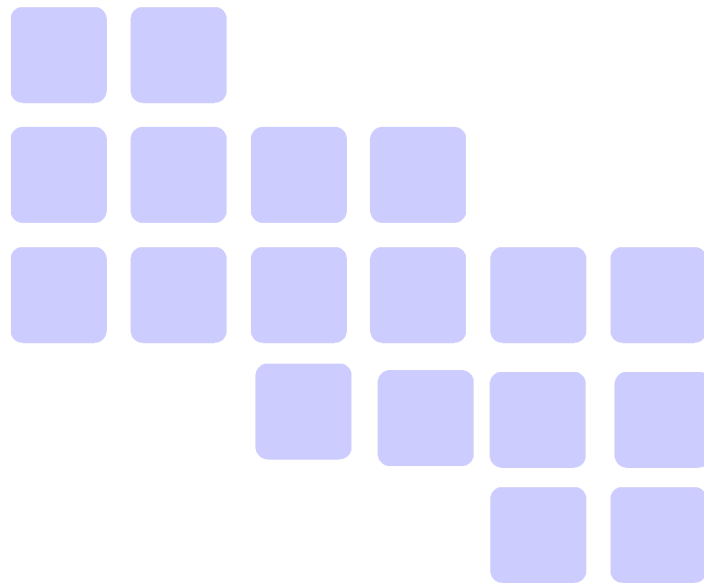




Section 15

SYSTEM USER'S MANUAL



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Manual revision 03 - Starr Accounting version 4.09

September 1, 1999

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Starr Computer Systems Inc.
6126 Melissa Lane
Omaha, Nebraska 68152
(402) 571-1722
<http://www.starrcs.com/>

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PREFACE

This manual is designed to assist the system administrator in the use of the Starr Computer Systems Inc. Starr Accounting Plus software. ISAM, the multi-company concept, and the security system are explained in this section. Also, the error message formats and the BASIC Plus error codes are listed in this section. **This section is a reference manual for the system administrator only, and should not be available to unauthorized personnel.** For information regarding starting the system, how to operate the screens, how to operate the menus, function keys, file names, how to allocate/expand files, and how records are accessed, please refer to the "Introduction to Starr Accounting", which is Section One at the beginning of this set of documentation.

STARR DOCUMENTATION ON THE WEB








The latest versions of our documentation are available free from our Web site at "<http://www.starcs.com/>". The documents are in Adobe PDF format. These files can be viewed and printed using the free Adobe Acrobat reader. The reader is available from our Web site.

READER'S COMMENTS FORM

Please note the Reader's Comments form at the back of this manual. Your suggestions are important to us, and we will use them to improve later versions of this manual.

GRAPHICS CONVENTIONS

This manual conforms to other Alpha Micro publications in its use of a standard set of graphics conventions. We hope these conventions simplify our examples and make them easier for you to use. Unless stated otherwise, all sample commands are assumed to be entered at AMOS command level.

SYMBOL	MEANING
filespec	<p>An AMOS file specification that identifies a specific file within an account. A complete filespec for the local computer is made up of the device name, the file name, the file extension, and the account number. For example: DSK0:SYSTEM.INI[1,4]</p> <p>A file specification may also consist of an ersatz name, which specifies a particular disk account, and a file name, like this: SCSLIB:COMPNY.DAT.</p>
TEXT	This bold typeface represents characters you type. Variable parts of the entry are in italics, as noted below.
<i>Text</i>	We use this <i>bold italic</i> type for variable parts of command examples. Replace the text shown with the appropriate entry.
	The key symbol indicates a reference to a key on your keyboard. The name of the key appears inside the key symbol.
	This indicates a control sequence you press on the keyboard. Press  and hold it down while you press the indicated key.
^	When displayed in front of a capital letter, this means the letter is a control character. For example, when you press  , it appears on your screen as ^C (^C is the control character that cancels most programs and returns you to AMOS command level).
	This Halt! symbol indicates an important note you should read carefully before going further in the documentation. Usually, text next to this symbol contains instructions for something you <i>must</i> or <i>must not</i> do, so read it carefully.
	This Hint symbol indicates a helpful bit of information, or a “short cut” that could save you time or trouble.
	This Remember symbol indicates something you should keep in mind while following a set of instructions.

CHAPTER ONE REFERENCE

ISAM CONCEPTS

ISAM (Indexed Sequential Access Method) is a file organization and processing technique used to access records in a logical sequential order or a logical random order on the basis of the key, or identifying data element, of the individual data records.

In order to understand what ISAM is and what it can do, a brief discussion of two more widely used access methods is in order.

1. Sequential Access Method

An access method supported by any system capable of file I/O is the Sequential Access Method. The Sequential Access Method is simply the writing and reading of records one behind the other, that is, in physical sequential order. Any time a new record is created it must be added to the end of the file. A record may be inserted into the file only by copying the entire file and writing the new record at the desired location. If a specific record in the file is desired the file must be searched in sequential order until that record is found. Record updates may or may not be allowed depending on the implementation of Sequential Access Method.

2. Random Access Method

Another more flexible access method is the Random Access Method. Random Access Method allows records to be written anywhere within the file by knowing the relative position or record number of the desired record. In this manner, a specific record may be retrieved by utilizing a randomizing routine to calculate the record number from some part of the record that is unique for each record.

Both of these file organizations are ideal for particular uses. But for some applications where there is a need to access records sequentially or randomly by their associated keys, ISAM provides a much simpler and more direct approach.

There are two major data structures in an ISAM file: the index file and the data file.

1. Index file

The index file contains index records that provide pointers to associated data records based on a unique and identifying data element in each record called the key. There may be multiple levels of index files. In this case the highest level index, sometimes called the Master Index, points to the next lower level index which points to the next lower level and so on. The lowest level points to the data records. There may also be secondary indices that provide access to the data records via a secondary key such as name or description.

2. Data file

The data file contains the data records, each having a unique key. The data file may be in key order or physical sequential order depending on the implementation of ISAM.

ISAM file structures provide much more flexibility than other file organizations and lend themselves more readily to sophisticated interactive and real time applications.

1. Inquiries

The first application of ISAM files that comes to mind is the inquiry. An inquiry provides the ability to retrieve information associated with a record by simply entering the record key. For example, in an inventory control system, management may want the ability to see how much stock is on hand before committing to an order. Using an ISAM file structure, a program could be written to request the item number from the operator, retrieve the corresponding record from the ISAM file, and display the stock status information on the screen.

2. Edits

A second useful application is data editing. A data element in one file may be the key to an ISAM file. If this is the case, whenever that data element is entered it may be immediately verified for validity by performing an ISAM key lookup. For example, in a payroll application the weekly time records will contain the employee number. As the employee number is entered it can be used as the key for a lookup against the employee master file. If a no match condition results, the operator can be informed immediately that the employee number is invalid.

3. Updates

Possibly the most useful application for ISAM file structures is real-time updating. A record can be updated immediately as any transaction alters it making current information available on a real-time basis. This would normally be used in conjunction with inquiries. For example, in an accounts receivable system, payments could be directly applied to the associated accounts by performing a record retrieval by key (account number), subtracting the payment from the balance, and rewriting the record. Any inquiry for account status would show the balance as of that point in time, even if the payment had been applied only

a few seconds prior.

From the preceding discussion it should be apparent that ISAM file structures can provide a powerful tool to design systems that would be impossible or impractical any other way.

Starr Accounting uses ISAM Plus files for all data files; except for Control files, which are Random files. ISAM files are allocated, expanded, and shrunk using the automatic "Allocate/expand" program (via the "System management" menu). They may also be processed manually using the AMOS "ISMUTL" program.

To obtain the information to manually build the files, use the ISMUTL program "STATUS" option on the "XYZ (Sample) Company" files (or any company that already has the files). See the Alpha Micro "ISAM Plus" manual for how to use the ISMUTL program.

THE ESP INTERFACE

The data entry for all programs is done using "Executive Screen Processor" (ESP), which is an ESP Consortium product.

ESP uses an AlphaVUE-like screen processor to develop and maintain screens; giving you a "what you see is what you get" solution to screen production problems found in most software development languages.

ESP also provides the ability to control screen display based on a field-by-field security system. The security system lets you assign security levels to each field in a screen, one security level for read and another for write. In this manner ESP can determine if a field should be displayed for a particular user and/or allow that user to modify the contents of the field.

Once you develop the screen and application, ESP makes customizing it easy--without changing a single line of programming code. The user can change the display color, the field position on the screen, the field prompts, or other characteristics of the screens. ESP lets you customize the screens simply and easily.

Pop-up Fields

Data fields that have pop-up tables have a "(P)" noted at the end of the on-line help, which means that a pop-up table exists. Scroll forward through the table by pressing the NEXT WORD key; scroll backwards by processing the PREV WORD key. Enter the first character of a table element to select an individual table element.

ERRORS

Certain Basic errors can occur during processing (e.g. the disk can run out of space, a file cannot be found, etc.). All the programs are designed to recover from errors automatically if possible. However, automatic recovery may not be possible; in this case the program is stopped and the error is reported to the terminal screen on line twenty-four, and written to the error log file "SCSLIB:ERRLOG.LST". When the error log file gets full it is renamed to "ERRLOG.OLD", and a new "ERRLOG.LST" file is started. See the Glossaries for listings of Basic Plus error codes and ISAM Plus error codes.

LOKSER

Refer to the LOKSER manual on how to set up LOKSER so that you have no conflicts with other applications. Simply set it up so that the Starr Accounting device(s) or PPN's are under control of LOKSER.


TURNING ON YOUR SYSTEM

When turning on your system, the following order should be followed:

1. Turn on all terminals and printers. It is best to have all of the devices on, even if they are not being used.
2. Turn on the computer.

BOOTING YOUR SYSTEM

When re-booting, the following order should be followed:

1. Return all of your terminals to the AMOS dot prompt. If you are using MULTI, return these jobs to the AMOS dot prompt also.
2.  From any terminal, enter "BOOTIT". "BOOTIT.DO" is a Starr Accounting DO file that flushes the write cache and MONTST's the system. Flushing the write cache is especially important on Eagle/Roadrunner systems.

TURNING OFF YOUR SYSTEM

When turning off your system, the following order should be followed:

3. Return all of your terminals to the AMOS dot prompt. If you are using MULTI, return these jobs to the AMOS dot prompt also.



4. From any terminal, enter "OFF". "OFF.DO" is a Starr Accounting DO file that flushes the write cache and "unmounts" the disk drives, so that power can be turned off safely. **THIS IS AN IMPORTANT PROCEDURE, AND SHOULD ALWAYS BE DONE BEFORE TURNING OFF POWER TO THE COMPUTER AND DISK DRIVES.**
5. Turn off all terminals and printers.
6. Turn off the computer.

CHECKING A NEW RELEASE TAPE

There is a directory file for each Starr Accounting release. The file will be in SCSLIB: and will be named "SAxxxx.DIR", where "xxxx" is the release number. Use the AMOS verify command to check the tape. Note: If Starr Accounting was loaded to a different device than the distribution tape you will need to modify the directory file via Vue or XED before verifying.

We provide several DO files to help you verify the programs copied correctly, and to provide a file which lists all programs which have changed between releases. These DO files are in SCSLIB:. See the DO files for additional documentation.

The DO files are:

1. **DIRVfy.DO**

Verifies a Starr Accounting release against a directory file. DIRSEQ all project 210 PPN's before executing this DO file.

2. **DIRCOM.DO**

Source compares two Starr Accounting directories. If DIRSEQ was not executed prior to making the directories, the directory files can be sorted using the AMOS "Sort" command. Output will be a file displaying differences, see the AMOS "Srccom" documentation. This file could then be modified to become a "CMD" file for modem transfer.

ACCESSING TIME CLOCK

You can have employees access the time clock without providing operator keys to those employees. Up to four time clocks can be accessed from the operator sign-in menu via function keys F1 through F4. There is a DO file corresponding to each of these function keys; see sample file "SCSLIB:SYSTC1.DOC". This also contains a time out field. The user time out field is a number in the range of "00000" through "65535", and is the number of seconds before the screen times out. If the time out is "00000" the user never times out (the time clock stays up continuously).

The DO file can also control the ESP time out period (in seconds). If the time out parameter is set to zero, the terminal will never time out (will always stay in the punch/print time out screen).

SUBPROGRAMS

Starr Accounting uses subprograms to perform repetitive tasks. Subprograms are a very powerful feature of BASIC Plus. They are called from the main program, do the requested work, then pass the results back to the main program. Because subprograms can be loaded into system memory, the memory requirements of the main program are less (this is how Starr Accounting is so memory efficient).

In Starr Accounting we use two types of subprograms:

Processing subprograms that are invisible to the user. They do a task and pass the results back to the main program without any interaction to the user.

Window subprograms that are visible to the user. These subprograms open up a window on the screen and require interaction from the user. What gets passed back to the main program (if anything) depends on the user's interaction. The MENU key is used to exit the subprogram without performing the subprogram task.

Starr Accounting uses the following subprograms:

SACOMM: Update Comments Array

This window subprogram is used to process comments associated with a database/database record. It is called from database maintenance programs when the cursor is anywhere within the database record by pressing function key "F6"; the comments will be associated with that database record. Up to ten seventy-six character records can be associated with a database/database record. If comments exist for a database record then the character "C" is displayed in the upper right hand section of the database maintenance screen.

Currently this feature is supported in the "Customer file maintenance" and "Inventory item file maintenance" programs. If we receive requests for it, we will add comments support to additional databases.

The operating steps are:

1. When you want to associate comments with a database record, make sure that your cursor is on the on any field within the database record, then press the "comment" function key. The "Update Comment Array" window will appear.
2. Enter comments, making sure that you do not exceed the ten comment maximum. Enter EXECUTE to update your comments and return to the database maintenance program, or enter MENU to return to the database maintenance program without updating the comments.

SADJMP: Direct Jump

This processing subprogram creates, updates, and prints the direct jump database. Once the database is created, it processes direct jump requests from the various programs and menus.

