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Introduction

The Basics

Purpose
Welcome to Diskette Analyzer Bill (DAB), AT&T’s billing analysis software. DAB reads the electronic bills of AT&T local, wireless and AT&T Long Distance, and maps them into the AT&T database. Specifically, AT&T DAB can read the following electronic invoice formats:

- AT&T Diskette Analyzer Bill (CD-ROM or FTP)
- AT&T CABS Diskette Analyzer Bill (CD-ROM or FTP)

AT&T provides the capability to perform in-depth analyses of telecommunications expenses.

Sources of Data
Monthly data for AT&T is supplied by AT&T on either CD-ROM or via Electronic Transmission - File Transfer Protocol (FTP).

Diskette Analyzer Bill Functions
Starting from the simple main menu, AT&T offers the following functions:

Load Bills
In Load Bills you input the billing data you wish to review. AT&T will use the Department Identifier codes from the AT&T CLUB bill to build your hierarchy. You can also spread charges that are unallocated. Examples of charges that can be allocated are: Taxes, E911, Directory Advertising, Volume Discounts, and Directory Assistance.

Query
Query allows you to build reports completely determined by you. Request which fields you would like to see, the order of the fields, and which fields should be totaled. These user-defined reports can be generated and modified to meet almost every conceivable need.

AT&T Bill Image
AT&T Bill Image gives you the capability to search an image of the printed bill for specific information and print all or selected portions of the bill. This function is only available for AT&T Billing Data.

Administration
The Administration function allows you to view and remove different months of data, and to remove all data from the DAB database without having to perform a complete uninstall and reinstall of the DAB software.
Getting Started

If you are familiar with the original Diskette Analyzer Bill be aware that this is a totally new version of DAB. The new DAB version is Window based and more user friendly. You might want to follow this checklist to help you get started. Each item is described thoroughly elsewhere in this manual.

These are the essential steps an Administrator must perform to get started:

1. Install the program.
2. Load a bill. (See The Monthly Load Process.)
3. Allocate any unallocated charges by setting rules and allocating them (See Spread Unallocated Charges.)

At this point, DAB will be ready for users to perform all other DAB functions. Users can, in any order desired: view the AT&T Bill Image and Query the data. See individual chapters and sections for detailed instructions.

Hardware Requirements

The minimum hardware installation required to operate Diskette Analyzer Bill (DAB) includes:

- OS - Windows XP Professional or Windows 7 (Enterprise or Professional)
- A minimum of 500 MB of free hard disk drive space to install the system, run queries, and view bills (although more space may be required for larger bills)
- A CD-ROM Drive
- Optional: Printer for hardcopy reports

Software Requirements

The software requirements on the user’s machine are:

- MS Office: This software is mandatory and should be present on user’s machine prior to DAB installation.
- Microsoft .Net framework [Note: DAB will install this software automatically, if required. Users do not need to install. ]
- Microsoft Access database engine [Note: DAB will install this software automatically, if required. Users do not need to install. ]

Logging On

Start DAB like any other Windows application program. During installation, an icon is created for the application in the DAB program group. Double-clicking the icon will open the program.
The Main Screen
The Main Screen offers easy access to all of Diskette Analyzer Bill’s features. The four program areas are represented by tabs. Each area can be reached by clicking the appropriate tab. Some areas, such as AT&T Bill Image, open directly; other tabs offer additional tabs for user choices or options.

Click on any of the tabs to start the different functions.
Every option will be explained in the appropriate chapter.

Exiting Diskette Analyzer Bill
From any screen, click on File-Exit and Exit to leave DAB.

Cancel the Exit
When you choose to Exit from DAB, you are asked first to confirm the shutdown. Select ‘Yes’ to continue to exit and ‘No’ to return to the main menu.

Note that ‘Yes’ is the default choice (what DAB will do if you press the ENTER key).

This Manual
This manual is organized in the same order as a typical session with Diskette Analyzer Bill, from loading the monthly data through all the processing and analysis available. Every option and all fields requiring user input will be explained.
The **Report** process, which is identical throughout DAB and invoked from several areas, is described in a separate chapter.

A **Glossary** at the end defines any specialized vocabulary you may find throughout DAB.

**Software Installation**

The Diskette Analyzer Bill (DAB) is downloaded from an AT&T secure website.

*** IMPORTANT: Please follow the instructions defined by the ‘**DAB Installation Guide**’ on the AT&T secure website.

**How Do I Uninstall DAB?**

Uninstall the DAB application by using the ‘Uninstall DAB’ feature displayed in the Programs menu:

*Go to Start > All Programs > Diskette Analyzer Bill > Uninstall DAB*
Administration

Administration Functions

The administrative functions of Diskette Analyzer Bill (DAB) allow the user to perform:

- Invoice Catalog
- Database Initialization

Click the Administration icon on the main menu to access administration functions.

DAB Invoice Month Catalog

Keeping many months of invoice data available may be useful. However, maintaining all previous invoices online may consume a large amount of storage space and may even slow down certain DAB operations. To allow you to remove earlier months easily, DAB installs the Invoice Month Catalog, in your DAB directory. When you run this utility, you are shown all the months in the current DAB catalog. Choose any months you no longer wish to keep online. The utility detaches them from DAB and deletes them from your drive. If you delete the month that is currently being viewed in DAB, you will need to select another month for viewing from the Month drop down box located on the DAB toolbar.

The database displayed in the Invoice Month Catalog will contain the invoice date, sort key based on CLUB Sort options (i.e., BD for Billing Number and DI sort, and BDE when Earning Number sort is included), the database path and name in Mdyyyym*.mdb format (where yyyyymm represents the year and month of the invoice and * represents the CLUB Sort), and status of C for compressed or N for not compressed. (See Compress and Exit and Decompress All for more information.)

To open the DAB Invoice Month Catalog, choose Administration – Invoice Catalog.
To Remove a Month from the Catalog

To remove a month from the DAB catalog:

1. Choose Administration – Invoice Catalog.
2. Select a month or database file you wish to delete by clicking it. Click the Delete command button on the screen.
3. A confirmation request appears, allowing you to cancel the delete. Click either ‘Yes’ to delete the selected invoice month or ‘No’ to leave it as it was.

Follow steps 3 and 4 for each month you want to delete. When you are done, click Close to end the program.

Notice that the DAB Invoice Month Catalog tool actually erases the data and associated Hierarchy from your hard drive. This frees up space, but if you should ever need that data again, you will have to re-load it from the original data CDs. Customers that receive their data via FTP (File Transfer Protocol), should back up the data files for possible future use.

Database Initialization

The Database Initialization will remove all data from the DAB database without having to perform a complete uninstall and reinstall of the DAB software. This
function is useful when system resources need to be freed up. For instance, the user is running out of disk space when storing multiple months of data. However, unlike the Invoice Catalog in which you can specify specific bills to be removed, the Database Initialization function will completely remove all data contained in the DAB database, yet leave the software installation in tact.

*Note: Queries created by the user will be removed by this option.

Choose **Database Initialization** from the **Administration** menu. This opens the **Database Initialization** dialog box to confirm that you want to perform this operation.
**Loading Bills**

**Load Bills Function**

The *Load Bills* function is the foundation of the Diskette Analyzer Bill (DAB). Its purpose is to read the electronic bills from and translate them into internal tables in the DAB database. DAB reads AT&T bills in DAB format.

In addition to loading each month’s invoice or invoices, the *Load Bills* module has one other function: *Spread Unallocated Charges* allows the creation of rules by which generalized charges—such as Bulk Billed items, Taxes, Directory Advertising, Directory Assistance, E911, etc.—can be allocated. Click on the *Load Bills* tab on the main menu to open the *Load Bills* submenu.

**The First Use - Initial Load Procedures**

Certain procedures and housekeeping must be performed before the very first data load. Some of these are done only before the very first load; others are done each time data is loaded. The procedures can be summarized as:

1. **Load the Data.**
2. **Spread Unallocated Charges.**

1. **Load the Data**

Simply click *Load Bills* on the main menu and select *Load Bill* from the submenu. Follow the on-screen prompts.

This is done every month.

***Important:*** For details on how to load DAB data from a CDROM, or drop box, please consult the DAB Installation Guide that can be downloaded from the secure AT&T website.

3. **Spread Unallocated Charges**

Finally, if appropriate, allocate any Bulk Billed charges via the *Load Bills - Spread Unallocated Charges* screen or by clicking on the *Spread* button located on the DAB toolbar. The *Spread* button will be yellow if unallocated charges are present and will take you to the *Spread Unallocated Charges* screen. See instructions under *Spread Unallocated Charges*.

Check this screen after each load.

See detailed instructions for all parts of the loading process under *The Monthly Load Process.*
The Monthly Load Process

Diskette Analyzer Bill (DAB) is a relational database system; data read from different tables is related. This means that the billing records must be loaded into tables in the database for DAB to use. Each month, every DAB customer receives a CD-ROM or an electronic file via File Transfer Protocol (FTP) with the AT&T billing records for that month. DAB reads the bills and converts their data into the tables it needs through the Load Bills function on the main menu.

LOADING SEVERAL MONTHS AT ONCE? If you have several months of data to load at the same time, you should complete the load of one month (allocation of unallocated charges) before proceeding to another month. This will enable DAB to retain rules for unallocated charges to be carried forward to successive month’s data loads and avoid rework by the user. It is therefore recommended that the months be loaded in chronological order.

To begin, click Load Bills on the main menu and Load Bill on the submenu that appears. The Load Manager screen opens to allow the installation of the distribution files from your vendors. Click Load to begin the process.

