INTRODUCTION

R★STARS is designed to satisfy the changing accounting needs of a diverse set of users in both large and small governmental organizations. The system provides a standardized approach to accounting events, strict financial controls, and efficient use of computer resources. Frequently, the objective of providing maximum flexibility conflicts with objectives of control and efficiency. This chapter discusses the concepts and methodologies used in R★STARS to achieve the objective of maximum flexibility while maintaining control and efficiency.

2-1 INTEGRATION OF MAJOR ACCOUNTING FUNCTIONS

R★STARS has been designed to satisfy the major accounting requirements that are the responsibility of a governmental entity. These requirements are addressed through a number of functional accounting capabilities included in the system. For example, R ★STARS contains the high level information necessary to maintain general ledger level data on each of the user's funds, the medium level information needed to perform appropriation and agency budget accounting, and the detailed information required for program cost accounting.

An important concept embodied in the design of R ★STARS is the integration of all system functions into a single system structure. For example, many governments may have separate systems for preparing budgets, recording receipts, tracking agency budgets, and performing cost allocations. As depicted on page 2- 2, R★STARS integrates each of these functions into one set of standardized software which utilizes the same financial data base and input transactions. By integrating all major functional accounting requirements, governments save on the cost of separate systems, and the amount of manual intervention required to enter data, generate reports, and perform reconciliations.

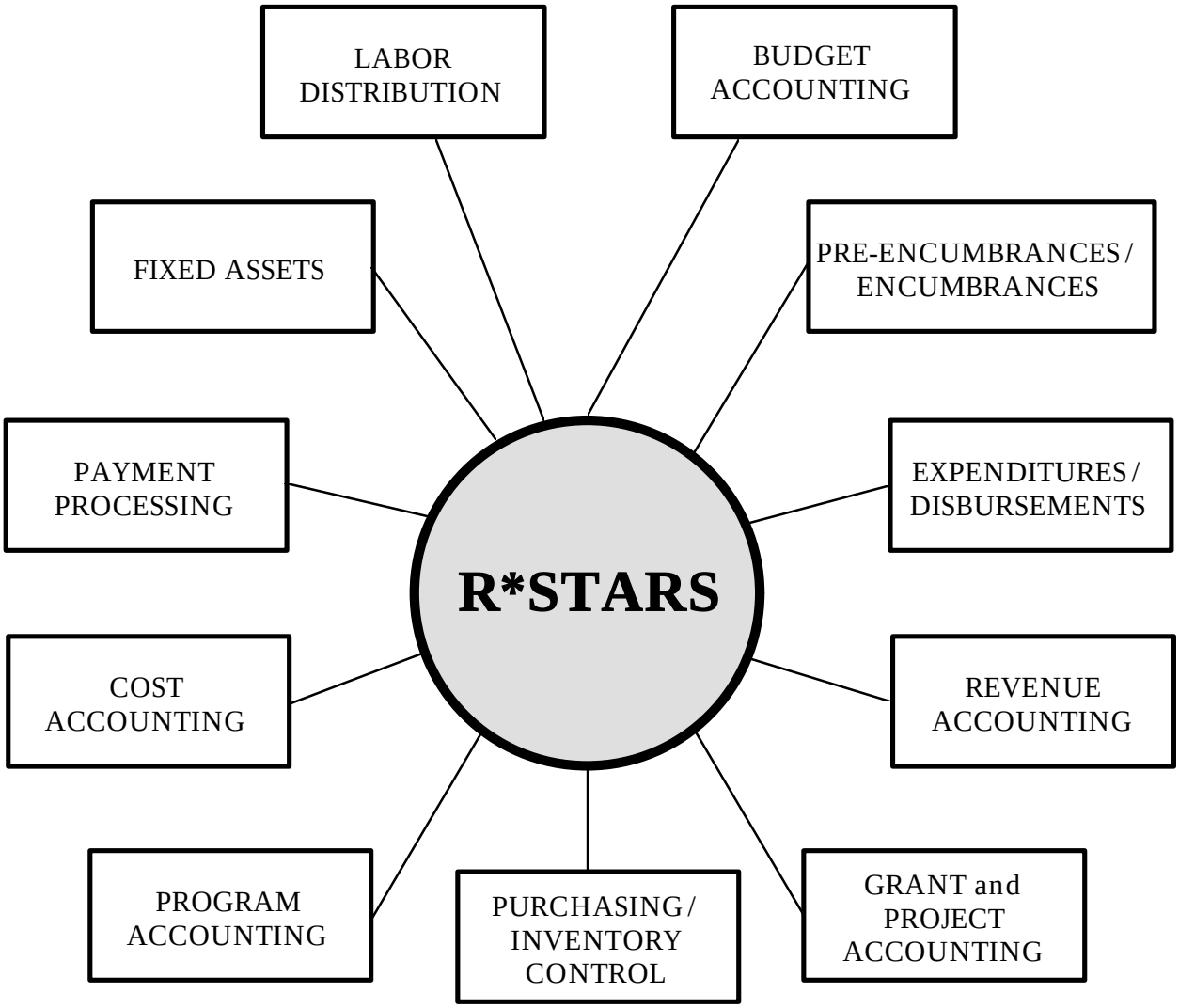
All appropriate R★STARS financial tables are updated when each transaction is posted. As a result, the data entry process is reduced significantly and the need to reconcile the outputs of more than one system is virtually eliminated. More importantly, the system provides the user with a vehicle for the integration of all information into a single, comprehensive system for planning, monitoring, and evaluating the performance of vital programs and projects.