SAFKCU: Find Customer Key from Customer Name

This window subprogram finds the customer key from the customer name (or partial customer key group). It is used by the A/R, O/E, and Quotation order header programs. It displays a list of box all keys matching the customer key group and provides an option to pass the customer key back to the order header.

The operating steps are:

1. Enter the customer name group to search, followed by the ENTER key. The name matches will appear in a scrollable window, and the cursor will go to the display number field.
2. Enter the display number of the customer record you want. Enter the EXECUTE key to update the order header with the customer key and return to the order header program, or enter MENU to return to the order header program without updating the customer key.

SAFKIV: Find Item# Key from Item Description

This window subprogram finds the inventory item# key from the inventory description using a three word "key word out of context" (KWOC) search. . This means that you can enter some text (which displays all inventory items whose description contains that text), then enter some other text (that reduces the number "found" records), then additional text (that again reduces the number of "found" records). It is used by the O/E, and Quotation Order Lines and Quick Entry programs. It displays a list box of all keys matching the item description text, and provides an option to pass the item# key back to the location/item# fields. If it finds more than fifty-five matches it

will display an error message and quit searching; if this happens then enter more restrictive search criteria. This search must read every inventory master record for a location; it can take a while to search.

SAIHST: Invoice History

This processing subprogram maintains invoice history records and the invoice print files that are associated with those records. The subprogram is called from A/R and O/E billing when adding records, from the "Invoice history utility" program to re-print invoices, and from the "Purge invoice history" program to erase old invoice history.

If keeping invoice history, each company stores its invoice print files in the same location as the invoice history database; the invoice print file name will be based on the invoice number (e.g. "000123.I00").

If not keeping invoice history, the invoice print files will be created in the "SCSWRK:" account. In this case the invoice print file name will be "SAIHST" with the file type a three digit number; this prevents multiple company print files from "colliding".

SAIVKQ: Inventory Kit Current Quantity

This processing subprogram calculates the kit current quantity based on the kit component current quantities. That is, it tells you how many kits can be made from the components on hand.

SAIVMP: Inventory Master Post

This processing subprogram posts inventory transactions to their corresponding inventory master records. When a warehouse transfer, it ignores the transaction multiplier in the posting formula.

SAIVSP: Inventory Serial # Post

This processing subprogram maintains (adds, changes, deletes) inventory serial number records that are automatically created via associated Starr Accounting modules.

SAJCTP: Job Costing Transaction Post

This processing subprogram maintains (adds, changes, deletes) Job Costing transactions that are automatically created via associated Starr Accounting modules, and posts those transactions to their corresponding Job Costing Master records.

SANOTE: Update Note Array

This window subprogram is used by the Quotation and Order Entry quick entry programs to maintain notes that are associated with a detail record. It is called from "Order Lines Quick Entry" when the cursor is anywhere within a detail line by pressing a function key (which will be identified on your screen); the note will be associated with that detail line. If the cursor is after the last detail line, the note will be associated with the last detail line. If notes exist for a detail line then the character "N" is displayed to the right of the "Codes:" fields in the upper right hand section of the screen.

With this method of entering notes, a maximum of ten notes for the entire order is allowed. The program will not let you enter more than the maximum (you will get an error message).

The operating steps are:

1. When you want to associate notes with a detail line, make sure that your cursor is on the on any field within the detail line, then press the "nte" function key. The "Add & Display Notes Array" window will appear.
2. Enter notes, making sure that you do not exceed the note maximum (The note maximum is ten). The number of notes in use will be displayed on your screen. Enter EXECUTE to update your notes and return to quick entry, or enter MENU to return to quick entry without updating the notes.

SAOEAI: Get Alternate Inventory Item #

This window subprogram is used by the Quotation and Order Entry quick and full entry programs to get alternate (substitute) inventory items that are associated with the inventory item you keyed into the order line. It is called by pressing a function key (which will be identified on your order line screen). If an alternate items exist, the first one will be automatically displayed, together with it's location, current, reserve, and back order quantities.

You can search through the set of alternate items using the normal PREV SCREEN and NEXT SCREEN keys.

The operating steps are:

1. When you want to check for alternate items press the "alt" function key. The alternate item window will appear.
2. Search through the set of alternates until you find the one you want. Enter EXECUTE to accept an alternate and return order entry (the alternate item will automatically replace the order entry item), or enter MENU to return to the order without any replacement.

SAOELP: Order Entry Lines Post

This processing subprogram posts Order Entry lines to the Inventory Master reserve and back order quantities. If the item is an inventory kit, it expands the kit and posts the individual components.

SAOHCO: Order header comments

This processing subprogram is called from the A/R, Quotation, and O/E header maintenance programs when the cursor is in the comment field. It is used to construct special comments. The syntax is "number"+"\"+"optional data". "Number" identifies which special note to construct; currently only the type "1" thank you comment is implemented. The "optional data" is a string that becomes part of the message. For example: to construct a "thank you" comment for customer "Joe" enter "1\Joe".

SAOHPO: Check for duplicate PO#

This processing subprogram is called from the A/R, Quotation, and O/E header maintenance programs when the cursor is in the customer order # field (which contains a purchase order number when a sale).

SAOHPO will check back "x" days (as determined in the A/R Control "Duplicate PO# days) in the following databases (in order): O/E Order Header, A/R Order Header, and Sales History. It does not search remaining databases if it finds a duplicate in a preceding database. It will return the database name that contained the duplicate.

SAPDUE: Past Due Invoices

This window subprogram is used by the "A/R Order Header", "A/R Account Inquiry" and "O/E Order Header" programs to display customer past due invoices (and open credits) when the customer record past due indicator is "Yes" and the customer has invoices whose due date has reached the past due date. The past due date is computed by adding the A/R Control file "past due days" to the invoice due date; it is compared with the system date. Function keys F1 through

F4 are used to scroll through the past due invoices (just like the inquiry programs). The past due invoices are automatically displayed by order header programs, but can also be displayed via the order header "past due" function key.

Past due invoices are displayed in document # order.

To operate from the "Option" field, search through the set of past due invoices and open credits using function keys F1 through F4. Enter EXECUTE or MENU to return to the order.

The invoice fields are:

1. Display number

An internal display number, incremented by one for each displayed invoice.

2. Invoice number

3. Purchase order number

Obtained from the corresponding Sales History record for this customer/invoice. Only displays the first fifteen characters of the purchase order #.

4. Invoice date

5. Invoice due date

6. Days past due

7. Invoice open amount

SAPOLP: Purchase Order Lines Post

This processing subprogram posts Purchase Order lines to the Inventory Master purchase order quantity. If the item is an inventory kit, it expands the kit and posts the individual components.

SAPRIC: Pricing

This processing subprogram does *all* Quotation and Order Entry pricing. It does Customer Master record pricing (via price code and adjustment percentage), Inventory quantity pricing (based upon quantity ordered), customer pricing (via the customer price database), and status pricing (via the status price database). The subprogram always returns the lowest price the customer is eligible for. Skips status pricing if the O/E Control file "Status pricing" switch is "No".

Inventory pricing is based on the order header price code, line item quantity ordered and adjustment percentage. Normal inventory pricing it works as follows:

1. The initial price is set via the order header price code indexing the corresponding Inventory Master record.
2. The price is adjusted for quantity pricing based upon the quantity ordered.

If the quantity price is lower than the customer's indexed price, the customer will get quantity pricing.

Customer pricing is based on the O/E customer price database. Customer pricing it works as follows:

1. The initial price is set via inventory pricing.
2. If the combination of department, class, and status results in a match with the corresponding Inventory Master record (or the pricing record location/item # matches the Inventory Master location/item #); the price is adjusted. The price is set via the pricing record price code indexing the Inventory Master record. The adjustment percentage is then set to the pricing record adjustment percentage. If the pricing record price is non-zero, the customer price is set to the pricing record price.
3. The price is adjusted for quantity pricing based upon the quantity ordered.

If the quantity price is lower than the customer's indexed price, the customer will get quantity pricing.

Status pricing is based on the O/E status price database. Status pricing is used when the price of an item is based on the *total* items with the *same* status on the order. With status pricing the price/adjustment percentage for *all* items on an order with the same non-zero inventory status will be *the same*, as defined on the corresponding status pricing record. Status pricing is only supported on the Order Entry and Quotation "Quick Entry" programs. Status pricing it works as follows:

1. The initial price is set via inventory pricing.
2. If the total Quantity/Amount passed to the subprogram is less than or equal to the status pricing record Quantity/Amount (x), the price/adjustment percentage is set to the pricing record Price (x).

If the status price is lower than the customer's indexed price, the customer will get status pricing.

SAPYMT: Payment/Credit Card

This window subprogram is used by the A/R, Quotation and Order Entry quick and full lines entry programs; by the A/R and O/E billing programs, and by the "Credit card utility" program. It is used to enter an order payment and order header comment line, and pass the updated check #, check amount, comment, promotion code, and batch number back to the order header (to update the order header).

It can also accept a credit card payment. If a credit card it will automatically call the credit card processor and get the credit card authorization (see the "Credit Card Utility" documentation in this manual for more information). It writes transactions to the Credit Card file every time function key F1 is pressed and a response is received from the credit card processor (the F1 transactions will have a flag value of one). Although this does result in duplicate entries in the transaction file, it provides a complete audit of *all* entries sent to the credit card processor.

SASHPB: Bill Shipping Charges

This processing subprogram is used by the A/R and Order Entry billing programs. It calculates the billing shipping charges for an order. It does this from the Shipping Clerk transactions, which were created when the package was shipped. It also is used to flag transactions as "billed", so they can not be billed again.

SASHPC: Calculate Shipping Charges

This processing subprogram is used by the A/R and Order Entry quick and full lines entry programs; also the A/R and Order Entry billing programs. It calculates shipping charges. It can also create Shipping Clerk transactions corresponding to the shipment.

SASHPW: Get scale shipping weight


This processing subprogram gets the scale shipping weight. It is used by the Shipping Clerk system when a scale is connected to the computer.

SATASK: Submit a task to the Task Manager

This window subprogram is used to submit a task to the Task Manager. It is called from the report parameters screen via function key "F12". There are a few reports that can not be run from the Task Manager because they require additional user input after the report starts running. There are other reports that can only be run when from the Task Manager when you take the "process

all records" option of the report. If you press function key "F12" and the "Submit a task to the Task Manager" screen opened up, the report can be run from the Task Manager.

The operating steps are:

1. Enter the date you want this report to run. See the help file for additional information
 If you want to overwrite the default date (the system date) you must be sure to enter the slashes in the date. The task won't run unless the slashes are entered in the date.
2. Enter the time you want this report to run. See the help file for additional information.
3. Enter the memory requirements for this program. Always take the default value, as the calling program provides this parameter.
4. Enter the task priority. See the help file for additional information.
5. Enter the error condition. See the help file for additional information.
6. Enter the submit switches. Leave blank unless you are an advanced user familiar with the Task Manager manual.

Enter EXECUTE to submit your task and return to the report menu, or enter MENU to return to the report parameters screen without submitting the report to the Task Manager.

SAZIPC: Get city/state/area code from zip code

This processing subprogram uses the new USA zip code database to get the city, state, and area code from the five digit zip code. Returns the city/state in either upper/lower or upper case; as determined via the System Control file "Zip convert option.

DIRECT JUMP TABLE

Starr Accounting has direct jump feature, which permits jumping from any program's main menu to any other program, without processing through the menus. The direct jumps are processed by entering menu options 101 through 999, where 101 represents direct jump program one, 102 represents direct jump program two, etc. The direct jumps are processed via the "SADJMP" subprogram, which should be loaded in system memory.

The direct jump data file is "SCSLIB:SADJMP.DAT". It is automatically allocated and loaded from file "SCSLIB:SADJMP.LST" the first time you execute a direct jump menu option.

You can modify "SCSLIB:SADJMP.LST" if you wish to add programs or change security levels; the program can be maintained with XED or Vue. Each entry in this file contains three fields, with a comma separating each field. Note: If any of the fields contain a comma (e.g. PPN), put the field in quotes. The fields are:

1. Program name

Usually just a program name, but may contain a full file specification (e.g. "DSK1:PGMNAM[210,7]"). A maximum of twenty-two characters.

2. Security level

Corresponds to the user's read security level. If the user's read security level is greater than or equal to this security level, the user will be allowed to run this program.

3. Program description

A maximum of thirty-two characters.

The "SCSLIB:SADJMP.DAT" file can be printed or modified via the "Direct jump utility" program. You do not need to modify it with each release, but you will not be able to direct jump to any new programs until you do. The modification steps are:

1. Each new release of Starr Accounting has the latest version of "SCSLIB:SADJMP.LST", which contains the Starr standard security, and may contain some new programs. If you have changed the security or added new programs to this file, they will be overwritten by the new release; thus you should make a backup copy containing your changes *before* updating to a new release. To re-incorporate your changes, print your backup copy as a guide, then modify the new "SCSLIB:SADJMP.LST" using Vue or XED.
2. Modify or create a new jump table; this changes "SCSLIB:SADJMP.DAT" using "SCSLIB:SADJMP.LST". The "modify" option updates any security changes and adds any new programs at the end of the existing jump table; this means that *no* old jump codes will change. The "create" option creates a new jump table; this means that *all* of your old jump codes will probably change.

The first five jump codes run programs "AAJ101" through "AAJ105"; these programs correspond to jump codes "101" through "105". The source code for these programs are included and these programs could be used as a basis for other reserved beginning jump codes. As distributed, these first five jump codes run the following programs:

- | | |
|-----|------------------------|
| 101 | Operator log-on menu |
| 102 | Company selection menu |
| 103 | Master menu |

- 104 Utility menu
- 105 System management menu

REDIRECTING THE PRINTER

You will note that each report program displays the printer number and name that the report will be printed on. Up to sixteen different printers can be defined within the Printer Control file (see "Printer control file maintenance"). All reports will default to the user default printer unless redirected within the report program. This redirection is temporary, and will default back to the user default printer the next time the report program is run.

