McKESSON
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Reader comments

Any comments or suggestions regarding this publication are welcomed and should be forwarded to the attention of

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Preface

The *General Information Volume* is one volume of the *STAR Laboratory Reference Guide.* The information provided in this volume applies to the STAR Laboratory system in general, and, as such, is an introduction to subsequent volumes and modules in which detailed discussions cover specific system applications.

Documentation Conventions

Documentation for McKesson's STAR 2000™ line of products follows these conventions:

Revisions
Text revisions are indicated by a change bar in the left margin. Paragraphs that contain grammatical changes that do not affect content are not marked.

Canadian Documentation
This volume may include documentation for Canadian users of this product. Complete sections of Canadian text are identified by "CN" and "CN Only."

Key Names
Named keys, such as ENTER, SHIFT, CTRL, and ALT, appear in this document in uppercase (capital) letters. Symbol keys display according to the key name, followed by the symbol on the key in parentheses, such as hyphen (-) and asterisk (*).

Key Chords
Key chords are key entries that require you to hold down one or more keys (typically, CTRL, ALT, or SHIFT) before pressing another key. In this document, key chords display as the names of each key in the chord with a hyphen (-) between each (for example, CTRL-ALT-DEL). You should press the keys in the order indicated.

ENTER
ENTER is a key on a computer keyboard used to complete an entry on a STAR system. (This key may also be referred to as NEW LINE or NL in the STAR system.)

Data Entries
Letters or words you enter in response to the system display in **boldface** letters in this document. For example: Enter **Y** for Yes or **N** for No.

Selecting an Entry
This document often instructs you to "select an entry." The method you use to select an entry depends on whether you are using STAR from a terminal or IBM-compatible personal computer. Entry methods include:

- Entering the option number
- Using your arrow keys to highlight the option and pressing ENTER
- Clicking on the option using a mouse or other pointing device (PC only)

For more information about these options, see the *General Information Volume*.

Prompts
System prompts display at the bottom of many STAR screens when the system requests an entry or displays a message. Prompts display in this document italicized and indented from the rest of the text. For example:

Enter patient name--

Field Characteristics

STAR product documentation provides field explanation codes, in addition to a narrative description for each field on a screen. These codes display the maximum length of your entry in the field, the type of entry you make in the field, and whether the field is required. This information displays in the following format:

- DISPLAY ONLY for a field you cannot edit.
- For X-YY-Z field types, where:
  - X is the maximum number of characters permitted in the field:
    - P for a field length determined by a Parameter
    - T for a field length determined by a Table
    - U for a field having an Undefined length
  - YY is the type of entry technique permitted in the field:
    - A for Letters only
    - N for Numerals only
    - C for Characters (including punctuation)
    - AC for Letters and Punctuation only (no numbers)
    - NC for Numerals and Punctuation only (no letters)
    - AN for Numerals and Letters only (no punctuation)
  - Z is the requirement indicator of the field:
    - R if an entry is required by to complete the function

      NOTE: Facilities can designate that certain fields be Required. STAR product documentation does not display R for fields designated as Required by a facility.
    - O if an entry is Optional to complete the function
    - C if an entry is Conditionally required or optional
  - For YY-Z field types, where YY is:
    - TABLE LOOKUP for a field that enables you to select from a displayed table. See the *General Information Volume* for more information regarding this entry technique.
    - SPECIAL FORMAT for a field having data entry requirements not conforming to standard format. The field definition contains the specific data entry requirements for the field.
    - DATE for a field subject to the date entry conventions described in the *General Information Volume*.
    - TIME for a field subject to the time entry conventions described in the *General Information Volume*.

    NOTE: For use of the Z position in this format, refer to the explanations for Z under X-YY-Z.

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This manual serves as the first level of instruction for using the STAR Laboratory System. It addresses the basic concepts that are prerequisite to accessing the system and manipulating data.

Chapter 1 - Functional Overview

This chapter serves as a functional overview of the basic modules and components of the system.

Chapter 2 - Getting Started

This chapter describes the PC and keyboard, and the keystrokes required for signing on and off the system.

Chapter 3 - Laboratory-Specific Menus

This chapter describes the menu-driven organization of STAR Laboratory and the different menu types that are encountered in the system.

Chapter 4 - Information Entry Techniques

This chapter describes the various techniques used to enter data and to respond to the prompts displayed throughout the system.

Chapter 5 - User Preferences

This chapter describes menu and mnemonic functions common to all McKesson STAR products.

Chapter 6 - System Security

This chapter addresses system security and the options associated with the security levels available to hospital personnel.

Chapter 7 - MultiFacility/MultiDepartment

This chapter describes processing involving more than one facility (or hospital) or more than one department within a facility.

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This chapter describes the functionality of the STAR Laboratory Softkey Editor.

Glossary

This area of the *General Information Volume* contains words common to the STAR environment.

Chapter 1 - Functional Overview

SYSTEM OVERVIEW

The STAR Laboratory system is a fully functional laboratory information system designed to streamline daily workflow from order entry to result reporting. The system relieves laboratory professionals of clerical duties thus allowing tests to be performed more quickly and efficiently.

The system resides on one or more PCs and is accessed by appropriate personnel via personal computers located throughout the facility. STAR Laboratory can operate as a stand-alone system, interfaced to a hospital information system, or integrated/ networked to a hospital information system (HIS) such as STAR Patient Care. System access is security-controlled.

STAR Laboratory streamlines pre-test workflow by allowing online entry and storage of orders. Orders are batched according to collection time and priority. Collection labels and worklists are generated automatically, at pre-defined times, or manually upon command. Labels, produced in walk order, contain all information necessary to properly collect specimens and can utilize bar coding, if desired. As a result, productivity is significantly increased and duplicate sticks are essentially eliminated with the Consolidation labels of future orders. Upon return to the laboratory, phlebotomists can accession several specimens at a time. Slide and bay labels, produced at accessioning, facilitate specimen processing and distribution to work areas.

Each area of the laboratory is served by STAR Laboratory. CRTs, located throughout the laboratory, provide technologists access to all processing applications. The accession number and test(s) printed on tube and slide labels serve as worklists, allowing greater flexibility in test processing. STAT and ASAP requests are handled as part of the normal workload and do not require bypassing any part of the system.

Result entry, either manual, wanding of bar code, or direct transmission from interfaced instruments, is constantly monitored for out-of-control or panic value situations. Each laboratory defines quality assurance standards and STAR Laboratory uses these to constantly and objectively monitor data integrity and equipment reliability. All Panic value test results require full documentation of the laboratory's communication of the results to the requesting station. Quality control is tracked in several ways, including sample control, equipment and instrument performance and environmental variables such as temperature. STAR Laboratory monitors preventive maintenance schedules for online instruments and equipment. Delta checking, checking specimen collection requirements (maximum specimen age), and double dare prompts also assist in real-time quality assurance.

The system captures a complete record of the collection time and condition of the sample at accessioning, the time the test was performed, the results, and the IDs of personnel involved in specimen and test processing. This information is a permanent part of the patient's record in the system's database and can be viewed in Patient Inquiry.

Several methods are available for result entry. Among them are free text, menu selections, table selections, ID-specific results, standard text result (using word processing or Softkey Editor), and batch resulting (both instruments and manual). Result entry is further enhanced by online calculations and use of the numeric keypad in cell counting. Electronically Scheduled Processing (ESP), available with interfaced instruments, allows batch processing and result retrieval and performs mathematical reductions on raw data.

Verified results are immediately available through the Patient Inquiry processor, any Physician product, or Primary Result reports generated at the patient care units. Patient Inquiry processors, accessible to authorized personnel via CRTs located throughout the hospital and PCs at the physician's offices, enhance laboratory productivity by relieving the professional staff of the majority of phone inquiries. Results can be faxed to physicians or nursing stations. Cumulative Trend reports facilitate detection of result trends by providing results in columnar fashion according to date performed.

The STAR Laboratory system also enables your laboratory to determine when a test is charged. The system flexibility allows the charges to be placed at the time of order, accessioning, or resulting. STAR Laboratory also captures information for physician billing and sends that information to patient care and financial systems for billing.

Extensive management reporting capabilities provide timely information useful in monitoring daily operations and in making qualified management decisions. Administrative reports monitor work status, test volumes, turnaround times, test credit/cancellations/rejections, and physicians' usage of the laboratory. In addition, the system's database query module accommodates user-defined ad hoc reporting useful in clinical studies, quality assurance, and management review.

Maintenance processors provide expanded system flexibility and user-control. Extensive online files of specimen and component data, directories for workload, and hospital-defined tables are easily modified by laboratory personnel without McKesson intervention. Authorized personnel can follow the step-by-step instructions and screen prompts in updating system files to reflect operational changes in the laboratory.

A multi-department environment, defined as two or more laboratory departments operating within a single STAR Laboratory system, enables you to transfer specimens between laboratory departments with order placement and specimen collection at one department and specimen shipment to a performing department. Specimens are tracked by the system with audit information captured at each step. Result entry is made by the performing department and results reported at the originating facility. The flexibility afforded by STAR Laboratory's multi-department design accommodates configurations best suited to individual facilities.

ANATOMIC PATHOLOGY

The STAR Laboratory Anatomic Pathology module is designed to meet the specialized needs of the surgical/anatomic pathology laboratory and to enhance the quality of patient care by reducing report turnaround time. As with STAR Laboratory, daily workflows are supported by accession label generation and by scheduling, monitoring, and recording specimen processing.

An Anatomic Pathology case number is assigned to each specimen at accessioning. This can be done through either the Case Login processor or the Case Number Management processor. Case numbers are cross-referenced with the accession number and can be used to identify the specimen for histotech processing, Result Entry, Result Reporting, and Patient Inquiry. Histotech processes can be pre-defined for automatic block definition and label generation. Upon processing, labels are printed, workload is captured and a charge is generated.

Pathologists can select gross descriptions from menus of standard narratives specifically defined for the individual. These narratives, which can be modified to suit the specimen at hand, eliminate the transcription step and problems associated with it. Softkey editor, a word processing system, is incorporated into the Anatomic Pathology module for use in conjunction with pre-existing narratives. You can also use your Microsoft Word word processing system to edit these narratives.

After the tissue cuts are processed and the slides prepared, the pathologist can review both the gross description and information entered by the histotechnologist (such as the number of slides) by entering the case number or the accession number. At any time, pathologists can review a patient's previous laboratory work online. Surgical specimen descriptions and cytology reports, as well as test results from other laboratory sections, can be displayed or printed with the draft copy of the Long Report. Pathologists can then review these reports during gross or microscopic examinations.

After the microscopic examination, the pathologist can select diagnoses from menus listing "most common diagnoses" or "system specific diagnoses." The system automatically codes the specimen for the index desired. Coding may be based on the Standard Nomenclature of Medicine® (SNOMED) or other system-compatible coding schemes.

You can automatically assign T-codes when the specimen types associated with a case are entered into the system. The initial specimen type can be assigned during the order/accessioning process. Additional specimens can be attached through histotech processing. Specimen types can also be added for auto T-coding through Result Reporting. Once the specimens have been entered into the system, the T-codes that have been linked to these specimens are available for review or edit through Result Reporting.

Once gross and microscopic results have been entered in the system, reports can be stored in a queueawaiting the pathologist's review and approval. Individual queues are reserved for each pathdogist, and reports released through them automatically include

the pathologist's name (electronic signature). Pathologists also have the option of hand-signing their reports. In addition to the Primary report, the Anatomic Pathology module provides a long report containing complete textual results for the specimen(s) including gross and microscopic descriptions.

STAR Laboratory's Anatomic Pathology module permits online storage of all diagnoses, comments and codes indefinitely, either by selective archiving or historical cardfile usage. Stored information can be searched according to user-defined criteria for special studies using the Data Base Query processor and by printing with the draft copy of the Long Report.

ADVANCED MICROBIOLOGY

The STAR Laboratory Advanced Microbiology module provides automation to support the specialized needs of the microbiology laboratory. Each time you accession a microbiology test, the system produces the appropriate media labels based on the specimen type for that test. These labels provide positive identification for each plate and serve to remind the technologist of the proper plating requirements for each specimen.

Microbiology has historically been bypassed as a candidate for automation because of the complexity of its result reporting requirements and the infeasibility of establishing standard, predefined processing paths for microbiology specimens. STAR Laboratory's Advanced Microbiology module solves these problems by presenting a series of menus which offer flexible, yet standardized specimen processing. Another advantage of the system is consistent terminology through result menus created by the laboratory. Workload is captured for each procedure when you select a menu.

The Advanced Microbiology module automates the traditional workcard by providing mechanisms for documenting the steps you take during specimen processing and for accessing this information each time you examine the culture. The system enables you to examine a culture, select procedures and observations from menus, and record these procedures and observations on the Internal Log. The Internal Log is essentially a screen-image workcard. You can do this individually per specimen or in a batch result mode.

Multiple sensitivity methods are available including Minimum Bactericidal Concentration (MBC), Minimum Inhibitory Concentration (MIC), and Kirby-Bauer. When sensitivities are performed on two or more organisms from the same culture, sensitivity results can be "cross-hatched" (presented in columnar format for sensitivity comparison). You can also define cascading and antibiotic alerts.

The STAR Laboratory system also offers a generic instrument interface that can be used for instruments such as the Microscan and Vitek. This interface enables the instruments to pass their findings to STAR Laboratory and incorporate these findings into the Advanced Microbiology Report processor.

Epidemiology reports provided by the Advanced Microbiology module include the Daily Culture Report, the Antibiotic Susceptibility Report, the Prevalent Pathogen Report, and the Organism Isolate Report. The Daily Culture Report lists the culture and sensitivity results based on the accumulation parameters you define. The Antibiotic Susceptibility Report contains the antibiotic sensitivities for each organism isolated. This data is further broken down into absolute and percentage numbers of sensitive reactions. The Prevalent Pathogen Report lists the organisms isolated along with statistics for the dates specified. The Organism Isolate Report provides a list of organisms and the associated sensitivities that have been isolated on a patient during a user-defined period of time. The Patient Location History enables the user to track a patient's location and patient type over the course of a hospital visit.

Use the Supervisor Review queue to control the release of certain tests and/or report types until they can be reviewed by the supervisor. This queue also monitors reports resulted by lower security level personnel.

The Partial Review queue serves as a management tool for monitoring partially completed reports. While you cannot use this queue to edit, accept, or generate a printed report, you can view the Internal Log report and place it in a specified Special Review queue.

Special Review queues are actually electronic mailboxes. This type of queue is useful for grouping results, as a communications tool, and for specific supervisory requirements. Reports in this type of queue can only be viewed and/or routed to another Special Review queue. Your laboratory can set up various types of Special Review queues, such as Pathologist, Infection Control, Physician, or Microbiologist.

CONTRACT BILLING

The STAR Laboratory Contract Billing module enables the laboratory to function as a commercial laboratory by processing and charging tests performed for outside institutions. These charges may reflect a discounted price for services performed on a contract basis. Contract Billing also provides the ability to directly charge an institution for a billable service that is not patient-related (such as specimen delivery fees). These charges are applied directly to the contract account using the Contract Charge processor.

Contract management is accommodated via processors designed to create, edit, activate, and deactivate individual contract accounts. Necessary demographic and pricing information is maintained for each customer and a listing of this information is available upon demand.

Up to ten different price sets can be defined for each test code (in addition to the base price defined in the Service Item Master file). A price set is defined by a dollar amount, a billing code, and a price level. Since test codes are defined per department, each contract is associated with the department(s) in which testing is performed. Up to six departments can be assigned to one contract. In addition to the price set variability, it is possible to apply customer specific volume discounts. Up to five discount ranges can be defined per contract.

Special reporting features include graphic summary reporting for patient results, statistical management reports, and customer billing reports. Invoices for customer billing are itemized by patient name and test code for easy verification. Date ranges for invoicing are specified at time of request.

Patient reports are printed in a graphic format which can be reviewed by the physician for abnormal results. Patient reports can be printed in a batch or individually.

Revenue summary reports list each customer, test count, revenue generated for the month, discounts applied, and net revenue. Other reports list contract file demographics, discount ranges, and price sets per contract account. A listing of price set per test code is also available.

ADVANCED BLOOD BANK INTERFACE

The Advanced Blood Bank (ABB) interface provides a network link between the STAR Laboratory system and the Advanced Blood Bank system.

Orders for ABB tests, (for example, crossmatches, blood type and antibody screen), originate on STAR Patient Care or STAR Laboratory. Once the specimen is received and the test accessioned, a request is passed to the ABB System via the interface. The request is translated into specific blood bank procedures dependent on the accessioned test. The laboratory defines which procedures are to be performed for each ABB test.

As procedures are completed on the ABB System, results are transmitted to STAR Laboratory via the interface and available on STAR Patient Care through Patient Inquiry. The following record transactions are passed from STAR Laboratory to the ABB System through the interface:

- Admission/Registration
- Cancel Discharge
- Cancel Request
- Discharge
- Merge Patients
- Revision
- Transfer
- Transfer Visit
- Unit Number Change
- Table Updates
  - Physician
  - Diagnosis
  - Blood Component
  - Location (Station/Patient Types/DIS)
  - Tech ID
  - Antibodies

- Antigens

- Request Transactions (Maximum of 8 procedures/request)

These record transactions may originate on either STAR Patient Care or STAR Laboratory. It is important to note that not all of these transactions are "relevant" to the ABB System and may only be logged on the interface printer. For example, a discharge on STAR Patient Care, although passed to the ABB system, does not initiate a discharge or removal of patient data from the ABB system. The discharge is sent as "information only" and not recorded in the ABB database since it is account-based information irrelevant to the Medical Record/Unit number.

In the event that the ABB system is down, requests are queued on STAR Laboratory for transfer when the ABB System is restored. Audit processors are provided for review and transmission of this information when necessary. The following record transactions are passed from the Advanced Blood Bank System to STAR Laboratory through the interface:

- Request Update

- Results

  - ABO & Rh

  - Direct Antiglobulin Test (DAT)

  - Antigen Testing

  - Antibody Testing

  - Other Testing

  - Antibody Screen Testing

  - Crossmatch Results (providing status of each unit crossmatched)

    Status Types:

    Crossmatched (available)

    Issued (issued)

    Transfused (transfused)

    Expired Crossmatch (expired)

    Issued & Returned (available)

Crossmatched & Issued & Returned (available)

Crossmatched & Issued & Returned & Cancelled (cancel)

Crossmatched & Issued & Returned & Quarantined (quarantine)

Setup (available)

Cancel Transfusion (cancel)

These record transactions (with the exception of crossmatches) are linked to specific test results on STAR Laboratory. For tests including a crossmatch, the ABB system transmits the status of each crossmatched unit. Only interpretation results, not test reactions, are transmitted to STAR Laboratory. For example, an ABO & Rh is transmitted as one result, "A pos." Specific test reactions such as A cells, B cells, Anti-A, and Anti-B, are retained on the ABB System and are not transmitted to STAR Laboratory. All transmitted (external) results are available for viewing within Patient Inquiry.

In the event that STAR Laboratory is down, results completed on the ABB system are queued until STAR Laboratory is restored. Audit processors are provided for review and transmission of this information when necessary.

REFERENCE LABORATORY INTERFACE

The STAR Reference Lab Interface provides a network link between the STAR Laboratory and the reference lab systems. It enables sendout-interface tests to be processed electronically.

A sendout-interface test is added to the appropriate sendout lab queue on the STAR Laboratory system, after accessioning. At regular intervals, a courier from the reference lab picks up the accumulated specimens. Tests are released from the sendout queue in one of three ways: by sending every test in the queue, by test code, or by individual accession.

Tests that are released are included on a Travel List Report which accompanies the specimens to the reference lab. After the order transmissions are completed, queued test results from the reference lab are transmitted to STAR Laboratory as a part of the same process.

The reference lab system requires that orders sent from STAR Laboratory include the reference lab test code as part of the order information. Test results transmitted from the reference lab to the STAR Laboratory are cross-referenced by test code and result component code. A cross-reference file must be built on STAR Laboratory to define the relationship between STAR Laboratory and the reference lab test and result component codes.