Additionally, R★STARS is designed to be a system that will provide uniformity and consistency in systemwide accounting and reporting, provide flexibility at the agency level to satisfy agency requirements, and minimize the impact on user agencies.

Consequently, R★STARS includes two fully integrated systems: The Central Accounting System and the Integrated Agency Accounting System. The Central Accounting System includes an Integrated Agency Accounting System that agencies may use as their own internal accounting system. Conversely, an agency may choose to maintain an independent agency accounting system which can report comprehensive financial information to the Central Accounting System.

Through direct entry to the Integrated Agency Accounting System in R ★STARS, the Central Accounting System is automatically updated. An independent agency accounting system is connected to the Central Accounting System by means of electronic interface and reconciliation mechanisms.

MAJOR ACCOUNTING FUNCTION INTEGRATION

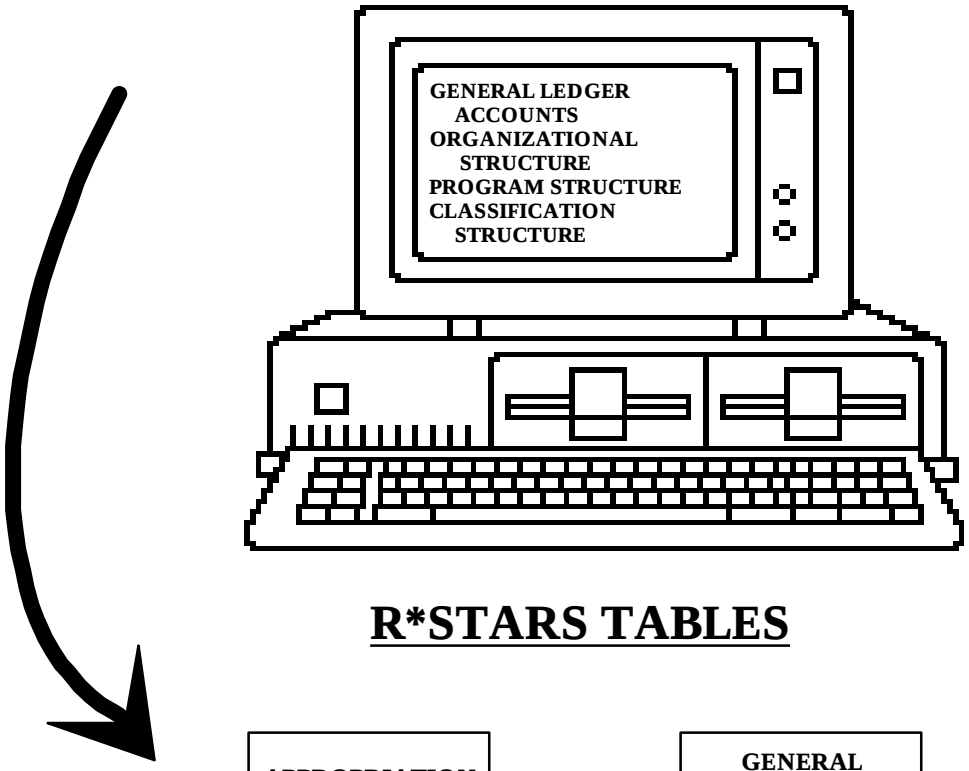


2-2 SINGLE TRANSACTION CONCEPT

Under the single transaction concept, the full range of classification data affected by the transaction and the impact it has on all of the system's tables are identified at the time a transaction is recorded. In this manner, the overall accounting impact of a transaction is recognized in the system as a result of a single entry. It is not necessary, therefore, to record a transaction several times to reflect an agency's appropriation, a fund's general ledger, and the balance of an outstanding encumbrance. All of this information is contained in a series of R★STARS tables which are updated simultaneously as the result of a single entry into the system as shown.

Use of single transaction processing also makes it possible to avoid the manual coding of certain transaction classification data that repeat the data already classified on a previously entered transaction. Those transactions that reference a previously entered document automatically look-up the pertinent classification data from the prior transaction. For example, accounts payable and encumbrance liquidations may be entered on a single transaction. This technique significantly reduces the effort required for manual coding and keying as well as subsequent system reconciliation.