Note that one of the defined printers is "CRT Screen" (usually printer #9). Use this printer number to direct the report to your CRT screen. Reports to the screen require that you enter a key after each full screen of data; the MENU key is used to stop output to a screen. Your CRT should have wrap off to print reports to your CRT, since most reports print in column 132.

Note that one of the defined printers is "Create File & Save It" (usually printer #15). Use this printer number to not print the file but save the print file in the "SCSWRK:" account. Please recall that the daily complete backup erases all files in the "SCSWRK:" account.

Note that one of the defined printers is "Create File & Delete It" (usually printer #16). Use this printer number to not print the file and immediately delete the generated print file. This option is usually taken for year end purges, etc. To reduce the disk requirements when using this option, say "No" to the "Print detail" option (if that option exists).

FAXING REPORTS

Almost all reports can be faxed if the AlphaFAX software has been installed on your system and a "fax printer" is defined in your Printer Control file.

When a fax printer is selected, this screen displays some fax header fields. Faxed reports will have a fax header page using these fields, together with the Master Control file company name and address fields. You can enter a "LIB:FAXLST.DAT" name in the fax phone number field (see the AlphaFAX documentation re. "FAXLST.DAT"). All faxed reports can be submitted via the task manager; thus they can be scheduled to run when phone charges are at low rates. Fax comments use the System Notes file.

SYSTEM NOTES FILE

File "SCSLIB:SYNOTE.LST" should be created with the XED text editor, if you are using AlphaFAX. These are system wide notes (used by all modules). Currently only used for fax comments (within the printer selection logic).

CHECKING FOR FILES FULL

Every time the master menu is run it increments the check files full counter then looks to see if the counter has reached the check files full frequency. If the counter equals the frequency it resets the counter to zero then checks every Starr Accounting ISAM file for the current company to see if it is 90% or more full. If a file is less than 98% full, the program will tell you how full it is, and require that you acknowledge the full message with a RETURN. If the file is greater than or equal to 98% full the program will *only* let you go to the System Management or Utility menu; you *must* either expand the file, purge records, or exit the company.

IF ACCOUNTING IS UP 24 HOURS/DAY

Starr Accounting loads certain date and accounting period default values in a common packet when you proceed from the Company Selection menu to the Master Menu. These default values are based on the system date. To make the accounting system have current values, you must drop back to the System Operator sign on menu at the start of each day.

Starr Accounting will automatically drop back to the System Operator sign on menu after the user's time-out period has expired.

SPECIAL NOTE AT END-OF-YEAR

Starr Accounting uses accounting period for all subsystems. This means that during the year you can enter transactions for a new period without closing an existing period. At end-of-year you have two options:

1. Close the year

Close *all* of the subsystems before entering any transactions for the new year. After closing the year, update the G/L Fiscal Period file for the new year.

2. Keep the year open

The current year must be closed within on year after the ending date of the current year. When this is done, the periods just keep increasing. For example, if using twelve periods

per year, the first month after the current year ending date is period 13, the second month is period 14, etc.

When you are ready to close the current year, all subsystems must be closed before the G/L Fiscal Period file is updated. The processing steps are:

- a) Close *all* subsystems. See the documentation for each subsystem.
- b) Run the "Reset transaction file" program, to renumber the transaction accounting periods. See the documentation for each subsystem.
- c) Update the G/L Fiscal Period file for the new year.

MULTI-COMPANY OPERATION

The multi-company operation of the system requires considerable file control, as several company's' files can be updated at the same time. Also, all companies are executing the same programs, and the system must be able to identify each company's files.

The Starr Computer Systems, Inc. Multi-Company system is capable of controlling any number of companies; the only limitation is the amount of disk space. However, the "Company Selection Menu" program currently supports a maximum of 248 companies; call Starr Computer Systems if you need more than 248 companies. Each company PPN contains a file named "MACTRL.DAT", which is the company "master control file."

The master control file contains the company ID, the company's filenames, and other information. The company ID is used by the system when constructing that company's files; it becomes the last two positions of each filename.

The one filename in the system that is not unique is the company master control file "MACTRL.DAT"; it's file number is 65000.

File numbers are of the form "xxyy". The "xx" field is the system number (i.e. G/L, A/R, A/P, P/R, INV, OE). The "yy" field is the subscript within the file information record number which contains the file device, name, and PPN. For example, the first file information number and the second file would be file number 102.

The file number ranges for all of G/L are 101 through 125 for those file names stored in MACTRL, and 126 through 150 for spares. The numbers from 151 through 200 are reserved for G/L subsystems. Each other system is structured similarly.

Starr Accounting uses a series of ersatz PPN's. These accounts must all exist, and must have the same project number. Recommended account numbers are:

1. SCSLIB:[210,000]
Library of screens, programs, subprograms, subroutines, DO files, etc.
2. SCSHLP:[210,001]
Help files (on-line help).
3. SCSDOC:[210,002]

Documentation. These files are not currently used by the software, and may be erased. They are the list files for the latest Starr Accounting manuals, output as Microsoft Word "text with layout"; thus should print on any printer. The printed Laser quality documentation is available for a nominal charge.
4. SCSWRK:[210,003]

Temporary work files and print files, which are erased automatically by the "SYSBK1.DO" backup file.
5. SCSBAK:[210,004]

Data backup.
6. PPN's [210,005] through [210,007] are reserved for future expansion.

If you have less than sixty four companies, we recommend that company #1 data be in account [210,301], company #2 data in account [210,302], etc. If you need more than sixty-four companies, put the first company in account [210,020] and work forward.

The Change Password

The change password is required within maintenance programs to change records. The change password is defined within the Master Control file, and is set to "DEMO" for the demo company. A new Master Control file will have a "DEMO" as the change password. If the password is null, the maintenance programs will not ask for the password.

The Delete Password

The delete password is required within maintenance programs to delete records. The delete password is defined within the Master Control file, and is set to "DEMO" for the demo company. A

new Master Control file will have a "DEMO" as the delete password. If the password is null, the maintenance programs will not ask for the password.

The Master Password

The master password is required to gain access to the "Company control file maintenance" program, the Purge Files Menu, and other important functions. The master password is defined within the master control file, and is set to "DEMO" for the demo company. A new Master Control file will have "DEMO" as the master password.

Multi-Company Rules

The formal "rules of operation" for the Multi-Company system follow:

1. Company logs into his data PPN [210,3xx], from which he runs all programs. The company master control file is located in this PPN.
2. Company master control file "MACTRL.DAT" contains company ID and filenames. All data file names and are constructed using Master Control file names and company ID.
3. Programs must be run when logged into the data PPN. This means that either:
 - a) Data PPN is on the same device as "SCSLIB:", or
 - b) "SCSLIB:" files are stored on BASIC Plus ersatz "BP:" (i.e. "SCSLIB:" and "BP:" are the same PPN).

We recommend making your data PPN's on the same device as "SCSLIB:". This means that your Master Control files will be on the same device as "SCSLIB:". If short of disk space on that device, put the remainder of the company data on a different device, and change your Master Control file filename data to point to that other device.

THE COMPANY MENU

Adding a Company

A new company is added as follows:

1. Update "SCSLIB:COMPNY.DAT".

The company information is stored in "COMPNY.DAT", which is a sequential Vueable

file, which must be created on the "SCSLIB:" PPN. This file does not exist on the demo tape; in this case the company menu program assumes that "SCSLIB:" is the "log off" PPN, and "XYZ (Sample) Company" on the same device as "SCSLIB:".

The Company Menu program can handle a maximum of 248 companies from "COMPNY.DAT". If you have more than 248 companies, please call us regarding an alternate method for defining companies.

File "COMPNY.DAT" must be created with Vue. Each data element should be entered on a single line by itself, without surrounding quotes. The data record definitions follow:

a) Log off PPN

Starr Accounting logs to this PPN before logging to the Company PPN (to force asking for a password). The log off PPN must not have a password. For example, "DSK0:[1,4]".

b) First company name

Enter a maximum of thirty-two characters.

c) First company device and PPN

For example, "DSK1:[210,301]"

d) First company password indicator

If this company PPN has a password enter "Yes", else enter "No".

e) Remaining companies

Enter a company name on one line, it's corresponding device and PPN on the next line, and it's password indicator on the third line. Repeat this process for up to 248 companies.

A complete sample "COMPNY.DAT" file for two companies follows:

```
DSK0:[1,4]
Your Company Name
DSK1:[210,301]
N
XYZ (Sample) Company
DSK1:[210,377]
N
```

2. Create the master control file "MACTRL.DAT" for the new company (in the new company PPN).

All the company information, access control information, and file names are stored in the company master control file "MACTRL.DAT". Each company has its own master control file. The best way to create a new company "MACTRL.DAT" is to copy another company "MACTRL.DAT" to the new company PPN, and then change the fields that are different.

3. If the file "MACTRL.DAT" does not exist in the company PPN then an empty one will be created for you automatically, using default values.
4. Create the new company data files. See the "Allocate/expand files" documentation.

THE MASTER MENU

Every time the master menu is run it increments the check files full counter then looks to see if the counter has reached the check files full frequency. If the counter equals the frequency it resets the counter to zero then checks every Starr Accounting file for the current company to see if it is less than 90% full. If over 90% full a warning message will appear for that file; the file should either be expanded or purged to provide more space in the file. If the file is over 98% full you *must* expand or purge the file before continuing. Function key "F8" will display the time it took to check all files for 90% full.

When the Master Menu program is run from the Company Selection Menu and receives a valid operator program direct jump number it will jump to that program without displaying the master menu. The company direct jump number is stored in the operator record. The operator will be able to get to the Master Menu by direct jump or by "falling back" to the master menu.

This program dims those menu options that you are not using. However, these modules can be used (in demo mode) in the "XYZ (Sample) Company"; this lets you try out a module before deciding if you want to buy it. Some CRT's may reverse the sense of the dim/bright fields and brighten those menu options that you are not using.

SYSTEM FILES

In the "Multi-Company Operation" section we discussed how file names are created, and which file numbers are associated with those files. We also talked about the company Master Control files; "MACTRL.DAT", file number 65000.

There are also some "system wide" files that apply to all of the companies. These files have a single unique name and file number. These files are:

1. System Control File SCSLIB:SYCTRL.DAT
Random, 2048 bytes. File number 65001.
2. Operator Master File SCSLIB:OPMASY
ISAM, 512 bytes. File number 65002.
3. Error Log File SCSLIB:ERRLOG.LST
Sequential. File number 65004.
4. Direct Jump List File SCSLIB:SADJMP.LST
Sequential. File number 65005.
5. Direct Jump Data File SCSLIB:SADJMP.DAT
Random, 64 bytes. File number 65006.

THE YEAR 2000

The Starr Accounting date routine uses the BASIC Plus subroutine "IDTIM.XBR" to convert string dates to internal format. Our date routine uses "BP:JULCVT.XBR" to convert dates to Julian.

When possible, we use ESP's automatic conversion features, which convert string dates into "binary 4" Julian dates. However, the Starr Accounting date routine is used when programs need internal dates converted to another format. Programs also use this routine to get string output with a two digit year (to save space on a report or a screen). Regardless of the output format, all Starr Accounting internal dates are "year 2000 ready".

CHAPTER TWO UTILITIES

SET PRINTER NUMBER

Each operator record has a printer number which is assigned to them; all of their reports will automatically go to their printer unless they re-direct a specific report to another printer when they run the report.

This program sets the default printer number for this operator to one of sixteen different printers. The assignment does not change the operator record, but does change the operator default printer assignment until they return to the Operator Menu.

SET PRINTER FORMS

Sets the form name for one of the sixteen Starr Accounting printers. All Starr Accounting reports use form "NORMAL".

SET DATE & TIME

Sets the computer's internal date and time. Requires knowing the master password.

RUN A PROGRAM

Runs a specified BASIC Plus program.

EXECUTE AN AMOS COMMAND

Executes a specified AMOS command.

RESET A JOB

Resets a job that may be in a infinite loop, or may have been accidentally started. Requires knowing the job name (which may be determined by using "Execute an AMOS command" to run the "STAT" command). See the reset help file for more information.

PRINT ACCOUNT BALANCE

Prints the G/L account balance for a specified account number and accounting period range. It gives a balance that includes transactions not yet posted to the G/L. Reads the G/L transaction file, the A/R transaction file, the A/P transaction and transaction distribution files, and the P/R employee file (when computing cash balance). This program's most common use is to compute the cash account balance.

Operating Steps

The operating steps are:

1. Select the printer number for this report. One of sixteen different printers may be selected. The printer name will appear to the right of the printer number. The printer number will default to the operator printer number.

The report can be displayed on the screen by selecting the "CRT Screen" printer. In this case, a screen at a time will be displayed, and you will be asked to press the MENU key to abort the report, or any other key to display the next screen.

2. Prepare the printer by loading it with 80 column paper. Set the paper in the printer to the first line of a new page.
3. Enter the number of copies of the report desired. Default is 1.
4. Enter the run date in MMDDYY format. Default is the system date.
5. Enter the G/L account number to process.
6. Enter the accounting period low to high range to process.

Report Fields

The following totals are printed:

1. G/L transactions
2. A/R transactions
3. A/P transactions
4. Employee master total (only for the cash account)

BACKUP/RESTORE VIA DISK

Backups or restores all the files for a specified accounting module to ersatz PPN "SCSWRK:". Defaults the file device from the first file device for the specified system; thus this program assumes that all files for a system are on the same device. Optionally also processes the company Master Control file.



This is a *very* handy feature that will save you lots of time (if you have enough disk space in account "SCSBAK:" to implement it). Whenever you are ready to do a major process (end-of-month, payroll, etc.) you can do a quick backup to disk; if you make a mistake you can quickly recover by restoring your backup to get back to before you started the process.

This program displays the previous backup and restore date and time for the current system/company code/backup restore code. This data is stored in account "SCSBAK:" in files named "BRaabb.cce" where "aa" is the system, "bb" is the company code, "cc" is the backup-restore code, and "e" is either "B" (for backup) or "R" (for restore).