DAB Considerations

DAB reads and converts the data contained in DAB’s BILLING.EXE file automatically, and loads it as easily as it does the data on your monthly DAB media.

DAB and CABS always looks for the BILLING.EXE file in the default DAB directory. If it is elsewhere you will have to switch to the appropriate drive and directory.
3. Loading the Data

As the loading proceeds, DAB indicates the stages of the process and, at its conclusion, presents an invoice summary on the Load Bills screen.

When the Load finishes, DAB gives an immediate summary of the results.

After each load, the Load Manager screen reopens to allow the loading of data for another month or from another vendor. Return to the main menu by clicking OK on the “Bill successfully loaded” message box.

Load Instructions for Duplicate Months

Occasionally you will ask Diskette Analyzer Bill to load the same invoice more than once for the same month. This may result from the desire to reload a month whose earlier load was for any reason unsatisfactory, or perhaps by inadvertence. If the load proceeds automatically, it could result in the loss of important data. Therefore, DAB requests confirmation on whether or not to proceed.

As each load begins, DAB checks for invoice months already in the database that are identical to the month of the file being loaded. If DAB detects the invoice month, account number, and sort options already in the database, it opens the Overlay message box described below.
Load Instructions Overlay
message asking confirmation if attempt is made to load an invoice already in the database.

Respond ‘Yes’ to continue the load, or ‘No’ to cancel.

What Do You Wish To Do?
DAB offers you the option to continue the load or cancel the load operation if necessary.

Yes - Choose Yes to delete the current data and re-load the billing file for this account and invoice month.

No - Choose No to abort the load process for this file and return to the Load Bills screen.

Unallocated Items Reminder
DAB will allow you to use a loaded month even if you have not yet allocated the bulk billed/unallocated charges. However, the results on some screens may not be accurate or complete, and may not balance with your paper bills. DAB reminds you of this condition by highlighting the Spread button on the DAB toolbar in yellow. While highlighted, you can click on the Spread button from anywhere in the application and it will take you to the Spread Unallocated Charges screen where you can allocate those charges.
Spread Unallocated Charges

Charges appear on almost every invoice that cannot be assigned directly to an individual circuit or station, but should be spread to or shared by several. Charges such as Volume Discounts, Other Voice Services, Taxes, E911, Directory Advertising, etc., are thus not allocated upon loading the invoice. Diskette Analyzer Bill displays these unallocated charges on the Spread Unallocated Charges screen. The user can then define and apply sets of rules to govern the spread of those charges within the corporation.

If there are any unassigned charges when you open the Spread Unallocated Charges screen, DAB will remind you of that fact by the yellow highlighted Assign button on the DAB toolbar. It is recommended that you assign all unassigned lines before conducting the spread.

From the Load Bills menu, click Spread Unallocated Charges to open the Spread Unallocated Charges screen.

Spread Unallocated Charges Screen Areas

1. Unallocated Charges

The table at the top of the Unallocated Charges screen lists each charge not allocable to a specific line or circuit. DAB maintains a list of all unallocated charge codes that have had rules defined in previous months. Those charges have a check mark next to them. Charge codes that are unfamiliar to DAB will not show a check until a user defines a rule for that charge.

Columns give the following for each charge: a Code Number, a Description of the charge, the dollar Amount, the Earning Number, the Billing Number, the Account number, the Provider's Name and Code, the Vendor, the period covered by the item (FromDate to ThruDate), the Member Code (from the ‘Allocate Selected Charge To’ box), the Allocation Method (corresponding to the choice made in the ‘By Spreading To’ box), Based On (corresponding to the options in the ‘Based On’ choice), the ‘Method’ and ‘Based On’ in words, a code indicating the hierarchy Level for the rule (‘0’ being the top level), and To Be Spread (a Yes-No flag indicating whether or not...
the rule should be applied). Obviously, most of these columns will be blank for charge types appearing for the first time.

None of the items in this area are filled in directly by the user; some fields are read from the electronic bills and others are the result of the rules developed on the rest of the screen. The display shows the basic invoice data for the charge and, by scrolling to the right, the current rule (if already set).

**Spread Unallocated Charges Command Buttons**

The following is a description of each command button on the **Spread Unallocated Charges** screen.

- **BN Rule** - Click BN Rule to automatically set a rule to allocate the charge to the appropriate Billing Number. These charges will then be reflected at the Billing Number level once the allocation process is complete by clicking the **Allocate** button.

- **Clear All** - Clears all the rules so far set, and if previously allocated, removes the bulk charges to the entities in which they were allocated.

- **Allocate** - Click Allocate to affect the spread of the charges to the Billing Number level.

  The rules, even those defined in earlier months, do not take effect automatically with each new month. Therefore, you must access this screen each month and spread the charges by clicking **Allocate**. This must be done even if there are no new types of unallocated charges in a given month.

  Note also that **Allocate** will work only if every unallocated charge has an allocation rule defined for it. Every row should have a check mark at its left side. Until then, the **Allocate** button remains unavailable.

  DAB informs you when the allocation is complete.

- **Abort** - The Abort command allows you to stop an Allocation already in progress. Stopping the **Allocate** process leaves the rules as they have been defined, but the records in the database will be reset to their values prior to the spread of the charges.
Close - Close records the new set of rules, even if the set is incomplete, and returns to the main menu.

**Notes on Automatic Allocation of Taxes**

DAB will properly allocate taxes on most AT&T bills. However, you must allocate tax information from other vendors using Load Bills - Spread Unallocated Charges.

**How DAB Handles Taxes for AT&T CLUB Bill Sort Tax Option Users**

Some bills report taxes as bulk items that must be allocated. In addition to reporting those bulk tax items, Customized Large User (CLUB) Bills with the Sort Tax Option report taxes at the individual sort level. These individual (not bulk) tax items appear on the Bill Image under the CLUB sort.

To isolate and report these tax items, DAB creates a unique station number to contain them. DAB creates the unique station number by concatenating a station number + ‘E’ (representing Earning Number) followed by 3 or 4 digits. For example, a unique station could look like 8056235555+E412. DAB reads the summary tax record from the CLUB bill into that generated station number. These station numbers will only be seen in the Assigned Lines section of the **Hierarchy Tool**.

To avoid any confusion, note the place in DAB where either this unique station number or the real tax data it holds appears:

Bill Image - The taxes on the CLUB Bill are reported on the Bill Image under individual sort levels.

**Procedures To Spread Unallocated Charges**

*How Do I Spread an Unallocated Charge?*

1. Select **Spread Unallocated Charges** from the **Load Bills** menu or click on the yellow box that says ‘Spread’

2. Click **BN Rule**.

3. Click **Allocate**.
The AT&T Bill Image function allows you to browse and print all or selected pages of the AT&T phone bill and search for specific information. The sequence and format are similar to the printed bill which you normally receive from AT&T. Functions in the browser include:

- Search for a text string
- Go To page
- Go To Item Number
- Print all or selected sections of the bill

Note: This function is available only for the electronic bill provided by AT&T.

For DAB customers (not CABS), the print image records from the 450 Byte MagTape file are stored as line printer records in the Diskette Analyzer bill database. The browser displays these records verbatim. Therefore, while the browser gives you the tools to explore the file with ease, it is important to note what is and what is not possible during the display of these records.

Certain characteristics of the printing on the printed bill are not duplicated on the screen. These include:

- Headings that are a part of the pre-printed form.
- Special logos and/or symbols. (See Print with Logo, this section)
- Fonts.
- Coloring.

Click the Bill Image icon on the main menu screen to open the AT&T Bill Image Browser and begin viewing the bill. To view another month’s Bill Image, other than the one displayed, select it from the Month drop down list located on the DAB Toolbar.

The bill image is displayed in a scrolling window. By performing a right-click with the mouse on the bill image screen, you will be able to select from several options such as find, copy, print, and close.

To open the File menu, right-click the mouse on the Bill Image once it is displayed.
The AT&T Bill Image Browser’s

AT&T Bill Image Browser - The Find Dialog Box

The most powerful item on the File menu is the Find function. The Find dialog box allows you to move in the bill image to a particular section, page, or target text.

Choose Find from the File menu to open the Find dialog box.
AT&T Bill Image Browser's Find dialog box. Open this box from the drop-down menu or by a right-click on the mouse.

Click an option button to move to the desired place in the bill image. Some items move immediately while others need further input. The command buttons on the right side of the dialog box control further movement.

**Find Dialog Box Search Targets**

The following are the types of items the AT&T Bill Image Browser will search for through the Find dialog box:

- **Account** - For companies with multiple AT&T accounts, select Account to drop down a list of the accounts. Choose the one you wish to view.

- **Billing #** - For companies with multiple billing numbers, select the one whose data you want to find.

- **Beginning of Bill** - Select Beginning of Bill to move immediately to the top of the bill image.

- **End of Bill** - Select End of Bill to move immediately to the bottom of the bill image.

- **Page Number** - Select Page Number to move to a specific page number in the bill image. After clicking, enter a number. If a number is already there, replace it or click on the up and down arrows to change it. Then click **First** to go to the first instance of the page number.

- **Item Number** - Select Item Number to move to a specific item number in the bill image. After clicking, enter a number. If a number is already there, replace it or click on the up and down arrows to change it. Then click **First** to go to the first instance of the item number.

- **Carrier** - Select Carrier to open a drop-down box listing the names of the carriers in the bill. Select one and click on **First** to go to the first instance of that carrier in the bill.