Two options exist for maintaining communication between the two systems: a dedicated leased line or an auto-dial process. Continuous communications are maintained when a leased line is used. With the auto-dial option, you can define multiple times of the day to dial out to the reference lab. Communications with the reference lab system are initiated when one of the three conditions are met:

- Orders have been released from the sendout queue.
- A predefined auto-dial time has passed.
- Manual user request has been initiated.

When test processing completes at the reference lab, test results are queued for transmission to STAR Laboratory. Normal range and panic values defined by the reference lab are included in the test result information transmitted to STAR Laboratory, using the Reference Lab Interface.

Test results received from the reference lab are filed on STAR Laboratory based on the result component order, as defined for the test code. The test status changes to *Partial* and the test is placed in a specific Reference Lab Review Queue. The test results are then reviewed.

If the results are accepted, the test status changes to *Done* and the test is removed from the designated review queue and Incomplete Work Lists. A Primary Report is printed, updated information displays in Patient Inquiry, and this information is filed to the Cumulative and Summary Report and is networked to STAR Patient Care or interfaced to a non-STAR HIS system.

BASE FUNCTIONS

STAR Laboratory functionality includes a specific set of base functions and features. For more detailed information on these functions, refer to the appropriate chapter of the *General Applications* or *Maintenance Functions* volumes of the *STAR Laboratory Reference Guide.* A summary of each base function follows.

Accession Functions

This function provides a means of logging in a specimen and entering specimen collection information. The information which can be entered is collector ID, collection date and time, collection period, collection workload, specimen type, specimen modifier, ordering doctor, comments, and diagnosis. You may also specify that a physician receive a copy of the test(s) if Physician Summary reports are utilized. Additional tests can be ordered for the specimen at this time. Upon completion of accessioning, user-defined labels are produced for records and/or aliquots. Additional labels can be printed upon request.

Archiving Functions

Clinical Data Archiving provides a means of minimizing growth of the data base by removing patient clinical data and miscellaneous information from the system after the patient account has been inactive for a user-defined period of time. As the user, you can control the entire archiving process.

Bar Code Functions

The STAR Laboratory system is capable of generating bar coded labels used by the various modules within STAR Laboratory. Labels generated include employee labels for sign-on, specimen identification labels for collections, accessioning and resulting, special instructions labels, Advanced Microbiology labels, and for those laboratories that use ESP, instrument bar code labels. Avariety of bar code functions are provided for defining and maintaining the formats for each label type and for controlling bar code printer operation. With these utilities, you can edit, copy, or delete label formats. Spooler utilities allow you to start and stop the printer, redirect output by label category, or display all labels held in the spooler. A Printer Matrix Utility can also be defined which can be used to specify exception routing for labels that cannot be routed successfully through the spooler functions. A default printer is defined for each report type matrix. Any labels that do not meet one of the matrix sets of criteria print to the default printer.

Batch Resulting

This feature allows both manual and instrument tests to be batched for resulting. These tests can be batched automatically at accession time, or by using the Batch Editor processor or the Batch Result Set processor. Worksheets can be produced either before the tests are resulted or afterwards and used for review before accepting.

Case Login

This is the processor through which all Anatomic Pathology test types must be logged into the STAR Laboratory system. This includes Anatomic Pathology tests both with and without case number pools assigned, as well as general tests, Advanced Microbiology tests, and Advanced Blood Bank tests.

Case Management

The Case Management processor provides an alternate option for specimen processing in the Anatomic Pathology/Cytology areas of the laboratory. The other option for specimen processing is that as each specimen is received in the Histotech processing area, the test is ordered and/or accessioned. In this processor you can reserve a block of case numbers, assign a case number to an order, review unassigned case numbers, and print/reprint case number labels.

Correction Logic

This processor is available for General, Anatomic Pathology, and Blood Bank tests in a *Partial* status, as well as a *Done* status. *Addendum* flagging can also be used. An addendum result is an optional external result reported after the test is in a *Done* status. The indicators for addendums and corrections print in the flag column of the test results and patient reports.

Cumulative Trend Reports

Cumulative Trend reports are a type of patient result report in which laboratory data is arranged in columns (either vertically or horizontally) to facilitate detection of result trends. Processors enable you to print a single patient's cumulative trend report for a specified time frame or all patients who have had work since the last batch was printed. Patients can be selectively added or deleted from the batch and all patients in the batch can be printed regardless of whether there has been new work since the last batch was printed.

Cytology Workload/Quality Control

This processor provides functions designed to meet CLIA '88 Cytology quality assurance requirements for STAR Anatomic Pathology. These functions include the following:

- Control and management of screener workload (slide count)
- Random sampling of negative gynecologic cases for concurrent review
- Discrepancy checking between original and repeat results
- Processing of test results with discrepancies

- Management reports to document and control Cytology workload and quality control

Data Innovations (DI) Instrument Manager™

STAR Laboratory supports the use of Data Innovations Interface manager as an instrument interface option. You are able to define up to 30 instruments and associated device addresses per InstrumentManager PC and designate base routines for a single monitor, a batch monitor, and instrument download.

Dawning Interface

STAR Laboratory also supports the use of Dawning Technologies 530-s MPC and SNI interfaces. This is a base bi-directional instrument interface using the Dawning personal computer. Through STAR Laboratory, you can build and maintain instrument interfaces.

Electronically Scheduled Processing

This function enables you to monitor analytical instruments interfaced to STAR Laboratory for result capture on tests performed by that instrument. Worksheets can be requested either before or after results have been captured.

Faxing

STAR Laboratory's facsimile processing enables you to fax duplicate copies of reports you have previously printed from the Patient Inquiry or Result Reporting processors. This only applies to reports that have been issued for a test. You can also fax summary reports to a physician when using the Print Physician Summary Reports processor.

History Cardfile

The History Cardfile module is an on-line result file storage system which maintains user-selected results for specific test codes in a special card file format for quick referral through Patient Inquiry. Card file results, such as Anatomic Pathology diagnoses, blood types and antibody screen, can be viewed, printed, and searched even after the accession has been archived. The most common applications of the cardfile may be the surgical history file or blood bank patient file (type and antibody history) currently filed in some laboratories on 3x5 index cards. The cardfile displays essential demographic and specific user-selected result fields for each resulted test.

Incomplete Work

The Incomplete Work processor enables you to display or print a report listing of tests which have been accessioned but not completed. If the test has been partially completed, the report itemizes results which have not been completed but are required

for the test to have a status of "Done." The report can be limited to certain priorities, patient types, specific test codes, bays, or sections.

Interface Functions

The Interface Functions enable you to start and halt the interface between STAR Laboratory and either STAR Patient Care or a foreign vendor. You may also view incoming and outgoing transactions which have crossed the interface, along with any errors generated.

Laboratory Maintenance Functions

These functions enable you to build and maintain all test files and tables. Functions are provided to maintain employee files, QC files, and workload files.

Miscellaneous Charge/Credit Functions

These processors allow billing information to be captured or credited for procedures or other chargeable items associated with an ordered test but not included in the charge for that test.

New Order Queue Functions

These functions, which are restricted to the STAR Laboratory interfaced environment, are used to maintain orders entered on STAR Laboratory for patients not yet admitted on the HIS. New orders are stored in a "New Order Queue" on STAR Laboratory until they can be passed to the HIS.

Order Cancellation

This processor enables you tocancel orders. Your ID code and the cancellation reason are captured and can be viewed in Patient Inquiry.

Order Charging

This feature allows the laboratory to charge for a test either at time of order, at time of accessioning, or at time of result reporting. The date and time of charging is captured and can be viewed in Patient Inquiry.

Order Credit

This function enables you to credit charges for tests without cancelling the test. Your ID code and the credit reason are captured and can be viewed in Patient Inquiry.

Order Entry

The Order Entry processor is used to place test orders on a specific patient account. Collection labels are provided for all orders and can be reprinted upon command. A Collection Summary report can be printed for orders which have not been received in the laboratory. This report can be requested for a specified time period and sorted by patient location, date and time, patient number, or test code. An additional sort by section can be requested. This report may be printed or displayed on the CRT.

STAR Laboratory performs duplicate, conflict, and overlap checking for each test you enter during the Order Entry process if you have defined the activation flag and have also defined duplicate, overlap, and conflict tests. A duplicate test is a second occurrence of a test within a user-defined time frame. A conflict is an occurrence of a previously performed procedure or test which interferes with the performance of another procedure or test when ordered within a user-defined time frame. An overlap is an occurrence of a test within a user-defined time frame whose analytes are wholly contained in a previously ordered and performed test.

Order Inquiry

This function enables you to view a patient's orders that have not been accessioned in the laboratory. This information can be requested by patient name, patient number, or accession number.

Order Management Functions

These functions enable you to create, edit, and print collection batches. You can also view orders which have not been assigned to a batch and add them to a batch. Lists of the batches can be viewed or printed.

Patient Inquiry

This function enables you to view order information and test results. This information can be requested by patient name, patient number, Anatomic Path case number, social security number, or accession number.

Patient Management Functions

These functions can be used to admit, discharge, and transfer patients. Census functions display or print a summary or detail report of the hospital's census. This applies to stand-alone environments only - not to networked environments.

PC Downloading

The PC downloading module allows selected file data to be downloaded to commercial microcomputer products, such as spreadsheet, database, and word processing packages.

Physician Inquiry Lookup

This function enables you to display information for a selected physician including office address and phone number, FAX number, beeper number, specialty, admitting status and group name.

Quality Control Functions - Equipment

These functions enable you to monitor equipment maintenance and quality control checks online. They also function to print or display maintenance logs, equipment check schedules, activity logs, equipment master register information, and Target Value reports.

EQC Activity Log Reports

These functions allow you to display or print a hard copy of the log entries for Equipment Quality Control (EQC), the EQC Summary Report, Detail Report, and the Exception Report.

Quality Control Functions - Sample

These functions enable you to monitor Sample Quality Control (SQC) data, print or display control material maintenance logs, activate new SQC lot numbers, delete data, recalculate statistics and view or print SQC reports.

SQC Activity Log Reports

These functions allow you to print a hard copy or to display the log entries for Sample Quality Control, SQC Summary and Detail Reports, Levey-Jennings Summary and Detail Reports, and Exception Reports.

Recall Management

This processor provides the ability to automatically track patients who require follow-up treatment and to generate recall letters based on specified test results. Multiple recall reminders and specific recall categories for different sections of the laboratory can also be defined. The system enables you to use online queue tracking information and archiving, along with automatic queuing.

Result Entry

This processor provides automatic result validation for valid ranges and valid values. The system can be defined to flag panics, normals, delta checks, valid ranges, and valid values. Either the resulting test or the ordered test can be used. Delta checking now detects any change from the time when a component was last resulted. Other features include the following:

- Display of all normal value information on one screen
- Display of abnormal flags in result entry to comply with the CLIA '88 regulation on resulting
- A section level flag that activates flagging of high, low, and abnormals in results entry, in addition to the current panic flagging, delta checking, and correction flagging
- Ability through valid values to flag non-numeric results as High, Low, Abnormal, or Panic

Result Reporting

Result reporting functions enable you to enter patient results as well as sample quality control data. A variety of user-defined features assist in result entry such as pre-defined results, menus, tables, automatic ID, date and time functions, word processing, standard result text, and multiple result selection. Result reporting can be accomplished through interfaced instruments, on-line cell counter functions, manual entry, or batch resulting and acceptance.

Review Queue Reporting

This function allows specific test results to be held in a review queue until review by authorized personnel. Review queues are specified by individual and defined for certain tests. A security level to release reports from a queue may be defined.

SIM Synch Up Networking Overview

The Service Item Master (SIM) file is networked between STAR Patient Care and STAR Laboratory. Only SIM information of interest to the laboratory is networked. This includes the following information:

- Alpha Description
    - IM Description
    - Alternate Name Indicator
    - Suppress Indicator
    - Profession Fee Indicator
    - Panel/Package Indicator
- Master Description

- SIM Code
- SIM Description
- Inactive Indicator
- FIM Code (Bill Code)
- Outpatient FIM Code (Bill Code)
- Restricted Priorities
- Suppress Indicator
- Charge on Order Flag
- Prompt
- Panel Master Indicator
- Lab Specimen Sources
- Lab Specimen Default Source
- Panel Order Type

• Alternate Names

• Prices

- Price Algorithm
- Variable Prices
- Variable Units
- Fixed Price
- Fixed Units
- Minimum Total Charge
- Maximum Total Charge
- Professional Fee Indicator
- O/P Variable Prices

- Professional Fee Physician Code
- Professional Fee Percentage

- Contract Price Levels
  - Service Item Price for 10 Contract Levels
  - Bill Code for 10 Contract Levels
- Professional Fees

  Up to 10 professional fee codes associated with the SIM item
- Default Order Values
  - Default Priority
  - Default Request Date
  - Default Request Time
  - Default Recurring Indicator
  - Default Recurring Stop Date
  - Default Recurring Stop Time
  - Default Recurring Interval
  - Default Nurse Collect Indicator
  - Order Source
  - Default Duration
  - Frequency
- Duplicate/Conflict Info

  For each SIM item defined as a conflict/overlap/duplicate:
  - SIM Department
  - SIM Code
  - Check Type (Duplicate, Overlap, Conflict)

- Time Window
- Security Level

• Panel Order Info

For each SIM item contained in the panel:

- SIM Department
- SIM Code
- Priority
- Offset Minutes
- Required Indicator

NOTE: Many of the fields described above are not used by STAR Laboratory, but the data resides on the STAR Laboratory CPU as part of SIM Networking.

Special Reports

In addition to Cumulative Trend reports, QC Activity reports, and summary reports, STAR Laboratory provides a set of special reports for specific purposes. These reports are grouped together on the Special Reports menu which you can usually access from the Administration menu.

MASTER TEST LIST

This report lists test names and test codes defined in the system. The report can be sorted alphabetically or by test code by the default sendout laboratory for tests defined with a reference type of sendout or sendout-interface. It can also be sorted by test name or code by the default performing department for tests defined with a reference type of interdepartment.

PHYSICIAN UTILIZATION

These are statistical reports containing information on the ordering patterns of individual physicians. Orders are broken down by category (STAT, ASAP, and routine) and may be further detailed with patient demographic and accession information.

REVIEW REPORTS

Review reports are compiled from user-defined data base searches on tests and test results. Searches can be limited to certain ages, sex of patients, patient types, and patient locations. The tests selected can be based upon result ranges, inclusive or

exclusive phrases, and can be conditional upon other test results meeting defined criteria.

NORMAL VALUE REPORT

This report prints tests' normal ranges and panic values and can be printed for a single test, all tests, or by sections. The report can be printed for only tests containing panic values or for all tests in the Master Test List.

SPECIAL LABELS

This function enables you to define and print special labels with free form text in four different character sizes. Five lines of text are available per label.

SPECIMEN COLLECTION REPORT

This report lists the collection information associated with a test and includes test name, specimen type, data elements required at accessioning such as collector ID, time and date of collection, diagnosis, collection period, container type, collection volume, and aliquot volume. The report can be displayed or printed and can be sorted by entire laboratory, section, or displayed or printed for a specific test.

ORDER CANCELLATION REPORT

This report displays or prints cancelled tests and includes patient account number, accession number, ordering information, time and date cancelled, ID number of the person who cancelled the test, test name and reason the test was cancelled. The report can be limited by the date the test was cancelled.

MASTER CHARGE REPORT

This report lists billing codes and prices for each defined test and can be sorted alphabetically by test name or numerically by test code.

MISCELLANEOUS CHARGE REPORT

This report lists the miscellaneous charges and credits applied to patient accounts on a specified date. Miscellaneous items include procedures or other chargeable items associated with an ordered test but not included in the charge for that test.

TEST COUNT REPORTS

This report indicates testing volume for a specified period of time. Test count statistics can be compiled by combining any of the following criteria: event (stage of processing such as accession, collection), patient type, location, ordering category, priority, laboratory section, or test code.

TURNAROUND TIME REPORTS

Turnaround Time (TAT) reports include a variety of reporting mechanisms providing detailed statistical information regarding the time lapse between user-specified events such as specimen collection and result reporting. This report will record data in the actual performing section. TAT reports include Statistical Summary, TAT Distribution Histogram, Exception report, Rejection report and Test Count Summary.

SPECIMEN REJECTION REPORTS

The Specimen Rejection Reports processor creates a report of rejected tests in Primary report format. When printing this report, the system performs a primary sort by ordering physician, and a secondary sort by accession number. The primary reports STAR Laboratory includes in this batch of reports are those rejected between the start and end dates you select. These reports print in batch only.

SALES COMMISSION REPORTS

You can activate tests for sales commission processing within STAR Laboratory. Once those tests are in a completed status, STAR Laboratory captures sales commission data for the Sales Commission Report. This report provides charges, rate, and commission by salesperson and financial class.

PANIC VALUES REPORTS

You can create reports of panic values for a single patient or for all patients in the system. These reports can include all components on a test with a panic value for a patient, or just the component with the panic value.

VALID VALUE/RANGE OVERRIDE REPORTS

These reports enable you to evaluate each test component's valid values or valid ranges. You can identify excessive overrides and take corrective action. The reports list valid value or valid range override results for components in a given date range.

BILLABLE TEST COUNT REPORT

This report prints a list of billable test counts by date range and LMIP category.

CORRECTED RESULTS REPORTS

These reports provide the user with information on patients who have had corrected results. Reports can be printed for a single patient or all patients. Only corrected results or all results may be printed, and there is an option to exclude or include patient types, locations, ordering physician, or test codes.

Specimen Transfer Functions

These functions are used to manage and track tests sent out of the laboratory to be resulted. Tests defined as *send out tests* are automatically placed in the send out queue of the defined reference laboratory upon accessioning. Tests normally performed in-house may be added to a queue. Tests may be placed in a queue for a reference laboratory other than the one defined. Labels with patient information and reference laboratory name and address can be printed.

Spooler Management Functions

The Spooler Management function enables you to maintain, view, and reassign the various reports and printers in your system. You can also fax reports or review a fax server queue. Spooler Management functions can be added to the main laboratory menu or to any of the defined section menus with the Menu Maintenance function.

Summary Reports

These functions control printing of patient summary reports. Summary reports consolidate laboratory results on a daily basis. Outpatient Summary reports can be printed singly or in a batch. Interim Summary reports contain all results reported since the last Interim Summary report. The Physician Summary reports provide an additional method of delivering copies of patient reports for physicians. The Inpatient Discharge Summary provides the medical records department with a permanent, microfiche-adaptable record of work done during a patient's stay. Post-Discharge Work summary reports contain work resulted on inpatients with a location code of DIS who are not in the Inpatient Discharge Summary batch. A Single Patient report can be printed for any patient.

System Manager Functions

These functions provide system maintenance capabilities and include system backup and journaling utilities, port maintenance utilities, system message utilities, and trouble shooting utilities. Console logs, downtime logs, and error summaries can be displayed.

Workload Functions

These functions enable you to add or adjust workload data. Workload not associated with a specimen, test, or result may be entered. Reports can be displayed or printed for monthly workload data and can be generated with details or as summary reports by section, employee or group.

Chapter 2 - Getting Started

INTRODUCTION

This chapter discusses the mechanics of initially accessing the STAR Laboratory system. Read this material if you need to become familiar with your PC and keyboard or need to know how to sign on or sign off STAR Laboratory. Several illustrations in this chapter are charts for you to use as reference when learning keyboard functions and understanding how to interpret prompts and messages.

SIGNING ON

To prevent unauthorized use of system information, the system requires you to sign on before you can access STAR applications. McKesson's STAR applications use the MultiSTAR (MSE) software environment for multiple platforms.

ALLSTAR SignOn is a procedure that streamlines signon for systems with MultiSTAR. Refer to the *ALLSTAR SignOn User's Guide* for the signon procedure when you use a MultiSTAR system. The user guide also contains the procedure for changing your passwords for ALLSTAR SignOn, as well as relevant terms and concepts.