Operating Steps

The operating steps are:

1. Enter the two character system (accounting module) abbreviation. See the on-line help for the list of abbreviations. For example: system abbreviation "PR" would back up the Payroll files. System abbreviation "??" backs up all company files in the *logged* PPN.

2. Enter the file device. Defaults to the device specified in the Company Filename file device entry number one for the specified accounting module.
3. Enter the optional accounting period or ID. To save disk space, leave this field blank unless it is data that you want to keep for a long time (e.g. end-of-year data). This procedure will overwrite any data with the same code.
4. Enter the Master Control File option. Enter "Yes" to backup your company Master Control file, else enter "No".

BACKUP FILES TO TAPE

Menu driven Streamer/VCR backup and VCR tape certify programs are accessed via the Utilities/Tape Utilities menu. The backup start time defaults from the System Control File "backup start time" field. The options are:

1. Backup All Files To Streamer/VCR

Used to backup the entire system and then perform system management functions. The DO file that performs these functions is distributed as "SCSLIB:SYSBK1.DOC". You must rename it to "SYSBK1.DO", and modify it for your own system needs.

2. Backup Selected Files To Streamer/VCR

Used to backup selected files (Starr Accounting data files). The DO file that performs these functions is distributed as "SCSLIB:SYSBK2.DOC". You must rename it to "SYSBK2.DO", and modify it for your own system needs.

3. Certify VCR Tape (CRT)

Used to certify a VCR tape (CRT610/CHECK), with output to a CRT. It uses file "SCSLIB:CERTF1.DO".

4. Certify VCR Tape (Task Manager)

Used to certify a VCR tape (CRT610/CHECK), with output to a file, and using the Task Manager. This method only ties up a CRT until the CRT610 program starts executing via the Task Manager. It uses files "SCSLIB:CERTF2.DO" and "SCSLIB:CERTF2.CTL", which may need to be modified for your system.

PRINT ADDRESS LABEL

Prints address labels using 4" by 2 and 15/16" labels (the same labels used by the Shipping Clerk software. It can access the following databases to automatically obtain the ship to address: O/E orders, A/R orders, A/R customers, A/P vendors, and Sales Leads keys. These databases can only be accessed when the corresponding module is implemented. The address can also be entered manually.

Operating Steps

The operating steps are:

1. Select the printer number for this report. One of sixteen different printers may be selected. The printer name will appear to the right of the printer number. The printer number will default to the operator printer number.

The report can be displayed on the screen by selecting the "CRT Screen" printer. In this case, a screen at a time will be displayed, and you will be asked to press the MENU key to abort the report, or any other key to display the next screen.

2. Prepare the printer by loading it with labels. Set the labels the printer to the first line of a new label.
3. Enter the number of copies of the report desired. Default is 1.
4. Enter the run date in MMDDYY format. Default is the system date.
5. Enter how many of each label to print.
6. Enter the number of lines per label.
7. Enter the form feed option. Enter "Yes" to do a printer form feed when exiting this program (you want to put other forms in the printer), else enter "No".
8. Enter the appropriate key to obtain the shipping address, else enter the name and address manually.
9. Enter the optional shipper's and ship to comment lines. These comment lines print after their respective addresses.
10. Enter EXECUTE to print the label.

Report Fields

The following fields are printed:

1. Shipper's contact name
2. Shipper's company name
3. Shipper's address
4. Shipper's comment line
5. Ship to contact name
6. Ship to company name
7. Ship to address
8. Ship to comment line

PRINT MAILING LABELS

This program prints either Cheshire piggyback or 3.2x15/16 one to four up labels; it can also generate a label interface file (for transferring label data to another system). It also prints a post office Sectional Center Facility report. It can select labels from either the A/R Customer or Sales Leads Master files via multiple selection criteria; the selection criteria sets are combined into a single printout.

The program generates temporary ISAM index files that permit the selection of records from the A/R and Sales Leads databases very quickly, even when the databases are very large. It takes a while to build the temporary indexes, but the indexes can be re-used in a later mailing; the index will be 100% valid as long as there have not been any adds or address changes to the databases.

Operating Steps

The operating steps are:

1. Generate the temporary ISAM index files.

- a) Enter the "Customer master" option. Enter "Yes" to process Customer master records, else enter "No".
 - b) Enter the "Sales Leads master" option. Enter "Yes" to process Sales Leads master records, else enter "No".
 - c) Enter the "Sales Leads select" option. Determines whether Sales Leads selection is by category or class.
2. Select records
- a) Enter the database to select from; either the Customer or Sales Leads database.
 - b) Enter the date range to select. If the database is the Customer Master it will select via the last sale date. If the database is the S/L master it will select via the file date.
 - c) Enter the zip code range to select, or "All" for all zip codes.
 - d) Enter the salesman number to select, or "All" for all salesmen.
 - e) Enter the selection code mask to select, or "All" for all codes. If the database is the Customer Master it will select via the customer code. If the database is the S/L master it will select either via the category or class (depending on the "Sales Leads select" option).
 - f) Enter the contact option. Enter "Yes" print a label for the database contact name, else enter "No". If "Yes" and the database has a blank contact name, will print a label with a blank contact name.
 - g) Enter the label code. This three digit code will be printed on each label.
 - h) Enter the attention lines. Up to five attention lines can be entered. For each non-blank attention line a label will be generated with the specified attention line printed in place of the database contact name.
 - i) Enter EXECUTE to select the records. The program will display how many records will be selected and ask you if the selection is OK. If OK, the enter "Yes" followed by EXECUTE; else enter "No" followed by EXECUTE (or enter MENU). Repeat the selection process until you have selected all the records you want.
3. Print selected records.
- a) Select the printer number for this report. One of sixteen different printers may be selected. The printer name will appear to the right of the printer number. The

printer number will default to the operator printer number.

The report can be displayed on the screen by selecting the "CRT Screen" printer. In this case, a screen at a time will be displayed, and you will be asked to press the MENU key to abort the report, or any other key to display the next screen.

- b) Prepare the printer by loading it with labels. Set the labels in the printer to the first line of a new label.
- c) Enter the number of copies of the report desired. Default is 1.
- d) Enter the run date in MMDDYY format. Default is the system date.
- e) Enter how many labels across the page (1-4).
- f) Enter how many of each label to print.
- g) Enter the number of lines per label.
- h) Enter the form feed option. Enter "Yes" to do a printer form feed when exiting this program (you want to put other forms in the printer), else enter "No".
- i) Enter the appropriate key to obtain the shipping address, else enter the name and address manually.
- j) Enter the label format.

Option "1" is to print chesshire piggyback labels.

Option "2" is to print 3.2x15/16 labels.

Option "3" is to print an interface file, for transferring the label data to another computer; when using this option you should select printer#15 (Create a file & save it). When the label format is "3-Interface", the "Interface split name/title" option controls whether the title field is extracted from the company name field. Title is obtained from the company name. If a company name is a person it should be entered as "lastname title;firstname". The software assumes that the title (if it exists) is one word bracketed on the left by a single space and on the right by a semi-colon. If a title is found, it is removed from the company name field and put in the title field.

See the label format help file for additional information. Enter EXECUTE to print the labels.

4. Print SCF counts

This program can also print a post office Sectional Center Facility report.

- a) Select the printer number for this report. One of sixteen different printers may be selected. The printer name will appear to the right of the printer number. The printer number will default to the operator printer number.

The report can be displayed on the screen by selecting the "CRT Screen" printer. In this case, a screen at a time will be displayed, and you will be asked to press the MENU key to abort the report, or any other key to display the next screen.

- b) Prepare the printer by loading it with 132 column paper. Set the paper in the printer to the first line of a new page.
- c) Enter the number of copies of the report desired. Default is 1.
- d) Enter the run date in MMDDYY format. Default is the system date.

5. Copy print file

An option exists to copy the print file to filename "SCSBAK:SUMLBL.LST". Take the option and press EXECUTE.

6. Erase index files

An option exists to erase the index files. Take the option and press EXECUTE.

Label Report Fields

The following fields are printed:

1. Customer or Sales Lead key
2. Label code
3. Contact name
4. Company name
5. Address line one
6. Address line two

7. City
8. State
9. Zip code

SCF Report Fields

The following fields are printed for each state:

1. State abbreviation
2. Zip code (first three digits) and the total labels for that zip code.

IMPORT MAILING LABELS

The "Print mailing labels" program has an interface format that is used to output Customer or Sales Leads master data in ASCII comma delimited format; this format can then be sent to another computer to do address corrections or zip+4 modifications. The "Import mailing labels" program is used to import those corrections back into the corresponding A/R Customer or Sales Leads master files.

Operating Steps

The operating steps are:

1. Select the printer number for this report. One of sixteen different printers may be selected. The printer name will appear to the right of the printer number. The printer number will default to the operator printer number.

The report can be displayed on the screen by selecting the "CRT Screen" printer. In this case, a screen at a time will be displayed, and you will be asked to press the MENU key to abort the report, or any other key to display the next screen.

2. Prepare the printer by loading it with 80 column paper. Set the paper in the printer to the first line of a new page.
3. Enter the number of copies of the report desired. Default is 1.
4. Enter the run date in MMDDYY format. Default is the system date.

5. Customer master

Import to customer master file? Enter “Yes” to import, else enter “No”.

6. Sales Leads Master

Import to Sales Leads master file? Enter “Yes” to import, else enter “No”.

7. Import file name

File name to import.

Report Fields

The following fields are printed:

1. Records Imported
2. Customers updated
3. Sales Leads updated
4. Errors

DIRECT JUMP UTILITY

This program can print, modify, or create the direct jump table.

The direct jump concept is documented in the “Direct Jump Table” section of this manual.

The “modify” option adds new jump codes at the end of the jump table. It does not change any existing jump codes. It will, however, reset the jump security back to the standard Starr values. If you have customized the jump security see the “Direct Jump Table” documentation. There are no processing steps for the “modify” option; all processes are automatic.

The “create” option creates a new jump table. It changes any existing jump codes and jump security. There are no processing steps for the “create” option; all processes are automatic.

The report is produced in menu option order.

Operating Steps

The report operating steps are:

1. Select the printer number for this report. One of sixteen different printers may be selected. The printer name will appear to the right of the printer number. The printer number will default to the operator printer number.

The report can be displayed on the screen by selecting the "CRT Screen" printer. In this case, a screen at a time will be displayed, and you will be asked to press the MENU key to abort the report, or any other key to display the next screen.

2. Prepare the printer by loading it with 80 column paper. Set the paper in the printer to the first line of a new page.
3. Enter the number of copies of the report desired. Default is 1.
4. Enter the run date in MMDDYY format. Default is the system date.

Report Fields

The following fields are printed:

1. Menu option
2. Program name
3. Security level
4. Program description

COMMENTS UTILITY

This is a utility program for processing comments using the "update comments" subprogram. It was designed mainly as a debugging tool, but can be used to access comments without reading the associated database. This program is accessed via the "Utility menu".

Operating Steps

The operating steps are:

1. Enter the database, record key, and SACOMM option followed by the EXECUTE key. This runs the comments subprogram and opens the subprogram window at the bottom of your screen.
2. Enter the run date in MMDDYY format. Default is the system date.
3. The SACOMM options are:
 - a) "Update" means to add, change, or update comments for a database/database record. After updating the comments, press EXECUTE to save your update.
 - b) "Delete" means to delete comments for a database/database record.
 - c) "Load" means to load the comments array for a database/database record and report how many records were found.

INVOICE HISTORY UTILITY

This program is used to print an old invoice, whose file name was stored in the Invoice History database when the invoice was created. This program is accessed via the "Utility menu".

Operating Steps

The operating steps are:

1. Select the printer number for this report. One of sixteen different printers may be selected. The printer name will appear to the right of the printer number. The printer number will default to the operator printer number.

The report can be displayed on the screen by selecting the "CRT Screen" printer. In this case, a screen at a time will be displayed, and you will be asked to press the MENU key to abort the report, or any other key to display the next screen.

2. Prepare the printer by loading it with invoice column paper. Set the paper in the printer to the first line of a new page.
3. Enter the number of copies of the report desired. Default is 1.

4. Enter the run date in MMDDYY format. Default is the system date.
5. Enter the invoice number to process. Full search mode capabilities are provided. With each invoice number the system displays the invoice date and the customer key. It also displays the customer name and address (obtained from the Customer Master file); however, it is possible that the Customer Master name and address may not match the name and address on the invoice.
6. Press EXECUTE to print the invoice.

MAIL MERGE UTILITY

Some Starr Accounting programs create Microsoft Word mail merge data in the company mail merge data file. Of course, in the Starr multi-user environment, this file will contain data from numerous programs and forms in random order.

The mail merge utility program extracts information from the company mail merge file and creates Microsoft Word mail merge data files for specific programs/form letters; each program can generate up to ten form letters. The utility prints a mail merge data report for each form and then purges the extracted data from the company mail merge file.

The mail merge process conforms to the following standards:

1. Each program can generate up to ten forms. The first form for “program” will have a mail merge data file named “SCSBAK:program.MM0”, the second will be “SCSBAK:program.MM1”, etc.
2. File “SCSBAK:SUMMRG.DAT” will contain the file names described in the previous step.
3. We generally set up a PC to automatically get the data from the Alpha Micro system using FTP. Of course, it could also be done manually. We have adopted the following standards for the Word mail merge document:
 - a) The letter file for “program” form “x” will be “program_MMx_let.doc”
 - b) The header file for “program” form “x” will be “program_MMx_hdr.doc”
 - c) The data file for “program” form “x” will be “program_MMx_dat.doc”

When data is created, the utility prints an audit trail of created records (in form number order).

Once the Word mail merge is done the delete option should be run for the “program” data. This removes the “SCSBAK:program.MMx” file name entries in “SCSBAK:SUMMRG.DAT” and also deletes the “SCSBAK:program.MMx” files.

Operating Steps

The operating steps are:

1. Select the printer number for this report. One of sixteen different printers may be selected. The printer name will appear to the right of the printer number. The printer number will default to the operator printer number.