- **Section** - Select Section to open a drop-down box listing the various sections of the bill. Select one and click on **First** to go to the first instance of that section in the bill.
DI - Select DI to open a drop-down box listing the department identification codes (DIs) in the bill. Select one and click on **First** to go to the first instance of that DI in the bill.

Text - Select **Text**, then enter any text string for DAB to find in the bill. Click on **First** to find the first instance of the text.

### Find Dialog Box Command Buttons

After specifying the item you wish to find, use one of the command buttons to move within the bill image:

**First** - Goes to the first instance of the search object in the bill.

**Next** - Goes to the closest instance of the search object in the bill below the current location.

**Previous** - Goes to the closest instance of the search object in the bill above the current location.

**Cancel** - Closes the Find dialog box and returns you to the AT&T Bill Image. (To reveal the bill image behind the dialog box without closing it, click on the title bar of the dialog box and drag it.)

### How Do I Find Information in the Bill Image?

1. Select Find from the File menu.
2. Click the desired option button.
3. Select the search item from drop-down lists (for Account, Billing Number, Carrier, Section, or DI) or type the search item (for Page Number, Item Number, or text.)
4. Where appropriate, choose to go to the First, Last, or Previous instance of the search item.
5. Click **Cancel** to close the Find dialog.
AT&T Bill Image Browser - Other File Functions

In addition to the Find function, the File menu offers several other functions for manipulating the text in the bill image:

- Selecting Text
- Copy Text
- Print Text
- Close

Selecting Text

You can select text in the browser, either single lines, or blocks of text. Selected text, highlighted in blue, can be printed or copied to the clipboard for use with another application, such as a word processor.

Copy

Copy selected text to the clipboard for use with other applications. First highlight the area you want to copy by selecting the text; then choose Copy from the File menu. The selected text will be in the clipboard and can be pasted into other programs.

Print

Print the selected text to the default printer by choosing Print from the File menu.

Print with Logo

Print the selected text to the default printer with the AT&T Logo in the upper left hand corner by choosing Print with Logo from the File menu.

Close

Choose Close from the File menu to close the AT&T Bill Image Browser and return to the DAB main menu.

How Do I Select Bill Image Text?

1. Move the cursor to the position on the bill you want to begin. Perform a left click with the mouse, and hold down and drag over the text you want to select, then release the mouse. Text will be highlighted in blue.

How Do I Copy or Print Bill Image Text?

1. Select the text you wish to copy. (See How Do I Select Bill Image Text.)

2. Perform a right click of the mouse. The File menu will appear. Choose Copy, Print, or Print with Logo. The selected text is placed on the clipboard and can be pasted into other applications, or it is printed to the default printer.

* * *
Query

Querying the Database

The Query function provides \textit{ad hoc} querying of the Diskette Analyzer Bill (DAB) database. You can build, execute and save specialized inquiry of the information in the database tables. A set of predefined queries is included to meet the needs of most users immediately. Use these as they are, or modify them into customized queries.

After previewing the selected records in a simple grid, you can easily customize the appearance of the records for a printed report.

Query Builder

Diskette Analyzer Bill stores its information in tables belonging to five basic Categories:

1. Monthly Charges.
2. Other Charges & Credits.
3. Itemized Usage Charges.
4. Bulk Usage Charges (such as local service).
5. Directory Assistance.
6. Taxes.
7. Unallocated Charges

You can perform \textit{ad hoc} queries by any category. (Although for technical reasons the information for your query may be carried in two or more database tables, the table structure itself will be invisible to you. As you specify the criteria for the query, the Query Builder will present you with all the appropriate field names.)

The DAB method starts with the Query Builder screen. Click Query from the main menu.

The method is simple. Begin by selecting an Invoice Month on the DAB Toolbar and the Charge Category on the Query builder screen; open the drop-down lists and select. After choosing the category, DAB will group and display all the fields from the appropriate underlying tables. It is within this logical record set that you will perform your query.

The selection grid has a column for each field you wish to search. The rows in the grid specify the field, sorting directions, whether or not to display the contents of the field you are searching, and the target values and means of comparison for that field. You may set as many as 12 values for each field. Within each column, the values you indicate are connected by the logical OR. That is to say, a record will be selected if it compares with any of the values in the column. Across columns, on the other hand, the values are connected by the logical AND, meaning that the record must match criteria from all the columns for it to be included.
Building a Query -- Step by Step

Taking it one step at a time, choose the Month and Charge Category; then proceed in this manner:

1. Click on the Field cell in the first column. A drop-down list opens, giving all the fields in the category in alphabetical order. (When the Hierarchy is user-defined, the DI Code will not appear as a Query field.)

Select a field.

2. Select Group function (Group by, Sum, or Count) if desired. (See How Do I Use the Group Field Functions. For a complete discussion of Group functions, see Appendix - Grouping Query Fields.)

3. Choose Yes on Total By to group subtotals in the report on this field. The field itself need not be a numeric one.

4. Total On tells DAB to run a total of the contents of this field. It must be a numeric field.

5. If you want the resulting list sorted according to the data in this field, click on the cell for Sort By. Choose Ascending or Descending.

6. Click on the Show cell and choose Yes if you want this field shown on each row of the results; choose No if you do not want it shown. For instance, if this is a date field, and you do not wish to have the same date repeated on every line of the report, choose No.

7. Click the Compare cell and choose the logical comparison for DAB to perform to decide if a record should be included.

8. Click the first Value(s) cell. For some fields, such as CustomerID, choose a value from the list; for more arbitrary fields, such as Costs, enter a value.
9. If you want to include more values on this field in your query (for example, include records with a Date of 3/11 OR 3/17), click on the next Value(s) cell and enter another value. You may enter as many as 12 values for each field.

10. To narrow the query, add another field in another column. Columns are logically ‘AND’ed, so a record must meet the criteria for all the columns before it will be included.

11. DELETE A FIELD. To remove a column and its field from the query, perform a right click above the Field name of the column you want to remove. The entire column will then turn blue. Then perform a second right click, and a message will appear asking verification that you want to delete the highlighted field name. Respond either Yes or No.

12. Click Run to initiate the search.

More detailed explanation is given under Query Builder Fields. A brief summary of the procedure is next.

**How Do I Build a Query?**

1. From the main menu, choose Query.
2. Select the Month, Charge category, and a hierarchy level or member.
3. You must choose at least one selection (search) field and at least one display (show) field. (A single field can be used for both.)
4. For selection fields, choose a Compare method and one or more Values.
5. Indicate Group options. (See *How Do I Use the Group Field Functions.*)
6. Choose Total By for subtotal breaks on this field.
7. Choose Total On if you want the total of a numeric field.
8. Choose Sort options if the report is to be sorted on this field.
9. For each display field, choose Yes for Show.
10. Click Run to initiate the Query.

**Query Builder Fields**

The Query Builder screen has the following fields:

- **Category** - Select a specific Charge Category (Monthly Charges, Other Charges and Credits, Itemized Usage Charges, Bulk Usage Charges, Directory Assistance, Taxes, or Unallocated Charges Rpt) from the drop-down list.

- **Hierarchy** - Choose the hierarchy level to include in the query from the hierarchy grid. This limits the records searched to those applicable to
members of the organizational hierarchy level selected. Only those levels available to the logged on user appear on the grid. The appearance of the hierarchy depends on the choice of hierarchy level.

Field - The first row of a column is the field name from the table. This drop-down list names the data fields applicable to the category being searched. The list consists of the field’s name in the table as well as a simple description. Simply click a name to select it. For a complete list of all the query fields, see Appendix - Query Fields. (See note below about memo fields.)

Group - Choose one of the Group functions: Group By, Sum, Count, or <N/A>.

Group By - When Group By is indicated in a field, Query finds repeated instances of the Compare value(s). If multiple records share the values in these fields, only one record shows in the report. Entire records need not be duplicates to be grouped; they need only share the values in the fields where Group By is indicated. (Of course, if there are duplicate records, they will be part of the group.) Note: Do not use Group to place similar individual records together, such as all calls the same ToNumber. Use Sort to do that.

Sum - In numeric fields, Sum causes Query to display the sum of the values in the group rather than the value of an individual member of the group. The values being summed may be different from others in the same group; it is the values in the Group By fields that must be the same for records to be grouped. (When Group By is indicated in a numeric field, the value displayed is that of a single instance.)

Count - Returns the number of instances in the group. The field in which you make this indication is not part of the group. Ignore the column heading in the report.

<N/A> - Turn off the grouping function. This will apply to all fields at

Total By - Total By allows your report to include subtotals of numeric fields at breakpoints on this field. This field need not be numeric to use it for breakpoints. For example, you could get new totals of costs every time the Date or Calling Number changes. The choices are Yes or No. If you wish to blank this cell, choose < >.

Total On - Total On directs your report to include totals of this field. Obviously, the field must be a numeric one. The choices are Yes or No. If you wish to blank this cell, choose <N/A>.

Sort - You can elect to have the resulting list sorted according to the values in this field. The drop-down list offers three choices, Ascending, Descending, and Not Sorted. If you do not want the data sorted by this field, leave the Sort cell blank, or select Not Sorted. If no column indicates a sort, the records are displayed in the order they appear in the underlying tables. If the Sort cell is chosen in several columns, the field in the leftmost column will be the primary sort field. The next one to the right will be secondary sort field, and so on across the grid.

Show - The Show cell determines whether or not this field will be displayed with the results. For instance, you may choose the Date field to see all charges for a particular date, but you do not want the date displayed on each line of the report. Choosing No here will suppress that display while still using the Date field to conduct the query.
**Compare and Value(s)** - The last two fields, **Compare** and **Value(s)**, require a bit more explanation. See separate descriptions below.