ID Code

The ID code can be a set of numbers or letters, or a combination of both. During the installation of the STAR Laboratory system, ID codes and corresponding user descriptions are established for all laboratory employees and permanently stored in the employee data portion of the Maintenance processors. Codes for new employees hired thereafter are usually added to the system files on the date of hire by the System Manager. The ID code is a permanent, unique number that stays with an individual for the duration of employment. If employment is terminated, the code is "retired" and should not be reused by another individual because a record of all data-generating transactions is permanently stored in the system. Part of that permanent record is the ID code of the person who performed the transaction. Hence, an ID code is actually an "electronic signature" of a single individual and should not be used by another. Enter your ID code at the above prompt.

Secret Code

After you enter your ID code and pressed ENTER, the system displays the following prompt:

Enter secret code --

Enter your secret code. This code is chosen by each user individually. Your secret code is known only to you and to the system and can be a number, an alphabetic code, or any combination of alphanumeric characters. For added security, the code does not display on the screen as you type it. The secret code is designed to prevent the unauthorized use of an individual's electronic signature. If the code is entered incorrectly, the system displays the following message:

Invalid Code!

The system then returns you to the Enter ID number prompt. Required entry of the secret code is optional with bar coded sign on.

Change Your Secret Code Function

Whenever necessary, you can change your Secret Code using the Change Your Secret Code function. When you select the Change Your Secret Code option from the main laboratory menu, the following prompt is displayed.

Edit secret code for (A)pplication or host (O)perating system--

Choose the password you want to change:

- Enter **O** when you want to change your operating system password.

  The function to change the password for your operating system is displayed. If any of your entries do not follow the password change guidelines for your operating system, the appropriate error message is displayed. At the *Press NL--* prompt, press ENTER to return to the previous screen. Refer to your operating system's *Reference Guide* for more information.

  NOTE: You cannot change your operating system password until ALLSTAR SignOn is active. If ALLSTAR SignOn is not active, the previous prompt does not display and you do not have the option of changing the operating system password. Instead, a prompt is displayed to change the secret code for the STAR application.

- Enter **A** when you want to change the secret code for the STAR application.

  The system displays the following prompt:

  Enter current secret code--

Follow the procedure below to change the secret code.

STEPS TO CHANGE THE SECRET CODE

To keep a secret code effective, the system considers it valid for a limited time and automatically requests that it be changed by its user periodically. When a code is updated, the system drops the previous code from memory and recognizes only the newer code as a valid sign-on identification. The length of time the secret code remains valid is determined by Section/Shift files in Employee Maintenance, which are set up for each laboratory.

Updating a secret code takes only a few seconds. Updating can be done at any time, but must be performed immediately once the valid period has expired. Otherwise, you cannot sign on to the system. Attempts to use an outdated secret code cause the system to display the message shown above. As a new user, you must learn this procedure immediately since you are automatically assigned the initial code "123," which must be updated the first time you use the system.

If your secret code has expired or you are signing on for the first time, enter your ID code and current secret password. The system displays the following prompt:

Enter 'NEW' secret code --
Secret code outdated!

Enter your new secret code. Your new code must be at least two characters. If you enter a single-character secret code, the system displays the following message:

Error: Code must be longer than one character!

To change your secret code without being prompted, complete the following steps when you sign on:

1. Enter your ID code.

2. Enter your secret code followed by a colon (**:**) and your new secret code.

If you enter your secret code followed by a colon and then press ENTER, the system prompts you for the new secret code.

In addition, the processor to change your secret code can be located on a main menu or a section menu. The following main menu contains this processor:

```
                    General Hospital Community Lab Processor
                                                Tue Jun 30, 1992 10:56 am
Community Lab Input Options

            Option No.  Option
            ---------------------------------------
                 1      Patient Inquiry
                 2      Order Inquiry
                 3      Front Office
                 4      Central Processing
                 5      Administration
                 6      Chemistry
                 7      Hematology
                 8      Urinalysis
                 9      Microbiology
                10      Blood Bank
                11      Immunology
                12      Anatomic Pathology
                13      Send Outs
                14      Change Your Secret Code

Enter option number--
```

Select the Change Your Secret Code processor. If you have an MSE environment, the system displays the following prompt:

Edit secret code for (A)pplication or host (O)perating system [O]--

If you enter **O** to edit the secret code for the host operating system, the system displays the specific screen for your operating system. The following example screen is an operating system password processing screen for McKesson UNIX.

```
Tue Jun 30, 1992 02:50 pm

Changing password for hp01
Old password:
```

If you enter **A** to edit the secret code for the application, the system displays the following screen:

```
             General Hospital Change Secret Code Processor
                                                 Tue Jun 30, 1992 10:57 am




Lowe,Steve

Enter current secret code--
```

Enter your current secret password and the system displays the following screen:

```
             General Hospital Change Secret Code Processor
Tue Jun 30, 1992 10:59 am




Lowe,Steve

Enter current secret code--

Please Repeat Secret Code--









Enter new secret code--
```

Enter your new secret code. Your new code must be at least two characters. If you enter a single-character secret code, the system displays the following message:

Error: Code must be longer than one character!

The system then prompts you to re-enter your new secret code. This is to ensure that you enter the same secret password correctly twice. If you do not put in the same new secret password, the system prompts you to enter the new secret password once again. After trying unsuccessfully three times, the system displays the following message:

Code NOT Accepted!

Once you enter the new secret password correctly two times, the system displays the following message:

New secret code filed!

The system returns to the menu containing the Change Your Secret Code processor.

Using a Personal Computer

If you are using a personal computer (PC) to access the STAR Laboratory system, the following prompt displays after you enter your secret code:

Enable downloading to PC during this session? (Y/N) [N]--

If you enter **Y**, the system prompts you with the option to download a report to your PC each time you select a report to print.

If you enter **N** or press ENTER at the above prompt, you are not given the option to download to your PC during this terminal session.

The following table summarizes the steps involved in signing onto the STAR Laboratory System using the ID code and personal password and includes instructions for changing an outdated password.

Step	Screen Display (SD) Prompt (PR)	User Response
1	SD: Bulletin Board Sign-On Message (If Any)	Press the L key to activate STAR Laboratory
2	PR: Enter ID Code	Type ID code and press ENTER key.
3	PR: Enter secret code --	Type personal password and press ENTER key. The password does not display on the screen as you type.
4	PR: Enter 'NEW' secret code--	Enter a new code and press ENTER.
5	PR: Enable downloading to PC during this session?	Enter **Y** to enable downloading. Enter **N** or press ENTER to suppress downloading.
6	SD: User's name and title.	The screen temporarily displays the name and title of the person signed on.
7	SD: Sign-on menu PR: "Enter Option #"	Enter the number of laboratory section or function desired.

Help Screen

NOTE: This form of help is not the same as the help files attached to STAR GUI applications.

A Sign-On help screen is available in case you forget the procedure. To access this screen, enter a question mark (**?**):

Enter ID number -- ?

You can only access the help screen once. If you try again, the following message displays:

Sorry, No Help!

If you get this message, press ENTER and then enter **L** again to start over.

```
Use one of the following ID's and Secret code:

Example:

 ID          SECRET CODE                SECURITY LEVEL
 --          -----------                --------------
 100           123                      System Manager
 A100          XYZ                      Clerk

NL or "."                                (Default to sign off)
  "/./"                                    (To sign off)

If you enter the secret code incorrectly, the system will sign
you off.  Just try again.
```

This is the base Sign-On Help screen. Each laboratory department can change this screen to suit their needs.

Once the ID code and personal password are entered correctly and the downloading option is selected, the screen displays your name and position:

Harrison, Marsha, Medical Technician signed on!

The menu which the system displays when you sign on depends on how your laboratory files are set up. The possible menus include:

- A table of sections
- A department or section menu
- The main menu

The menu which the system displays can be set up for each individual employee, or all employees can sign-on to the same menu. The ability to back out to the main menu or table of sections, from the initial menudisplayed at sign-on, also depends on system files and can be specific to individual employees.

On the prompt at the bottom of the displayed menu, you are prompted to enter either an option number, or a section option number. This is the starting point for the dialogue with STAR Laboratory. Your first required response is to enter the number of the location desired from the displayed menu of options and press ENTER.

Choosing an option from a menu leads you to another menu, which shows the options possible within the chosen option. The option selectedthere might lead to still another menu. This multi-level, menu-within-menu structure is often compared to a tree, with the beginning location options being the main branches, the individual locations or functions within those options being the smaller branches, and the options offered within each location or function being still smaller branches. The result is a menu hierarchy which permits you to move down a particular path through the system to

access the specific function you need. Upon completion of the selected function you can then back-out to a higher level menu and make another selection, in effect going down another path.

```
                  General Hospital Community General Processor
                                                  Wed Jun 08, 1990 10:19 am
Page:01             Lab Section Options for Community General
( 1) Administration
( 2) Blood Bank
( 3) Central Processing
( 4) Chemistry
( 5) Chemistry I
( 6) Cytology
( 7) Doctor/Nurse Inquiry
( 8) Front Office
( 9) Hematology
(10) Immunology
(11) Microbiology
(12) Reference Labs
(13) Anatomic Pathology
(14) Triage
(15) Urinalysis



Enter choice--
```

In the above example, a table of sections is displayed for selection. Selecting an option from this menu causes the system to display the corresponding section menu. Notice the section table does not contain any functions such as Patient Inquiry.

In the following, a section menu is displayed for selection.

```
                  General Hospital Administration Processor
                                                  Wed Jun 08, 1990 09:04 am
Administration Input Options

            Option No.  Option
            ----------------------------------------
                1       Patient Inquiry
                2       Accessioning
                3       Order Credit
                4       Maintenance Functions

                5       Special Reports
                6       System Manager Functions
                7       Spooler Management
                8       Archiving
                9       SQL
               10       SQL - DBA
               11       Menu Types/Color/Function Keys
               12       Miscellaneous Charge/Credit
               13       Miscellaneous Charge Report
               14       Contract Billing
               15       Professional Billing Input

Enter option number--
```

NOTE: This is a host-based (original) menu. Alternate menu choices are available depending on the hardware and software available at your computer. For more information, refer to Chapter 5: User Preferences in the *General Information Volume* of the *STAR Laboratory Reference Guide*.

```
                General Hospital Community General Processor
                                                  Wed Jun 08, 1990 09:04 am
Community General Input Options

            Option No.  Option
            ----------------------------------------
                1       Order Inquiry
                2       Patient Inquiry

                3       Administration
                4       Blood Bank
                5       Central Processing
                6       Chemistry I
                7       Chemistry II
                8       Front Office
                9       Hematology
               10       Microbiology
               11       Send Outs
               12       Anatomic Pathology
               13       Urinalysis
               14       Immunology
               15       Menu type/Color/Function keys

Enter option number--
```

Because menus are always tailored to the needs of the individual institution, they look different in every laboratory. The screen above illustrates a typical main menu screen, and is only an example.

The main menu is usually designed to contain possible laboratory sections, locations, and functions that you may select to use. Such menus are characteristic of the screen displays you encounter when interacting with the STAR Laboratory System.

Messages

While using STAR Laboratory, you frequently encounter messages from the system concerning processing conditions or errors. Whenever you enter information using the keyboard, the system checks the input for format and composition. If information is entered in a format that doesn't conform to requirements, an error message displays on the screen, accompanied by an audible beep. The message displaysin contrasting medium, while the particular type of message depends on the situation and the processor involved. The most commonly encountered error messages are listed in the following table, along with a brief explanation of their meaning and the appropriate user response.

Message	Meaning and Response
INVALID SIGN-ON	A key other than L has been pressed to activate the terminal. Press the correct activation character.
INVALID ENTRY FORMAT	Entry does not conform to the format the system expected (for example, an alphabetic response in a numeric field). Re-enter the correct format.
THIS FIELD REQUIRED	The field cannot be left blank. Enter an appropriate response, or, if you wish to exit, enter either slash-period-slash (/./) or period (.) to return to the previous menu.
ENTRY OUT OF RANGE	You have selected an option that is not on the menu (for example, a six is entered when only five choices are listed).
ENTRY TOO LONG	Too many data elements have been keyed into the field. Re-enter a shortened response.

Besides error messages, there are other kinds of messages that can be placed in the system by the system manager or other authorized individuals using special management processors. These include System Messages, which can be sent to one or all computers throughout the laboratory, or Sign-On (or Sign-Off) messages, appearing as bulletins, usually preceded by the phrase *ATTENTION ALL USERS!*. These messages display as soon as you activate a terminal by pressing the L key.

SIGNING OFF

When finished using the STAR Laboratory System, enter slash-period-slash (***/./***) and press ENTER. This exit code signs you off of the terminal.

To exit from a prompt, enter a period (**.**) and press ENTER. To exit to the Sign-On Menu, enter a pound sign (**#**) and press ENTER. To exit/back out from one processor to the previous menu level (for example, to return to the next highest level on the *tree* of menus), enter a period (**.**).

Automatic Time-out

Another method of signing off the pharmacy system involves a unique security feature called automatic time-out. This mechanism is designed to provide additional protection to prevent electronic signatures from use by unauthorized individuals. It automatically invokes a sign-off when you do not use the exit code (/./). This feature, which is activated every time you sign on to the system, works as follows:

> When the system requests information, it waits for a specific user-defined period of time. If no response is entered within that time, the system reverts to the previous screen display and again waits for a response. If none is given, it redisplays the previous screen, and so on. Eventually, if no activity takes place, the system reaches the initial menu and simply signs you off. The time-out period may range from a few seconds to several minutes depending on the processor being used.

The period of time for automatic time-out is set by McKesson at installation time. The default time-out period is anywhere from 30 seconds to two hours, depending on which function you are in. Three minutes is the most commonly used automatic time-out period.

Use of the exit code is preferable to relying on the automatic time-out feature for two important reasons. First, any signed-on PC or terminal attaches a user ID code to all data-generating transactions performed on it. Left unattended, an unauthorized individual can use the system under another person's code. Secondly, maintaining a PC or terminal in an activated state requires the use of significant system resources; the system reserves a portion of computer memory for every signed-on PC or terminal and constantly monitors each PC or terminal for input. If the PC or terminal is not being used but is still activated, a system resource is wasted. When activity levels are low, this is not a problem, but in larger systems that have many signed-on PCs or terminals (particularly during peak activity times), a slight degradation in the computer's response time could result.

Chapter 3 - Laboratory-Specific Menus

INTRODUCTION

This chapter discusses the many different types of menus found in the STAR Laboratory system. These include the sign-on menu in addition to four types of organizational menus: main menus, section menus, function menus, and bay menus.

MENU-DRIVEN SYSTEM

The STAR Laboratory system is menu-driven, that is, the system processors are utilized by selecting appropriate menu options until the desired function is accessed. Next to each function (or option) is an option number. To select an option, enter the corresponding number. This usually causes another menu to display containing options related to the selected function, laboratory section or bay (workstation). This multilevel, menu-within-menu structure is the means by which individual processes are carried out within STAR Laboratory. Notice that the name of the menu always displays in the upper left corner of the menu screen. After accessing and completing a function, the menu displays again, enabling you to select another option.

Two distinct types of menus are available within STAR Laboratory: organizational menus and result menus. Organizational menus include main menus, function menus, section menus and bay menus and are the actual structure by which the system is used to carry out a single process. The menu hierarchy and the options available on each is determined by the laboratory during system installation. Unique menus can be defined for different laboratory sections according to the functions they perform. Result menus contain a list of possible results for a specific test. Selection of an option or combination of options from result menus simplifies result entry by reducing the clerical component of textual data entry.

For more information on result menus, refer to Chapter 6: Test Processing in the *General Applications Volume I* of the *STAR Laboratory Reference Guide*.

NOTE: Mnemonic codes for quick access to functions are available depending on the hardware and software available at your terminal. For more information, refer to Chapter 5: User Preferences in the *General Information Volume* of the *STAR Laboratory Reference Guide*.

SIGN-ON MENU

When you sign on to the system, the menu which displays is determined by how your individual employee file is set up. Menus are also controlled by system security, which, like the employee files, is maintained by the laboratory. Some menus options, such as System Manager functions, do display on a particular menu, but cannot be accessed by anyone with a security level lower than a system manager (such as a technologist). For additional information on the menus displayed at sign-on, refer to Signing On in Chapter 2: Getting Started in the *General Information Volume* of the *STAR Laboratory Reference Guide*.

ORGANIZATIONAL MENU TYPES

Main Menu

The main menu is the highest level of the menu hierarchy in the STAR Laboratory system. From this menu you make your selections to the various sections and functions of the system. Usually, all laboratory sections are listed as options within the main menu. An example of a main menu is displayed below.

```
                General Hospital Laboratory Processor
                                                Tue Jun 28, 1990 03:00 pm
Laboratory Input Options

            Option No.  Option
            ---------------------------------------
                1       Patient Inquiry

                2       Administration
                3       Central Processing
                4       Batch Reports

                5       Anatomic Pathology
                6       Blood Bank
                7       Chemistry
                8       Nuclear Medicine
                9       Reference Lab
               10       Urinalysis
               11       Coagulation
               12       Hematology
               13       Microbiology
               14       Serology
Enter option number--
```

Section Menu

Since most clinical laboratories are internally organized by laboratory sections, STAR Laboratory data entry pathways are also associated with a specific area or section. Each section menu contains the bays necessary to perform a specific set of tests and the functions associated with a laboratory section such as Quality Control and Workload processing. An example of a section menu (selected by entering option 7 from the sample main menu) is displayed below.

```
                  General Hospital Chemistry Processor
                                                Tue Jun 28, 1990 03:01 pm
Chemistry Input Options

            Option No.  Option
            ---------------------------------------
                1       Patient Inquiry
                2       Order Inquiry
                3       Specimen Accession
                4       Incomplete Work

                5       Sample Quality Control
                6       Equipment Quality Control
                7       Workload

                8       IDEAL
                9       ASTRA-8
               10       MIRA
               11       Manual
               12       Special Chemistry
               13       Urines

Enter option number--
```

Function Menu

Certain base function menus are provided with the STAR Laboratory System including Quality Control processors, Cumulative Trend Report functions, Special Reports, Patient Management, Specimen Transfer, Summary Reports, Maintenance Functions and many others. The functions within these menus are standard for all STAR Laboratory systems. Function menu options can be found on both main menus and section menus. An example of a function menu (selected by entering option 5 from the sample section menu) is displayed below.

```
        General Hospital Chemistry Sample Quality Control Processor
                                                Tue Jun 28, 1990 03:01 pm
Chemistry Sample Quality Control Input Options

            Option No.  Option
            ---------------------------------------
                1       Activity Log Reports
                2       Maintenance Log
                3       Material Constituents
                4       Maintenance Schedule
                5       Scheduled Check Date Report
                6       Target Values Report

                7       Maintenance Log Entry

                8       New SQC Material Lot
                9       Edit SQC Target Values
               10       Delete Log Activity



Enter option number--
```

Bay Menu

Most clinical laboratories are divided into functional areas where particular types of test procedures are performed. These areas are known as bays (workstations). Selection of a bay from a section menu results in a screen display of the tests which can be resulted within that location. An example of a bay menu (selected by entering option 8 from the sample section menu) is displayed below.

```
                  General Hospital IDEAL Processor
                                          Tue Jun 28, 1990 03:01 pm

IDEAL Test Options

( 1) IDEAL ON-LINE          (18) CL-                    (35) K+ STAT
( 2) ADM. PROF.             (19) CL- STAT               (36) ONCOLOGY PANEL
( 3) OP PROF.               (20) CHOL.                  (37) SMA-6
( 4) ALT                    (21) CREAT.                 (38) SMA-6 STAT
( 5) ALBUMIN                (22) CREAT. STAT            (39) SMA-6 + CREAT.
( 6) ALBUMIN - BODY FLUIDS  (23) CPK                    (40) SMA-6+CRE STAT
( 7) ALK. PHOS.             (24) DIR. BILI.             (41) NA+
( 8) AMYLASE                (25) LYTES                  (42) NA+ STAT
( 9) AMYLASE - STAT         (26) LYTES STAT             (43) TOT. BILI.
(10) AST                    (27) GAMMA GT               (44) TOT. PROT.
(11) BUN                    (28) GLUC.                  (45) TRIG.
(12) BUN STAT               (29) GLUC. STAT             (46) URIC ACID
(13) CALCIUM                (30) GLUC. FAST.
(14) CALCIUM STAT           (31) IN. PHOS.              (47) CL- CSF
(15) CO2                    (32) LDH                    (48) GLUC. CSF
(16) CO2 STAT               (33) LIVER PROF.            (49) CHEM-FLUID
(17) CARD. PROF.            (34) K+                     (50) RDU PANEL


Enter option #--
```

MOVING AROUND IN MENUS

The following techniques can be used to move around within menus:

1. Entering a period (**.**) backs you out of the system menu by menu.

2. Entering a pound sign (**#**) takes you back to the original sign-on menu from your current location.

3. Entering slash-period-slash (***/./***) signs you off the system.

   This is true unless you are at the verification point within a results entry processor at which case you are backed out of that accession and returned to the following prompt:

   Enter accession #, `*`account # or `&`unit # --
   patient name (Last,First M), `-`SS#, or `=` for current

4. Entering slash-period-option number (***/.#***) takes you out of the current processor and into the processor corresponding to the option number (**#**) entered. For example, to back out of the current processor and into option 5, enter ***/.5***.