The report can be displayed on the screen by selecting the "CRT Screen" printer. In this case, a screen at a time will be displayed, and you will be asked to press the MENU key to abort the report, or any other key to display the next screen.

2. Prepare the printer by loading it with invoice column paper. Set the paper in the printer to the first line of a new page.
3. Enter the number of copies of the report desired. Default is 1.
4. Enter the run date in MMDDYY format. Default is the system date.
5. Enter the name of the program that created the mail merge data. A pop up field (program names are pre-defined).
6. Enter the create/delete data option.
7. Press EXECUTE to create/delete the data.

DISPLAY FREE SPACE

This program displays the free space on the Starr Accounting ersatz disk devices.

COMPUTE A RELATIVE DATE

This program given a base date and a -/+ number of days offset, will compute a date relative to the base date.

Operating Steps

The operating steps are:

1. Enter the base date in MMDDYY format.
2. Include base
Enter "Yes" to include the base date in relative position, else enter "No"
3. Days offset
Number of days from base to compute.
4. Press EXECUTE to display the computed date

STRIP CHARACTERS FROM A FILE

This utility will strip "n" characters from the end of a file. This program's main use is to eliminate the carriage return-line feed from the end of a printer leadin/exit file that was created with a text editor (like XED or VUE). These text editors always append a carriage return- line feed at the end of each line, which would be pass through the printer.

Operating Steps

The following steps are required to strip characters from a file:

1. Enter the old file to strip
2. Enter where you want the stripped file to go
3. Enter the number of characters you wish to strip from the file. Default is to (the carriage return – line feed combo)

CREDIT CARD UTILITY

The payment/credit card subprogram is used for entering payments from A/R or O/E order entry or billing. If the payment is via a credit card, the subprogram can also be used to automatically call the credit card processor's computer to record the sale and get an authorization number. The authorization number will be automatically stored in the order header prepaid check number field.

The credit card utility program is used for accessing the credit card subprogram directly, without processing through an order. This program is accessed via the "Utility menu".

Operating Steps

The operating steps are:

1. Enter the payment option followed by the EXECUTE key. This runs the payment subprogram and opens the subprogram window at the bottom of your screen.
2. Enter the passed values followed by the EXECUTE key. The returned values are displayed in a window at the top of the screen.

Passed Values

The following fields are passed to the subprogram:

1. Payment method
2. Payment amount
3. Check number
4. Payment amount
5. Check number
6. Cardholder name
7. Card account number
8. Card expiration date
9. Transaction type
10. Terms code

11. Order header comment (default invoice comment line one)
12. Sales promotion code
13. Credit card processor
14. Processor's phone number
15. Close batch item count
16. Close batch net amount
17. Terminal ID
18. Merchant number

Returned Values

The following fields are returned from the subprogram:

1. Payment method
2. Payment amount
3. Check number
4. Cardholder name
5. Card account number
6. Card expiration date
7. Transaction type
8. Terms code
9. Order header comment (default invoice comment line one).
10. Processor's response

CREDIT CARD MAINTENANCE

This program maintains the credit card database.

Maintain the data using the normal ESP screen features, using the EXECUTE key to update changed records, or the MENU key to ignore changes and return to the previous menu. The change/delete password is required to change/delete records, unless the password is blank.

Function key F1 displays the record flag. Transactions are automatically written to the Credit Card file from the SAPYMT subprogram every time function key F1 or EXECUTE is pressed and a response is received from the credit card processor; the function key F1 transactions will have a flag value of one.

Record Fields

The record fields are:

1. Operator key

The operator record key. An alphabetic abbreviation of the operator name is suggested, although any combination of letters and numbers may be used.

2. Date

3. Time

4. Enter the payment method

The following are types of payment method:

a) 1-Cash

b) 2-Check

c) 3-Visa

d) 4-Mastercard

e) 5-Discover

f) 6-AmExp

5. Pymt amt

The amount of the charge.

6. Credit/ref #
The order prepaid check number.
7. Name
Name on the card.
8. Card #
Card account number.
9. Expires
Card Expiration date in MMY format.
10. Type
Processor transaction type.
The available types are:
 - a) 1-Sale
 - b) 2-Return
 - c) 3-Ticket
 - d) 4-Authorization
 - e) 5-Void sale
 - f) 6-Void return
 - g) 7-Void ticket
 - h) A-Open inquiry
 - i) B-Prev inquiry
 - j) C-Close
11. Host computer response

CREDIT CARD REPORT

This program prints the credit card database for a selected date range in date, time order.

Prints totals but doesn't count flag "1" records in the total.

Operating Steps

The operating steps are:

1. Select the printer number for this report. One of sixteen different printers may be selected. The printer name will appear to the right of the printer number. The printer number will default to the operator printer number.

The report can be displayed on the screen by selecting the "CRT Screen" printer. In this case, a screen at a time will be displayed, and you will be asked to press the MENU key to abort the report, or any other key to display the next screen.

2. Prepare the printer by loading it with 132 column paper. Set the paper in the printer to the first line of a new page.
3. Enter the number of copies of the report desired. Default is 1.
4. Enter the run date in MMDDYY format. Default is the system date.
5. Enter the date range low to high in MMDDYY format.

Report Fields

The following fields are printed:

1. Operator key
2. Date
3. Time
4. Pymt
Payment method

5. Pymt Amt

Payment amount

6. Plus/minus indicator

A “+” character means that this payment amount is added to the total. A “-” character means that this payment amount is subtracted from the total. If neither of these characters are printed it means that this payment amount is not included in the total.

7. Ref

The order prepaid check number

8. Card Name

9. Card number

10. Expiration date

11. Type of sale

12. Host computer response

13. Flag

Transactions are automatically written to the Credit Card file from the SAPYMT subprogram every time function key F1 or EXECUTE is pressed and a response is received from the credit card processor; the function key F1 transactions will have a flag value of one.

PURGE CREDIT CARD

This program purges records from the credit card database, and optionally prints an audit trail of purged records.

Operating Steps

The operating steps are:

1. Select the printer number for this report. One of sixteen different printers may be selected. The printer name will appear to the right of the printer number. The printer number will default to the operator printer number.

The report can be displayed on the screen by selecting the "CRT Screen" printer. In this case, a screen at a time will be displayed, and you will be asked to press the MENU key to abort the report, or any other key to display the next screen.

2. Prepare the printer by loading it with 132 column paper. Set the paper in the printer to the first line of a new page.
3. Enter the number of copies of the report desired. Default is 1.
4. Enter the run date in MMDDYY format. Default is the system date.
5. Enter the date low to high range to process.
6. Enter "Yes" to print an audit trail of deleted records; else enter "No".

Report Fields

The following fields are printed:

1. Operator key
2. Date
3. Time
4. Pymt
Payment method
5. Pymt Amt
Payment amount
6. Ref #
The order prepaid check number
7. Card Name
8. Card number
9. Expiration date
10. Type of sale

11. Host computer response

CHAPTER THREE TASK MANAGER

TASK MANAGER

The Task Manager is a software system that enables you to schedule and run programs on your computer *without* tying up your terminal, and can be run at a specified later time (e.g. 2:00 AM). No matter how fast your computer is, or how much memory or disk storage is available, programs that process large amounts of data or perform complex routines can normally tie up your terminal or "hog" the system or a printer for quite a while. Please refer to the Alpha Micro "Task Manager" manual for detailed information on the installation and use of the Task Manager.

In Starr Accounting, we give you the ability to run almost all of the reports via the task manager. In addition, most of the major processes can also use the task manager. Some processes, like "change keys" *need* to be run when no one else is using those files, so are more convenient to run via the task manager during off hours. To see if a given program has Task Manager support, press function key "F12" from the report parameters screen; if the "Submit a task to the Task Manager" screen appears, the program can be run from the Task Manager.

In Starr Accounting we provide you some utility programs to provide you a "user friendly" interface to the Task Manager. These programs are documented in the following sections.

Setting Up the Task Manager Operator

To properly use the Task Manager from Starr Accounting, a task manager operator must be set up in the System Operator file. This is automatically done for you when Starr Accounting is installed, but is also documented here. The following operator file fields *must* be entered as shown, with the remaining fields as you want them:

1. Operator key "TASK"
2. Name "Task Manager"
3. Password "MANAGR"
4. Exit to AMOS "Direct"

5. Printer number "the printer # you use for Starr Accounting reports"
6. Info message opt "1"
7. Info message delay "1.00"
8. Error message opt "1"
9. Error message delay "1.00"
10. User flags "0"
11. Read security "254"
12. Write security "254"
13. Time out period "0"

Control Files

Tasks that are submitted to the Task Manager via control files (with a "CTL" extension). These files are automatically created by Starr Accounting when you submit a report to the Task Manager, but control files can also be created manually with a text editor. The program "Submit a task" is used to submit existing control files.

Log Files

Task Manager jobs don't have real terminals to send their output to; they use disk files (with a "LOG" extension instead. This means that everything the task does will appear in the log file just as it would on a terminal screen. Since Starr Accounting uses ESP screens, you need a special program to view Starr log files. The program "View a log file" is used to view Starr Accounting log files.

SUBMIT A TASK

This program submits a task to the Task Manager where the control file has been created manually, via a text editor.

Operating Steps

Enter the control file name, followed by EXECUTE. If no device or ersatz is specified in the control file name, the program will assume ersatz name "SCSTSK:".

The control file will be immediately submitted to the Task Manager.

VIEW THE QUEUE FILE

The status of task manager tasks can be determined by looking in the queue file. This program displays the standard queue file "DSK0:BATQUE.SYS". See the Task Manager manual for more information on queue files.

Each task in the queue is assigned a number, which is used by some of the submit commands. Each task will also be assigned a status. The valid status codes are:

*	(running)	- The task is currently executing.
P	(permanent)	- The task is a permanent entry in the queue.
R	(restart)	- The task will restart after an interrupted run.
S	(suspend)	- The task is in suspended state.
K	(kill)	- The task is waiting to be killed.

DISPLAY TASKS FOR A PROGRAM

All Starr Accounting task manager control and log files are in ersatz account "SCSTSK:". However, the file names are in the format "SATxxx.CTL" and "SATxxx.LOG" where xxx is a number. Thus we need a way to determine what files run which programs. This program displays the first fifteen control files that run a specified program name.

Operating Steps

Enter the program name, followed by EXECUTE.

The first fifteen control file names will be displayed, together with their creation date, creation time, run date, and run time. The total number of control files found will also be displayed.

VIEW A LOG FILE

Task Manager jobs do not have real terminals to send their output to; they use disk files (with a "LOG" extension instead. This means that everything the task does will appear in the log file just as it would on a terminal screen. Since Starr Accounting uses ESP screens, you need a special program to view Starr log files. We use the Terminal Clone "Play" utility, which is executed by our "View a log file" program.

Operating Steps

Enter the control file name, followed by EXECUTE. If no device or ersatz is specified in the control file name, the program will assume ersatz name "SCSTSK:".

If you do not know the name of the control file, use the "View the queue file" or "Display tasks for a program" programs.

The play file can be stopped by pressing the space bar; resume the display by pressing the space bar again. The speed of the display is controlled by the numeric keys "1" through "9", with "1" being the fastest; the speed defaults to "2".

KILL A TASK

If you change your mind about running a program after it has been submitted to the Task Manager, you need a way to tell the Task Manager to kill (not run) the submitted program. This program kills a task.

You may also want to kill a task that has already started running. In this case you may also need to reset the task worker job (usually "TJOB1"). See the "Reset a job" documentation in this manual.

Operating Steps

To operate enter the control file name, followed by EXECUTE. If no device or ersatz is specified in the control file name, the program will assume ersatz name "SCSTSK:".

If you do not know the name of the control file, use the "View the queue file" or "Display tasks for a program" programs.

ERASE TEMPORARY FILES

This program erases temporary control files and their associated log files from the "SCSTSK:" account. It only erases temporary files through a specified run date.

Operating Steps

To operate enter the purge through date in MMDDYY format, followed by EXECUTE.

All temporary control files whose run date is less than or equal to the purge date will be deleted. After each control file is deleted, the corresponding log file will also be deleted

CHAPTER FOUR SYSTEM MANAGEMENT

SYSTEM CONTROL FILE MAINTENANCE

This program is run during system creation and is used to define system-wide control information (control information common to all sub-systems and programs).

Record zero contains general data, records one through sixteen contain printer data, and records seventeen through twenty-three contain system filenames.

Maintain the data using the normal ESP screen features, using the EXECUTE key to update changed records, or the MENU key to ignore changes and return to the previous menu.

Use the ESP print key to print the data to the default printer.

Record Fields

The record fields are:

1. Record number

The control file record number.

2. Prompt records delay

When programs are processing records, a processing prompt message "Processing record: x" appears every n records; n is the prompt records delay. If n is zero, there will not be any processing prompts.

3. System password

The highest level password on the system. Applies to all companies.

4. Operator PPN password

Starr Accounting sometimes needs to create DO files that need to log to the operator account; thus need to know the operator account password. Leave blank if no password on the operator account.

5. Maximum error log blocks

Starr Accounting error messages are kept in an error log file "SCSLIB:ERRLOG.LST". This is an ASCII file that can be printed or edited with Vue.

This file is allocated automatically, and grows about 1/3 block for each error that occurs. If the error log blocks is non-zero, Starr Accounting will automatically rename the error log file to "SCSLIB:ERRLOG.OLD" when it reaches maximum error log blocks, then start with a new "SCSLIB:ERRLOG.LST". If maximum error log blocks is zero, the file will grow forever, until you manually erase it.

6. Expiration days

Starr Accounting can either be purchased or rented. When it is rented, the software encoding has an expiration date, after which the software reverts to demo mode. The "expiration days" is the number of days before the expiration date that you want to be reminded that your software rent is about to expire. The reminder message appears whenever you access the master menu, but stops after the software expires.

7. Zip convert option

Disable/Enable the get city/state from zip code. You can disable the get city/state from zip code feature, or indicate whether the city/sate is returned in either upper/lower or upper case.