SINGLE TRANSACTION CONCEPT



R*STARS TABLES

APPROPRIATION	GENERAL LEDGER
AGENCY BUDGET	ACCOUNTING EVENT
CASH CONTROL	GRANT
DOCUMENT	PROJECT
CONTRACT	SUMMARY GENERAL LEDGER

2-3 DATA EDIT, VALIDATION AND CONTROL

To ensure the accuracy of the accounting information, a variety of edit and validation criteria must be met before transactions are posted to R ★STARS. The transactions with data that do not pass the edit and validation criteria must be identified as being in error and either placed on a suspense file for correction or corrected on-line before being accepted by the system.

Data entering R★STARS is edited to ensure its accuracy. The types of edits performed include:

- Transactions are checked to verify that data fields are present or absent depending on the rules established for individual transactions, including performing relationship edits among data elements.
- Account codes and other data elements are verified to determine if they are allowable or acceptable values for specific transaction types.
- Account codes are verified for validity against values maintained in system profiles.
- Transactions are validated against various profiles to determine acceptable balances or limits.

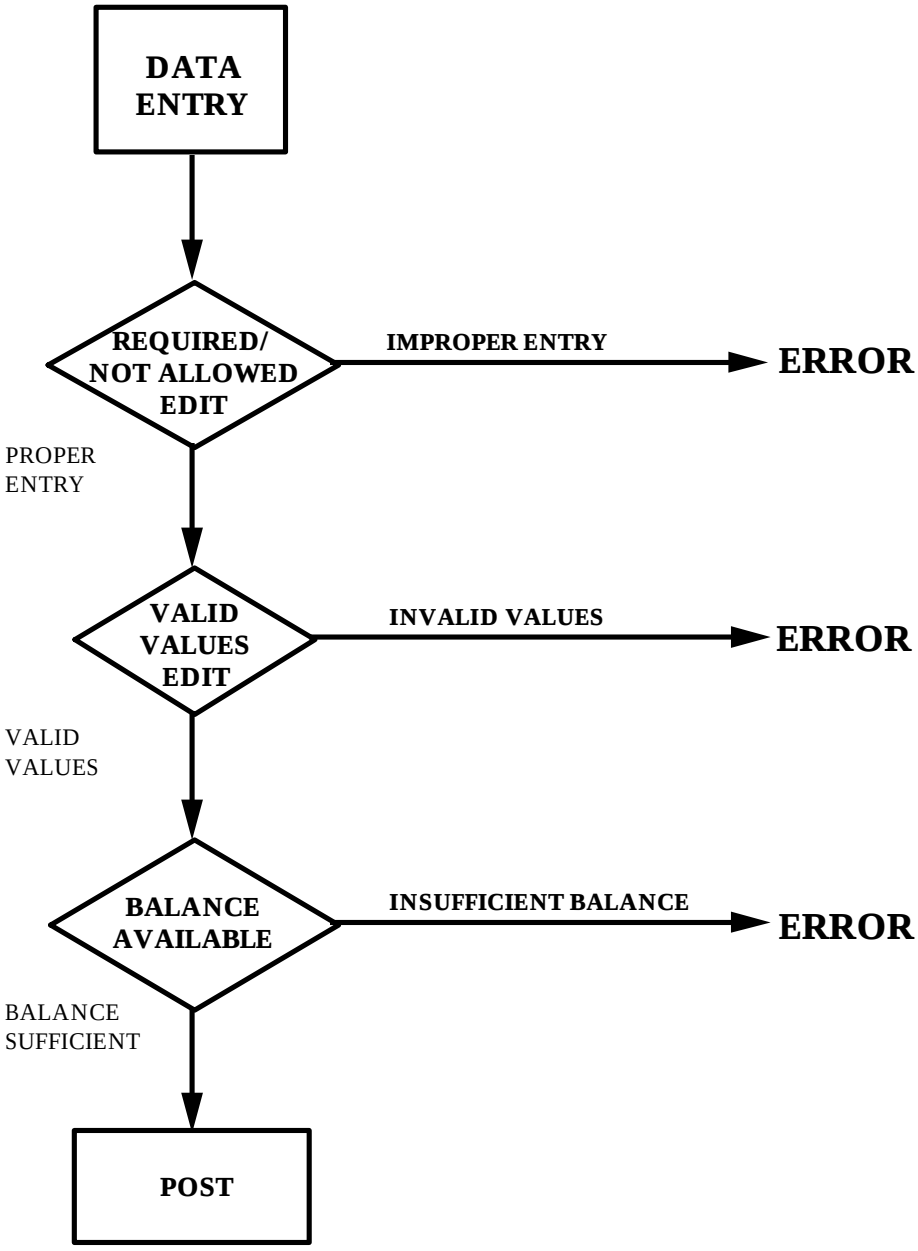
The sequence of these edits is depicted on page 2- 7.

The nature and extent of editing and validation is determined by the edit and posting rules for the transaction contained in the Transaction Code Decision Profile. This permits edits to be applied based on the type of accounting event being recorded in the system.

R★STARS has the built-in flexibility to permit the user to specify certain types of error edits as being 'fatal' (will not post), 'warning' (will post but a warning message will be displayed) or 'ignored' (no message is displayed). This special feature provides user -controlled flexibility and is primarily used for fund control edits.