**MEMO FIELDS** - Memo fields are fields in the database that contain unstructured text. If you choose a memo field (such as OCC Description) for your Query, the Sort On and Group On functions must not be used. You can either Sort On or Group On and leave the memo field out of the Query, or include the memo field but not invoke Sort or Group functions on any field in the Query. A popup message will remind you if you select a memo field and have Sort or Group functions indicated in any of the fields.

**Compare**

DAB tests each record in the database to determine whether or not it should be part of the Query result. The test means comparing the value of chosen field against a target value. If the test is met, then the record is included in the result. The test may be simply for a chosen field in the record under consideration to equal the target value, such as the Date field being 'equal' to a given date. But other forms of comparison are available as well, such as ‘Not Equal To.’ Setting the test as ‘Not Equal To’ a certain date means that the Query result will include all records except those of the target date. Set the method of comparison in this part of the **Query Builder**.

Compare is a drop-down list from which you select the desired comparison operand. The operands include:

- **Equal To** - The data in the search must be exactly the same as the value you enter.
- **Not Equal To** - The data must be different from the value you enter.
- **Greater Than** - The data must be greater than the value you enter.
- **Not Greater Than** (i.e., Less than or equal to) - The data can be either less than or equal to the value you enter.
- **Less Than** - The data must be less than the value you enter.
- **Not Less Than** (i.e., Greater than or equal to) - The data can be either equal to or less than the value you enter.
- **Like** - For alphanumeric fields, the comparative **Like** is used with the asterisk wildcard character to find records with data ‘like’ the value you enter. For example, searching a Name field for entries ‘Like JO*’ would find records where the name is JONES or JOHNSON, but not BUJONES. A search for records ‘Like *JO*’ (note the wildcard in two places) would hit all three names.
- **Not Like** - Also for alphanumeric fields, the comparative **Not Like** excludes all records that match the search string. With the asterisk as a wildcard character, the search will leave out those that meet the criteria. Therefore, ‘Not Like JOHNSON’ would leave JOHNSON out but include JONES and BUJONES; ‘Not Like JO*’ would exclude JONES and JOHNSON, but not BUJONES; ‘Not Like *JO*’ would leave out anyone whose name includes ‘JO’ anywhere.
- **Between** - There is no drop-down choice for finding those records whose data falls between two values you enter. You can emulate this comparison function in this manner: Use the same field in two
columns; enter a **Not Greater Than** comparison in one column with the upper value and a **Not Less Than** comparison in another column with the lower value. The query results will be ‘between’ the two values.

**Value(s)**

After you have chosen the test field and method of comparison, you must set a target value for the test. These Value(s) cells are the only cells on the grid that you type into directly. (The other cells are not editable; their entries come only from the drop-down selection lists.)

On the first **Value** row, enter the criterion that must be met by the respective **Field** and **Compare** specifications in order for a record to be selected. To make setting the **Value** easier, DAB presents a scrolling list of values where applicable. Applicable fields include Customer IDs, USOC Codes, States and other fields with a finite set of values. Fields such as Time, Call Length, or Cost will not have drop-down lists of values and must be keyed in by the user.

**NOTE:** On Usage queries enter values for the TimeOfDay field as *hh:mm*, using a 24-hour clock. For example, an entry of **01:30** is 1:30 AM and **13:30** is 1:30 PM.

The other rows in the column allow for multiple values to be specified for one field, the logical **OR**. Click on the next row and add another value. The comparison with this value will be in the same fashion as the one above. Therefore, for the **State** field, **Compare** ‘Equal To’ with the first value **MD** and the second value **NM**, the query will select records for which the State is Maryland OR New Mexico. Up to 12 values may be ‘OR’ed in this way for each field.

Recall, though, that each **column** is logically an **AND** to all the others. Therefore, putting more values in a single column (**OR**) broadens the query, but adding more columns (**AND**) narrows it.

After you have filled in the desired search criteria, click **Find** to effect the search. If you require still more refined queries on the data, choose **Report - Create File** to send the data to a file for use in conducting further analysis in other programs. Moreover, you can run and export two or more separate queries in this manner for comparative analysis. (**See** *Query Reports and Reporting*.)

**SQL**

SQL is Structured Query Language, a high level computer description of the search you have specified. After entering your criteria and before you click **Find**, you may click the **SQL** button to see the actual specification for your search that DAB will execute. It gives the fields in the order they will appear and the selection criteria for the records that will be chosen. While this step is not essential to the process, it will often clarify and help solve logical problems in the layout of your query.

**How Do I Use the Group Field Functions?**

1. For any Field on the Query grid, choose Group.
2. Choose Group By to report all records with the same value in this field as a single group.
3. Choose Sum in a numeric field to report the sum of the values in the group, not the values of individual members of the group.
4. Choose Count in a field you are not otherwise using to report how many records are in the groups on each row. (You may then wish to
change this column’s title on the report to ‘Count.’ Right-click in the column to make the change.)

Rearranging, Running and Resetting a Query

After setting the query specifications, the following controls are available:

**Rearrange the Fields** - You can rearrange the order of the fields before you initiate the query. Simply left click in the space above the field name you want to move, and drag the column to its new position.

**SQL** - Click **SQL** to see the Structured Query Language version of the search specifications you have entered.

**Run** - Click **Run** to start the query itself. DAB will find the records that match the criteria you have entered in the grid.

**Reset** - Click the on-screen **Reset** button to clear all specifications from the query grid to allow another query. (Note: Do not confuse this with the reset button your computer console.)

**Close** - Click **Close** to end the Query session and return to the main menu screen.

**Recall** - Click **Recall** to retrieve a previously saved Query.

**Save** - Click **Save** to open the **Save Query** screen. The Query can be saved for use at any later time. (See **Saving Queries**.)

**Import** - **Import** allows the user to import queries previously exported to a comma separated value (csv) file. Click **Import** and browse for the path of the Query.csv, then click **Open**.

**Export** - **Export** allows the user to export their saved queries to a comma separated value (csv) file for future use (e.g., DAB Re-Install). Click **Export** and browse for the path of the Query.csv, then click **Save**.

Select Import File Name screen to import previously saved queries.
Select Export File Name screen to export previously saved queries.

Help - Click Help to recall the procedure for Building a Query.

Query Results and Reporting

The results of the search are presented in a simple dynamic grid.

Part of scrolling grid showing results of a query.

Readjusting column position and width at this point can be particularly useful, as it may allow using the results of a single query to produce several reports for different purposes. The display can be customized in various other ways as well: a title can be added, and columns can be rearranged, adjusted and titled.

Rearranging Columns - The columns can be shuffled for better readability or to emphasize certain fields. Click and drag the header name at the top of the column to its new position. Release the mouse button to place it in its new position.

Customizing the Title - To change the title line of the report, right click on the title line and type in a new title. Since you may use this query result for different purposes, the title can be changed as many times as necessary.
Renaming Columns - The names at the head of each column are taken directly from the underlying database tables. While somewhat descriptive, they are frequently awkward, obscure, or grammatically inelegant. To change one before you print the results, place the cursor on the column header field name and perform a right click. This opens a dialog box that allows you to give an ad hoc name to the column.

Text Alignment - To change the alignment of data in a column, right click in the header field name. Drop down the Alignment choices (Left Justified, Centered Right Justified). Choose the one desired and click Apply.

Report - Clicking Report sends the query as you have formatted it to a printer via the normal print dialog box. Choose Report - Create File to send the data to a text file for use by other programs. The text is delimited by double quotes and fields are delimited by commas. The Save As...dialog box requests a file name. Name your file being sure to use a .txt file extension ex: Query.txt.

Close - Click Close to return to the Query Builder screen.

How Do I Customize a Report?

1. With data showing--such as the results of a Query--click Report - Customize Report.
2. To rearrange the order or the columns, Click and drag the header name at the top of the column to its new position. Release the mouse button to place it in its new position.
3. To change the name of a column, right-click in the column header name and indicate a new name.
4. Right-click on the title to customize the title of the report.
Saving Queries

Developing and entering search criteria for a query can be an intricate process; once accomplished, it may be desirable to save the query for use in the future. The query may be run again on the same or different hierarchy member or on a different invoice month. Moreover, the same query may be used with slight modification for a totally different query. Storing queries saves you the effort of thinking through the criteria and entering your specifications each time you want to run the query.

How Do I Save a Query?

1. Enter all the criteria for the query.
2. Click Save on the Query Builder screen. This opens the Save Query window.
3. If this is an entirely new query, click Save New on the Save Query window. The screen provides two panels for your use. In the top one, Name, type in a name for the query. Move the cursor to the Description panel by clicking on it or pressing the TAB key. Type in a description to help you recall the purpose of the query later. (Note: You must enter both a Name and a Description.) Click Save to record your new entry or Cancel to abandon it.
4. If this is a modification of previously saved query, click the name of the query in the Saved Queries panel, then click Replace.
5. If you select a hierarchy member before you save the query, the Member ID will become part of the query. When you recall the query, it will apply to that member or branch of the hierarchy only. However, with the query recalled, you can select a different member to run the query on, and even save it as a new query.

How Do I Recall a Saved Query?

1. Click Recall on the Query Builder screen. This opens the Saved Queries window.
2. Highlight the name of a saved query from the bottom panel. Click **Recall** to retrieve it. The **Saved Query** window closes and the criteria are placed in the **Query Builder** grid. You can now run the query or modify it.

3. If you do not want to load a query, click **Close** on the **Saved Queries** window.

Recalling a saved Query for reuse.