8. Backup start time

The tape backup start time in "hh:mm xM" format (where xM is either AM or PM).

PRINTER CONTROL FILE MAINTENANCE

This program is run during system creation and is used to define the system printers. Up to sixteen printers can be defined.

Maintain the data using the normal ESP screen features, using the EXECUTE key to update changed records, or the MENU key to ignore changes and return to the previous menu.

Use the ESP print key to print the data to the default printer.

Record Fields

The record fields are:

1. Record number

The control file record number.

2. Name (or TRM:Name, or REMOTExxxx, or FAXxxxx)

The printer spooler name.

The name referred to is the name recognized by the print spooler program. The spooler program "saves" a file to be printed on the disk, and prints the print file after the program that created it has finished running. This method means that the printer is available for other uses while the print file is being created. The printer name is identified by the "NAME=" parameter of the corresponding printer initialization file.

There are times when we do not want to use the spooler program. If the file we want to print is very large, there may not be enough spare disk space to store it prior to printing. We may need direct printer control to print a special form. In these cases we will want to print directly to the printer. If you want output direct to the printer (not through the spooler), then enter the printer device name.

To print directly to the printer we must enter the TRMx:NNNNNN, where NNNNNN is the name of the printer TRMDEF. Note: You should use non-shared devices (DEVTBL /TRMx) for each printer you plan to use directly. The direct printer device name is identified by the "DEVICE=" parameter of the corresponding printer initialization file.

To define a remote printer, i.e. a printer run from the printer port of a CRT, enter "REMOTE" in the first six characters of the name. Enter anything in positions 7-10. You will also want to set "Output to CRT" to "No", "Execute Spooler" to "No", and "Spooler switches" to "4"; see the sample Printer Control file. When remote printing, we generate the report file (with the normal processing prompts), then output the report file to the printer. We indicate when remote printing starts, and display a progress indicator on the screen as the file prints (using the System Control file "prompt records delay").

To define an AlphaFAX printer, enter "FAX", in the first three characters of the name. Enter anything in positions 4-10. You will also want to set "Output to CRT" to "No" and "Execute spooler" to "Yes".

3. Description

The printer description.

This description is displayed by each report program, and changes if the user redirects the output to a different printer.

4. TRM:name in use

Not currently implemented.

5. Output to CRT

Enter "Yes" if you want the report printed on your CRT screen, else enter "No". You cannot have both "Output to CRT" and "Execute Spooler" options "Yes".

6. Execute spooler

Enter "Yes" if you want the report printed by the spooler; else enter "No". You cannot have both "Output to CRT" and "Execute Spooler" options "Yes".

7. Spooler switches

The spooler switches number. Each switch you can use has a numeric code associated with it. Set control switches by putting the sum of the appropriate switch codes into this number. For example, if you want to use BANNER and DELETE switches, enter "5".

The spooler DELETE switch can be used in conjunction with a printer definition that does not output to the spooler to automatically delete the file.

The switch codes are:

BANNER	1
NOBANNER	2
DELETE	4
NODELETE	8
HEADER	16
NOHEADER	32
FF	64
NOFF	128
WAIT	256
INFORM	512
NOINFORM	1024
KILL	2048

See the "AMOS/L AlphaBASIC XCALL Subroutine User's Manual" for more information on the spooler program.

8. TOF line skip count

The top-of-form line skip count.

If this number is non-zero, all reports will skip this number of blank lines after executing a top-of-form.

9. CRT width

The number of characters across the width of a page. Enter a number in the range 80-132.

10. CRT lines/page

Enter the number of lines per page. Enter a number in the range 24-66.

11. Printer width

Enter the number of characters across the width of a page. Enter a number in the range 1-150.

12. Printer lines/page

Enter the number of lines per page. Enter a number in the range 1-66.

13. Lead-in tabs/codes

This field is used to send up to ten CRT extended tab functions or printer control functions. This control data is sent before any other output.

Each five characters represents one output element, and is in format xxyyy. If xx is non-zero, then "TAB(xx,yyy);" is executed. If xx is zero, then "CHR(yyy);" is executed. This procedure is done for each of the eight data elements, until the end of the lead-in string is reached.

If the string begins with a "|" character, what follows the "|" character is assumed to be a file name. The file must contain the necessary lead-in or exit data in the exact internal format that the printer or FAX is expecting. This means that escape codes and other binary data must be included in the file. See the Vue or XED text editor documentation for how to enter binary data into a text file.

14. Exit tabs/codes

This field is used to send up to ten CRT extended tab functions or printer control functions. This control data is sent after any other output.

Each five characters represents one output element, and is in format xxyyy. If xx is non-zero, then "TAB(xx,yyy);" is executed. If xx is zero, then "CHR(yyy);" is executed. This procedure is done for each of the eight data elements, until the end of the exit string is reached.

If the string begins with a "|" character, what follows the "|" character is assumed to be a file name. The file must contain the necessary lead-in or exit data in the exact internal format that the printer or FAX is expecting. This means that escape codes and other binary data must be included in the file. See the Vue or XED text editor documentation for how to enter binary data into a text file.

15. Bar code parameters

When printing bar codes it is sometimes necessary to print a string of characters just prior to printing a bar code. This field provides a data location for these parameters.

SYSTEM FILENAME MAINTENANCE

This program is run during system startup. It contains system wide files, that apply to all companies. It also contains an option to change the file device for all file names; this option is used when you move the files to a different device.

Maintain the data using the normal ESP screen features, using the EXECUTE key to update changed records, or the MENU key to ignore changes and return to the previous menu.

Use the ESP print key to print the data to the default printer.

The program asks for the record number to be entered. This number represents the type of accounting function we are doing, and is used to access the record that contains those filenames. Up to sixteen files can be defined for each record number. In the application programs, a file name is obtained by first reading the record corresponding to the accounting function, and then indexing to the desired filename(s).

Do *not* change the recommended filenames, they *must* be the standard names. The record number for the various systems and their standard filenames follow:

Record 17- System

The System filenames are stored on record seventeen. The standard filenames and their index within the record are:

1. Operator Master SCSLIB:OPMA
ISAM, 512 bytes.
2. Zip Code Master SCSLIB:ZPMA
ISAM, 32 bytes

Record 18 - Shipping Clerk

The Shipping Clerk filenames are stored on record eighteen. The standard device and filenames and their index within the record are:

1. S/C Control SCSLIB:SCCT
Random, 2048 bytes.
2. S/C UPS Zones/Rates SCSLIB:SCUP
Random, 2048 bytes.
3. S/C Transaction SCSLIB:SCTR
ISAM, 512 bytes.

OPERATOR FILE MAINTENANCE

This program is used to maintain system operator (user) records. It contains user name, password, and other control information.

Maintain the data using the normal ESP screen features, using the EXECUTE key to update changed records, or the MENU key to ignore changes and return to the previous menu. The change/delete password is required to change/delete records, unless the password is blank.

Record Fields

The record fields are:

1. Operator key

The operator record key. An alphabetic abbreviation of the operator name is suggested, although any combination of letters and numbers may be used.

The operator must enter their key and password to gain access to the system.

2. Operator name

The operator name as "last name; first name".

3. Operator password

The password to gain access to Starr Accounting.

4. Exit to AMOS?

This field controls whether an operator is allowed to exit to AMOS from the operator sign-on menu. There are three possible cases:

a) No

Exit to AMOS is not allowed.

b) Password

Exit to AMOS is allowed only after the user enters the correct password.

c) Direct

Always automatically exits to AMOS when returning to the operator sign-on menu.

5. Printer number

The default printer number for this user. All Starr Accounting reports will go to this printer, unless another printer is selected at the time the report is printed.

6. Department

The operator department, corresponding to a General Ledger department. Used by the billing system to construct a departmental sale account from a master sale account in the A/R Control file. See the A/R documentation for further details.

7. Information message option

Informational messages are those that tell you a process is complete (e.g. "record added", "record changed", etc.).

Informational messages are displayed using the ESP ERRDSP subroutine, which has several special control options. The options are:

- a) No acknowledgment desired.
- b) No blink desired.
- c) No ding desired.

8. Information message delay

Number of seconds delay after informational messages, when no acknowledgment is desired. When set to acknowledgment, set delay to zero.

9. Error message option

Error messages are those that indicate serious errors.

Error messages are displayed using the ESP ERRDSP subroutine, which has several special control options. The options are:

- a) No acknowledgment desired.
- b) No blink desired.
- c) No ding desired.

10. Error message delay

Number of seconds delay after error messages, when no acknowledgment is desired. When set to acknowledgment, set delay to zero.

11. User flags

The following user flag is implemented:

- 1 modem user.

12. Time out period

The number of seconds before the software will automatically return to the operator sign-in menu. A zero time out means the application never times out.

13. Read security

The user's read security. Every ESP screen field has a read security level. If the user's read security level is lower than the field read security, the user will not see the field or its prompt.

14. Write security

The user's write security. Every ESP screen field has a write security level. If the user's write security level is lower than the field write security, the user will not be able to make any entry or change the field.

15. Background color

For terminals supporting color, the user's background color number.

16. Foreground color

For terminals supporting color, the user's foreground color number.

17. Special options

This field is used to make some programs run in a special way when run by an operator who has that special option set in their operator record. These options take precedence over the A/R Control file options. See the help file associated with this field for more information. The following special options are included in this release:

- a) "IVFx" where "x" is "0" or "1" sets the invoice form number.
- b) "PCNx" where "x" is "Y" (yes) or "N" (no) sets the "print company name on forms" option.
- c) "PFDx" where "x" is "Y" (yes) or "N" (no) sets the "print field names on forms" option.

18. Direct jump number

When the Master Menu program is run from the Company Selection Menu and receives a valid operator program direct jump number it will jump to that program without displaying the master menu.

OPERATOR FILE REPORT

A complete listing of the Operator file is produced by this program.

The report can be produced in either operator key or operator name order.

Operating Steps

The operating steps are:

1. Select the printer number for this report. One of sixteen different printers may be selected. The printer name will appear to the right of the printer number. The printer number will default to the operator printer number.

The report can be displayed on the screen by selecting the "CRT Screen" printer. In this case, a screen at a time will be displayed, and you will be asked to press the MENU key to abort the report, or any other key to display the next screen.

2. Prepare the printer by loading it with 132 column paper. Set the paper in the printer to the first line of a new page.
3. Enter the number of copies of the report desired. Default is 1.
4. Enter the run date in MMDDYY format. Default is the system date.

Report Fields

The following fields are printed:

1. Operator key
2. Operator name
3. Operator password
4. Exit to AMOS?
5. Default printer number
6. User flags

7. Time out period
8. Read security level
9. Write security level
10. Background color
11. Foreground color
12. Special options
13. Direct jump number

COMPANY CONTROL FILE MAINTENANCE

This program is run when a new company is added to the system. It contains company name, address, and company control information. This program is automatically run if the file "MACTRL.DAT" is not found on the logged PPN.

Maintain the data using the normal ESP screen features, using the EXECUTE key to update changed records, or the MENU key to ignore changes and return to the previous menu.

Use the ESP print key to print the data to the default printer.

Record Fields

The record fields are:

1. Company name

Note: Enter the company name, address, and phone number as you want it to appear on invoices, statements, purchase orders, packing lists, etc.; when you are using plain paper for these forms (your name and address is not pre-printed on the forms).

2. Address line one
3. Address line two
4. City
5. State

6. Zip code

7. Phone number

8. Company ID

The company ID will appear as the last two characters of all Starr Accounting company filenames (e.g. the G/L master file for company ID "XY" will be named "GLMAXY").

9. Company PPN password

The password on the company account (where the Master Control file exists).

Starr Accounting sometimes creates DO files that log out of the company PPN and then need to return to the company PPN, which requires knowing this password.

10. Change password

This password is required to change records. If the password is null, the programs will not ask for the password.

11. Delete password

This password is required to delete records. If the password is null, the programs will not ask for the password.

12. Master password

This password is required to access certain system management functions within the company.

13. Check files full frequency

The number of times the Company Master Menu program is run before it checks for files full.

14. Check files full counter

The "Check files full counter" is incremented every time the Master Menu program is run. When the "Check files full counter" is greater than or equal to the "Check files full frequency" the Master Menu program will check for files full and reset the "Check files full counter" to zero.

If the checking files full delay on your system is acceptable to you, set the "Check files full frequency" to "1" (check every time). You can determine the delay by pressing function

key "F8" on the Master Menu. Setting the "Check files full frequency" to a number greater than one reduces the delay but increases the probability that a file could become 100% full without warning.

15. Work file number

A display only field. All work and print files have a file type consisting of a three digit work file number. This number starts with "000", increases to "999", then starts over at "000". It is helpful to know the current work file number when looking for a particular program work or print file; if you check within a few minutes after running the program it will usually be a few numbers less than the displayed number.

16. Credit card processor

17. Credit card processor's credit card approval phone number

18. Credit card processor's mode number

19. Credit card processor's terminal ID

20. Your merchant number with the credit card processor.

COMPANY FILENAME MAINTENANCE

This program is run during system startup. It contains company file names. It also contains an option to change the file device for all file names; this option is used when you move the files to a different device.

Maintain the data using the normal ESP screen features, using the EXECUTE key to update changed records, or the MENU key to ignore changes and return to the previous menu.

Use the ESP print key to print the data to the default printer.

The program asks for the record number to be entered. This number represents the type of accounting function we are doing, and is used to access the record that contains those filenames. Up to sixteen files can be defined for each record number. In the application programs, a file name is obtained by first reading the record corresponding to the accounting function, and then indexing to the desired filename(s).