5. Entering a sequence of menu option numbers separated by commas (#,#,#,n) takes you directly to the last menu option number (n) indicated in the path. This technique is particularly useful once you become familiar enough with the system to know the desired sequence since it allows you to move through the system without stopping at the individual menus passed along the way. For example, to select option 7 from the main menu, option 5 from the section menu, and option 2 from the function menu, enter **7,5,2**. Menu pathing is also capable of crossing the network from one STAR system to another.

6. Mnemonic codes for quick access to functions are available depending on the hardware and software available at your terminal. For more information, refer to Chapter 5: User Preferences in the *General Information Volume* of the *STAR Laboratory Reference Guide*.

For more information on result menus, refer to Chapter 6: Test Processing in the *General Applications Volume I* of the *STAR Laboratory Reference Guide*.

Chapter 4 - Information Entry Techniques

INTRODUCTION

This chapter describes the various techniques used toenter data and to respond to the prompts displayed throughout the system.

SCREEN LAYOUT

The CRT screen is the means by which you communicate with the STAR Laboratory System. A screen may contain a menu, table, message, or a processor in which fields are required.

The top line of each screen contains the name of the processor currently in use. With the exception of the LIVE ID, the ID name and number is also on this top line. The second line contains the current date and time. If a menu is displayed, the third line usually contains the menu name. If you are performing a transaction on a particular patient, the third and fourth lines contain patient demographic information including:

- Unit #
- Name (patient name)
- Sex
- Birthdate
- Room (room/bed)
- Physician (attending physician)
- Svc (service)
- ICD (ICD indicator of 9, 10, or B, as explained in the table below)
- Status

The following table provides more information about the ICD indicator:

ICD Indicator	Information
9	Indicates the patient requires ICD-9 coding only. This applies to patients whose admission date is prior to the ICD-10 effective date for the United States. ICD-9 diagnosis processing, prompts, and diagnosis lists apply for these patients. ABN processing occurs on ICD-9 diagnoses.
10	Indicates the patient requires ICD-10 coding. The patient's date of admission was past the USA ICD-10 effective date. ABN processing occurs on ICD-10 diagnoses only.
B	Indicates the patient requires both ICD-9 and ICD-10 coding methods due to insurance plan, insurance carrier or financial class exceptions. ABN processing occurs on ICD-10 diagnoses only.

Most transactions within STAR Laboratory are accession number specific. In such cases, the accession number is also displayed in the top portion of the screen. The next-to-last line of the screen always contains the prompt.

PROMPT

The prompt is the reverse video band which displays on the bottom of each screen. The purpose of the prompt is to assistyou in performing system functions. The prompt provides instructions for the information you should enter. It also indicates the proper format in which to enter this information.

The prompt changes to reflect the function or field currently being accessed. For example, the following prompt displays on a main menu:

Enter option number--

As data is entered into the system, it displays immediately to the right of the prompt. Pressing ENTER tells the system to accept the information entered at the prompt. If the data you are entering is not in the correct format, the system flashes an error message which tells you why the information is not being accepted.

Error: Invalid format for this field!

The data in the prompt iserased so that you may re-enter the information in the proper format. If the data is accepted, the prompt changes and the system prompts you to enter the necessary data for the next step to be performed.

At a free-form field, a field length indicator (delimiter) displays as a vertical bar (|), which informs you of how many characters can be entered. For example:

Enter reason--

Default values for a field or screen are displayed in brackets ([]) at the end of the prompt. In the following example, the Y in brackets is the default value. By pressing ENTER you are telling the system to accept or default to this value.

Accept Y/N [Y]--

SCROLLING SCREEN PROCESSING

Scrolling screen processing enables you to define and edit multiple fields of information for multiple table entries on the same screen. This processing uses the standard cursor management keys (up arrow, down arrow, right arrow, left arrow) and is most effective when all fields for a table entry fits on a single line.

The following is an example of a scrolling screen:

```
              General Hospital Maintenance - Equip/Instrument Processor
Community Lab                                      Thu Apr 23, 1992 10:17 am
Instrument Monitor Characteristics - Chemistry

 1 Code         2 Description                              3 Self-Creating Mode
   KOD1           EKTACHEM 700 #1                            Yes
 4 Timeout              5 Channels       6 ID Type        7 ID Retention
   No Timeout             60               FL               7 Days
 8 Deactivate           9 Stacking
   No                     No
10 Chn#    Channel Name                      Upload     Download
   1       Glucose                           GLU        SPACE
   2       Urea Nitrogen (BUN)               BUN        /
   3       Creatinine                        CREA       .
   4       Ammonia                           NH3        -
   5       Sodium                            Na+        )
   6       Potassium                         K+         (
   7       Chloride                          Cl-        '
   8       Carbon Dioxide                    CO2        *
   9       Amylase                           AMYL       &
   10      Lipase                            LIPA       9
   11      Calcium                           Ca         2

                           Enter channel number--
     F1Prev Page F2Next Page F3 Insert  F4 Delete  F6 Reset  F7  Exit   ?
```

The first line of the scrolling screen contains the field (or column) names. In this example, the scrolling screen field names are *Chn#, Channel Name, Upload,* and *Download*. A scrolling screen can be part of a horizontal screen or can stand alone.

In this example, scrolling screen processing is part of a horizontal screen. Field 10 has already been accessed and the scrolling screen options display at the bottom of the screen. These options are the valid function keys and the associated functions for scrolling screen processing. There are other keys that perform valid functions in addition to those displayed. All valid keys are explained below.

TAB key

Press the TAB key to move the cursor to the next field (column) of the scrolling screen. If you press this key at a required field and no entry has been made in the field, there is no cursor movement and the system displays the following message:

Error: Field Required!

ENTER
Press ENTER to move the cursor to the next field (column) of the scrolling screen. If you press this key at a required field and no entry has been made in the field, there is no cursor movement and the system displays the following message:

Error: Field Required!

Up Arrow key
Press the up arrow key to move the cursor up one line. If you press this key while the cursor is on the top displayed line, the scrolling screen moves down to display additional lines from the top of the screen. If you press this key while the cursor is on the first line of scrolling screen entries, the system inserts a blank line above the first entry.

Down Arrow key
Press the down arrow key to move the cursor down one line. If you press this key while the cursor is on the bottom displayed line, the scrolling screen moves up to display additional lines from the bottom of the screen. If you press this key while on the last line, the system inserts a blank line after the last entry.

Left Arrow key
Press the left arrow key (**<-**) to move the cursor to the previous field (column) of the scrolling screen.

Right Arrow key
Press the right arrow key (**->**) to move the cursor to the next field (column) of the scrolling screen. If you press this key at a required field and no entry has been made in the field, there is no cursor movement and the system displays the following message:

Error: Field Required!

F1 - Prev Page
If there are multiple pages of data (more lines than the screen can display at once), you can press the F1 key to page (scroll) back to the previous page. If there is no previous page and you press this key, the system beeps.

F2 - Next Page
If there are multiple pages of data (more lines than the screen can display at once), you can press the F2 key to page (scroll) forward to the next page. If there is no next page and you press this key, the system beeps.

F3 - Insert
Press this key to insert a blank row in the table. You can then enter data for each field (column).

NOTE: When you insert a blank row and enter data in the fields, once you accept the screen, the new information will be rearranged (sorted) in the appropriate

order (the order defined by the system). This may cause entries to display on the screen in a different order than you originally entered them.

F4 - Delete
Press the F4 key to delete the entire line at the cursor position.

F5 - Function Defined
The F5 key is available if it displays at the bottom of your scrolling screen. This key is specific to the function or processor you are using. For a description of the functionality of the F5 key, refer to the specific reference guide documentation for the function or processor you are using. If this key does not display at the bottom of the scrolling screen, no specific function is defined.

F6 - Reset
Press the F6 key to reset the current line (the line at the cursor position) to the previous values. This key cancels the entries/changes you make on a given line until you advance to the next line.

F7 - Exit
Press the F7 key to exit scrolling screen processing and continue editing the screen with the next field. If the cursor is on a blank line and the scrolling screen includes fields that are required, you must press the F4 key to delete the blank line before you can use the F7 key to exit the screen.

? - Activate help messages
Enter a question mark (**?**) to display help messages at the bottom of the scrolling screen. These help messages display on the line above the function key definitions and change as you move from field to field (column to column). If you enter a question mark to activate help messages and then enter another question mark, the system displays the following:

Press '?' for More Help, NL to Continue, or 'X' to Turn Off Help Messages

Enter a question mark to display any field level help that has been defined for the field (column). Enter **X** to discontinue displaying the help messages at the bottom of the scrolling screen. Press ENTER to continue to display help messages.

DATA ENTRY TECHNIQUES

The following steps provide guidelines for entering data into the STAR Laboratory System:

1. Read the prompt which appears at the bottom of each screen for instructions/ prompts before keying data.

2. The ENTER key accepts the data entered into the prompt. The ENTER key should be pressed only once to accept the data. If an incorrect format is entered (for example, a date is entered as 3186 rather than 03186), an Invalid Format error message displays beneath the prompt.

   If the data entered fills the field to the delimiter, it is not necessary to press NEW LINE; the data is accepted automatically.

3. The Delete key should be used to remove keying errors while entering data into the prompt.

4. The cursor identifies your position on the screen. This is the location at which data entered at the prompt displays once ENTER is pressed. The cursor may be a flashing or nonflashing dash or block.

5. Many fields within screens have default values associated with them. The default value typically displays within brackets ([]) in the prompt although in some cases a field is already filled with a default value when the screen displays. (In these cases, the value can usually be edited by selecting this field and entering a new value.) The default is the most common response to the field. You can select the default by pressing the ENTER key.

6. Some fields are free text. A flashing vertical bar (called a delimiter) is located to the right of the prompt indicating the maximum length of the data field. You can enter data up to the flashing bar. For an example of this delimiter, refer to "PROMPT" on page 4-6.

7. To revise incorrect data that has been accepted, enter a slash (*/*) followed by the appropriate field number, (for example, /4), and press ENTER. The cursor returns to that field so that you can enter the new data. Within a free text field, you can enter two slashes (*//*) to move the previously entered data to the prompt so the data can be edited. This is called the Slash-Slash Editor. The Right/Left arrow keys located to the left of the numeric pad keys moves the cursor to the right/left on the prompt. The Up arrow allows you to insert spaces within the existing text. You can then type additional characters. The Down arrow deletes characters. If you donot wish to edit an existing response, enter a new response. Any previous response is overwritten.

8. You can enter a period (**.**) in response to a prompt if you do not want to enter data or select one of the choices. If a period is entered and the ENTER key is pressed

while located in a screen, you are prompted for the field you want to edit. If you are not located in a screen when a period is entered, you are returned to the previous prompt.

9. Certain fields are required within a screen. These fields display the following message if there is no default and you attempt to press ENTER:

   Error: Field required!

   In addition, if you have bypassed a required field, the system notifies you before you can accept the screen with the following message:

   Field # is required! Continue editing? [Y]--

   The field number is inserted in place of the pound sign in the above prompt example.

10. After the appropriate fields on a screen are filled in, the following prompt displays:

    Accept this screen? (Y/N) [Y]--

    Verify all the information on the screen is correct. Pressing ENTER accepts the data, since the default is Yes. If **N** is entered for No, the prompt enables you to select the appropriate field number to edit. The prompt displays the following:

    Enter field number or '/'starting field number--

    If you enter the field number only, the system allows you to edit that field, then returns to the above prompt. If you enter slash (*/*) followed by the field number, the system invokes fill mode and the cursor moves through each blank result field sequentially. If you press ENTER, the screen acceptance prompt shown above displays. To exit the screen without saving the information on the screen, enter a period (**.**) and press ENTER.

    If no empty fields exist, the screen acceptance prompt shown above displays. It is very important that you respond to this prompt with a *Yes* or *No* answer. If you enter slash (*/*) and press ENTER, which takes you to the next page, the data is lost and has to be re-entered. If the default is Y, for Yes, then press ENTER to accept the screen.

TABLE LOOKUP

Many STAR Lab transactions are table-driven allowing you to enter data quickly by eliminating unnecessary keystrokes.

1. When the cursor is at a field associated with a table, the prompt reads:

   Enter table code--

   Your response to this prompt can be in one of the following forms:

   - If you know the code, enter it and press ENTER.

   - Enter a hyphen (**-**) to display the entire table. When the item you selected displays, enter the corresponding option number, and press ENTER. The option number is not a table code, but a number to identify the selection. If the item you want is not displayed, enter slash (***/***) to view the next page, or enter slash P (***/P***) to view the previous page.

   - A table entry can be made with a code or an alpha description of that code.

     Since many new users are not familiar with the description codes, it is more advantageous to perform an table lookup. The table search for an entry can be limited by entering the first few characters of the description followed by a hyphen (**-**) and pressing ENTER. For example, to display Medicare in the Insurance Table, enter **MED-** and press ENTER. All table entries beginning with MED appear for selection. After the item is selected, its description displays in the field on the screen, often with its code to the left. This code can be used on future entries to eliminate the need to view the table selections.

     Enter table code--

   - Whenever you enter a hyphen (**-**) to display the entire table and the table is more than one screen in length, the following prompt displays.

     Enter choice-- next pg (/ or PG DN) Search (TAB)

     To perform a search, press the Tab key to enter into Search mode. Enter a string of characters on which to search. The search always matches letter for letter starting in column one of the table display. Precede the search string with an asterisk (*) to cause the search to look for the string anywhere in the display. The table driver will find the first entry that matches the string of characters.

     To return to Select mode, press the Tab key again. Then you can enter the number of the entry you want to select.

- If more than one item can be selected from a table, the heading line for the table displays ##=*Current choices* on the right. You can enter one number or a range of numbers (for example, 1,3,5-7) and press ENTER. The numbers are highlighted next to their descriptions, and the prompt allows you to either enter more selections, or go to another page if one is available.

  After completing your selections, press ENTER again. If you want to remove a selection already made, enter a hyphen (**-**) followed by the item you wish to delete. After ENTER is pressed, the item is no longer highlighted.

- In some cases the desired code or description may not be found in the table. Some tables have an override capability. In the case of an override, enter a hyphen (**-**) and enter the override description immediately following. When ENTER is pressed, the override description you entered displays without the hyphen (-). Ifoverrides occur frequently, you can add new table entries. If an override is not allowed and is entered, then the system displays an error message.

2. When completing a table entry or edit, the system also prompts you to delete the table entry or receive a printed list. To delete a table entry, access the table, press ENTER, and enter Yes at the prompt to *delete (N).*

   If you want a printed list of all table entries, enter Yes at the prompt. The list prints on the printer designated for this purpose by your STAR Laboratory Coordinator.

DATA ENTRY CONVENTIONS

Within a Processor

Key In	Result
Period (.)	Backs out of the system step by step.
Pound (#)	Moves you back to the original sign-on menu from another menu.
/./	Signs you off the system. (This holds true except at the verification point within a results entry processor at which case you are backed out of the accession.)
/.Option #	Entering slash period option number takes you out of the current processor and into the processor corresponding to the option number entered.
#,#,#,n	Entering a sequence of menu option numbers separated by commas will take you directly to the last menu option number (n) indicated in the path. This allows you to move through the system without stopping at the individual menus passed along the way and is used once you become familiar enough with the system to know the desired sequence. Menu pathing to the network from one STAR system to another.

Within a Screen

Key In	Result
Slash (/)	Advances to the next screen or page.
/P	Advances to the previous screen or page.
/4	Moves cursor to field #4 on a screen and to all subsequent empty fields on that screen.
4	Moves cursor to field #4 on a screen and then returns to the prompt.
Hyphen (-)	Displays all entries in a table.
AD-	Displays all entries in an alphabetic table beginning with AD. This is used to narrow a table search.
22-	Displays all entries in a numeric table beginning with 22. This is used to narrow a table search.

Within a Prompt

Key In	Result
?	Displays Help Text for a function menu or field. The hospital is responsible for writing the Help Text.
Delete (DEL)	The Delete key erases errors typed into the prompt before an entry is accepted at a field.
Erase EOL	Deletes all characters keyed into the prompt.
ENTER	Pressing the ENTER key submits data that has been keyed. Default values are displayed in brackets ([ ]) on the prompt. Press ENTER without keying any data to accept the default value. (This key may also be referred to as NEW LINE or NL in the STAR system.)
//	Moves previously entered data (free text only) to the prompt to be edited. Use the right and left arrows to move the cursor, the up arrow to add spaces, and the down arrow to delete.
T or N	Displays the current date and time.
T+1, T+20	Displays the date for tomorrow, twenty days from now.
T-1, T-2	Displays the date for yesterday, two days ago.
N or T	Displays the current time (now).
N+15, N+60	Displays the time fifteen minutes from now, and one hour from now.
N-15, N-60	Displays the time fifteen minutes ago, and one hour ago.
MMDDYY	One format for dates (month, day, year; each in two figures). No slashes or dashes are necessary. If a time is not specified, the system automatically fills in 0000 (military time).
M/D/YY	When punctuation is used to enter dates, month and day can be single digits if appropriate. If a time is not specified, the system automatically fills in 0000 (military time).
M/DD/YYYY	Enter the full year if it is not 1900. If a time is not specified, the system automatically fills in 0000 (military time).

M/D, MM/DD, MMDD	If the date being entered is the current year, it is not necessary to enter the year. If a time is not specified, the system automatically fills in 0000 (military time).

NOTE: If your system is set up as an international system (such as in the United Kingdom), the above date formats have the day before the month (for example, DDMMYY).

NOTE: Some date entry fields in STAR allow entry of a 2-digit year. When dates are entered for a 2-digit year, STAR uses the following logic for determining the century:

- for years 00 through 30 inclusive, the system defaults to the 21st century (20XX).
- for years 31 through 99 inclusive, the system defaults to the 20th century (19XX).

For example, the system interprets a year date of 55 as 1955 and a date of 04 as 2004.

Date and time entries may appear in a variety of formats including:

- 2 Jan 10 0900
- 02 Jan 10 0900
- Jan 2, 2010 0900
- Jan 02, 2010 0900
- 1/2/10 0900
- 01/02/10 0900
- 2 Jan 10
- Jan 2, 2010

NOTE: The date and time format for STAR Laboratory is a McKesson parameter and must be changed by your McKesson installation or support representative.

RESULT ENTRY MECHANISMS

The STAR Laboratory system processors support a wide variety of result entry mechanisms. These processors include tools that assist in organizing the laboratory's daily workload and enhance the technologist's efficiency in processing specimens, performing analyses, entering and editing results and releasing results in the form of patient reports.

Result entry mechanisms available in STAR Laboratory include:

- Manual entry of results through a CRT, including
  - Free text entries
  - Menu entries
  - Table selections
  - Date and time entries
  - Predefined result entries
  - Auto-fill ID entries
  - Comment processing
  - Prompt processing
  - Word processing
- Automatic result entry from analytical instruments linked directly to STAR Laboratory by a communications line. Electronically Scheduled Processing (ESP) can be used for handling tests analyzed in batches.
- Semi-automated result entry using special processors that convert the CRT numeric keypad into a counting tool (Automatic Cell Counting)
- Calculation of results using previously entered raw test data (this data should have been entered manually, semi-automatically, or automatically)

NOTE: Menu and table entries are discussed briefly in this chapter. For a detailed discussion on other result entry mechanisms, refer to Chapter 6: Test Processing in the *General Applications Volume I* of the *STAR Laboratory Reference Guide*.