*How Do I Modify a Saved Query?*

1. Click **Recall** on the **Query Builder** screen.
2. Recall a previously saved query, as above.
3. With the query on the **Query Builder** grid, make any changes you wish.
4. Click **Save** and then **Save New**; enter a new name and description.
5. Click **Save** to store the new query and return to the **Query Builder**.

**Predefined Queries**

DAB contains a set of predefined queries that will meet many of your needs without requiring you to construct a query at all. From the Query Builder screen, click **Recall**. The predefined queries are prefaced by ‘**PRE**-’ in the Previously Saved Queries panel. Select the query you wish to run, as you would any saved query.

The following tips are not query specific, but apply to most of the predefined queries.

- Predefined queries cannot be modified. However, you can recall a predefined query, make any changes you wish, and then save it so the modified report can be run whenever you wish. First, click **Recall** to open the predefined query. Make the desired changes on the **Query Builder** grid. Then click the **Save** button to return to the Saved
Queries screen. Click Save New... (not the Replace button). Give the modified query a new name. It now is part of your customized set.

- As with any query, you can drill down through the hierarchy to run the query on any hierarchy branch or member you choose.
- The Billing Number and Customer ID fields are used in most queries. But if these fields—or any other fields—are not needed in your report, you can remove them. To remove a field, right-click on the applicable column. Answer Yes to the question that pops up.
- If a field is used for selection purposes but is not needed in the printed report, change the row titled ‘Show’ to No in the appropriate column. An example of this would be the Station or Circuit Flag field, both of which are used to choose records, but whose appearance in the final report usually serves no purpose.
- On queries where the Compare feature is not used, you will receive a warning message that all the records will be retrieved, and asking if you want to run the query anyway. Reply Yes.
- If you would like to remove some of the white separator lines that appear in the reports, remove Yes under ‘Total By.’

Constructing Queries — A Tutorial

Queries can run the gamut from searching for a particular call to finding all credits from a selection of vendors to isolating the charges for circuits used by a single department. In fact, when you consider what your needs might be as you query your telecom data, there are literally unlimited possibilities. Rather than presenting a limited menu of canned queries, the operation of the DAB Query Builder is open-ended. This allows the broadest possible flexibility. If you need to find something in your data, the Query Builder can get it for you. Unfortunately, this open-ended nature may make constructing a query seem daunting to the novice user. This tutorial aims at putting you at your ease by developing several queries step-by-step while pointing out some tips along the way.

(Note: To keep the examples simple, the tutorial ignores the Grouping functions. A tutorial on their use forms a separate appendix, Query Fields.)

Choose a Charge Category

Diskette Analyzer Billing System allows you to query Monthly Charges, OC&C (Other Charges and Credits), Itemized Usage Charges, Bulk Usage Charges, Directory Assistance Charges, Taxes, Unallocated Charges Report). So the very first step in developing any query is determining which of these three categories of charges you want to query. Make your selection from the drop-down list at the top of the screen:

<table>
<thead>
<tr>
<th>Monthly Charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Charges</td>
</tr>
<tr>
<td>Other Charges &amp; Credits</td>
</tr>
<tr>
<td>Itemized Usage Charges</td>
</tr>
<tr>
<td>Bulk Usage Charges</td>
</tr>
<tr>
<td>Directory Assistance</td>
</tr>
<tr>
<td>Taxes</td>
</tr>
<tr>
<td>Unallocated Charges Rpt</td>
</tr>
</tbody>
</table>

(The screen also allows you to select a different invoice month or narrow the query to a particular hierarchy entity. Selection these as you do in other areas of DAB.)
Search Fields and Display Fields

All Queries have two parts: search criteria and display criteria. The **Query Builder** grid handles both parts.

Search criteria direct DAB to locate the records you want to see, the target records. You set search criteria by indicating the field or fields DAB should examine and the data it should look. A match identifies a target record.

Display criteria tells DAB what information you want to see in the result of the query. Display fields are the fields on the target records that you want included in the result. You also set criteria for the manner in which you want them displayed, including grouping, sorting, and totaling of the results.

You may use some fields for the search only and you may use some fields for display only. But a single field can be both a target field and a display field, as our first example shows.

**Example — Building a Usage Query**

The simplest query instructions would be to search on a single field for records meeting a single criterion, and then display only that field. For instance, you want to search usage charges and list all individual charges greater than $5.00. You could define this stark query as follows. First, select either Itemized or Bulk Usage from the **Category** selection box at the top of the **Query Builder**:

```
Itemized Usage Charges
```

Then indicate the following in the first column of the grid (While ‘Charge’ is the field identifier on the grid, the field selection box describes it as ‘Cost of Call’):

<table>
<thead>
<tr>
<th>Field:</th>
<th>Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group:</td>
<td></td>
</tr>
<tr>
<td>Total By:</td>
<td></td>
</tr>
<tr>
<td>Total On:</td>
<td></td>
</tr>
<tr>
<td>Sort By:</td>
<td></td>
</tr>
<tr>
<td>Show:</td>
<td>Yes</td>
</tr>
<tr>
<td>Compare:</td>
<td>Greater Than</td>
</tr>
<tr>
<td>Value(s):</td>
<td>5.00</td>
</tr>
</tbody>
</table>

The comparison tells DAB to look on the Charge field for values that are greater than $5.00. That constitutes our search criteria (in this simplest case, only one criterion). Indicating ‘Yes’ on the Show row sets the display specification: Show this field on the result.

Click **Find** to display the results, which will be a single-column list of numbers. Granted, this is not a very informative report. Let’s build on it to make it more useful. Perhaps you should add the number called in each instance, and perhaps the date and time each call was placed. Simply define the additional columns of fields to display: Choose ‘ToNumber’ for the called number, ‘DateOfCall’, and ‘TimeOfCall’.

<table>
<thead>
<tr>
<th>Field:</th>
<th>Charge</th>
<th>ToNumber</th>
<th>DateOfCall</th>
<th>TimeOfCall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total By:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total On:</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Sort By:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Show:</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Compare:</td>
<td>Greater Than</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Value(s):</td>
<td>5.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
We can take it further and see the number responsible for making each call. Add the BillingNumber field:

<table>
<thead>
<tr>
<th>Field</th>
<th>BillingNumber</th>
</tr>
</thead>
</table>

Notice that only the ‘Charge’ field has a value comparison. In this Query, that is the only search field. That field and all the others constitute the display fields. Let’s assume we want to narrow the search of these expensive calls to only those that lasted less than 30 minutes. We also feel that we do not need to see the duration in the result. To accomplish this, add a column for the ‘DurationInMinutes’ field (‘Length of Call in Minutes’) as follows:

<table>
<thead>
<tr>
<th>Field</th>
<th>DurationInMinutes</th>
</tr>
</thead>
</table>

Notice that the Show row says ‘No’; this field will not appear in the results. We included the duration on the query grid solely as a search criterion. If you want it to appear, select ‘Yes’.

This final definition now includes fields that will be displayed but not searched, one that will be both searched and displayed, and one that will be searched but not displayed. As you develop your own queries, keep the distinction between these three types in mind.

**Example — Building a Monthly Charges Query**

For queries on recurring monthly charges, select **Monthly Charges** from the Category selection box at the top:

Assume that you want a list of all USOC items for which you are paying more than $50.00 per month, broken down by department. First, set the search criterion. Select ‘Monthly Service Charge Per USOC’, or the ‘RecurringCharge’ as the Field. Have DAB search for only those records where the value on this field is greater than $50.00 by setting Compare as ‘Greater Than’ and Value to ‘50.00’:
Now, add other fields you want to see in the results. Add the departments (choose ‘Department Identifier - 1st Level’ for ‘CustomerID’), the USOC descriptions (‘Billing Code Description for Each Service’), and the monthly charge (‘Monthly Service Charge Per USOC’ for ‘RecurringAmount’). Select ‘Yes’ for Show in each column. In the column for the ‘CustomerID’ field indicate ‘Ascending’ for Sort By and ‘Yes’ for Total By. That will group the charges for each department together and create subtotals for each department.

Click Find to execute the query.

**Example — Building an OC&C Query**

Define queries into Other Charges and Credits (OC&C) in the same manner as you do those for Usage and Monthly Charges. Select Other Charges and Credits from the Category selection box:

For our example, we want to see all credit items, grouped and subtotaled by department. Start with the department field by choosing ‘Department Identifier - 1st Level’ and labeled ‘CustomerId’. Total By should be ‘Yes’ and Sort By in ‘Ascending’ order. You do want to Show this field. Credits themselves are presented as negative charges. So add a column for the ‘BilledAmount’ field by selecting ‘Actual Amount Billed to the Customer’s Account’. Compare as ‘Less Than’ with a Value of ‘0.00’. This will select all negative charges, the credits. The definition will look like:
This definition uses the ‘CustomerID’ to group and sort and the ‘BilledAmount’ to select only those records that show negative numbers, representing credits. You can add other fields if you want further detail from each record.

FULL AMOUNTS AND BILLED AMOUNTS. Notice that, in addition to the ‘BilledAmount’ field, there is also a ‘FullAmount’ field, described as ‘Total Amount due for One Time or Recurring Charges’. The latter is the price for a full month’s worth of the service, whether you are being charged or credited for it. Think of it as the catalog price for the item. However, the charge (or credit) will frequently be for only part of the month. That actual charge (or credit) from the invoice is on the ‘BilledAmount’ field. That is the value we included in the query.

Other Query Considerations

In addition to setting search criteria and directing whether or not to display a field, the Query Builder offers several other options.