Note that if you use other than the recommended filenames, the command files used for file backup will need to be altered accordingly. The record number for the various systems and their recommended filenames follow:

Record 1 - General Ledger

The General Ledger filenames are stored on record one. The recommended filenames and their index within the record are:

- | | | |
|----|------------------------------|------|
| 1. | G/L Control | GLCT |
| | Random, 2048 bytes. | |
| 2. | G/L Chart of Accounts Master | GLMA |
| | ISAM, 256 bytes. | |
| 3. | G/L Transaction | GLTR |
| | ISAM, 128 bytes. | |

Record 2 - Accounts Receivable

The Accounts Receivable filenames are stored on record two. The recommended filenames and their index within the record are:

- | | | |
|----|---------------------|------|
| 1. | A/R Control | ARCT |
| | Random, 2048 bytes. | |
| 2. | A/R Customer Master | ARMA |
| | ISAM, 512 bytes. | |
| 3. | A/R Transaction | ARTR |
| | ISAM, 128 bytes. | |
| 4. | A/R Sales History | ARSH |
| | ISAM, 144 bytes. | |
| 5. | A/R Invoice Header | ARHD |
| | ISAM, 640 bytes. | |
| 6. | A/R Invoice Lines | ARLN |

	ISAM, 192 bytes.	
7.	A/R Alternate Customer	ARAL
	ISAM, 32 bytes.	
8.	A/R Sales Tax	ARST
	Random, 512 bytes.	
9.	A/R Auto Invoice Header	ARUD
	ISAM, 640 bytes.	
10.	A/R Auto Invoice Lines	ARUN
	ISAM, 192 bytes.	
11.	A/R Auto Invoice Transaction	ARUT
	ISAM, 192 bytes.	

Record 3 - Accounts Payable

The Accounts Payable filenames are stored on record three. The recommended filenames and their index within the record are:

1.	A/P Control	APCT
	Random, 2048 bytes.	
2.	A/P Vendor	APMA
	ISAM, 512 bytes.	
3.	A/P Transaction	APTR
	ISAM, 176 bytes.	
4.	A/P Transaction Distribution	APTD
	ISAM, 32 bytes.	
5.	A/P Auto Voucher Transaction	APUR

- ISAM, 176 bytes.
6. A/P Auto Voucher Transaction Distribution APUD
ISAM, 32 bytes.
7. A/P Alternate Key APAL
ISAM, 32 bytes.

Record 4 - Payroll

The Payroll filenames are stored on record four. The recommended filenames and their index within the record are:

1. P/R Control PRCT
Random, 2048 bytes.
2. P/R Tax Information PRTX
Random, 2048 bytes.
3. P/R Employee PREM
ISAM, 1024 bytes.
4. P/R Deduction PRDE
ISAM, 320 bytes.
5. P/R Paycheck PRCK
ISAM, 320 bytes.
6. P/R Time Clock RTC
ISAM, 48 bytes.
7. P/R Check History PRCH
ISAM, 80 bytes.

Record 5 - Inventory

The Inventory filenames are stored on record five. The recommended filenames and their index within the record are:

- | | | |
|----|---------------------|------|
| 1. | INV Control | IVCT |
| | Random, 2048 bytes. | |
| 2. | INV Item | IVMA |
| | ISAM, 512 bytes. | |
| 3. | INV Transaction | IVTR |
| | ISAM, 208 bytes. | |
| 4. | INV Vendor | IVVD |
| | ISAM, 48 bytes. | |
| 5. | INV Alternate Item | IVAL |
| | ISAM, 48 bytes. | |
| 6. | INV Kits | IVKT |
| | ISAM, 48 bytes. | |
| 7. | INV Serial Number | IVSN |
| | ISAM, 128 bytes. | |

Record 6 - Order Entry

The Order Entry filenames are stored on record six. The recommended filenames and their index within the record are:

- | | | |
|----|---------------------|------|
| 1. | O/E Control | OECT |
| | Random, 2048 bytes. | |
| 2. | O/E Order Header | OEHD |

	ISAM, 640 bytes.	
3.	O/E Order Lines	OELN
	ISAM, 192 bytes.	
4.	O/E Customer Pricing	OEPC
	ISAM, 64 bytes.	
5.	O/E Status Pricing	OEPS
	ISAM, 80 bytes.	
6.	O/E Promo Pricing	OEPP
	ISAM, 64 bytes.	
7.	Not used	
8.	POS Peripheral Control	PSPC
	ISAM, 1024 bytes.	
9.	POS Register Tape	PSRT
	ISAM, 1024 bytes.	
10.	POS Salesperson Master	PSSM
	ISAM, 1024 bytes.	

Record 7 - Sales Leads

The Sales Leads filenames are stored on record seven. The recommended filenames and their index within the record are:

1.	S/L Control	SLCT
	Random, 2048 bytes.	
2.	S/L Master	SLMA
	ISAM, 256 bytes.	

- | | | |
|----|---|------|
| 3. | S/L Notes | SLNT |
| | ISAM, 96 bytes. | |
| 4. | S/L Mail Merge | SLMM |
| | SEQUENTIAL, one variable per line, each variable terminated by a carriage return and line feed. | |
| 5. | S/L Interchange | SLIC |
| | SEQUENTIAL, 256 bytes (254 data bytes terminated by a carriage return and line feed). | |

Record 8 - Labor Distribution

The Labor Distribution filenames are stored on record eight. The recommended filenames and their index within the record are:

- | | | |
|----|---------------------|------|
| 1. | L/D Control | LDCT |
| | Random, 2048 bytes. | |
| 2. | Not used | |
| 3. | L/D Transaction | LDTR |
| | ISAM, 176 bytes. | |

Record 9 - Job Costing

The Job Costing filenames are stored on record nine. The recommended filenames and their index within the record are:

- | | | |
|----|---------------------|------|
| 1. | J/C Control | JCCT |
| | Random, 2048 bytes. | |
| 2. | J/C Master | JCMA |
| | ISAM, 512 bytes. | |

- | | | |
|----|------------------|------|
| 3. | J/C Transaction | JCTR |
| | ISAM, 128 bytes. | |

Record 10 - Purchase Order

The Purchase Order filenames are stored on record ten. The recommended filenames and their index within the record are:

- | | | |
|----|---------------------|------|
| 1. | P/O Control | POCT |
| | Random, 2048 bytes. | |
| 2. | P/O Order Header | POHD |
| | ISAM, 640 bytes. | |
| 3. | P/O Order Lines | POLN |
| | ISAM, 192 bytes. | |

Record 11 - Check Reconciliation

The Check Reconciliation filenames are stored on record eleven. The recommended filenames and their index within the record are:

- | | | |
|----|---------------------|------|
| 1. | C/R Control | CRCT |
| | Random, 2048 bytes. | |
| 2. | Not used | |
| 3. | C/R Transaction | CRTR |
| | ISAM, 64 bytes. | |

Record 12 - Quotation

The Quotation filenames are stored on record twelve. The recommended filenames and their index within the record are:

- | | | |
|----|-------------|------|
| 1. | QTE Control | QTCT |
|----|-------------|------|

- Random, 2048 bytes.
- | | | |
|----|------------------|------|
| 2. | QTE Order Header | QTHD |
| | ISAM, 704 bytes. | |
| 3. | QTE Order Lines | QTLN |
| | ISAM, 192 bytes. | |

Record 17 - Company

The Company filenames are stored on record seventeen. The recommended filenames and their index within the record are:

- | | | |
|----|------------------------------|------|
| 1. | CPY Comments | CPCO |
| | ISAM, 112 bytes. | |
| 2. | CPY Invoice History | CPIH |
| | ISAM, 32 bytes. | |
| 3. | CPY Mailmerge | CPMM |
| | SEQUENTIAL, variable length. | |
| 4. | CPY Credit Card | CPCC |
| | ISAM, 128 bytes. | |

Record 20 - Custom Software

Custom software filenames are stored on record number twenty. When we write custom software for you, the filenames are stored here. Do not use this record for software that you write; use records 25-32, which have been reserved for your use.

Record Fields

The record fields are:

1. File device (x)

The file device. If a device is not specified, the file will default to the logged device. If a device is specified, it must be terminated by a colon.

2. File name (x)

A four character alphanumeric file name. We recommended using the pre-defined file-names for the current file information record number. The actual filenames are constructed using this filename followed by the company ID.

3. File PPN (x)

A nine character project-programmer number (PPN). Project number must be the same project as "SCSLIB:". Must include brackets and comma (e.g. "[210,301]").

SSD CONTROL FILE MAINTENANCE

This program is run during system creation and is used to encode Starr Accounting to your computer's Software Security Device. Encoding instructions are in the "Installation Instructions" document, and will not be repeated here. However, we will document several program options of interest:

1. Display SSD string

Displays a series of eight numbers which are returned by your SSD, which are used by Starr Computer Systems to encode our software.

2. Test SSD

Displays the SSD string, then tests the SSD to see if Starr Accounting is encoded. If properly encoded, the SSD test will return "0" and "your SSD number".

3. Maintain the data using the normal ESP screen features, using the EXECUTE key to update changed records, or the MENU key to ignore changes and return to the previous menu.

Use the ESP print key to print the data to the default printer.

Record Fields

The record fields are:

1. Your SSD number

If you do not know your SSD number, see the "Encoding Instructions".

2. Users

The maximum number of simultaneous Starr Accounting users (the maximum number of jobs that can be running Starr Accounting at one time). Spawned TCP or Multi jobs count toward the maximum.

3. Expiration date

We offer a rental option on our software. When the software is rented, this is the date the rent expires. When the software expiration is near (within fourteen days), a warning message appears whenever the Master Menu is executed. After the expiration date passes, the software reverts to demo mode.

If you are not renting the software, this field is not used, and must be left blank.

4. Implemented code (x)

Contains a number if the associated module is implemented, else contains "0".

5. Encoding code (x)

The Starr Accounting encoding codes provided by Starr Computer Systems.

6. Encoding version number

The version of Starr Accounting that corresponds with this encoding. Each version of Starr Accounting requires a new encoding.

MODEM CONTROL FILE MAINTENANCE

This program is run during system creation and is used to define system-wide modem control information (modem control information common to all sub-systems and programs). It is currently used by the payment/credit card subprogram, but can be used by any program that controls a modem. Up to two modems can be defined.

Please note: a "control M" (return) must be denoted as "*M" in the modem strings.

Maintain the data using the normal ESP screen features, using the EXECUTE key to update changed records, or the MENU key to ignore changes and return to the previous menu.

Use the ESP print key to print the data to the default printer.

Record Fields

The record fields are:

1. Record number
The control file record number.
2. The modem terminal definition name
3. DTR
Indicates if the modem can hang-up by dropping the Data Terminal Ready signal.
4. Attention string
Command string that prepares the modem for use.
5. Attention wait time
Wait time for the modem to respond to the attention string.
6. Attention parameter
Modem's response to the attention string.
7. Configuration string
Additional command string that prepares the modem for use.
8. Configuration wait time
Wait time for the modem to respond to the configuration string.
9. Configuration parameter
Modem's response to the configuration string.
10. Dial string

Command string that dials the modem.

11. Dial wait time

So that it can readily detect a BUSY, the DIAL command waits for a CONNECT for a few seconds and then checks for BUSY, then waits for CONNECT for a few seconds, and so on. Dial time is the amount of time it waits for CONNECT each scan.

12. Dial scans

Is the number of times DIAL will wait for a CONNECT and then check for a BUSY response.

13. Dial connect response

The message the modem sends when a CONNECT is achieved.

14. Dial busy response

The message the modem sends when a busy signal is detected.

15. Escape string

The command string that causes the modem to "escape" to command mode from the on line mode.

16. Escape wait time

Wait time for the modem to respond to the escape string.

17. Beginning guard time

The "guard" time that begins the modem escape sequence.

18. Ending guard time

The "guard" time that ends the modem escape sequence.

19. Escape response

The response of the modem when it has returned from online mode to command mode.

20. Hang-up string

- The command string that is used to hang-up the modem.
21. Hang-up wait time
The wait time for the modem to hang-up.
 22. Hang-up parameter
Modem's response to the hang-up string.
 23. Reset string
Command string that resets the modem.
 24. Reset wait time
Wait time for the modem to respond to the reset string.
 25. Reset parameter
Modem's response to the reset string.

ALLOCATE/EXPAND FILES

This program will allocate, expand, or shrink ISAM Plus data files within Starr Accounting. It is executed from the "System management" menu. All processes are automatic; the only required user input is the new records maximum (the old records maximum is automatically displayed).

Control files are not allocated by this program. They are automatically allocated by their individual control file maintenance programs.



Before processing ISAM files, ***please be aware of several restrictions.*** Other users should not be accessing the ISAM file you are processing. Remember, other subsystems within a company access other subsystem masters within the company. To be sure of no contention, get everyone out of the company before you begin. It is impossible to guarantee the validity of the process unless you do!

Also, please note that this process assumes that the IDA and IDX files are on the same device and PPN (not split). If your files are split, you will need to modify the generated DO file, or build it manually using the AMOS "ISMUTL" program. To get the file information to manually build a file, use the "ISMUTL" "STATUS" option on an existing copy of the file (use the "XYZ (Sample)

Company" or any company that already has the file. See the Alpha Micro "ISAM Plus" manual for how to use the ISMUTL program.

If you are using the ISAMP 2.1(138) version (or later) you can use the "Rebuild" option to rebuild the IDX files from the corresponding IDA file, when you don't need to expand a file. The rebuild date is displayed; "00/00/00" is displayed if the index file has never been rebuilt.

The "pause between steps" option requires that you enter a RETURN between each step of the process, but is a handy option for screens that do not support smooth scroll (e.g. PC's).

Please note: an extensive help file has been created for the "Erase dump file" field.

ISAM files are processed by creating a DO file, and then executing the DO file. The steps follow:

1. Create a DO file in the "SCSWRK:" PPN. The first four characters of the DO file name will be the same as the file name we are processing; positions five and six will be an automatically generated number; the file type will be "DO".
2. Execute the DO file, to perform the following steps.
3. ISAM dump the data to the "SCSWRK:" PPN. The dump file name will be the same as the original ISAM file, but with a file type of "SEQ".
4. Erase the original IDA and IDX files.
5. ISAM build the new size file on the original device and PPN. Load from the "SEQ" file.
6. Display both the old and the new number of records in the file, and ask if it's OK to delete the dump file. If there were any errors do *not* erase the dump file. Please be aware that it is possible that the dump or load had an error; there is currently no way to detect an error within the ISMUTL program and return the error code to a DO file. Until Alpha Micro fixes this problem, you need to watch for errors or check this display for discrepancies before indicating it is OK to erase the dump file.
7. If you indicated it is OK to erase the dump file, will erase the "SEQ" dump file.
8. Rerun the "Allocate/expand" program

Operating Steps

The operating steps are:

1. Enter the Starr Accounting module abbreviation.

After the module is selected, all files for that module will be automatically displayed.