DIAGNOSIS ENTRY MECHANISMS

Data entry in response to diagnosis code prompts differs from the standard options described earlier under Data Entry Conventions. For example, you can enter one of the following to initiate a diagnosis code search:

- Enter a hyphen (**-**) to select from the entire diagnosis table displayed in numeric code order. The table starts with 001.0 (CHOLERA D/T VIB CHOLERA).

- Enter **U** followed by a hyphen (**U-**) to select from the entire diagnosis table displayed in alphabetic order.

- Enter **U** followed by an alphabetic entry and a hyphen (for example, **UA-** or **UB-**) to select from a diagnosis table that begins with a specific alphabetic character. For example, entering **UAN-** causes the descriptions for Aneurysm, Angina, and Ankle Fracture to display if they have been built into the diagnosis table.

- Enter **A** followed by a hyphen (**A-**) to display the approved diagnosis list for a defined HCPCS code. A- only displays if the Approved Diagnosis List field in the SIM Departments table is defined as Yes.

- Enter **Dx** to display the list of multiple diagnoses entered in the Admission process. These include the Admitting Diagnosis, Working Diagnosis, Principal Diagnosis, and multiple Secondary Diagnoses. This option is only available if the Multiple Diagnosis List parameter in the SIM Departments table is turned on.

- Enter a numeric entry followed by a hyphen (for example, **22-** or **250-**) to select from a specific range of codes. For example, if you know that the code for which you are searching begins with 22, enter **22-** and the system displays all the codes beginning with 022.0 (CUTANEOUS ANTHRAX). When entering actual ICD CM codes you can enter decimal points, but they are not required. Leading zeros should be entered to ensure accurate codes.

To override the table, enter a hyphen (**-**) followed by a free-form entry. This enables you to enter a working diagnosis that cannot be defined by an ICD code.

NOTE: Freeform diagnosis entry is not always permitted.

FUNCTION ACCESS

Use the following tables to determine how to access the various functions within STAR Laboratory. The first table is by function. The first column contains a P if you access the function from a prompt or an F if you access the function from another function. The columns that follow provide the entry characters for the function according to what processor or module you are using (Patient Inquiry, Advanced Microbiology, Advanced Micro Review Queue, General Laboratory, or General Laboratory Review Queue).

The second table is organized by the entry characters used to access the functions. To view this table, see the FUNCTION ACCESS CHARACTERS AND LOCATIONS table. This table provides the location within STAR Laboratory where the entry characters can be used.

FUNCTION ACCESS BY FUNCTION NAME

FUNCTION	PROMPT/ FUNCTION	PAT INQ	ADV MICRO	ADV MICRO REVIEW QUEUE	GEN LAB	GEN LAB REVIEW QUEUE
ACCEPT	P		Y	A	A	A
ADD ON	F		/A	/A	/A	/A
BP AVAIL	F	B				
CANCEL ORGS	F		C	C		
CHECK PREVIOUS	F		R & C	R & C	/C	/C
CHECK 5 BY RESULT	F	R			/R	/R
CHECK 5	F	F			/F	/F
CMS COMPLIANCY CHECKING	F	O				
COMMENTS	F	K	K	K	/K	/K
DEFINE ORGS	F		D	D		
DISPLAY LOG	P		D	D		
DRAFT	P				D	D
EDIT	P			E		
FAX	F	X	X	X	X	X
FILL	P		F	F	F	F

FUNCTION	PROMPT/ FUNCTION	PAT INQ	ADV MICRO	ADV MICRO REVIEW QUEUE	GEN LAB	GEN LAB REVIEW QUEUE
GENERAL	P	G				
GRAPH	F	G				
HISTORY CARD FILE	F	H	/H	/H	/H	/H
INTERNAL LOG	P		/L	/L		
INQUIRY	F		/I	/I	/I	/I
MULTIPLE SPECIMENS	F	MS			/MS	/MS
NO WORKLOAD	P		/W	/W	/W	/W
ORDER	F		/O	/O	/O	/O
OTHER INQUIRY	F		/II	/II	/II	/II
OTHER ORDER	F		/OO	/OO	/OO	/OO
OVERWRITE	P				A/S	A/S
PRIMARY FORCE PRINT	F	P			P	P
QUEUE	P				Q	Q
REPEAT	F				R	R
REPLICATE	F				RR	RR
REVIEW/ACCEPT	P		R	R		
SENSI	P		S	S		
SNOMED	F	C				
CODE VIEW						
SPEC REJ	F	J	J	J	J	J
SUMMARY	F	S				
TEST LOOKUP-QUICK	F	L#	L#	L#	L#	L#
TEST LOOKUP	F	L	L	L	L	L
TRACKING	P	T				
VIEW	F	V			V	V

FUNCTION ACCESS CHARACTERS AND LOCATIONS

ACCESS CHARACTERS	WHERE IT IS USED:
A	Accept and overwrite in general lab Print Long Report in Patient Inquiry
B	Blood Product Availability - Patient Inquiry
C	SNOMED Code View - Patient Inquiry Check Previous in Result Reporting Cancel Organism in Advanced Microbiology
/C	Check Previous in Result Reporting
D	Define Organism - Advanced Micro Draft Display Log - Advanced Micro
E	Edit - Advanced Micro
F	Fill
/F	Check Five by Test
G	Graph
H	History Card File - Patient Inquiry
/H	History Card File Result Reporting
/I	Inquiry from Result Reporting
/II	Other Inquiry from Result Reporting
J	Reject
K	Comment Review - Result Reporting/Review Queue - Patient Inquiry
/K	Comment Review - Result Reporting
L	Test Lookup - Patient Inquiry
L#	Quick Test Lookup - Patient Inquiry
/L	Print Internal Log- Advanced Micro
/MS	Result Reporting - Multiple Specimens
MS	Patient Inquiry/History Cardfile - Multiple Specimens
/O	Order on Same Patient - Result Reporting
/OO	Order on Other Patient - Result Reporting
P	Force Print - Primary Report
Q	Queue Report to Review Queue

ACCESS CHARACTERS	WHERE IT IS USED:
R	Repeat Check Previous - Advanced Micro Review/Accept - Advanced Micro
/R	Check Five by Result
RR	Replicate
S	Print Summary Skip Sensitivity in Advanced Micro Overwrite Single Multiple Specimens - Case Login
V	View
/W	No Workload
X	Fax (Also used on end of accession number for Spec Rejection)
Y	Accept - Advanced Microbiology

MENU DATA ENTRY

One of the easiest ways to enter results is by menu selection where you are allowed to select an option or a combination of options from a list of displayed choices. Menu selection serves to reduce transcription and spelling errors often associated with textual laboratory results and is particularly helpful when standard comments and phrases must be entered frequently. In addition, this type of result entry also assures uniformity in result reporting. It also reduces the time and effort spent entering text.

The following topics are covered under menu data entry:

- Multiple Result Completion
- Menu Treeing
- Menu Selection ID
- ID-Specific Menus

Multiple Result Completion

In sections such as microbiology, menu selection is the primary mechanism for entering results. Menus for such areas permit extensive piecing together of options to form detailed phrases and sentences. When entering multiple options or combining menu selections with free text, each entry is separated with a comma (as instructed in the prompt). This comma is recognized as a delimiter by the system and, as such, is not included in the phrase. If you want to include a comma between phrases, enter two of them in the string sequence. The second one is accepted as part of the result phrase.

Menu options can be combined with free-text comments; such comments may even begin the result string. The system may not be able to display some long phrases in their entirety on the result screen (but the entire result string/phrase always prints on the result report). In such cases, the system displays the entire phrase in the center of another screen indicating that the result has been truncated. (For an example of this second screen, refer to Automatic Cell Counting in Chapter 6: Test Processing in the *General Applications Volume I* of the *STAR Laboratory Reference Guide*.) You are instructed to press ENTER to return to the results entry screen. If a result must be truncated on the result screen, a vertical bar indicates the truncation point.

Each result in the master test file may have its own unique menu, which is defined at the result level, rather than the test level. Thus, a urinalysis test may have a result menu for crystals, one for bacteria, one for RBCs, and so on. Menus may combine options for two or more results. Menu options may appear on patient reports exactly as they are displayed on the screen, or, if the report text is different than the menu screen display, they can be expanded into complete sentences or paragraphs on the report, using up to 220 characters.

Depending on how the test is set up, a single menu option can be used to complete multiple results of the same test.

Menu Treeing

In some cases, all possible selections may not fit into one result menu screen. The STAR Laboratory system allows you to tree to another menu. The term *tree* refers to the ability to select options from lower level menus defined for a particular result. This increases the number of menu options available to you. A menu option defined by treeing is flagged with a tilde (~) on the screen display.

Menu Selection ID

Certain result fields can be set up to contain an ID code only. This type of result always has a menu of ID codes assigned to display when that result is accessed within results entry.

ID Specific Menu

Results can be set up such that special menus display based on:

- ID code

  Results such as Grossed By or Read By that are assigned as ID fields (an employee ID code is attached as part of the resulting process), can be linked to a second result field, such as Gross Description or Interpretation, which has a specific menu based on the ID of the first field. Both ID Code and ID-Specific results are used mainly in Anatomic Pathology for the different pathologists and their preferred resulting text when examining specimens.

- An ID-specific result

  If the Grossed By or Read By fields in the above example have been designated as Auto Fill ID fields (your ID is captured automatically as part of processing), the Gross Description or Interpretation fields automatically display the specific result for your ID.

- User security

  Special menus may also display based on your security level. For this to occur, a security level (such as cytotechnologist level 40) must be attached to the test at the result level. Then, within results entry, when you access that result field, the menu assigned to that security level displays for selection.

TABLE DATA ENTRY

Tables differ from menus in that an unlimited number of screens can be used to display a complete table. Menus are limited to one screen but can be expanded through menu treeing as discussed above. Tables can be accessed by entering a partial name followed by a hyphen (for alpha-lookup) or by entering a hyphen (**-**) for the complete table. Depending on how the test file is set up, tables may also display automatically when the result field is accessed. Another method of entering a result from a table is by entering the code. This is a time saving measure for experienced users.

You can then select from the displayed table (for example, tests, locations, physicians and collection containers) to complete the transaction. By eliminating time-consuming references to user manuals for various item codes, clerical duties are completely automated and productivity increases. The system manager controls these tables which can be easily updated should the need arise.

When the cursor is at a field associated with a table, the prompt typically reads as follows (although variations do exist):

Enter table code--

Your response to this prompt can be in one of 5 forms:

1. Enter the code for the item.

2. Enter a hyphen (**-**) to display the entire table. Select the desired response by entering the corresponding option number. If the item you desire is not displayed, press slash (***/***) for next page, or slash followed by P (***/P***) for previous page, which allows you to view more selections on additional pages.

3. A table entry can be made with a code or an alpha description of that code. Since many new users are not familiar with the description codes, it is more advantageous to perform an alpha look-up. The table search for an entry can be limited by entering the first few characters of the description followed by a hyphen (-). For example, to display Appendix in the Specimen Type table, enter **APP-** and press ENTER. All table entries beginning with APP appear for selection. After the item is selected, its description displays in the field on the screen, often with its code to the left. This code can be used in future entries to eliminate the need to view the table selections.

4. In 2 or 3 above, if more than one item can be selected, the heading line for the table displays ##=Current choices on the right. You can enter one number or a range of numbers (for example, 1,3,5-7) and press ENTER. The numbers are highlighted next to their descriptions, and the prompt allows you to either enter more selections or go to another page if one is available. After completing your selections, press ENTER again. To remove a selection, enter a hyphen (**-**) followed by the option number. After ENTER is pressed, the item is no longer highlighted.

5. In some cases the desired code or description may not be found in the table. Some tables have an override capability in which a hyphen (-) can be entered immediately followed by the override description. When ENTER is pressed, the override description displays without the hyphen. If overrides occur frequently, you can choose to extend the existing table entries. If you attempt to enter an override where one is not allowed, the system displays an error message.

Test Selection

Test selection is a standard table data entry routine with the following exceptions. These exceptions are tests that you cannot result but that you can order and charge. Even though you cannot select these exceptions, the system displays them along with other tests that you can result.

One exception is routine orders. If STAR Laboratory and STAR Patient Care exist in the same ID and a test has a cross-reference defined in a routine order, the table displays the routine order code, hyphen, test name, two spaces, semicolon and the code for the cross-reference item. For example, consider the test GLUCOSE,RANDOM SERUM, code 1980 defined on STAR Laboratory and its cross-reference, code 2220, defined on STAR Patient Care:

(1) 1980-GLUCOSE,RANDOM SERUM

(2) 2220-GLUCOSE,RANDOM SERUM ;2220

(3) 2590-SENSITIVITY - CHRG ONLY

A second exception is miscellaneous charges. If you select the table entry defined on STAR Patient Care (option 2) or the miscellaneous charge (option 3), the system displays the following message:

Test does not exist!

These two tests are for charge only. You cannot select a cross-reference item from the table display on STAR Laboratory.

Printer Table Selection

Default printers for specific reports in STAR Laboratory are set up during system installation. You can override these defaults at various points throughout the system by making a selection from the printer table.

The following is an example of an alternate printer screen:

```
                    General Hospital Station Census Processor









                     Default CENSUS REPORTS printer
                    CENSUS REPORT PRINTER(port # 33)

                              Alternate Printers
( 1) Port #   2 - MAIN LABORATORY PRINTER (6194)
( 2) Port # 200 - NURSING STATION PRINTER (4433)
( 3) Port # 201 - ADMINISTRATION PRINTER



Enter option number of alternate printer [Port #33] --
```

In this example port number 33 was selected during system installation as the most common printer for Census reports. Three alternate printers are available. To accept port number 33 as your Census report printer, press ENTER. To select one of the other printers enter the corresponding option number.

NOTE: Some processors include an alternate printer field that must be accessed before you can select from the printer table. To access an alternate printer field complete all other fields on the screen, enter **N** at the screen acceptance prompt and then enter the alternate printer field number.

ACCESSING PATIENT INFORMATION

A variety of mechanisms exist for looking up a patient in the Master Patient Index (MPI). The hierarchy of the MPI is:

- Corporate number (per patient name)
- Unit number (per facility)
- Account number (per visit)
- Accession number (per order)

Patient Selection Prompt

A typical patient selection prompt is:

Enter `&`unit #,`*`account #,accession # or `[`case # --
patient name (Last,First M), `-`SS# or `=` for current

There are seven ways of selecting the patient within this prompt. For screen examples of the various patient look-up routines, refer to Chapter 1: Inquiry Processors in the *General Applications Volume I* of the *STAR Laboratory Reference Guide*. These routines include:

1. Pressing the ampersand (**&**) key plus the patient unit number and selecting which accounts to view
2. Pressing the asterisk (*****) key plus the patient account number
3. Entering the accession number
4. Pressing the open bracket (**[**) key plus the Anatomic Path case number
5. Entering the partial or full patient name (Alpha Search and Soundex)
6. Pressing the hyphen (**-**) key plus the social security number
7. Pressing the equals (**=**) key for the current patient, that is, the last patient accessed

The method used for patient look-up determines the screen sequence which follows. The less specific the method, such as patient name (Alpha Search), Soundex, and to a lesser extent, unit number, the more keystrokes (and therefore more screens) required before the actual patient record is obtained.

Conversely, the more specific the method, such as account number entry for a patient or accession number entry for a specific test, the fewer keystrokes (and fewer screens) required for patient access.

For example, the quickest method to view test results in Patient Inquiry is entry of the accession number. This depends on what function you are performing. To admit a patient who has a previous record on file, do not enter an account number (since a new account number is assigned for the new visit you are about to record).

The seven ways of selecting a patient are explained in detail below:

1. Entering an ampersand (**&**) followed by the patient unit number displays a list of accounts for this unit number. From the list, select the option number(s) corresponding to the desired account(s) or enter **A** for all accounts. The default is the most current account for the patient.

2. Entering an asterisk (*****) followed by the patient account number causes that account number, along with the corresponding patient information, to display.

3. Entering the accession number causes that accession, along with the corresponding order and patient information to display.

   NOTE: If your laboratory is set to print bar code collection/accession labels, you can wand the bar code on the label whenever the system requires entry of the accession number.

4. Entering the open bracket key (**[**) plus the Anatomic Path case number causes that accession, along with the corresponding order and patient information to display. The year designation is not necessary as part of the case number for the current year.

5. Entering the patient's name (partial or full) initiates the Patient Inquiry screen. The screen allows you to designate the search by name or Soundex. You may then indicate the Sex and/or Date of Birth and press ENTER for All. You can search the entire MPI or to limit the search to only active patients within the MPI. All patient names beginning with the letters entered, or only those for the sex indicated, display for selection. Enter one or more letters to perform a name search.

   If a patient has multiple unit (medical record) numbers, you are prompted to select the appropriate unit number. Selecting a unit number causes a list of all accounts for this unit number to display. The account pertaining to the desired record can then be selected from those displayed. The default is the most current account for that patient.

6. Entering a hyphen (**-**) followed by the patient's social security number (with or without the dashes as punctuation) causes all patients with that social security

number to display. If a patient has multiple medical record numbers, you are prompted to select a medical record number once the patient is accessed.

NOTE: This method of patient selection is optional and only available if a social security number index has been built. A McKesson controlled parameter enables this option on your system. If the parameter is not set, the '-'SS# portion of the prompt does not display and you cannot access the patient by social security number.

7. Entering the equals key (**=**) causes the last patient accessed from this terminal to display.

A different patient selection prompt displays when you are doing result reporting:

Enter accession #, `[`case #,`*`account # or `&`unit # --
patient name (Last,First M), `-`SS#, or `=` for current

Case number entry is only available when accessing Anatomic Pathology type tests during result reporting. The remaining seven options function as described above, although they appear in a different order in this prompt than in the sample prompt shown earlier. This is because accession number and case number (for Anatomic Pathology type tests) are more common methods of patient access during result reporting.

Soundex

The Soundex system used in the Master Patient Index (MPI) is a phonetic filing system which uses a code of letters and numbers to identify names. It is most useful for locating names in which there are numerous consonants. Soundex facilitates name searches by displaying similar sounding names together. A Soundex search reduces the risk of not finding a record and consequently duplicating an MPI entry because of misspelling, since all like-sounding names are displayed in one group. When you initiate a Soundex search, the database is searched and all patients whose last names have the same Soundex code are displayed.

NOTE: A soundex search can be made without knowledge of the first letter of the last name. For example, if a Soundex search is used to find the name Kaplan, all patients with the name, Caplan, will also be found.

First names are not considered in regard to the Soundex code, but the codes are grouped internally by the first letter of the first name. This means that all names with the same Soundex code and the same first letter of the first name are displayed together, although they are not necessarily in alphabetic order within that grouping. The order in which they display is determined by the order in which they were initially entered into the system. The Soundex code system is made up of a letter and 5 numbers for each name in the system. The letter in the code is always the first letter of the last name, followed by a group of numbers based on the other letters in the name. The letters A, E, I, O, U, W, H, and Y are not coded, which means that vowels

are essentially not used by the Soundex system. The system works with the following rules:

- The first letter of the code is always the first letter of the last name, whether it is a vowel or a consonant. It is not transformed into its code equivalent, but is left as a letter. The rest of the name is then coded into a 5 digit number based on the conversion table.

- Because STAR Laboratory does not allow any spaces or other punctuation in the last name field, names must be searched for in the same format in which they were entered into the system. For example, if a patient's last name is Von Der Lippe, it is condensed into Vonderlippe by STAR Laboratory when it is entered into the system. Therefore, the Soundex search must be for the entire name in order to find a match.

- Any other multiple names are the same. For instance, Red Stone Face would become Redstoneface and Sun Yat So would become Sunyatso in STAR Laboratory. However, if the name were entered into the system differently, the search would be made accordingly (for example, if So were entered as the last name and Sunyat as the middle name).