SORT BY. You can designate any field or combination of fields as sort keys for the results. Select ‘Yes’ on this row to have the field in the column used as a sort field. If it is a numeric field, select ‘Ascending’ to sort the records from least to greatest, and ‘Descending’ from greatest to least. If you indicate more than one key, DAB uses the leftmost one as the primary key, and works across the grid from left to right for the secondary sort keys. Therefore, make sure to designate the field you want as the primary sort key in the leftmost column.

GROUP FUNCTIONS. The Group functions (Group By, Sum, and Count) are treated extensively in a separate tutorial in the Appendix - Grouping Query Fields.

TOTAL BY. ‘Yes’ here causes DAB to group the records in the result together until the value in this field changes. All numeric fields will have subtotals based on that grouping, but the grouping field does not have to be numeric itself. For instance, you could select the ‘CalledCity’ field for groups and subtotals. Usually a field used for grouping is also a Sort field.

TOTAL ON. ‘Yes’ here directs DAB to total this field at the bottom of the results. Obviously, this is available only for numeric fields.

SAVING A QUERY. Save a query so that you can recall your query later and run or modify it further at that time. As setting all these criteria requires some thought and effort (and perhaps some time spent in trial and error), take advantage of the Save button. If you do not save the query, its specifications will be lost when you Close the Query Builder.

DELETING A FIELD. To delete a field from the query specification, right-click in the field’s column header name, and select ‘Yes’ at the ‘Remove?’ prompt.
Appendix - Grouping Query Fields

What Are Group Functions and What Can They Show Me?

Group By

When you submit a Query without grouping, DAB looks at the values in every field for which you have indicated a Compare statement. When a record’s values match the values you input, that record is selected and displayed in the result. For an example, assume a Usage Query where the DateOfCall field is set to ‘Compare: Equal To:’ any date in the loaded month.

<table>
<thead>
<tr>
<th>Field</th>
<th>DateOfCall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td></td>
</tr>
<tr>
<td>Total By</td>
<td></td>
</tr>
<tr>
<td>Total On</td>
<td></td>
</tr>
<tr>
<td>Sort By</td>
<td></td>
</tr>
<tr>
<td>Show</td>
<td></td>
</tr>
<tr>
<td>Compare</td>
<td>Equal To</td>
</tr>
<tr>
<td>Value[s]</td>
<td>11/15/38</td>
</tr>
</tbody>
</table>

The result will show a row of data for every call made on that day. If the only field to be shown is the FromNumber, the result will have many rows with the same calling number. Thus, if station (678) 555-2000 made 15 calls that day, ‘6785552000’ will appear on 15 rows of the result. If (678) 555-2001 made 2 calls, ‘6785552001’ will appear on 2 rows. Station (678) 555-2002 made 154 calls and there will be 154 rows of ‘6785552002’! (But station (678) 555-2003 made no calls, and so doesn’t appear at all.) This repetitive result may or may not be useful, depending on your needs.

However, it might be more useful (and certainly more concise) if you could group the similar records together, so that each calling number appears only once. The Group function does this. Grouping separates the selected records into groups. When a field—a Query column—is marked ‘Group By,’ DAB examines the values in that field and treats all records with common values in that field as a single record. They are displayed only once. In our example, if the records were grouped by FromNumber, the result will show one and only one row for each FromNumber that made any calls on that date. The 2000 number will show on 1 row; the 2001 number will also show on 1 row, as will the 2002 number. In effect, we now have a list of numbers that made calls on that date. There is no information given about each individual call.

<table>
<thead>
<tr>
<th>Field</th>
<th>DateOfCall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>Group By</td>
</tr>
<tr>
<td>Total By</td>
<td></td>
</tr>
<tr>
<td>Total On</td>
<td></td>
</tr>
<tr>
<td>Sort By</td>
<td>Ascending</td>
</tr>
<tr>
<td>Show</td>
<td>Yes</td>
</tr>
<tr>
<td>Compare</td>
<td>Equal To</td>
</tr>
<tr>
<td>Value[s]</td>
<td>11/15/38</td>
</tr>
</tbody>
</table>
Adding additional columns narrows the selection for inclusion in each group and usually increases the number of groups themselves. For example, add the field ToState (the destination state of the call), set it to Group By and Show. The result will have at least one row for each number making calls, but will have multiple rows for those numbers that called different states.

<table>
<thead>
<tr>
<th>Field</th>
<th>DateOfCall</th>
<th>ToState</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>Group by</td>
<td>Group by</td>
</tr>
<tr>
<td>Total By</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total On</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sort By</td>
<td>Ascending</td>
<td>Ascending</td>
</tr>
<tr>
<td>Show</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Compare</td>
<td>Equal To</td>
<td></td>
</tr>
<tr>
<td>Value(s)</td>
<td>11/15/98</td>
<td></td>
</tr>
</tbody>
</table>

(If the contents of the ‘Group By’ fields you use are likely to be even more varied—such as TimeOfCall—or if you add many fields, you will further increase the number of different groups. It is possible to expand the number of groups to the extent that each group will have only one member. The resulting report will have as many rows as if you had not grouped at all!)

**Sum**

The other grouping functions, Sum and Count, provide additional information about the groups themselves. If you show a numeric field and choose the Sum function in Grouping for that field, the result gives the total of the individual values in each group. In the example, if we were also to show the Charge field with the Sum function selected, the result would show one row for each FromNumber used that day. The total of the charges for the calls from that number appears under Charge. The 15 charges to (678) 555-2000 would be added together and shown under Charge. The 2 calls from (678) 555-2001 would be added together and displayed, and so forth.

<table>
<thead>
<tr>
<th>Field</th>
<th>DateOfCall</th>
<th>Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>Group by</td>
<td>Sum</td>
</tr>
<tr>
<td>Total By</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total On</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sort By</td>
<td>Ascending</td>
<td></td>
</tr>
<tr>
<td>Show</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Compare</td>
<td>Equal To</td>
<td></td>
</tr>
<tr>
<td>Value(s)</td>
<td>11/15/98</td>
<td></td>
</tr>
</tbody>
</table>

(Nota, though, that if you use the Charge field and leave the option as ‘Group By’ instead of Sum, each group will contain records from the same calling number on the same date, as before. However, all records in the group will have the same Charge! In other words, there will be no totals for the groups; rather, there will be a separate group for each call cost for each number. The numeric value in the field is the charge for each call, not the total for the group. The results may look just like an ungrouped result, with many rows for each calling number, each showing different charges. But the danger here is that some of those rows may represent multiple calls with the same charge. They will be combined and shown as one, indistinguishable from the other rows that represent individual calls. This can easily be misinterpreted...
by the reader of the report. As a check on this, it would be prudent to include a column for the Count in the report.)

**Count**

Sum works on numeric fields only, but Count can be used in any field. Choosing Count in any field tells DAB to ignore that field’s contents and instead tell how many records are in each group. For this, choose any field you are not otherwise using to serve as the counter. Returning to the example and using, say, the Mileage field, select Count for the Grouping on that field. The result will give the number of records grouped on each row. The Mileage column will show 15 on the (678) 555-2000 row and 2 on the (678) 555-2001 row. (Although the header on the column in the result will still read ‘Mileage,’ the data shown is the number of records in the group for that row.)

<table>
<thead>
<tr>
<th>Field</th>
<th>DateOfCall</th>
<th>Charge</th>
<th>Mileage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group by</td>
<td>Grouped</td>
<td>Sum</td>
<td>Count</td>
</tr>
<tr>
<td>Total By</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Total On</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Sort By</td>
<td>Ascending</td>
<td>Ascending</td>
<td>Ascending</td>
</tr>
<tr>
<td>Show</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Compare</td>
<td>Equal To</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value(s)</td>
<td>11/15/98</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Combining Group By, Sum, and Count, our example will now show one row for each calling number used on the given date. Each row will show the calling number, the total charges for the calls from that number, and the count of the calls made. The report will give grand totals of the charges and number of calls if you indicate Total On in those columns.

*Choosing a Count Field*

You can select any unused field as the Count field. However, if you want to use Total On the Count to get a total count of the records selected, you must use a numeric field as the Count field. A character field, such as Vendor, can be used, but you cannot Total On the Count in a character field.

Available numeric fields depend on the category of charges. For Monthly Charges the numeric fields are: Qty and RecurringAmount. For Other Charges & Credits, they are: BilledAmount, FullAmount, and Qty. For Itemized Usage Charges, they are: Charge, DurationInMinutes, Mileage, NumberOfCalls, and OtherLineCharge. For Bulk Usage Charges they are: BilledAmount and BilledCalls.

**All or None**

Grouping applies to all fields that you choose for the Query. You cannot have some fields Grouped and others not. Therefore, when you indicate Group in any field, the indication appears in all fields. Similarly, when you turn Group off in one field by selecting <N/A>, Group is turned off for all fields.

**Double-checking Your Results**

To make sure your results are telling you what want to know, and that the groups or sums contain the records you expect them to, it may be helpful occasionally to check
your query. One way is to see the grouped records ungrouped. Simply add another column or columns that will certainly yield unique results, such as TimeOfDay. Indicate No for Show on the grid. Now each row in the result will show a ‘1’ in the Count columns, and those that had been, say 15 will now show on 15 different rows. (Of course, this is identical to using no grouping at all and sorting by DateOfCall and FromNumber.) You can compare this with the grouped version to see which records comprise each group. In this way you will see whether or not you are correctly interpreting the results. Remove that new column from the grid when you are satisfied with your query specifications to return to the grouped version.

