for each record), and any number of report break levels, defined when the value of one or more fields changes in the next record to be printed.. For each break level, you can define a break footer to be printed after the last record of a group of related records (for example, a subtotal line), and a break header to be printed before the next group of records.

Reports can contain total fields that provide counts, totals, or averages of specified fields from the database. Total fields are cleared at specified break levels so they can be used for any level of subtotals as well as

report totals. You can also add fields to the report that are used to filter records for the report. You can design and attach a "start-up" dialog to a report that displays before a report prints, allowing the user to enter values for report fields that can be part of the report or used to select records that will be included as the report prints.

Reports also can be displayed on the screen in a **report display window**. You can use this window to preview the report, at any magnification, as it will appear on the printed page, or display the report formatted for the current size of the window. You display any page of the report in this window by scrolling through the pages backwards or forwards, or entering a page number, even if the report is hundreds of pages long.

Data Exchange

Ad Hoc can import data from, and export data to, other applications via ASCII files. The file formats currently supported include CSV (comma separated values) and fixed-field record layouts. Most applications that provide data importing and exporting support the CSV format.

Other Features

Ad Hoc has many other features including context sensitive help, a status bar for quick menu help and program status and data entry validation messages, and a number of configuration dialogs that enable you to customize the operation of the program.

The Future

It's always dangerous and usually unwise to talk about future versions of a software product. Everyone is leery of "vaporware". So we will just say that it's our intent to continue to develop Ad Hoc and offer future versions in the shareware marketplace. To a large extent, what comes next will depend on you, the user. Ad Hoc development will be strongly influenced by comments and suggestions from users. As is the case for all shareware products, if there is a strong interest in Ad Hoc as a shareware database manager, then we will continue to offer improved shareware versions. We are also using Ad Hoc as a base platform for developing custom business applications, so Ad Hoc will continue to grow in features, power, and ease of use. Registered users will benefit from these improvements in the future. Updates to the registered version of the program will contain features not found in the evaluation version.

Ad Hoc is a young piece of software and admittedly has some rough edges. We tried to put as much functionality as possible into the first version, while trying to get the first release out before the turn of the century. Future versions will definitely be more intuitive and easy to use, with more intelligence built into the user interface and without the restrictions of the current version. More data types with no size limits (definitely pictures, hopefully OLE objects), improved communications with other programs (using either DDE or OLE), networking features, communications capability, custom interfaces or "front ends" (such as a PIM module), ability to interface with other database managers and database files, are some of the items on the drawing board.

If you evaluate Ad Hoc, even if you decide not to purchase a license, let us know what you like or don't like about it. If you become a user, definitely let us know what improvements we could make.

Who is ExLogica?

ExLogica is a small, new software company dedicated to the development of products for the Microsoft Windows environment. We are located in the Denver, Colorado metropolitan area, just a stone's throw from the foothills of the Rockies. We currently take on custom development contracts, but our main goal is to develop and market application software. Ad Hoc is our first software product for sale, and represents our first foray into the world of shareware.

The founder of ExLogica, Lyle Groome, is the ex-CEO and founder of Tamarac Systems, Inc., a company nationally known for its leading school administration software. He sold the company and left it in 1990 to concentrate on developing applications for the Windows environment.

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