- Likewise, any hyphenated names are condensed by STAR Laboratory to remove the hyphens. For instance, if a name is Johnson-Mathis, the system records it as Johnsonmathis, and must search on the entire name to find a match. If the search is on only Johnson or only Mathis, a match is not found.

- For names beginning with St. (abbreviation for Saint), STAR Laboratory removes the punctuation. For example, the name St. James becomes Stjames. The N sound in Saint is not known to the system, since it searches only on the letters as they are entered (in this example St. James contains no N sound).

- You can enter only one letter to conduct a search for names beginning with that letter, or to search for last names consisting of only one letter.

HORIZONTAL SCREENS

For STAR system processes, you will enter information to a *horizontal* screen. These screens are characterized by rows of sequentially numbered data fields. Below each data field, the system displays the information for the field.

In most STAR horizontal screens, the first lines of the screen display the name of the facility, the name of the screen, the date and time, and descriptive information about the process. For example, on the following horizontal screen:

- The first line displays the name of the facility and screen name (*General Hospital Fill/Refill Prescription Processor*)
- The second line displays the name of the function being performed (*Prescription Entry*) at left, and the date and time (*Mon Nov 29, 1993 01:56 pm*) at right.
- The third, fourth, fifth, and sixth lines display information about the patient and prescription. This information was identified when accessing the function.

```
               General Hospital Fill/Refill Prescription Processor
Prescription Entry                                  Mon Nov 29, 1993 01:56 pm
Name                       Sex    BD     Account Number            Third Party
DOE,JOHN                    M  01/01/01  9323800004
ADR:NKA                                 Nur:
 176 TYLENOL W/CODEINE #3 300-30 TABLET* MCNEIL                        (TYL3)
 1 Drug  2 Item Name                              3 Ordering Physician
   1       TYLENOL W/COD #3 TABS, 300-30
 4 Date Written  5 Third Party   6 Orig Qty      7 Fill Qty      8 Days Supply
   11/29/93                      24 TABLET       24 TABLET       4
 9 Refills      10 Refill Qty   11 DAW Code     12 Control Nbr  13 State Nbr
   2               24 TABLET     No DAW
14 Provider Nbr 15 Compound     16 Exp Date     17 Lot          18 Price Plan
                   No           11/29/94
19 Price                       20 Initials     21 Stock Location    22 Labels
   $12.16/0.00                                    OUTPATIENT PHAR      1
23 Prescription Nbr            24 Ordered As                        25 Counsel
   Auto Assi



Enter field number or '/' starting field number--
```

Following this display information, the horizontal screen presents rows of data fields. Beneath each row of field names and numbers, the system displays information for the field. For example, the first row of data fields contain the following fields:

- 1 Drug
- 2 Item Name
- 3 Ordering Physician

This row is highlighted in reverse video. If you are running this STAR system using the MultiSTAR Software Environment (MSE) operating system, your facility can disable this reverse video highlighting using the Site Screen Parameters feature.

Below the row containing the name and number of the fields, the system displays the information identified for that field. For the first row of data fields, this information is:

- 1
- TYLENOL W/COD #3 TABS, 300-30
- Blank, meaning this field does not contain any information

The system moves sequentially through the fields on most horizontal screens as you complete your entries to the fields. The system may not stop in some fields, depending upon:

- Whether access to the field is permitted by McKesson
- Whether an entry to the field is inappropriate due to a previous entry

If you are running this STAR system using MSE, your facility has additional control over a field. By setting the Site Screen Parameters, your facility can:

- Disable access to a field
- Disable initial access to a field, but make the field accessible from the *Enter field number or '/' starting field number--* prompt displayed when other fields on the screen have been accessed

An entry to some fields may also be required. If an entry to a field is required, you will not be able to complete the function without making a valid entry to the field. Fields are required by McKesson in order to maintain the integrity of the system database. If you are running this STAR system using MSE, your facility can make additional fields required using the Site Screen Parameters.

On MSE systems, the following features are also available:

- You can enter information with the cursor beneath the field name, where the information displays on horizontal screens, or at the bottom of the screen following the prompt. With both options, the system continues to display the prompt at the bottom of the screen, providing information to help you complete the field. Also with both options, when you complete the field the system displays your entry beneath the field name.

Chapter 5 - User Preferences

Illustrations

INTRODUCTION

This chapter contains information about user preferences such as setting up and maintaining menus and mnemonics, assigning function keys, selecting menu types, and selecting CRT colors.

When you access the User Preferences option, the system displays the following screen:

```
                    General Hospital - User Preferences Processor
                                                  Mon May 24, 2004 08:53 am
Maintenance - User Preferences Input Options

            Option No.  Option
            ----------------------------------------
                1       Menu and Mnemonic Functions

                2       Function Key Definition
                3       Menu Type Selection
                4       CRT Color Selection

                5       Windows Word Processing User Preferences
                6       Download Windows Word Processor Macros

                7       Information Windows Administration
                8       Information Windows Preference

                9       Select Alternate STAR Environment
               10       STAR ONLINE Support Access Administration


Enter option number--
```

On the User Preferences menu you can access the following functions for setting up user preferences:

- **Menu and Mnemonic Functions**, which you use to set up and maintain menus and mnemonics. For more information, refer to "MENUS AND MNEMONICS FUNCTIONS" on page 5-12.
- **Function Key Definition**, which you use to assign and change the function key assignments for your mnemonics. For more information, refer to "FUNCTION KEY DEFINITION" on page 5-37.
- **Menu Type Selection**, which you use to select the menu type you want displayed on your STAR terminal. For more information, refer to "MENU TYPE SELECTION" on page 5-39.
- **CRT Color Selection**, which you use to maintain the colors and attributes displayed on your color terminal. For more information, refer to "CRT COLOR SELECTION" on page 5-40.

NOTE: For information about the Microsoft® Windows® Word Processing functions and the Information Windows functions available on the User Preferences menu, see the *STAR Navigator User's Guide*.

For information about the Select Alternate STAR Environment function, see the *ALLSTAR Signon User's Guide*.

For more information about the STAR ONLINE Support Access Administration (also called e-session) function, see the *STAR Navigator User's Guide.*

Using Menus

McKesson's STAR line of computer products is a menu-driven system, meaning that you navigate to functions by selecting options from menu screens. Menu screens are system displays consisting of a list of functions and submenus that you can access. Many menu screens display a prompt at the bottom of the screen that you use to identify the menu option you want. When you select an option from the menu, the system either displays the first prompt or screen of a function or an additional menu of selections.

You can bypass menus and go directly to a STAR function or menu by using a mnemonic. When you enter a mnemonic code in a menu screen, the system displays the first prompt or screen of the function or the menu linked to that mnemonic. By linking the mnemonics you use most often to the function keys on your PC keyboard, you can navigate directly to a function with just a keystroke. When you exit the function, the system returns you to your initial menu (the first menu you see when you sign on to the system).

The system enables you to select from two different types of menus, depending on the terminal you typically use to access STAR functions. Set this menu type according to your system ID, so that the same menu type displays for you on any STAR terminal. The two menu types are:

- **Host-based menus** (also called Original Menus), which display only the text elements of the menu, without any graphic element other than a line under the menu header. The following is an example of a host-based menu:

```
       General Hospital Initial STAR Patient Care Menu Processor
                                                Wed Mar 24, 1999 11:58 am
Initial STAR Patient Care Menu Input Options

            Option No.  Option
            ---------------------------------------
                1       System Management
                2       Tables
                3       Service Item Maintenance
                4       Location File Maintenance
                5       Print Labels
                6       Charge/Credit/Inquiry/Auto
                7       Name Inquiry
                8       Census
                9       Bulletin Board
               10       Load Patient
               11       Send Message
               12       Revise Patient Nursing
               13       Statistical Reports


Enter option number--
```

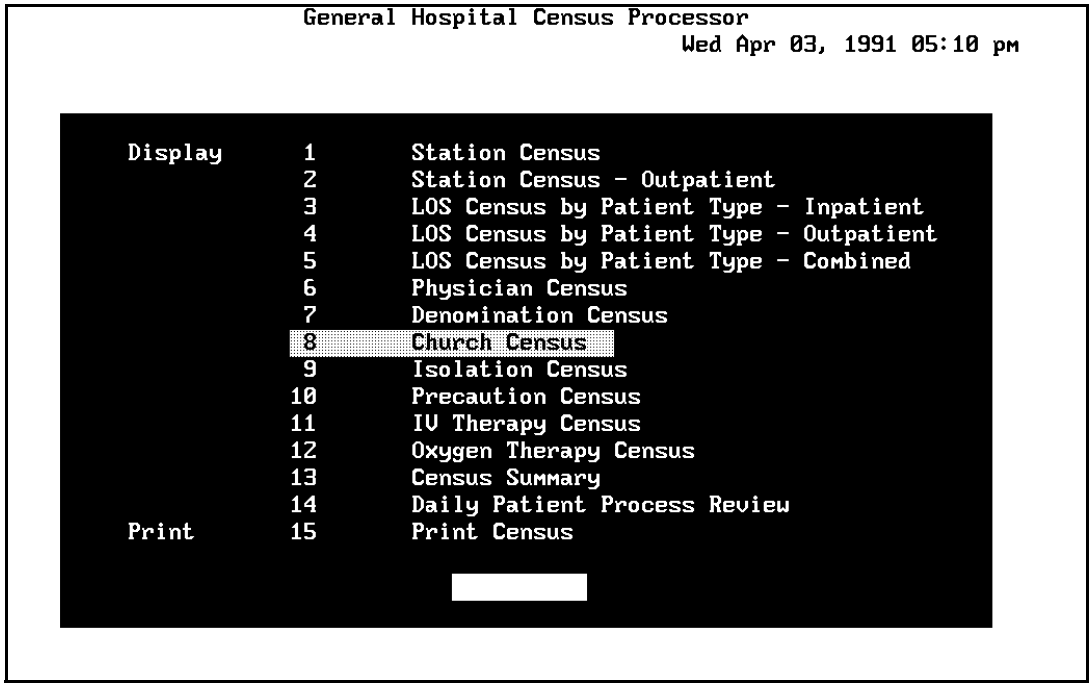
If you are using host-based menus (original menus), you select an option from the menu by entering the option number at the prompt at the bottom of the menu and pressing the ENTER key. The system then displays the first prompt or screen of the selected function or a submenu.

To exit from a menu and return to the preceding menu or prompt, press ENTER or press period (.) and the ENTER key.

Boxed menus, which display the menu options enclosed in a box. The following is an example of a boxed menu:

If you are using boxed menus, select an option from the menu using one of the following methods:

Method	Result
Option Number Entry	As with host-based menus, you can enter the number of the desired option in response to the prompt at the bottom of the menu and press ENTER. The system then displays the first prompt or screen of the selected function or a submenu.



Method	Result
Highlight And Select Entry	When the system displays a boxed menu, the first option on the menu displays in a reverse (darkened letters on a lit background) bar. This reverse bar indicates that this option is highlighted. You can move this bar up and down on the menu, changing the highlighted option, using the up arrow and down arrow keys on your PC keyboard. Once you highlight the desired option, you can select it by pressing the ENTER key.

To exit from a boxed menu and return to the preceding menu or prompt, press the period (**.**) key followed by the ENTER key. Note that you cannot exit from a boxed menu by pressing only the ENTER key, as you can with host-based menus, since this selects the currently highlighted menu option.

Using Mnemonics

The mnemonics feature offers you a fast, easy way to access the functions you use most often. By entering a mnemonic code to a menu screen, you command the system to directly access the function linked to that mnemonic code. The system then either displays the first screen, prompt or menu of that function, or prompts you for any information the system needs to have before the function can be processed. You can also assign mnemonic codes to each of the first 10 function keys on your PC keyboard, enabling you to navigate directly to the functions you use most with just a keystroke.

The system stores mnemonics by the type of system user, so that similar users have access to the same mnemonics. In this way, admitting clerks would use a mnemonic to access the Admit Patient function in the STAR Patient Care system, while laboratory

department secretaries would be more likely to use a mnemonic to access the Patient Inquiry function in the STAR Laboratory system. Authorized personnel can add mnemonics as needed, using the procedures discussed in the Creating a New Mnemonic subsection.

The system enables each user to define the links between their function keys and mnemonics. This allows one admitting clerk to use the F1 key to access the Admit Patient function, while another uses the F10 key to access the same function. The procedure used to define this link is discussed in Function Key Definition. For more information, refer to "FUNCTION KEY DEFINITION" on page 5-37.

When you exit from a function you accessed using a mnemonic, the system returns you to your initial menu. This is the menu the system displays when you first sign on.

NOTE: In the STAR Laboratory product, when you exit a mnemonic the system returns you to the main menu if you have main menu return.

USING A KNOWN MNEMONIC

To use a mnemonic to access a function, enter the mnemonic code or press the function key linked to the mnemonic. Remember that you can only use a mnemonic from a menu screen.

When you press ENTER after typing the mnemonic, or when you press the appropriate function key, the system begins to access the function linked to the mnemonic. If this function needs pre-processing information that you would typically define in accessing it using menus, the system displays any prompt(s) needed to identify this information. Otherwise, the system displays the first screen, prompt or menu of the function. If the mnemonic does not exist, the system displays:

Invalid mnemonic!

If a security level is required to access the mnemonic, the system displays:

Enter ID code --

To access the mnemonic, enter the authorizing ID code. The system then prompts you to enter the authorizing secret code. If the ID code does not meet or exceed the minimum security level required for the function, the system displays:

Not authorized for this function!

The system then returns you to the menu where your originally entered the mnemonic code.

Mnemonic authorization is established using the Mnemonic Assignment function: for more information, refer to "Mnemonic Assignment" on page 5-16. Functions for which

mnemonics cannot be assigned are listed in the Menu and Mnemonics Considerations subsection.

LOOKING UP AND USING A MNEMONIC

If you do not know the mnemonic code you want to use, you can display a list of mnemonic codes available to you and select one to use. To display the mnemonic list, enter a hyphen (**-**) in response to the prompt at the bottom of the menu.

The mnemonic list displays the mnemonic code and the name of the function accessed by it. This list includes all mnemonic codes available for your user type. An asterisk (*) precedes all mnemonics that you cannot use due to security level. Select the desired mnemonic using the technique appropriate to the menu type you are using, as discussed in the Using Menus subsection.

If there are more mnemonics than can display on the screen, the system displays one of the following messages, depending on the menu type you are using:

- **If you are using boxed menus**, the system displays *...more* in the bottom right corner of the mnemonic list. This message displays on all but the last screen of mnemonics.

- **If you are using host-based menus**, the system displays *next page (/)* centered at the bottom of the first screen of the mnemonic list. On subsequent screens, the message *next page (/) previous page (/P)* displays. On the last screen of the list, the message *previous page (/P)* displays.

To view the next screen of mnemonics, enter a slash (***/***). Enter a slash (***/***) followed by P to display the preceding screen of options.

If you know the first letter(s) of the mnemonic description, you can display and select from a partial list of mnemonics. To do this, enter one or more of the first letters of the mnemonic description, followed by a hyphen (**-**). The system displays the mnemonic list, which now shows only those mnemonics whose descriptions start with the letter(s) entered. You can select from this list and display multiple pages of the list using the techniques explained above.

CREATING A NEW MNEMONIC

In order to create a new mnemonic and make it available in the system, you must perform the following steps:

1. Create the mnemonic. An appropriate user can create a mnemonic from any system menu. Only system users identified in the Employee Mnemonic Build Access field of the Menu and Mnemonic Parameters function can create new mnemonics. For more information on this parameter, see the definition of the Employee Mnemonic Build Access field in the Menu and Mnemonic Parameters subsection.

2. Assign the mnemonic. A mnemonic is not available for use by any user type until it has been assigned to that user type. You do this using the Mnemonic Assignment function: for more information, refer to "Mnemonic Assignment" on page 5-16.

   NOTE: You cannot access this function unless you have been assigned access in the Employee Mnemonic Assignment Access field of the Menu and Mnemonic Parameters Processor. For more information, see the Employee Mnemonic Assignment Access field in the Menu and Mnemonic Parameters subsection.

3. Optionally, you may want to link the new mnemonic to a function key. You can do this during the mnemonic creation process, as explained below, or by using the Function Key Definitions function in "FUNCTION KEY DEFINITION" on page 5-37.

This section discusses only the first step of this process, creating the mnemonic. For information on the other steps, see the cross-references above.

If you are a user to whom mnemonic build access has been granted, you can create or edit a mnemonic from any menu in a STAR product. These steps differ slightly depending upon which menu type you use at your terminal.

If you are using host-based or boxed menus you can:

1. Display on your terminal the menu containing the function that you want to access using a mnemonic.

2. Enter an asterisk (*****), followed by the option number of the function on the menu.

If you are using boxed menus you can also:

1. Display on your terminal the menu containing the function that you want to access using a mnemonic.

2. Move the highlight bar down to highlight the desired function.

3. Enter an asterisk (*****).

NOTE: If the highlight bar is not over the desired function, you can also enter an asterisk (*****) followed by the option number of the function for which you want to create a mnemonic. This is similar to the method used to define mnemonics for host-based and boxed menus.

The system then displays the following screen:

```
                General Hospital Mnemonic Build Processor
                                                Wed Mar 24, 1999 10:15 am


( 1)Option Number           : 1
( 2)Option Description      : Financial Item Master

    Mnemonic Definition
( 3)Mnemonic Code           :
( 4)Mnemonic Description    :
( 5)Default Security Level  :

( 6)Edit ID                 :
( 7)Edit Date               :









Enter mnemonic code--
```

Field Explanations

1. OPTION NUMBER (DISPLAY ONLY)
This field displays the option number of the function or menu accessed using this mnemonic. This is the number you would enter to the menu to access this function or menu manually.

2. OPTION DESCRIPTION (DISPLAY ONLY)
This field displays the name of the function or menu accessed using this mnemonic.

Mnemonic Definition

3. MNEMONIC CODE (10-C-R)
This field contains the code used to invoke this mnemonic at a STAR menu. This code should be long enough to allow the user to easily recognize the function it accesses, yet short enough to minimize keystrokes.

4. MNEMONIC DESCRIPTION (40-C-R)
This field contains a description of the mnemonic. The system defaults to the function name as it displays on the menu. Press ENTER to use the function name, or enter another name if desired.

5. DEFAULT SECURITY LEVEL (TABLE LOOKUP)
This field contains the minimum security level required for the type of user to access the mnemonic.

The security level displayed in this field is used as a default security level for this mnemonic for all user types. You can override this security level by establishing a specific security level for a user type, as explained in the Mnemonic Assignment subsection.

NOTE: If an asterisk (*) displays next to this field the minimum security level has been set by McKesson and cannot be changed.

6. EDIT ID (DISPLAY ONLY)
This field contains the name of the user who last modified the mnemonic.

7. EDIT DATE (DISPLAY ONLY)
This field contains the date on which the mnemonic was last modified.

If you have been granted mnemonic assignment access (i.e., you have been identified in the Employee Mnemonic Assignment Access field of the Menu and Mnemonic Parameters processor), when you complete and accept the mnemonic, the system displays the following prompt:

Update user type assignments? (Y/N) [Y]--

Enter **Y** or press ENTER to access the Mnemonic Assignment Processor and assign the mnemonic to one or more user types. Refer to "Mnemonic Assignment" on page 5-16 for more information on this function. Enter **N** in response to this prompt if you do not want to assign user types to this mnemonic at this time.

When you finish assigning user types, or if you enter **N** to this prompt, the system displays:

Update function keys? (Y/N) [N]--

Enter **Y** to access the Function Key Definition processor and edit your function key assignments. For more information on the Function Key Definition processor, refer to "FUNCTION KEY DEFINITION" on page 5-37. Enter **N** or press ENTER to maintain the current function key definitions.

When you exit this function, the system returns you to the menu from which you accessed the Mnemonic Build Processor.