### Grouping, Total On and Total By

In the construction of a Query, take care to distinguish between grouping, which affects how individual records and rows are displayed, and Total On and Total By, which affect the layout of the finished report.

If you both Group By and also Total On a numeric field, the total at the bottom will be the sum of the individual value of each group, not the aggregate of all the values within the group. For example, assume that a numeric field’s values on four records are 5, 4, 5, and 3. If they are not grouped, the total at the bottom of the query result will be 5+4+5+3, or 17. But if the records in this column are grouped, the sum will be 12 (5+4+3), because the 5’s are grouped together and shown and counted only once. However, if the group function for the field is Sum and column is Totaled On, the total will be the sum of all the aggregates. In the example, the total will again be 17, that is 10 (the group of two 5’s)+4+3.

Using Total By with grouping is somewhat redundant, in that each row will be a separate breakpoint, and subtotals can be included in the row itself using a Sum field.

### Grouping versus Sorting

Do not use grouping to see individual records with like records together, such as all calls to the same ToNumber. Instead, use Sort and choose appropriate fields for sorting. Remember, DAB sorts from left to right.

### Putting It All Together - Another Query to Try

You want day-by-day summaries by calling numbers of how many calls, their duration, and their charges. In the first column of the Query grid choose DateOfCall Group By - Sort. Do not enter a comparative; this ensures that all calls will be included. In the next column, choose FromNumber - Group By. In the third column, pick any unused numeric field, such as Mileage, and indicate Count - Total On. The next column should have DurationInMinutes - Sum - Total On. The last column will have Charge - Sum - Total On.
The result of this query is a report that tells you, day by day, for each calling number, how many calls it made, and what the total duration and total costs were.

* * *

<table>
<thead>
<tr>
<th>Field</th>
<th>Date/Call</th>
<th>From/Number</th>
<th>Message</th>
<th>Duration/Minute</th>
<th>Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>Group by</td>
<td>Group by</td>
<td>Count</td>
<td>Sum</td>
<td>Total</td>
</tr>
<tr>
<td>Total By</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Sort By</td>
<td>Ascending</td>
<td>Ascending</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Show</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Compare</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Value(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Appendix - Query Fields

### Query Field Tables

The following tables show all the fields on which you may query the database via the Query Builder.

### Bulk Usage Charges

<table>
<thead>
<tr>
<th>FieldName</th>
<th>FieldDescription</th>
</tr>
</thead>
<tbody>
<tr>
<td>BilledAmount</td>
<td>Billed Amount</td>
</tr>
<tr>
<td>BilledCalls</td>
<td>Billed Calls</td>
</tr>
<tr>
<td>BillingNumber</td>
<td>The Billing Number</td>
</tr>
<tr>
<td>CallType</td>
<td>Type Of Call ie. Intrastate, Interstate or International Calls</td>
</tr>
<tr>
<td>CustomerId</td>
<td>Department Identifier - 1st Level</td>
</tr>
<tr>
<td>EarningNumber</td>
<td>The Account Under Which Service Is Provisioned</td>
</tr>
<tr>
<td>LocalServiceName</td>
<td>Local Usage service plan name</td>
</tr>
<tr>
<td>MasterAccountNo</td>
<td>The Master Account Number</td>
</tr>
<tr>
<td>Provider</td>
<td>Company From Which Service Is Purchased</td>
</tr>
<tr>
<td>ProviderShortName</td>
<td>Company Name – From which service is purchased</td>
</tr>
<tr>
<td>ServiceCode</td>
<td>The Charge Code</td>
</tr>
<tr>
<td>StationNumber</td>
<td>The Station Number</td>
</tr>
<tr>
<td>SubCustomerId</td>
<td>Department Identifier – 2nd Level</td>
</tr>
<tr>
<td>TypeDescription</td>
<td>Description of Call Type</td>
</tr>
<tr>
<td>Vendor</td>
<td>Company Rendering Bill</td>
</tr>
</tbody>
</table>
# Itemized Usage Charges

<table>
<thead>
<tr>
<th>FieldName</th>
<th>FieldDescription</th>
</tr>
</thead>
<tbody>
<tr>
<td>AccountCode</td>
<td>Code assigned by caller at the time calls are made</td>
</tr>
<tr>
<td>BillingNumber</td>
<td>The Billing Number</td>
</tr>
<tr>
<td>BulkBilledIndicator</td>
<td></td>
</tr>
<tr>
<td>CallingPlanUSOC</td>
<td>Billing Code (USOC) for Calling Plan</td>
</tr>
<tr>
<td>CallType</td>
<td>Type Of Call ie. Intrastate, Interstate or International Calls</td>
</tr>
<tr>
<td>Charge</td>
<td>Cost Of Call</td>
</tr>
<tr>
<td>CustomerId</td>
<td>Department Identifier – 1st Level</td>
</tr>
<tr>
<td>DateOfCall</td>
<td>Date the Call was placed.</td>
</tr>
<tr>
<td>DurationInMinutes</td>
<td>Length Of Call in Minutes</td>
</tr>
<tr>
<td>EarningNumber</td>
<td>The Account Under Which Service Is Provisioned</td>
</tr>
<tr>
<td>FromCountry</td>
<td>Country Name call Placed From</td>
</tr>
<tr>
<td>FromNumber</td>
<td>Telephone Number Call Placed From</td>
</tr>
<tr>
<td>FromPlace</td>
<td>City Call Placed From</td>
</tr>
<tr>
<td>FromState</td>
<td>State Call Placed From</td>
</tr>
<tr>
<td>MasterAccountNo</td>
<td>The Master Account Number</td>
</tr>
<tr>
<td>MethodDescription</td>
<td>Billing Arrangement for calls, ie. Collect, 3rd Party, etc.</td>
</tr>
<tr>
<td>Mileage</td>
<td></td>
</tr>
<tr>
<td>NumberOfCalls</td>
<td>Number of Calls made.</td>
</tr>
<tr>
<td>OCPFlag</td>
<td>Identifies calls made under OCP Plan</td>
</tr>
<tr>
<td>OtherLineCharge</td>
<td></td>
</tr>
<tr>
<td>Provider</td>
<td>Company From Which Service Is Purchased</td>
</tr>
<tr>
<td>ProviderShortName</td>
<td></td>
</tr>
<tr>
<td>RatePeriod</td>
<td>The Time Of Day the call was made.</td>
</tr>
<tr>
<td>RateSchedule</td>
<td></td>
</tr>
<tr>
<td>RegIndicator</td>
<td>Regulated/Non Regulated Charge</td>
</tr>
<tr>
<td>ServiceCode</td>
<td>The Charge Code</td>
</tr>
<tr>
<td>StationNumber</td>
<td>The Station Number</td>
</tr>
<tr>
<td>SubCustomerId</td>
<td>Department Identifier – 2nd Level</td>
</tr>
<tr>
<td>TerminatingNumber</td>
<td>Terminating Number – 800/888 calls, designed carriers only</td>
</tr>
<tr>
<td>TimeOfCall</td>
<td>Time the Call was placed.</td>
</tr>
<tr>
<td>ToCountry</td>
<td>Country Name Call Placed To</td>
</tr>
<tr>
<td>ToNumber</td>
<td>Telephone Number Call Placed To</td>
</tr>
<tr>
<td>ToPlace</td>
<td>City Call Placed To</td>
</tr>
<tr>
<td>ToState</td>
<td>State Call Placed To</td>
</tr>
<tr>
<td>TypeDescription</td>
<td>Description of Call Type ie. Intrastate, Interstate or International Calls</td>
</tr>
<tr>
<td>Vendor</td>
<td>Company Rendering Bill</td>
</tr>
</tbody>
</table>
## Monthly Charges

<table>
<thead>
<tr>
<th>FieldName</th>
<th>FieldDescription</th>
</tr>
</thead>
<tbody>
<tr>
<td>AddressText</td>
<td>The Address where the Equipment/Circuit is located.</td>
</tr>
<tr>
<td>AltCircuitID</td>
<td>The BSLD Circuit ID</td>
</tr>
<tr>
<td>AssociatedNumber</td>
<td>The Related Station Number For a Circuit</td>
</tr>
<tr>
<td>BillingNumber</td>
<td>The Billing Number</td>
</tr>
<tr>
<td>CKL</td>
<td>Circuit Location Identifier</td>
</tr>
<tr>
<td>CLS</td>
<td>Common Language Circuit information related to the circuit number</td>
</tr>
<tr>
<td>ClassOfService</td>
<td>Primary Service Type</td>
</tr>
<tr>
<td>CustomerId</td>
<td>Department Identifier - 1st Level</td>
</tr>
<tr>
<td>EarningNumber</td>
<td>The Account Under Which Service Is Provisioned</td>
</tr>
<tr>
<td>Effective-Date</td>
<td>Date the service became effective</td>
</tr>
<tr>
<td>MasterAccountNo</td>
<td>The Master Account Number</td>
</tr>
<tr>
<td>PIC</td>
<td>Pre-subscribed Interexchange Carrier</td>
</tr>
<tr>
<td>Provider</td>
<td>Company From Which Service Is Purchased</td>
</tr>
<tr>
<td>Qty</td>
<td>The number of USOC items being billed</td>
</tr>
<tr>
<td>RecurringAmount</td>
<td>Monthly Service Charge Per USOC</td>
</tr>
<tr>
<td>SLA</td>
<td>Secondary location Address/Location where the service actually resides</td>
</tr>
<tr>
<td>StationOrCircuitFlag</td>
<td>S = Station Charge, C = Circuit Charge, I = Circuit and Station, F = Circuit Number</td>
</tr>
<tr>
<td>StationOrCircuitNo</td>
<td>The Station/Circuit #</td>
</tr>
<tr>
<td>SubCustomerId</td>
<td>Department Identifier - 2nd Level</td>
</tr>
<tr>
<td>USOC</td>
<td>Billing Code For Each Service Component</td>
</tr>
<tr>
<td>USOCDescription</td>
<td>Billing Code Description For Each Service Component</td>
</tr>
<tr>
<td>Vendor</td>
<td>Company Rendering Bill</td>
</tr>
</tbody>
</table>
### Other Charges and Credits