The system contains an extensive set of error codes and messages which indicate the specific edits individual transactions have failed. This information is displayed on-line and reported on a series of error reports generated by the system. The user may access the On-line Help facility which automatically displays information related to the first and subsequent error codes generated.

EDIT AND VALIDATION



2-4 DECISION PROFILE CONTROL

The use of the Transaction Code Decision Profile (28A & 28B) is fundamental to the processing cycle. This profile allows the user to define the accounting rules for every accounting transaction which drives the computer programs. As a result, there is little accounting logic contained in the programs. Since the Transaction Code Decision Profile (28A & 28B) is a system profile, entries may be added, changed, or deleted through profile maintenance. Consequently, the system maintains a high degree of flexibility in adapting to unique requirements and changes.

The Transaction Code Decision Profile (28A & 28B) contains accounting and editing logic for each accounting event. The accounting events are identified by a Transaction Code which defines the general ledger impact (debit and credit accounts) and postings to the financial tables. The Transaction Code also defines whether specific data elements are required, optional, or not allowed.

This profile is maintained centrally to monitor and control the processing of data in the system to ensure that accounting rules are applied consistently to all agencies. Agencies with unique accounting requirements should coordinate the development of new transaction codes with the appropriate R★STARS personnel *in the SFMS Section of the State Controller's Division*. For more information on the Transaction Code Decision Profile (28A & 28B) refer to the R★STARS System Management Guide .

2-5 USE OF PROFILES TO ENSURE SYSTEM ADAPTABILITY

Recognizing that governmental organizations are dynamic in nature, the accounting systems that serve them must be readily adaptable to change. Changes in a system can best be accommodated if the rules that control the processing of the system and the valid codes acceptable for various conditions are maintained in a series of profiles rather than being 'hard-coded' into the system's programs. Consequently, change can be accomplished by modifying the profiles rather than by modifying the programs. Modifying the profiles is a more effective and efficient method of changing system values, as page 2- 10 illustrates.

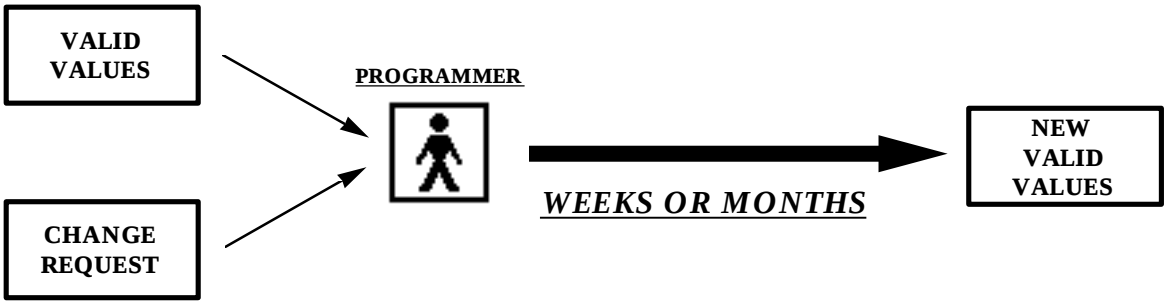
The system makes maximum use of profiles to control processing and to indicate valid codes and conditions. In particular the Transaction Code Decision Profile(28A & 28B), described previously, contains all of the posting and most of the edit and validation rules for each transaction processed by the system. Similarly, all of the valid codes for each of the elements in the classification structure are also maintained in system profiles. These codes can be added, changed, or deleted by accounting personnel through profile maintenance activity without requiring reprogramming of the system. This enables R ★STARS to be extremely flexible and adaptable. Refer to the R★STARS Data Entry Guide for more information on profiles.

Certain profiles control posting levels for budgetary and expenditure information. These posting level indicators control such variables as Object, Program, Fund and Organization. To maintain consistent posting, some profiles should not be changed after financial transaction posting begins.

If it is necessary to change such posting level indicators, it may be necessary to reverse any transactions entered prior to the change(s). The reversing entries must be entered before any profile changes are made.

HARD-CODED VS. TABLE-DRIVEN SYSTEM

HARD-CODED SYSTEM



PROFILE-DRIVEN SYSTEM

2-6 SIMULTANEOUS PROCESSING OF MULTIPLE ACCOUNTING PERIODS

The system is structured to allow posting to multiple accounting periods simultaneously. This feature provides users with the ability to post both January and February transactions, for example, in the same processing run. Similarly, the system provides the ability to post to two different fiscal years at the same time. Users may post to current year transactions while prior year transactions are still being processed.

This multiple-period posting capability is provided through the maintenance of a series of data and amount fields in each table, enabling significant flexibility in reporting. The system can provide reports reflecting balances for the following points in time:

- Balances as of the last processing date
- Balances to date during the current month and year
- Balances as of the end of the previous accounting month/year (before or including year end adjustments)
- Balances as of the end of the second previous accounting month/year

In addition, on-line inquiry capabilities allow users to view financial balances of system tables for any month in the year. Users also control the timing associated with 'closing' at month and year end. For example, the records can be held open to process a late payroll without stopping the processing of current month transactions.