MENUS AND MNEMONICS FUNCTIONS

You establish and maintain guidelines for both menus and mnemonics using the options on the Menu and Mnemonic Functions menu, shown below:

```
            General Hospital Menu and Mnemonic Functions Processor
                                                  Wed Mar 24, 1999 11:18 am
Menu and Mnemonic Functions Input Options

            Option No.  Option
            ----------------------------------------
                1       Menu and Mnemonic Parameters
                2       Mnemonic Assignment
                3       Mnemonic Maintenance

                4       View Boxed Menus
                5       Mnemonics Report









Enter option number--
```

Accessing the Menu and Mnemonic Functions Processor

You access the Menu and Mnemonic Functions processor differently according to the STAR system you are using. The steps below show how a system administrator can access the Menu and Mnemonics Functions processor for each STAR system.

STAR Laboratory:

1. Choose Maintenance Functions.
2. From the Maintenance Functions processor, choose Maintenance - User Preferences.
3. From the Maintenance - User Preferences processor, choose Menu and Mnemonic Functions.
4. The system displays the Menu and Mnemonic Functions processor.

STAR Patient Care:

1. Choose System Management.
2. From the System Management processor, choose User Preferences Functions.
3. From the User Preferences processor, choose Menu and Mnemonic Functions.

4. The system displays the Menu and Mnemonic Functions processor.

STAR Pharmacy:

1. Choose System Management.
2. From the System Management processor, choose System Management - Pharmacy.
3. From the System Management processor, choose User Preferences Functions.
4. From the User Preferences processor, choose Menu and Mnemonic Functions.
5. The system displays the Menu and Mnemonic Functions processor.

STAR Radiology:

1. Choose Maintenance Functions.
2. From the Maintenance Functions processor, choose User Preferences.
3. From the User Preferences processor, choose Menu and Mnemonic Functions.
4. The system displays the Menu and Mnemonic Functions processor.

STAR General Accounting:

1. Choose System Management.
2. From the System Management processor, choose User Preferences Functions.
3. From the User Preferences processor, choose Menu and Mnemonic Functions.
4. The system displays the Menu and Mnemonic Functions processor.

STAR Patient Accounting:

1. Choose Financial System Management.
2. From the Financial System Management processor, choose User Preferences Functions.
3. From the User Preferences processor, choose Menu and Mnemonic Functions.
4. The system displays the Menu and Mnemonic Functions processor.

You use the Menu and Mnemonic Functions processor to access the following functions:

- **Menu and Mnemonic Parameters**, which you use to set and change access and availability parameters for menu types and mnemonics. This function is only available to system managers. For more information, refer to "Menu and Mnemonic Parameters" on page 5-15.

- **Mnemonic Assignment**, which you use to maintain the availability of selected mnemonics by user type. This function is only available to system managers. For more information, refer to "Mnemonic Assignment" on page 5-16.

- **Mnemonic Maintenance**, which you use to edit mnemonic codes, descriptions and security levels. This function is only available to system managers. For more information, refer to "Mnemonic Maintenance" on page 5-22.

- **View Boxed Menus**, which you use to display selected boxed menus. This function is only available to system managers. For more information, refer to "View Boxed Menus" on page 5-24.

- **Mnemonics Report**, which you use to create a report about your mnemonics. This function is only available to system managers. For more information, refer to "Mnemonics Report" on page 5-25.

Menu and Mnemonic Parameters

You use the Menu and Mnemonic Parameters processor to establish and maintain access and availability parameters for menu types and mnemonics. This function determines whether boxed and PC-based menu types are available for use, identifies the applications with which mnemonics are available and determines to whom mnemonic build and mnemonic assignment access is permitted.

When you select the Menus and Mnemonics Parameters processor, the system displays the following screen:

```
    General Hospital Menu and Mnemonic Parameters Processor
                                                Wed Mar 24, 1999 09:56 am


 1 Boxed Menus                          2 PC Based Menus
   Available                              Available
 3 Applications With Mnemonic Build Access
   See Table
 4 Employee Mnemonic Build Access     5 Employee Mnemonic Assignment Access
   System Managers Only                 System Managers Only









Enter field number or '/' starting field number--
```

NOTE: The first three fields of this screen are controlled by McKesson.

Field Explanations

4. MNEMONIC BUILD ACCESS (1-A-Y)
This field determines the employees that can create mnemonics. The field initially displays either System Managers Only or See Table.

If mnemonic build access is limited to system managers, when you access this field the system displays the following prompt:

Add employees who may build mnemonics? (Y/N) --

Enter **N** if you do not want to enable additional employees to build mnemonics. Enter **Y** to give additional employees the ability to build mnemonics, and the system prompts you to identify the individual employee(s) being granted mnemonic build access. After you finish identifying the employee(s) being granted access, this field displays See

Table. The system displays this table when you access this field, allowing you to maintain this employee list as desired.

5. SECURITY FOR MNEMONIC ASSIGNMENTS (1-A-Y)
This field determines the employees who can access the Mnemonic Assignment function, which is used to assign mnemonics to other types of users. The field initially displays either System Managers Only or See Table.

If Mnemonic Assignment access is limited to system managers, when you access this field the system displays the following prompt:

Add employees who may assign mnemonics? (Y/N) --

Enter **N** if you do not want to enable additional employees to assign mnemonics. Enter **Y** to give additional employees the ability to assign mnemonics, and the system prompts you to identify the individual employee(s) being granted mnemonic assignment access. After you finish identifying the employee(s) being granted access, this field displays See Table. The system displays this table when you access this field, allowing you to maintain this employee list as desired.

Mnemonic Assignment

You use the Mnemonic Assignment processor to create and maintain assignment of mnemonics to users. Whether you have access to a mnemonic depends on two factors:

- The type of user you are classified as on the system
- Your security level

This function determines the type of user that can access a particular mnemonic, first by assigning the types of users that can use the mnemonic then, if desired, by setting a minimum security level for access to the mnemonic. In this way, only appropriate types of users with the minimum security level or above can access the mnemonic.

NOTE: For information on creating a mnemonic, refer to "Creating a New Mnemonic" on page 5-8.

When you access the Mnemonic Assignment function, the system displays the following prompt:

Enter the mnemonic code or partial name'-' --

Enter the code for the mnemonic that you want to enable or disable access for a type of user or security level. Use a hyphen (-) to display and select from a list of mnemonics for the STAR system.

When you identify the mnemonic, the system displays the following screen:

```
                General Hospital Mnemonic Assignment Processor
                                                Wed Mar 24, 1999 09:59 am


    Mnemonic Definition
( 1)Mnemonic Code           : AMF
( 2)Mnemonic Description    : Abstracting Maintenance Functions
( 3)Default Security Level  :

( 4)Edit ID                 : Andersen, Michael L
( 5)Edit Date               : 11/08/95 01:23pm

Page:01                        Current Assignments            ##=Current Choices
       User Type                                Security Level
( 1)   ADMITTING                                None
( 2)   MEDICAL RECORDS (I)                      None




Enter the option number(s) to edit or (A)dd--
                                  end select(NL)
```

Field Explanations

1. MNEMONIC CODE (DISPLAY ONLY)
This field contains the mnemonic code. This is the code you enter on a STAR menu to use this mnemonic.

2. MNEMONIC DESCRIPTION (DISPLAY ONLY)
This field contains the description for this mnemonic. This is typically the name of the function accessed using this mnemonic.

3. DEFAULT SECURITY LEVEL (DISPLAY ONLY)
This field determines the security level displayed as a default when assigning this mnemonic to user types. This information is maintained using the Default Security Level field in the Mnemonic Maintenance function; for more information, see the explanation of the Default Security Level field in the Mnemonic Maintenance subsection.

The security level displayed in this field is used as a default security level for this mnemonic for all user types. You can override this security level by establishing a specific security level for a user type, as explained below.

NOTE: If an asterisk (*) displays next to this field the minimum security level has been set by McKesson and cannot be changed.

4. EDIT ID (DISPLAY ONLY)
This field contains the name of the user who last edited this mnemonic.

5. EDIT DATE (DISPLAY ONLY)
This field contains the date on which this mnemonic was last edited.

The information displayed at the bottom of the screen differs, depending on whether types of users and security levels have been assigned for the mnemonic.

IF NO USER TYPES HAVE BEEN ASSIGNED

If no user types have been assigned to this mnemonic, the screen displays as shown in the Mnemonic Assignment subsection. At the bottom of the screen, the system displays:

Select the user types to be assigned--
end selection(NL) next page(/)

Enter the option number(s) of the type(s) of users to which you want to grant access to this mnemonic. The system highlights the option number(s) to indicate your choice. After you have selected all of the desired types of users, press ENTER. The system then begins the process used to identify minimum security levels for access to the mnemonic. For information on this process, refer to "If No Security Level Has Been Assigned" on page 5-19.

NOTE: The system displays a greater than sign (>) next to your user type in the tables. To add or remove access to this mnemonic for you and other users with your initial menu code, select the user type with the greater than sign (>) next to it.

IF USER TYPES HAVE BEEN ASSIGNED

If user types have been assigned to this mnemonic, the system displays a table of the user type assignments in the lower portion of the screen. At the bottom of the screen the system displays:

Enter the option number(s) to edit or (A)dd--
end selection(NL)

You can add or delete access for the types of users assigned to the mnemonic. If security has been assigned, you can also edit the minimum security level required to access the mnemonic. For information on editing minimum security levels, refer to "If A Security Level Has Been Assigned" on page 5-21.

NOTE: The system displays a greater than sign (>) next to your user type in the tables. To add or remove access to this mnemonic for you and other users with your initial menu code, select the user type with the greater than sign (>) next to it.

- To delete access for a type of user, enter the option number(s) of the type(s) of users whose access you want to remove. The system highlights the option

number(s) to indicate your choice. After you have selected all of the desired types of users, press ENTER. The system then displays the table used to edit security level access, with the following prompt at the bottom of the screen:

Enter option number--

Press ENTER, and the system displays:

Enter field number of '/' starting field number--

Press ENTER, and the system displays:

Delete? (N)--

Enter **Y**, and the system displays:

Remove the assignment of this user type? (Y/N) [N]--

Enter **Y** to delete access for the selected type of user. The system then displays:

Assignment removed!

- To add access for a type ofuser, enter the option number(s) ofthe type(s) of users to which you want to grant access to the mnemonic. The system highlights the option number(s) to indicate your choice. After you have selected all ofthe desired types of users, press ENTER. The system then displays the table used to edit security level access, with the following prompt at the bottom of the screen:

  Enter option number--

  The process used to add security level restrictions to a type of user is discussed below.

IF NO SECURITY LEVEL HAS BEEN ASSIGNED

If a user type has been granted access to the mnemonic, but no security level has been set for the user type, the system displays a table of the user type assignments in the lower portion of the screen. At the bottom of the screen the system displays:

Enter the option number(s) to edit or (A)dd--
end selection(NL)

To add a minimum security level for one or more type(s) of users, enter the option number(s) of the type(s) of users. The system highlights the option number(s) to indicate your choice. After you have selected all of the desired types of users, press ENTER. The system then displays two additional fields under the heading Assignment Information, as in the following screen:

```
              General Hospital Mnemonic Assignment Processor
                                              Wed Mar 24, 1999 10:07 am


    Mnemonic Definition
( 1)Mnemonic Code           : AMF
( 2)Mnemonic Description    : Abstracting Maintenance Functions
( 3)Default Security Level  :

( 4)Edit ID                 : Andersen,Michael L
( 5)Edit Date               : 11/08/95 01:23pm

Assignment Information
( 1)User Type      : ADMISSIONS-MGR
( 2)Security Level :









Accept this screen? (Y/N) [Y]--
```

Field Explanations

Assignment Information

1. USER TYPE (DISPLAY ONLY)
This field displays the selected type of user.

2. SECURITY LEVEL (TABLE LOOKUP)
This field contains the minimum security level required for the type of user to access the mnemonic. The default for this field is the contents of the Default Security Level field from the Mnemonic Definition section of the screen.

NOTE: If an asterisk (*) displays next to this field the minimum security level has been set by McKesson and cannot be changed.

At the bottom of the screen, a table of the security levels available within the system displays, followed by the following prompt:

Enter option number --

Enter the option number of the minimum security level that this type of usermust have in order to access this mnemonic. The systemdisplays your entry in the Security Level

field. To use the default security level, press ENTER. At the bottom of the screen, the system displays:

Accept this screen? (Y/N/'D'elete) [Y]--

Enter **Y** or press ENTER to assign the security level to the type of user. Enter **N** to edit the security level assignment for the type of user. Enter **D** to exit from this prompt without assigning the minimum security level to the type of user.

IF A SECURITY LEVEL HAS BEEN ASSIGNED

If a security level has been assigned to one or more of the types of users who have access to the mnemonic, the system displaysa table of the user type and security level assignments in the lower portion of the screen. At the bottom of the screen the system displays:

Enter the option number(s) to edit or (A)dd--
end selection(NL)

NOTE: You cannot edit security for a mnemonic if that mnemonic is used to access a function on a menu for which security has been defined.

To edit the minimum security level for one or more type(s) of users, enter the option number(s) of the type(s) of users. The system highlights the option number(s) to indicate your choice. After you have selected all of the desired types of users press ENTER. The system then displays the Assignment Information fields, as explained in If No Security Level Has Been Assigned above. At the bottom of the screenthe system displays:

Enter field number or '/' starting field number--

To edit the minimum security level required for this type of user to access the mnemonic, access the Security Level field from the Mnemonic Assignment portion of the screen. The system displays a table of security levels available within the system, followed by the following prompt:

Enter option number --

Enter the option number of the minimum security level that this type of usermust have in order to access this mnemonic. The system displays your entry in the Security Level field and redisplays the Enter field number or '/' starting field number prompt. Press ENTER to this and the system displays:

Accept this screen? (Y/N/'D'elete) [Y]--

Enter **Y** or press ENTER to assign the minimum security level to the type of user. Enter **N** to edit the security level assignment for the type of user. Enter **D** to exit from this prompt without assigning the minimum security level to the type of user.

Mnemonic Maintenance

You use the Mnemonic Maintenance processor to maintain mnemonic codes, descriptions, and minimum security levels.

When you access the Mnemonic Maintenance function, the system prompts you for the mnemonic you want to maintain:

Enter the mnemonic code or partial name'-' --

Enter the code or enter a hyphen (-) to display and select from a list of mnemonic codes. After you identify the mnemonic you want to maintain, the system displays the following screen:

```
               General Hospital Mnemonic Maintenance Processor
                                                 Wed Mar 24, 1999 10:15 am


    Mnemonic Definition
( 1)Mnemonic Code           : AMF
( 2)Mnemonic Description    : Abstracting Maintenance Function
( 3)Default Security Level  :

( 4)Edit ID                 : Andersen,Michael L
( 5)Edit Date               : 11/08/95 01:23pm









Enter field number or '/' starting field number--
```

Field Explanations

1. MNEMONIC CODE (10-C-R)
This field contains the code used to invoke this mnemonic at a STAR menu. This code should be long enough to allow the user to easily recognize the function it accesses, yet short enough to minimize keystrokes.

2. MNEMONIC DESCRIPTION (40-C-R)
This field contains a description of the mnemonic. The system defaults to the function name as it displays on the menu. Press ENTER to use the function name, or enter another name if desired.

3. DEFAULT SECURITY LEVEL (TABLE LOOKUP-R)
This field determines the security level displayed as a default when assigning this mnemonic to user types. If this field is blank there are no default security limitations for accessing the function using a mnemonic.

NOTE: If an asterisk (*) displays next to this field the minimum security level has been set by McKesson and cannot be changed.

When you access this field, the system displays a table at the bottom of the screen listing the security levels available within this STAR application.

If a security level has been defined for this mnemonic, the system shades the option number with a reverse blinking area and displays, below the table:

Enter option number or (R)emove security level [Current Level]--

To set a new minimum security level needed to access this mnemonic, enter the option number of the security level from the table. To remove a security level restriction for this mnemonic, enter **R**. Press ENTER to keep the current minimum security level.

4. EDIT ID (DISPLAY ONLY)
This field contains the name of the user who last modified the mnemonic.

5. EDIT DATE (DISPLAY ONLY)
This field contains the date on which the mnemonic was last modified.

If you change the security level assignment for a mnemonic, when you accept your changes to this processor the system displays:

Update security level for all user types assigned? (Y/N) [N]--

Enter **N** or press ENTER to maintain current security levels for user types. Enter **Y** to add the security level you defined to the user types, and the system displays:

Updating the mnemonic security! Please Wait!

When the system finishes updating the mnemonic security, it displays:

Filed!

DELETING A MNEMONIC

You can also use this processor to delete a mnemonic from the system. If you edit information about a mnemonic using this processor, when you exit the processor the system displays:

Accept this screen? (Y/N/'D'elete) [Y]--

To delete the mnemonic, enter **D**.

Similarly, if you exit this processor without editing any of the fields of information, the system displays:

Delete? (N)--

To delete the mnemonic, enter **Y**.

After you begin the process of deleting the mnemonic from the system, the system displays:

(D)elete this mnemonic, (F)ile as deleted or (R)emove from your list?--

To delete this mnemonic from the system, enter **D**. To deactivate the mnemonic, but leave it in the system for later reactivation, enter **F**. Note that filing a mnemonic as deleted does not remove user type assignments for the mnemonic, but only makes the mnemonic inactive. The mnemonic will not display on mnemonic lists for the user. To remove the mnemonic from the list available to your user type, enter **R**.

NOTE: Only users granted build and assign access to a mnemonic can delete mnemonics or remove them from the user type list.

View Boxed Menus

You use the View Boxed Menus function to display one or more boxed menus. This enables you to identify menus to which you need to make changes, such as menus with headers on the right side of the menu that must be moved to the left or menus with special characters. In this manner, this function is primarily an installation tool used to identify potential problems caused by a change from host-based (original) menus to boxed menus.

NOTE: You must be using the boxed menu type to use this function. If you are using host-based menus, the system displays the following error message when you attempt to access this function:

You are not set up for boxed menus!

Since this processor is primarily an installation tool, the options available to users from it vary depending on whether you are a McKesson employee.

If you are not a McKesson employee, the system displays all menus in your ID, in alphabetic and numeric order. To quit displaying menus, press period (.) then the ENTER key. The system then displays:

Press NL to continue

Press ENTER to return to the Menus and Mnemonics Parameters menu. If you display all of the menus, the system displays the following after the last menu:

All menus selected have been displayed! Press NL--

Press ENTER to return to the Menus and Mnemonics Parameters menu.

If you are a McKesson employee, when you select the View Boxed Menus function, the system displays the following prompt:

Enter the ID to display menus from [9]--

The system defaults to the ID you are currently using, as with 9 in the example above. To view boxed menus for the current ID, press ENTER. To view boxed menus for another ID, enter the number of the ID.

The system then displays the following prompt:

Enter initial characters of menu name to begin with [All Menus]--

Enter one or more of the initial characters of the menu's system name (for example, lsmaf) to display only selected boxed menus. Press ENTER to display all menus for the ID in alphabetic order.

The system then displays the first boxed menu. The menu header includes the menu's system name. After viewing the first menu, press ENTER to display each subsequent menu. To stop viewing the menus, enter a period (**.**) and press ENTER. The system then returns you to the ID prompt.

After the system has displayed all menus, the following message displays:

All menus selected have been displayed! Press NL--

To exit from the processor, press ENTER.

Mnemonics Report

You use the Mnemonics Report function to create a report containing the following information about each mnemonic in your system:

- Code you enter at a menu to invoke the mnemonic
- Description of the mnemonic, typically the function it accesses
- Status (Active or Inactive) of the mnemonic
- Security level required to use the mnemonic

NOTE: The system displays an asterisk (*) next to security levels that have been set by McKesson. These security levels cannot be changed.

When you select the Mnemonics Report function, the system displays the following prompt:

Print list of mnemonics? (Y/N) [Y]--

To exit from the function without creating the Mnemonics Report, enter **N**. To create the mnemonics report, enter **Y** or press ENTER. The system then displays the following prompt:

Sort by mnemonic (C)ode or (D)escription? [D]--

To list the mnemonics on the report in order of their code, enter **C**. To list the mnemonics on the report in order of their description, enter **D** or press ENTER. After you make your selection, the system displays:

Enter report name of first letters'-' --

Enter the name of the output device for the report. Use a hyphen (-) to display and select from a list of output devices. After you complete this field the system displays:

Report compiling!