<table>
<thead>
<tr>
<th>FieldName</th>
<th>FieldDescription</th>
</tr>
</thead>
<tbody>
<tr>
<td>ActivityDate</td>
<td>Date Of Service Order Completion</td>
</tr>
<tr>
<td>BilledAmount</td>
<td>The Actual Amount billed to the customer’s Account.</td>
</tr>
<tr>
<td>BillingNumber</td>
<td>The Billing Number</td>
</tr>
<tr>
<td>ChargeDescription</td>
<td>Description of Billed Charges from vendors other than AT&amp;T</td>
</tr>
<tr>
<td>CustomerId</td>
<td>Department Identifier - 1st Level</td>
</tr>
<tr>
<td>EarningNumber</td>
<td>The Account Under Which Service Is Provisioned</td>
</tr>
<tr>
<td>FromDate</td>
<td>Date From Which The Charge Is Calculated</td>
</tr>
<tr>
<td>FullAmount</td>
<td>Total Amount Due for ‘One Time’ or ‘Recurring’ Charges.</td>
</tr>
<tr>
<td>MasterAccountNo</td>
<td>The Master Account Number</td>
</tr>
<tr>
<td>OCCDescription</td>
<td>Explanation of AT&amp;T charges</td>
</tr>
<tr>
<td>Provider</td>
<td>Company From Which Service Is Purchased</td>
</tr>
<tr>
<td>Qty</td>
<td>The Number of Other Charges &amp; Credits</td>
</tr>
<tr>
<td>RecurringChargeInd</td>
<td>Indicates whether charge is for product or service that is billed each month or the charge is for a one-time</td>
</tr>
<tr>
<td>ServiceOrderNumber</td>
<td>Service Order Activity Number</td>
</tr>
<tr>
<td>StationOrCircuitFlag</td>
<td>S = Station Charge, C = Circuit Charge</td>
</tr>
<tr>
<td>StationOrCircuitNo</td>
<td>The Station/Circuit #</td>
</tr>
<tr>
<td>SubAuthNumber</td>
<td>Purchase Order Number</td>
</tr>
<tr>
<td>SubCustomerId</td>
<td>Department Identifier - 2nd Level</td>
</tr>
<tr>
<td>ThruDate</td>
<td>Ending Date To Which The Charge Is Calculated</td>
</tr>
<tr>
<td>USOC</td>
<td>Billing Code For Each Service Component</td>
</tr>
<tr>
<td>Vendor</td>
<td>Company Rendering Bill</td>
</tr>
</tbody>
</table>

* * *
Appendix - Technical Guide

1. DAB INSTALLATION GUIDE

1.1 Prerequisite

1. Software Requirement

a: MS Office (mandatory software, must be present on user machine prior to DAB installation.)

b. Microsoft .NET Framework [Note: DAB will install this software automatically if required. Users need not to install this explicitly.]

c: Microsoft Access database Engine [Note: DAB will install this software automatically if required. Users need not to install this explicitly.]

2. Hardware Requirement

a: Cd ROM

b: Printer (optional, to be installed only if printing required.)

c: Disc space required: 500MB

d: Windows XP Professional or Windows 7(Enterprise or Professional).
1.2 Uninstall DAB-prior version

**Step 1: Check for DAB prior version.** The below entry in your Programs List or the below icon should exist on your desktop if the application has been previously installed.

![Uninstall DAB](image)

**Step 2: Remove DAB application.** You can uninstall the DAB application in two ways:

Option 1: Select the option “Uninstall DAB” from Programs Menu [***Recommended].

Option 2: Control Panel

**Uninstall DAB via Programs Menu:**

1. Go to Start > All Programs> Diskette Analyzer Bill
2. Select option- Uninstall DAB

![Uninstall DAB](image)

3. A message will be shown as below : Click Yes
4. Following screens will be shown:

And the product will get uninstalled.

**Uninstall DAB via Control Panel:**

1. Add or Remove Programs → Diskette Analyzer Bill.
2. Highlight the entry for Diskette Analyzer Bill (DAB) and click on Uninstall.

3: You will receive the following message. Click on ‘Yes’ button.
1.3 Install DAB Application

1.3.1. DAB Application.
Step 1: Create a folder **DABSetUp** in C drive and place the cd containing the setup inside the hopper.

Step 2: Go to the My Computers and open the inserted CD. Copy all the files from setup folder of the CD to the **DABSetUp** folder inside C drive.

Step 3: Click on setup.exe.

The setup.exe will automatically perform the following steps:

- Installation of DAB Application.

During the installation process you will be prompted with a series of windows. These windows are shown below with instructions of what options to be clicked.
Select **Everyone** radio button and Click on **Next**.
- Click on **Next**.

- Click on **Close** to exit the Installation window.
After exiting the Installation window verify whether ‘Diskette Analyzer Bill’ folder has been created containing all the files and folders as shown below inside path C:\Program Files\AT&T\Diskette Analyzer Bill

Shortcut to DAB will be created automatically once the Installation process is completed successfully. You can view it by clicking on:

Start->All Programs->Diskette Analyzer Bill->DAB
1.4 Uninstall DAB-prior version

**Step 1: Check for DAB prior version.** The below entry in your Programs List or the below icon should exist on your desktop if the application has been previously installed.

![Icon of Diskette Analyzer Bill](image)

**Step 2: Remove DAB application.** *Only* use the ‘Add or Remove Programs’ option from ‘My Computer’ to remove the existing DAB application.

**Add or Remove Programs ➔ DAB Application.**

![Add or Remove Programs](image)

**Step 3: Highlight the entry for Diskette Analyzer Bill (DAB) and click on Uninstall.**
Step 4: You will receive the following message. Click on ‘Yes’ button.
Glossary of Terms

Active Invoice Month
The month whose invoice is being reviewed.

All-In-One
The default hierarchy structure DAB uses if the user does not choose MagTape and has not defined a hierarchy. All charges are rolled into a single entity.

Billing Number
The overall account number that appears on the invoice. It is the Master Account Number.

DABView
A standalone tool to view, compact, and repair Diskette Analyzer Bill databases outside the DAB program.

AT&T Bill Image
A scrollable searchable image of the AT&T invoice.

Carrier
The company actually carrying the call or supplying the service, regardless of who is billing for the service. Synonymous with Provider. Contrast with Vendor.

Count
A Query Group function. Ignoring the contents of the field it is in, this reports the number of records in the group.

CPM
Cost Per Minute. On some DAB screens, CPM of necessity is approximate, and should not be treated as hard accounting numbers.

DAB
Diskette Analyzer Bill, a AT&T predecessor to this system. DAB data can be used to add earlier months to the database.

Distribution Files
Files on diskettes or CD-ROM containing the monthly electronic bills from vendors. In the Load Bills function, DAB reads the data from these files into DAB's tables.

Drill-down
The layer-by-layer examination of who is responsible for a particular charge or what specific charges are attributable to any member or group within the organization.

Earning Number
A subaccount within a Billing Number, usually assigned to a particular department.

Exceptions Report
Exceptions are usages that are beyond user-defined definitions of 'normal,' such as those which exceed a given duration or cost.
Group By

A Query Group function. Similar records found by the Query are reported as a single record for the group.

Group Functions

Functions in a Query where similar records are treated as a group. The functions report similar records as one record (Group By), the totals of a numeric field (Sum), or the number of records in a group (Count).

Hierarchy

The schema DAB is directed to use that defines the organization's hierarchy based on the implied roll up of the AT&T bill. Also, the structure of the organization as considered for rolling up costs, budgeting, reporting, etc.

Logical AND

A filter that requires that several conditions must all be met for a record to be included in a search result. It narrows the scope of the search.

Logical OR

A filter that allows a record to be included in a search result if even one of the ‘OR’ed conditions is met. It broadens the scope of the search.

Miscellaneous Charges

Those charges not appearing on the phone bill that the user wishes to allocate. Part of the Load Bills function.

NPA

Numbering Plan Area, or Area Code

NPANXX

The combination of the Area Code and the first three digits of the seven digit number. Also called the exchange.

OC&C

Other Charges and Credits; items on the invoice that are unique to the current month.

ODBC

Open DataBase Connectivity, a set of standards allowing various database engines to operate on the same databases, promulgated by Microsoft Corporation in 1991.

Provider

The carrier that actually provides the service. Contrast with Vendor.

Quadrant

Refers to the four major areas of the drill-down screen.

Query

A search of the database for specific information, as defined by the user with the Query Builder.
**SQL**

Structured Query Language; a computer description of the specifications of a search. (Pronounced “es-cue-el.”)

**SQL Server**

Relational database management systems for network computing developed by Microsoft. Distinguish from SQL, the acronym for Structured Query Language. (Pronounced "sequel.")

**Sum**

A Query Group function. On a numeric field, it reports the total of the values for all the records in the group.

**Vendor**

The telecom company that is billing your company, regardless of the carrier. Contrast with Provider.