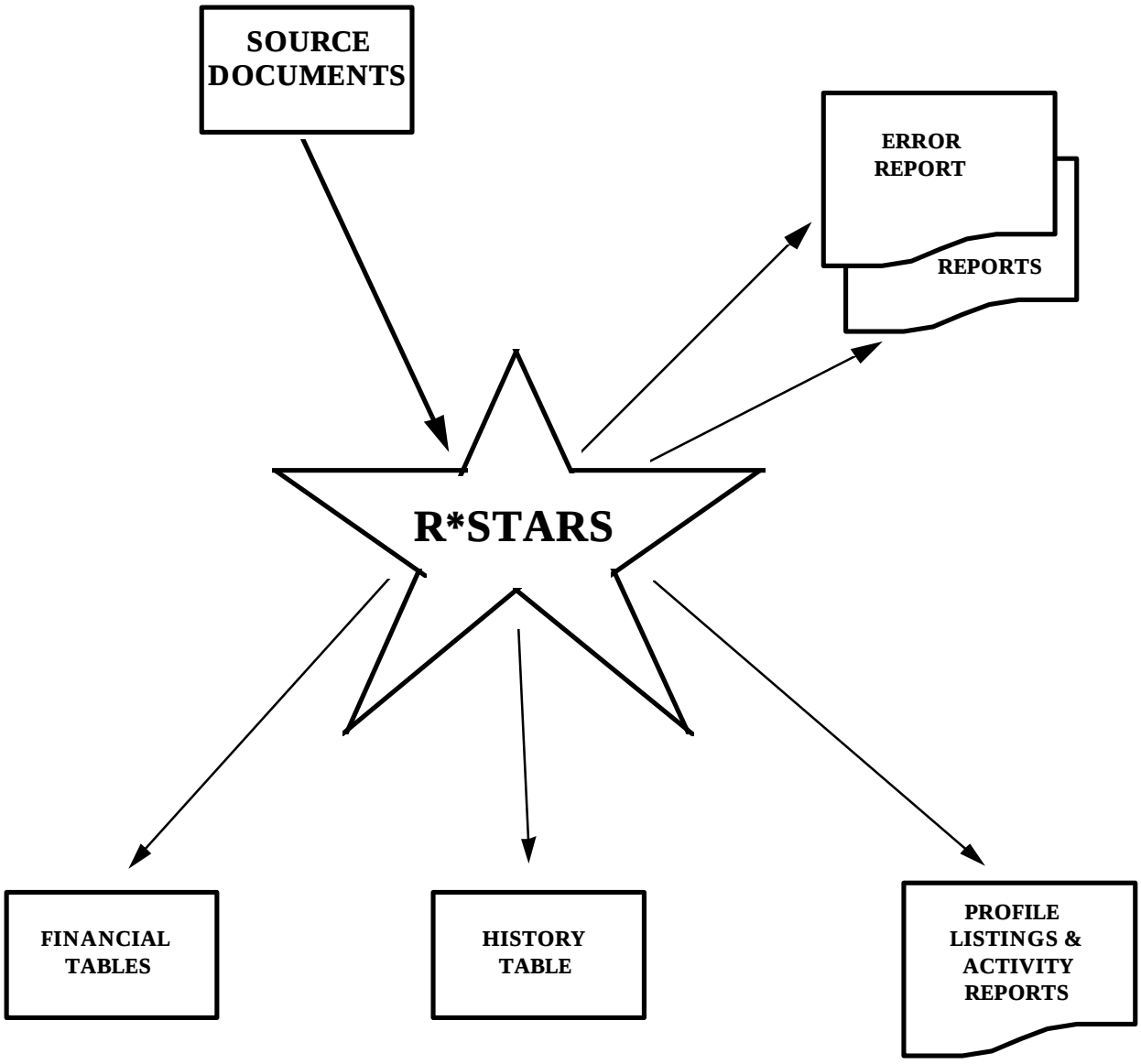
2-7 COMPLETE AUDIT TRAIL

'Audit trail' refers to the manner in which a particular element of data existing in the system tables can be traced back to its source or forward to its posting position in a report. All financial transactions which have successfully passed specified edit criteria and have posted to the system financial tables are posted to the transaction History Table.

Each transaction in the table is uniquely identified and contains the data originally entered, plus the additional data retrieved from the system profiles and appended to the transaction. Although the History Table provides a complete audit trail of data processed in the system, the accounting source documents and the financial reports are also integral parts of the audit trail.

The DAFR9900 Profile Maintenance Log Report provides the audit trail for profile maintenance transactions. Each time a transaction is entered to update one of the profiles, it is reported on this activity report. Page 2-13 shows the basic flow of data from source documents, through the system, to the appropriate tables and reports.