2. Enter the file number to process.

Enter the file number from the displayed list of file names and numbers. The file number equals the file index offset in the Master Control file for the selected system.

After the file is selected, the records allocated, records free, and records maximum are automatically displayed.

3. Enter the new records maximum.

If this number is greater than the old maximum, the file will be expanded.

If this number is greater than the records allocated but less than records maximum, the file will be reduced.

If this number is less than the records allocated, you will not be allowed to proceed unless you indicate that it is OK to delete the existing records (see the following step).

4. Answer the "Delete old records" question. Enter "Yes" to delete the old records. Enter "No" to save the old records.



Note: be sure before you answer "Yes", because the only way to get the old records back is from a backup.

If the program detects an already existing dump file for the file you are processing, it probably means that the "Allocate/expand" process failed due to some system error. You will be given an opportunity to use this existing file; if not sure use the existing dump file. If you do not use the existing dump file it will be deleted.

5. Enter the extra index blocks percentage. Use the default value (which is set by the program for each files) unless checking for duplicates. See the help line for additional information.
6. Enter the index loading factor percentage. Use the default value (which is set by the program for each file). See the help line for additional information.
7. Enter "Yes" to check for duplicates when loading existing records; else enter "No".

PURGE FILES

All Starr Accounting files are purged via a special "Purge files" menu, which has a high security level to avoid unauthorized access. Each individual purge program is documented in its associated accounting module documentation.

CONVERT YOUR DATA TO STARR DATA

This program converts non-Starr Accounting data to an ASCII comma delimited file in a format that can be imported into Starr Accounting using our Interface programs. Use it to transfer data from your software to Starr Accounting. Source code to this program is provided, so that you can modify it for your own needs. The program contains sample code for Alpha Accounting type data, but can be modified to process any type of database.

LOAD VERSION 3.XX DATA

Traditional Starr Accounting has version numbers of the format "3.xx". The first Starr Accounting Plus release was version "4.00".

Conversion programs exist for all the traditional ISAM files and random transaction files. Conversion programs for control files are not needed; they are allocated automatically when the control file maintenance programs are run, and will automatically be set to sample values.

The steps to convert traditional Starr Accounting data to the new ESP format for a company follows:

1. Back up all your traditional data. The conversion process does not modify the traditional data in any way, but it is still a very good idea to start with a backup.
2. Make sure that you have current printouts of all your traditional control files.
3. From the traditional company System Management menu, run the "Allocate/Expand Files" program to find out how many records are in each of the data files you are going to convert. You will need these number later, when you allocate the new ESP data files.

The latest version of the "Dump Data Files to ESP Format" program are on the ESP Starr Accounting tape in "SCSLIB:" with names "MADES1.RUN" and "SYMAMU.RUN". Copy these two run files from "SCSLIB:" to [205,200] of your traditional programs device.

From the traditional company System Management menu, run the "Dump Data Files to ESP Format" program for the modules you want to dump. This will create ??????.ESP files in the work files PPN (often the same PPN as the company data).

1. Copy the ??????.ESP files to PPN "SCSWRK:".
2. Create a new ESP company. The easiest way is to copy the Master Control file on the ESP Starr Accounting tape from the XYZ Sample Company; i.e. "MACTRL.DAT[210,377]". Do not copy the traditional "MACTRL.DAT", or any of your traditional control files. Do not forget to change the company ID of the new company to the same company ID as the old company.
3. From the ESP Starr Accounting company System Management menu, run the "Allocate/expand files" program to allocate files for the modules you want to convert.
4. From the ESP Starr Accounting company System Management menu, run the "Load version 3.xx data" program for the modules you want to convert. If a re-run is necessary for a module, you must allocate new, empty data files for that module before re-running.
5. Run the control file programs for the modules that were converted. The new control files will be similar to the old ones, but there will be differences; use your old control file printouts as a guide. The new control file will come up initialized according to the XYZ Chart of Accounts, which will probably not match your own accounts.
6. Set the Control file "transaction ending entry number, batch number, etc." to the last number used by the load program. To find the last record in a file, use the file maintenance program display mode; press function key F10 to display the last record.
7. Set up the General Ledger control files, even if you are not using G/L. Do not forget the Accounting period file; fill in two years of accounting periods.
8. Erase all ??????.ESP files.
9. Test your new data, by running reports and comparing with the same reports using the traditional Starr Accounting. A good report to compare is aging.
10. If you have enough disk space, leave the traditional Starr Accounting programs and data on your system for a while. Then you can easily go back to the traditional Starr Accounting to compare the old and new data.
11. Delete the traditional Starr Accounting programs and data (project 205).

CHAPTER FIVE GLOSSARIES

FUNDAMENTAL COMPUTER TERMS

There are a few fundamental terms related to computers which the operator will need to refer to in using the system instructions. An alphabetic listing of those terms follow:

ALPHANUMERIC: A set of characters consisting of either letters of the alphabet A-Z, the digits 0-9, special symbols, or a combination of all of these. For example, the set of characters "CK-123" is alphanumeric.

BOOT THE SYSTEM: The process of turning on the computer and it's associated devices, and starting the operating system program (AMOS) running.

CHARACTER: One of a set of symbols which may be arranged in groups to express information, including the letters A-Z, the digits 0-9, or special symbols.

DECIMAL FRACTION: When we ask for a decimal fraction we are asking for a fraction represented as a decimal number. A common use is a percentage ("5%" is expressed as ".05" as a decimal fraction).

DEFAULT VALUE: A value assigned automatically by the computer when the operator does not enter any information.

DISK DRIVE: The electronic device used for large volume storage and retrieval of information. When several disk units are used, each one is assigned a number, beginning with 0.

FIELD: A single data item.

FILE: A collection of records of information on the disk that can be created, grouped, and accessed through the use of a file name.

INPUT: Refers to information or data which is placed into a computer from an outside source such as a keyboard.

ISAM: Indexed Sequential Access Method. The information in an ISAM file is accessed by entering a record key, which is a "symbolic" name for an individual record within the file (e.g. An Inventory key could be a part name, or a G/L key could be account number).

MEMORY: An area for storage of computer data inside the computer. Memory contains the programs and data that are being used by the computer.

MENU: A computer video display listing the program selections available to the operator.

MMDDYY FORMAT: Date entry format: a two digit month followed by a two digit day followed by a two digit year.

NULL STRING: The value assigned to a string variable when "return" is entered as a value. Displays as spaces.

NUMERIC: Description of numerical information. For example, the set of characters "12340" is numeric.

OUTPUT: Refers to information and data moved from the internal or external storage of a computer to output devices such as a printer or video unit.

PROCESSING: The programmed act of computation and control that changes input data to output data.

PROGRAM: A set of instructions arranged in a proper sequence for directing a computer in performing a desired operation or operations.

RECORD: Combined fields of information which make up a computer file.

VIDEO UNIT : A television-like unit having a keyboard for entering and displaying data.

HELP FILES

Data fields that have corresponding help files have "(H)" at the end of the on-line help, which means that additional help is available by pressing the help key. This help text is displayed one screen at a time, and may be scrolled in a forward direction by pressing the "NEXT SCREEN" key; scroll backwards by processing the "PREV SCREEN" key.

The help files are stored in PPN "SCSHLP:", and have a file type of "USA". The current help files are:

ARALTK = A/R alternate keys.

ARAGED = A/R Control aging days.

ARCOPT = A/R custom options.

ARENDP = A/R end-of-period.

ARORAP = A/R invoice order # check #/apply #.

ARSAGE = A/R skip selected aging balances.

ARSELB = A/R select invoices to bill.

ARSTMT = A/R statement display options.

APCOPT = A/P custom options.

APDDAY = A/P terms discount/due days.

APDDTE = A/P transaction discount/due dates.

APENDP = A/P end-of-period.

GLCOPT = G/L custom options.

IVCOPT = INV custom options.

IVDUMQ = INV end-of-year dummy quantity.

IVENDP = INV end-of-period.

IVMETH = INV costing methods.

IVTUTA = INV transaction unit amount.

JCCOST = J/C cost code.

JCWARR = J/C warranty code.

LDCOPT = L/D custom options.

LDGPCL = L/D generate payroll clear paychecks.

LDRATE = L/D pay rate numbers.

OEBA TP = O/E batch processing parameters.

OEMAXL = O/E "Quick entry" maximum lines.

OESELB = O/E select orders to bill.

POCOPT = P/O custom options.

PRCHKD = P/R check dates.

PRCOPT = P/R custom options.

PRDEDI = P/R misc. deduction indicator.

PRDEDT = P/R misc. deduction type of calculation.

PRENDM = P/R end of month.

PRPAYT = P/R pay types.

PRFLPS = P/R floppy disk sizes.

PRMERA = P/R misc. earnings account.

PRPOHE = P/R post hours/earnings.

QTCOPT = QTE custom options.

QTMAXL = QTE "Quick entry" maximum lines.

SAKEYG = Key group.

SAPYTT = processor transaction types

SATSKD = Submit a task date and time

SATSKP = Submit a task priority

SCCOPT = S/C custom options.

SCSERV = S/C services.

SLCOPT = S/L custom options.

SLACTC = S/L action codes.

SLCATC = S/L category codes.

SLCLSC = S/L class codes.

SLSLSM = S/L salesman numbers.

SLSTSC = S/L status codes.

SLTYPC = S/L type codes.

SUALX2 = Allocate/expand files "Erase dump file"

SUBATN = Batch number.

SUBRCD = Backup/restore code.

SUDOCN = Document number.

SUEDSD = Informational message delay.

SUEDSO = ERRDSP subroutine options.

SUENTN = Entry number.

SUEXIT = Exit to AMOS.

SULESP = File information record number.

SUMLBL = Mailing label formats.

SUPCLE = Printer control lead-in and exit codes.

SURSET = Reset a job.

SUSPSW = Spooler subroutine switches.

SUWMSG = Prompt records delay.

ISAM PLUS ERROR CODES

The following is a list of the current BASIC Plus error code numbers followed by it's meaning:

- 201 Incompatible ISAM file
- 202 ISAMP.SYS not found
- 203 Warning, free index blocks is less than minimum requirement
- 204 Data file full
- 205 Index file full
- 206 Can not change key
- 207 Index structure is smashed
- 208 Duplicate key
- 209 Can not add, not enough free index blocks
- 210 Invalid number
- 211 Exceed maximum extra percentage allowed
- 212 Too many index blocks
- 213 Invalid record size
- 214 Too many concatenated keys
- 215 Primary key information must be entered
- 216 Exceed maximum key size allowed
- 217 Invalid key type
- 218 Exceed maximum binary type size allowed
- 219 Key range is outside record
- 220 Overlap keys must be alphanumeric type

- 221 Too many data file blocks
- 222 Exceeds maximum number of 2nd key directory
- 223 No such secondary key number
- 224 This secondary key has been deleted
- 225 Records dumped do not match number of records in the file
- 226 Key information must be entered
- 227 Can not delete primary key
- 228 Can not create existing ISAM PLUS file
- 229 Data file smashed
- 230 System error
- 231 ISAM file must be rebuilt

A full explanation of each of the above error messages is in "Chapter Eight" of the "ISAM Plus User's Manual".

BASIC PLUS ERROR CODES

A full explanation of each of the above error messages is in "Appendix A" of the "AlphaBASIC Plus User's Manual".

The following is a list of the current BASIC Plus error code numbers followed by it's meaning:

1. Control-C interrupt
2. System error
3. Out of memory
4. Out of data
5. NEXT without FOR
6. RETURN without GOSUB
7. RESUME without ERROR
8. Subscript out of range
9. Floating point overflow
10. Divide by zero
11. Illegal function value
12. XCALL subroutine not found
13. File already open
14. IO to unopened file
15. Record size overflow
16. File specification error
17. File not found
18. Device not ready

19. Device full
20. Device error
21. Device in use
22. Illegal user code
23. Protection violation
24. Write protected
25. File type mismatch
26. Device does not exist
27. Bitmap kaput
28. Disk not mounted
29. File already exists
30. Re dimensioned array
31. Illegal record number
32. Invalid filename
33. Stack overflow
34. Invalid syntax code
35. Unsupported function
36. Invalid subroutine version
37. File in use
38. Record in use
39. Deadly embrace
40. File cannot be deleted
41. File cannot be renamed

-
42. Record not locked
 43. Illegal record size
 44. LOKSER queue is full
 45. Device not file structured
 46. Illegal ISAM sequence
 47. Channel #0 is illegal for random files
 48. File not open
 49. File already open
 50. Remote not responding
 51. First logical unit not mounted
 52. Illegal key
 53. Illegal key number
 54. String overflow
 55. Undefined array in XCALL
 56. File is open exclusively
 57. Reserved for expansion
 58. Reserved for expansion
 59. Reserved for expansion
 60. Too many files open
 61. Transaction table not found
 62. Illegal record size
 63. Too many parameters
 64. Too many parameters to function

- 65. Channel in use
- 66. Illegal channel
- 67. STRWRK exceeded
- 68. Significance out of range
- 69. Cannot find subprogram
- 70. Cannot pass single value to subprogram array
- 71. Not enough memory to load XCALL routine
- 72. Bad symbolic key (not mapped) in ISAM code 7
- 73. Cannot run RP with DIM statements from RES: or MEM:

DOCUMENT HISTORY SYSTEM USER'S MANUAL

REVISION	RELEASE	DATE	DESCRIPTION
00	4.06	08/15/96	New PDF document; adapted from old format.
01	4.07	07/14/97	September 1, 1997 release
02	4.08	09/01/98	September 1, 1998 release

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