AUDIT TRAIL



2-8 SYSTEM MANAGEMENT

Special techniques are included in R ★STARS to ensure that the system is functioning properly. Such system safeguards are provided through the application of the System Management Profile (97), which is designed to provide control information for and about the overall processing of the system. Accordingly, the System Management Profile (97) performs the following important functions:

- Controls the particular accounting years and/or fiscal months available for posting on a systemwide basis. The last closed indicators provide the ability to keep multiple months and years open for processing financial transactions.

- Indicates the current date status of the system through indicators which are automatically updated based on information contained in the Current Date Profile (D61). The data elements for which these indicators are set are Current Fiscal Year, Current Month, Effective Date, and Time. These indicators are important to ensure that the proper versions of the financial tables are used each time the system is run.

- Maintains control information, such as current and prior cycle processing times and dates, which improves the audit trail of individual transactions posted in the system.

- Controls weekly, monthly, quarterly, annually and inactive Accounting Event (AE) reporting.

- Contains the next warrant and direct deposit numbers available for payment processing.

- Controls when Cost Allocation, Grant and Project Billing, Labor Distribution, Tax Offset, Year End Closing, Recurring Transactions, and the Fixed Asset Subsystems are run on a systemwide basis.

- Contains next available Archive Reference Numbers for transmittals and non-transmittals.

R★STARS also includes an Agency Control Profile (25) which maintains system management information for each agency. The Agency Control Profile (25) performs the following agency level functions:

- Maintains indicators controlling the processing of the Cost Allocation Subsystem and other subsystems.

- Maintains the billing deficit accounts that relate to the project billing capability in the system.

- Contains an indicator which determines whether the agency uses Agency Object and if so, for what classification of objects (e.g., revenue, expenditures, or both).

- Maintains indicators which determine at what level documents must match for encumbrances and pre-encumbrances.

- Identifies whether an agency captures fixed assets and indicates thresholds for capitalization and inventory.

- Identifies default accounts for default classifications such as Index, Program Cost Account, Comptroller Object, and Agency Object. The default classifications are used if a code is required by the transaction code but it is either not entered or is entered incorrectly during transaction entry.

- Indicates last month and year closed for financial posting purposes.

- Indicates reporting month and year.

Through the use of reports generated from these profiles, personnel charged with the responsibility of running the system are able to easily determine that the system is performing properly and that all input and output transaction and financial profile counts reconcile. Refer to the R★STARS System Management Guide for more information on the System Management Profile (97).

2-9 SECURITY

The R★STARS Security System is designed to prevent unauthorized access and update to the system data base through the on-line R ★STARS functions. On-line R ★STARS functions include data input, profile maintenance, inquiry and report request capabilities. The system uses a two-level approach to secure access into the R ★STARS system. The first level of security emphasizes maximum use of the security features provided by the on-line software. For information on this level, consult a CICS guide. The second level of security is provided by the R★STARS software.

R★STARS requires that each user have an operator ID in order to log onto the system. This operator ID is contained in a security profile which directs the R ★STARS system to allow or prohibit the user from performing specific R ★STARS functions.

Three areas of security are provided by R ★STARS:

- Functional Processing Control
- Normal Hours Restrictions
- Agency and Organization Restrictions

Each area is described in greater detail in the following paragraphs.

Functional Processing Control

Security Profile indicators identify the level of access permitted for each function. Each of the R★STARS profiles has a unique indicator in the Security Profile (96B) which contain the following values and control the following functions:

- Blank - No access
- 0 (zero) - Inquiry only
- 1 - Inquiry, add and change
- 2 - Inquiry, add, change and delete
- 3 - Inquiry and add *

* A value of '3' is valid on the systemwide vendor profiles only.

Other indicators contained in the Security Profile (96A) allow the performance of processes. These indicators are set to either 'on' or 'off' and include:

- Fund Override
- Prior Year Post
- Prior Month Post

Additional indicators allow for processing transactions. These indicators control the types of transactions a user can enter, the mode that such transactions can be entered in, and if a user can release transactions once entered. These indicators are:

- Batch Edit Mode
- Accounting Transaction Flag
- Release Flag
- User Class

Normal Hours Restrictions

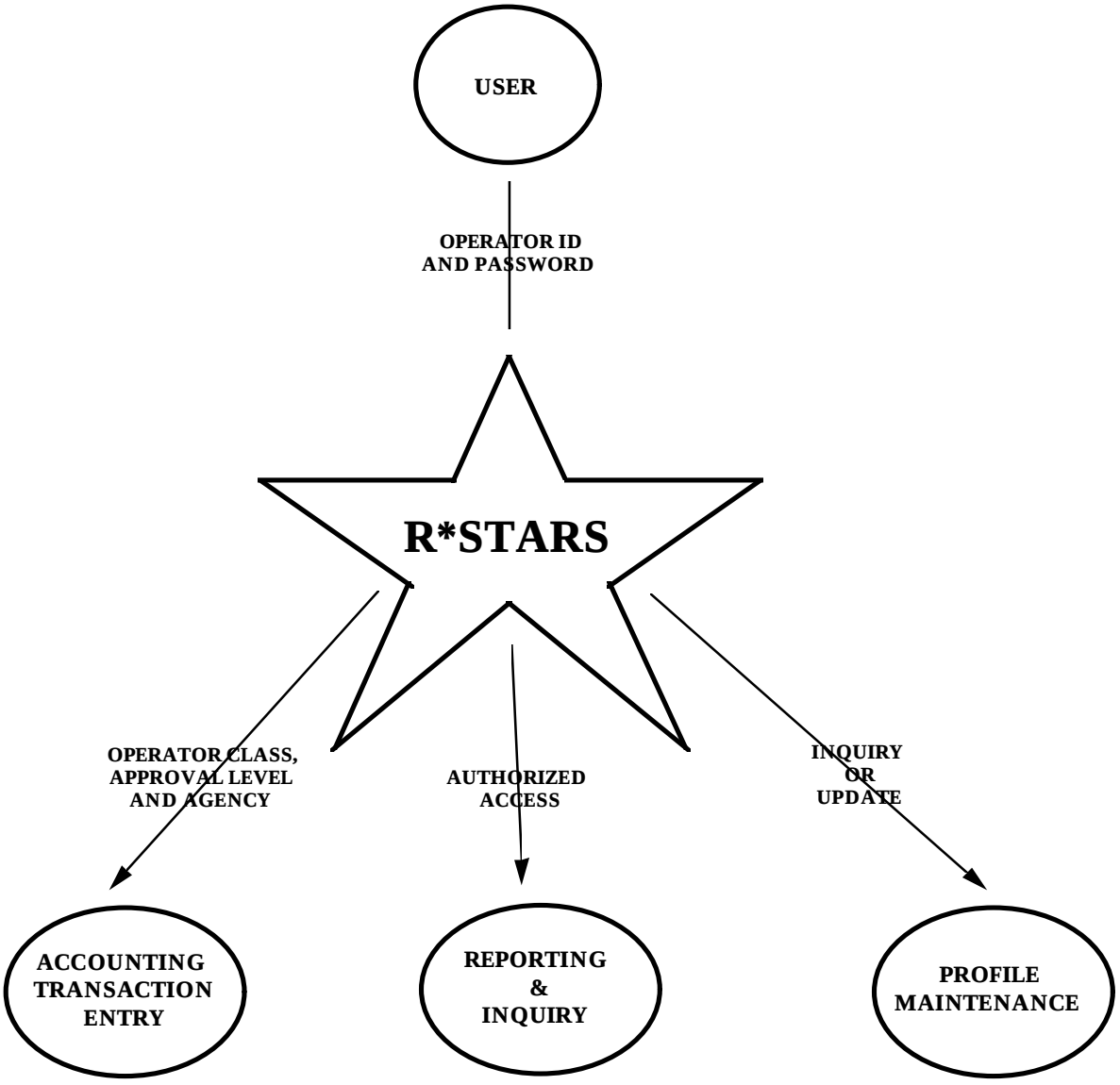
For security purposes, users of R ★STARS may also be limited to using the on-line system functions during normal working hours of normal working days. The Work Hour Range fields of the Security Profile (96A) indicate the hours of the day in which an operator can access the system. The range is based on a 24 -hour clock. For example, a rang e of '0800 - 1700' indicates that a user can access the system from 8:00 a.m. through 5:00 p.m. The work day field of the Security Profile (96A) indicates the types of days in which a user can access the system.

Agency And Organization Restrictions

The Security Profile (96A) also identifies the agency(s) for which a user may perform system functions. Whenever a user performs profile maintenance, enters accounting transactions, or requests financial reports, the user is limited to accessing and updating data for the agency(s) identified in the security record. Up to two agency ranges and an agency group may be assigned.

These ranges are examined by system programs to allow or restrict access to data for agencies other than the user's. In addition, users can be restricted to levels of organization within an agency. Two organization levels may be entered. Users who are defined as R ★STARS Central operations personnel are not restricted by agency for any inquiries against accounting transactions. The default action code agency and action code are used by several programs to update the Document Header Table. For more information on the Security Profile (96A & 96B), refer to the R★STARS System Management Guide .

R*STARS SECURITY



2-10 SYSTEM INPUTS

R★STARS has been designed with the flexibility to capture direct inputs from a variety of different sources. On-line data entry provides organizations with the ability to enter financial, profile maintenance, and error correction transactions on remote terminals. The system can also accept automated inputs, such as transaction entries from other systems, through an interface process.

To facilitate this process, a standardized interface procedure has been developed. All subsystems transmitting data to R ★STARS must do so in a prescribed format. In effect, the system can automatically interface with any system capable of providing input records in the desired format. However, the interface capability is not available for making profile changes.

Batch data entry, through a key -to-disk or key-to-tape option, is also available through the standard interface process for organizations which utilize batch key data entry.

Regardless of the source of the transactions, all transactions are fully edited prior to posting to R★STARS financial tables. If errors are detected during this editing process, the transactions are routed to the internal transaction file for correction through the on-line system or rejected from the system.

2-11 MANAGEMENT REPORTING CAPABILITIES

One of the primary purposes of record keeping is to obtain data for reports that serve as the basis for management decision making and as a tool for evaluating past decisions. To be of maximum use, reports must be timely and accurate and must present data in an easily understood format. The primary objective of this section is to provide an overview of the system's reporting capabilities and its ability to satisfy those requirements.

The reporting capability of R ★STARS is extremely flexible. Data is maintained in the various system tables at different levels of summary to facilitate management reporting and for control purposes. To provide for most of the management reporting needs, the system's financial tables contain all budgeted and actual revenue and expenditure data. These data are maintained with all of the elements of information included in the revenue and expenditure classification structure.

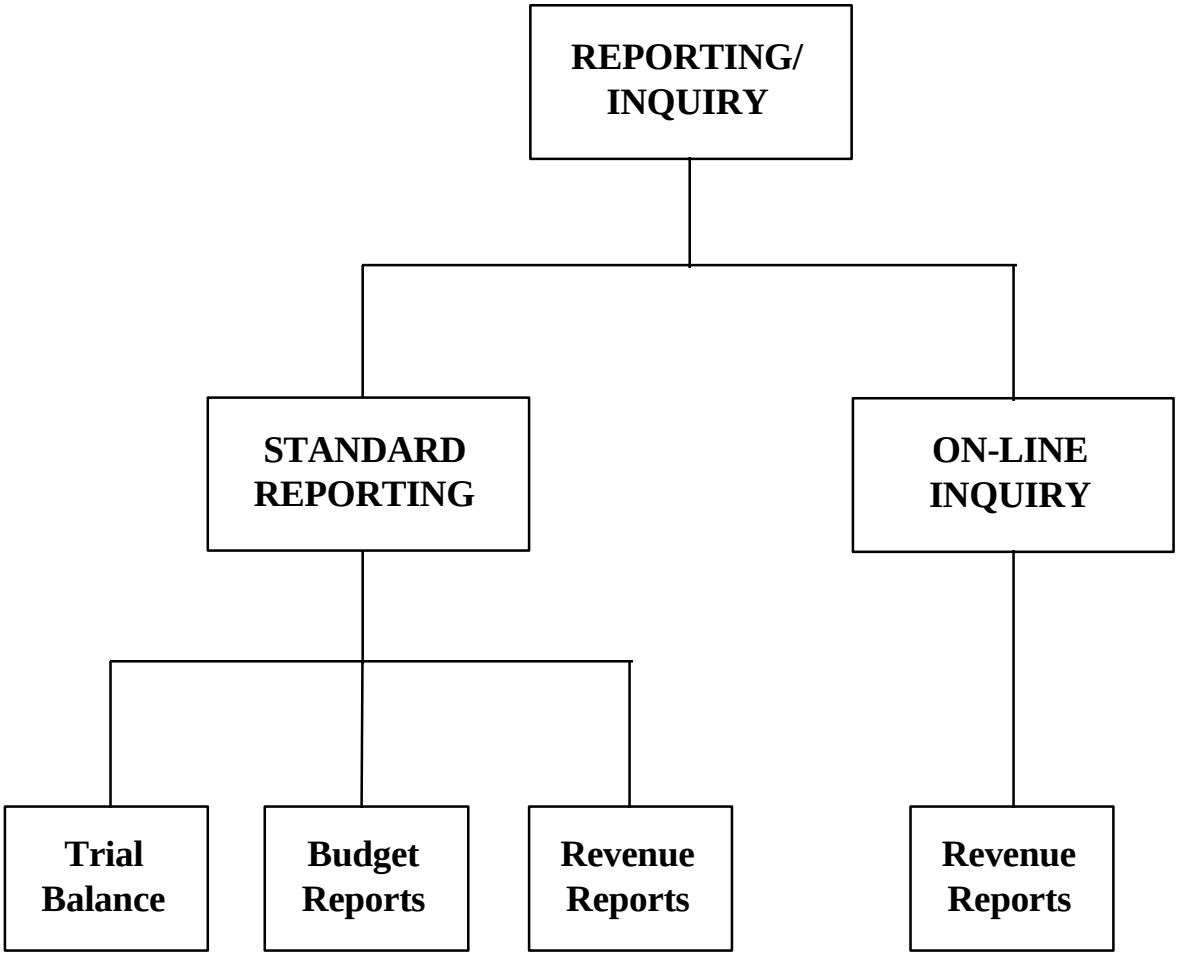
Reports are provided from the system's tables and can be requested by choosing different combinations of the various data elements. With this flexibility, the system is capable of satisfying the accounting related reporting requirements of most levels of financial management within an organization. As shown on page 2-21, information contained in the tables can be reported in one of two ways:

- **Standard Reporting -** which provides many standard financial reports required on a recurring basis. Many of the reports have multiple options for level of detail, reporting period, output media, and output destination.

- **On-line Inquiry -** which enables the users to inquire into certain system tables in an on-line mode.

The reporting capabilities of R ★STARS are discussed in Chapter 10 - "Reporting" of the R★STARS Reference Manual.

REPORTING AND INQUIRY



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