The system then returns you to the Menu and Mnemonic Parameters Processor.

The following is an example of a Mnemonics Report.

Figure 5.1 Mnemonics Report

```
                                    General Hospital              Page:  1
                                    Mnemonics Report              Date:  06/27/91
                                  For STAR Laboratory             Time:  10:01am

                  Mnemonic Description
      Code        Security Level                                  Status
-------------------------------------------------------------------------------
( 1)  CIW       Chemistry Incomplete Work                         Active
                * Technologist

( 2)  CPI       Chemistry Patient Inquiry                         Active
                * Clerical/Phlebotomist

( 3)  CRR       Chemistry Result Reporting                        Active
                * Technologist

( 4)  CWP       Chemistry Workload Peak Analysis                  Active
                Technologist

( 5)  LO        LAB ORDER                                         Active
                * Clerical/Phlebotomist

( 6)  MCF       Menu type/Color/Function Keys                     Active
                * Clerical/Phlebotomist

( 7)  MRR       Microbiology *Adv. Micro Result Reportin          Active
                * Technologist

( 8)  OI        Order Inquiry                                     Active
                No Security Defined

( 9)  PI        Patient Inquiry - All                             Active
                * Clerical/Phlebotomist

(10)  SO        Send Out                                          Active
                * Clerical/Phlebotomist

(11)  SER       SEROLOGY MENU                                     Active
                * Clerical/Phlebotomist

(12)  MAGSQCLA  SQL Activity Log Summary                          Active
                No Security Defined

(13)  SPRR      Surgical Pathology Result Reporting               Active
                * Transcriptionist

(14)  URI       Urinalysis                                        Active
                * Technologist

(15)  WKL       Workload                                          Active
                No Security Defined

(16)  WSS       Workload Summary by Section                       Active
                Clerical/Phlebotomist

                                        End of Report
```

MNEMONICS WORKSHEETS

This section contains worksheets to help you create and maintain your mnemonics. These worksheets are:

- Mnemonic Function Key Definitions
- Mnemonic Build and Assignment

These worksheets are below. You can make copies of these worksheets as needed.

MNEMONIC FUNCTION KEY DEFINITIONS

User Name:_____Type:_____

F Key	Function Accessed	Mnemonic Code
F1		
F2		
F3		
F4		
F5		
F6		
F7		
F9		
F10		

MNEMONIC BUILD AND ASSIGNMENT

System:_____ Type of User:_____ Security Level:_____

Function/Menu Name	Mnemonic Code

MENU AND MNEMONICS CONSIDERATIONS

For each STAR product there are considerations for menu and mnemonic use that must be taken into account. This section discusses those considerations.

STAR Laboratory Menu Considerations

Using boxed or PC-based menus affects the way the system displays the main laboratory menu, all section menus and any function menu (for example, QC menus, Special Report menu and patient report menus). Using boxed or PC-based menus will not affect the display of bay menus, result menus and microbiology menus.

Within STAR Laboratory, the display options (bright reverse video, bright video, dim video, dim reverse video, underline and blinking) are used to highlight and indicate the status of information. With the 11.1 release, you can define the colors associated with the various display options on a Data General Color CRT or, if you are using an IBM-compatible personal computer with a color display. If you change the color settings for a display option, make sure that the color settings are distinct. For example, do not define both dim video and bright video as blue, since you will then be unable to differentiate the status of some data. For more information about color CRT settings, see the CRT Color Selection section.

STAR Laboratory Mnemonic Considerations

You can access mnemonics from any main menu, section menu or function menu. You cannot access mnemonics from bay menus, result menus or microbiology menus

The system maintains a master table of mnemonics for each product. Therefore, you cannot have duplicate mnemonic codes within the STAR Laboratory system. The entries to the master table can consist of general lab functions, such as Order Cancellation, or section-specific functions, such as Chemistry Accessioning or Anatomic Pathology Patient Inquiry.

Within STAR Laboratory, user types are defined as the initial sign-on menus, which are the department and section menus. The initial sign-on menu accessed by a user determines the groups of mnemonics available to that user.

Generally, when you exit from a function that you accessed using a mnemonic, the system returns you to your initial sign-on screen. In STAR Laboratory, if you have been defined to sign-on to a section screen with main menu return, the system returns you to the main laboratory menu -- not the section menu. If you have been defined to sign-on to a section screen and do not have main menu return, the system returns you to the section menu.

NOTE: In a multidepartment environment, the section/main menu is the one for your initial sign-on department.

NOTE: Within STAR Laboratory, there are three basic levels of functions/menu options: main level, section level and base level. The main-level functions/ options are department specific and include options such as Patient Inquiry, Maintenance and the sections. If a function/option can be added to the main department menu, then a single mnemonic is defined for the function/option.

The section-level functions/options are section specific, since the system requires many section parameters (such as printer definitions and flags) to process them appropriately. Examples of section-specific functions/options include Accessioning, Incomplete Work, Patient Inquiry and Result Reporting, as well as the bays. If the function can be added to a section menu, you must define a separate mnemonic for each function/option per section. If the function is only in a single section (such as Order Cancellation and Reprint Accession Labels), a section designation is not necessary.

The base-level functions/options are those options found on the base lab menus. For example, the Specimen Sendout function is a base-level function, since it is located on the base menu for Specimen Transfer. For these functions/options, you can define a single mnemonic code for the function. If the function requires department and/or section definitions for processing, the system will display a prompt prompting you for this information. For more information on these prompts, called pre-processing routines, see the Pre-Processing Routines section.

SINGLE DEPARTMENT FUNCTION ASSIGNMENT EXAMPLE

Following are some examples of the main-, section-, and base-level functions/options and how you might assign them to specific user types. These examples are for a single-department environment. For information on a multidepartment environment, see the Multidepartment Design Considerations section.

Function Description	Mnemonic Code
Chem Accning	CACC
Chem Result Rpting	CRR
Chem Patient Inq	CPI
Chem Astra Bay	CAST
Hem Accning	HACC
Hem Result Rpting	HRR
Hem Patient Inq	HPI
Hem Coulter Bay	COU
Hem Diff Bay	HDIFF
CP Order Entry	CPOE
CP Accning	CPACC
Order Cancellation	ORDCAN

Function Description	Mnemonic Code
Patient Inquiry	PI
Maintenance	MAIN
Specimen Sendout	SO

NOTE: Keep in mind when defining descriptions that table lookup of mnemonics is based on the description, not the code.

After you define your mnemonics, you must identify which mnemonics are available to each user type (each department/section menu). Remember that, although mnemonics are assigned per user type, the system still checks security levels when the mnemonic is accessed.

All personnel signing on to the Chemistry Section Menu would have access to the following mnemonics (if their security level was acceptable):

Function Description	Mnemonic Code
Chem Accning	CACC
Chem Result Rpting	CRR
Chem Patient Inq	CPI
Chem Astra Bay	CAST
CP Spec Order	CPOE
Order Cancellation	ORDCAN

All personnel signing on to the Hematology Section Menu would have access to the following mnemonics (if their security level was acceptable):

Function Description	Mnemonic Code
Hem Accning	HACC
Hem Result Rpting	HRR
Hem Patient Inq	HPI
Hem Coulter Bay	COU
Hem Diff Bay	HDIFF
CP Order Entry	CPOE
Order Cancellation	ORDCAN

All personnel signing on to the Main Department Menu would have access to the following mnemonics (if their security level was acceptable). This would apply to Evening/Night Shift and Administrative personnel:

Function Description	Mnemonic Code
Chem Result Rpting	CRR
Chem Astra Bay	CAST
Hem Result Rpting	HRR
Hem Coulter Bay	COU
Hem Diff Bay	HDIFF
CP Order Entry	CPOE
Patient Inquiry	PI
CP Accning	CPACC
Order Cancellation	ORDCAN
Specimen Sendout	SO

MULTIDEPARTMENT DESIGN CONSIDERATIONS

In a multidepartment environment, the system offers a level above the main-, section-, and base-level functions/options. This additional level is department. The department level controls many parameters such as flags, printers, test code lists, sections, bays and others. In a multidepartment environment, the system separates all functions by department, as well as by main level and section level. Therefore, you must define mnemonics for each department, as well as for each section.

The following examples illustrate how you could assign mnemonics in a multidepartment environment

Dept.	Function	Mnemonic Code	Dept.	Function	Mnemonic Code
A	A-Chem Accning	ACACC	B	B-Chem Accing	BCACC
A	A-Chem Result Reporting	ACRR	B	B-Chem Result Reporting	BCRR
A	A-Chem Patient Inq	ACPI	B	B-Chem Patient Inq	BCPI
A	A-Chem Ektachem Bay	ACEKT	B	B-Chem Ektachem Bay	BCEKT
A	A-CP Order Entry	ACPOE	B	B-CP Order Entry	BCPOE
A	A-CP Accning	ACPACC	B	B-CP Accning	BCPACC
A	A-Patient Inquiry	PIA	B	B-Patient Inquiry	PIB
A	A-Order Cancellation	ORDCANA	B	B-Order Cancellation	ORDCANB
A	A-Specimen Transfer	SPTXA	B	B-Specimen Transfer	SPTXB

In the preceding example, each function and mnemonic code was defined with a department letter to indicate the department for which the mnemonic is used. Whether the department letter is at the beginning or at the end of the mnemonic code and/or mnemonic description is up to you.

All personnel signing on to the Main Department Menu of Department A could display the following list of mnemonics. This list might be appropriate for Evening/Night/ Administrative personnel.

Function Description	Mnemonic Code
B-CP Order Entry	BCPOE
B-CP Accning	BCPACC
A-CP Order Entry	ACPOE
A-CP Accning	ACPACC
A-Specimen Transfer	SPTXA
B-Specimen Transfer	SPTXB

When you select/enter a mnemonic, the system allows you to access the function if your security level is valid and you have access to the department for the mnemonic.

PRE-PROCESSING ROUTINES

In STAR Laboratory, pre-processing routines are used to identify the department and/ or section when you select a mnemonic for which this information is required. For example, if you use a mnemonic to access Quality Control/Workload you would need to identify the section so that the system can display the correct data, and the department so that the system can display appropriate printers for printing reports.

To identify this information, STAR Laboratory uses two pre-processing routines: 12 - Department Look-up and 14 - Department and Section Look-up. After you enter a mnemonic code, the system uses one of these pre-processing routines to request department or department and section *only* if the information they request is not currently available or cannot be determined based on the parameters of the employee sign-on or by virtue of the mnemonic itself. After you have identified the requested pre-processing information, the system allows you to access the function.

Department Pre-Processing

This pre-processing routine is primarily used in a multidepartment environment. If you have not already identified the department (typically done by signing on or by selecting a department from a list of departments) the system defines the department parameter based on the selected mnemonic or by the current section to which you are signed-on.

Thus, if you invoke a mnemonic for an option on a base menu, the system defines the department as the department to which you are currently signed-on. For example, if you define a mnemonic for Specimen Check-in (located on the base menu for Specimen Transfer), when you invoke the mnemonic the system will use the

department to which you are currently signed-on as the department for this function. Therefore, in this case you could create a mnemonic for Specimen Transfer. Since this is at the section level the department is defined automatically.

If you use a mnemonic to access a function located on the main department menu or one of the section menus for another department, the system updates all department parameters with the department of the mnemonic.

If you have access to only a single department, if you select a mnemonic for an alternate department the system displays the following message:

No access to department for selected mnemonic!

The system then returns you to the menu from which you invoked the mnemonic.

Section Pre-Processing

Most mnemonics for STAR Laboratory will be defined for functions/options residing on the main department menu or a section menu. For any of these functions, the section parameter is either not required for processing or will already be defined. For base menu options, however, the section parameter is not defined. If a mnemonic is created for a base menu option and the employee using the mnemonic has been defined with main menu sign-on or section menu sign-on with main menu return, the system displays a table of sections and prompts you to select one. If the employee using the mnemonic is defined for section sign-on without main menu return, the system defines the section as the employee's sign-on section.

If you invoke a mnemonic for the same section you are currently on, the system displays the following message:

Same section!

If you are defined for section sign-on without main menu return and select a mnemonic for a section, section-specific function or bay not in your defined section, the system displays the following message:

No access to section for selected mnemonic!

NOTE: If an employee is defined with section sign-on without main menu return and with multidepartment access, the system grants the employee access only to the main menu functions for alternate departments.

Department or Department and Section Pre-Processing Functions

For information on what STAR Laboratory functions require department or department and section pre-processing information when accessed via mnemonic, see your McKesson representative.

FUNCTIONS UNAVAILABLE FOR MNEMONICS

Mnemonics are not available for some functions in the STAR Laboratory system. For more information on these functions see your McKesson representative.

MNEMONICS REPORT

In STAR Laboratory, the Mnemonics Report does not use the LAB spooler (for example, it does not display the default and alternate printers for the report, as does other STAR Laboratory reports). To print this report you must either:

- Use the Report Maintenance and Printer Maintenance options from the Spooler menu to build the report name as the port, or
- Enter a hyphen (-) and select ALGRLGRO, the default General Reports Printer, when creating the report.

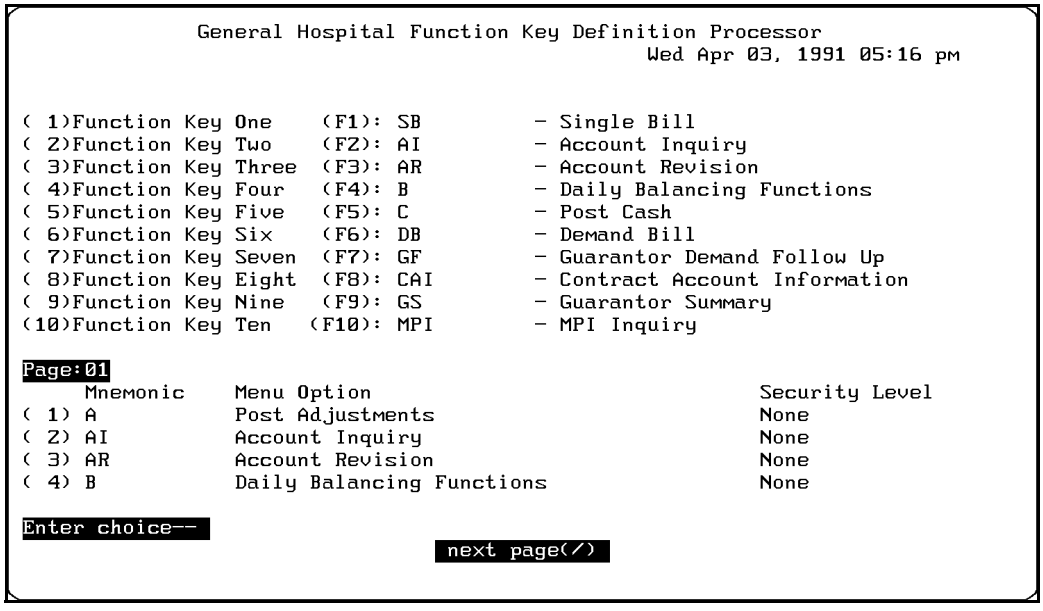
FUNCTION KEY DEFINITION

You use the Function Key Definition Processor to maintain the assignment of mnemonic codes to function keys on your PC keyboard. Mnemonics enable you to access a system function from a menu by typing the mnemonic code and pressing the ENTER key. By linking the mnemonic to a function key, you can access the function from a menu by merely pressing the assigned function key. Since many PCs have only 10 function keys, the system only allows you to use the first 10 function keys on a PC keyboard.

Function key definitions are user-specific. This means you can define your own function key assignments.

NOTE: You can access this function from any menu in the system by pressing C1 on your PC keyboard.

When you access this function, the system displays the following screen:



The fields on this screen display, respectively, the code and description of the mnemonic assigned to the function key.

To add or edit a function key assignment:

1. Enter the field number of the function key you want to assign. The system highlights the field and displays the following prompt:

   Enter mnemonic code or partial name'-' for list --

2. Enter the mnemonic code you want to assign to the function key. If you do not know the code, entering a hyphen (**-**) displays a list of mnemonic codes available for your user type and security level.

When you identify the mnemonic, either by entering it or by selecting it from the list, the system displays the mnemonic code and the function it accesses in the field.

For more information on using mnemonics, refer to “Using Mnemonics” on page 5-6.

MENU TYPE SELECTION

You use the Menu Type Selection Processor to select the menu type you want displayed on your STAR terminal. You can choose between host-based or boxed, depending on your STAR terminal.

When you access the Menu Type Selection option, the system displays the following screen:

```
                General Hospital Menu Type Selection Processor
                                                    Thu Mar 04, 1999 04:56 pm
Menu Type Input Options

             Option No.  Option
             ----------------------------------------
                 1       Original Menus

                 2       Boxed Menus









Enter option number [Original Menus]--
```

This screen displays the menu types available to you from your STAR terminal.

To change the menu type displayed on your STAR terminal, select the desired menu type. The system files your selection and returns you to the Menu and Mnemonic Parameters menu, using the menu type you selected.

CRT COLOR SELECTION

You use the CRT Color Selection options to modify the colors displayed on your color CRT. You can only access this function from a color Data General terminal. If you attempt to access this function from any other type of terminal, the system displays:

Color settings not available for this CRT!

When you select CRT Color Selection from the Menus and Mnemonics Parameters processor, the system displays the CRT Color Selection processor.

CRT Color Selection - Color DG Terminals

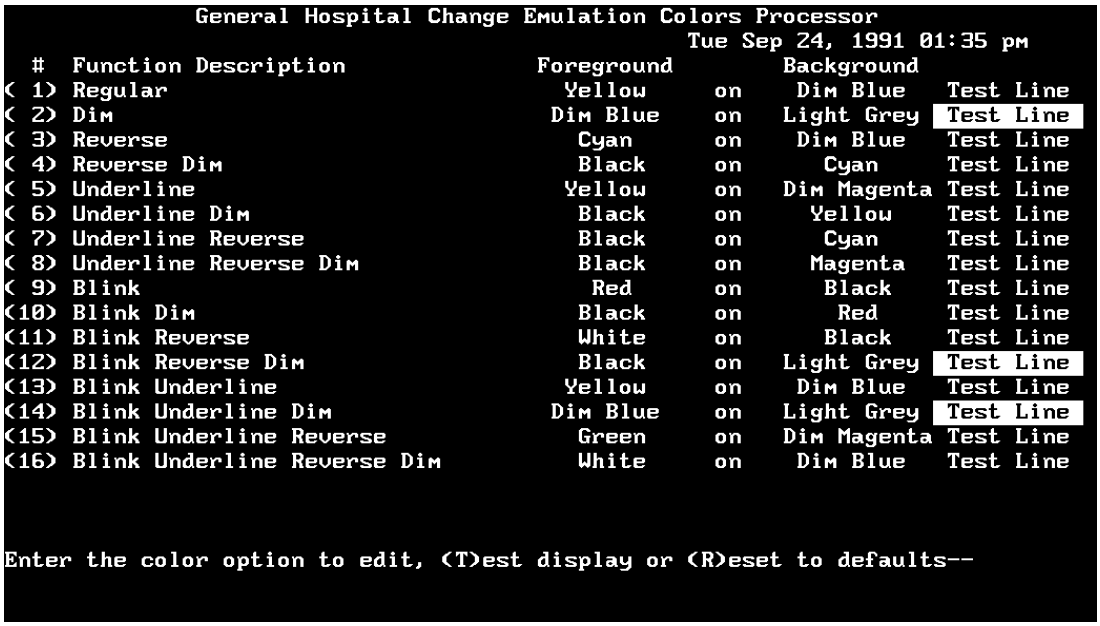
The STAR system enables you to use a variety of methods to highlight information on a processor screen. Depending on the CRT with which you sign-on, these methods can include reverse (dark letters on a bright background), dim, underline, and blinking. You can also combine these methods, so that information displays blinking reverse, or even blinking reverse underline dim

The CRT Color Selection processor enables you to additionally modify colors for these highlight methods, so that the reverse dim information mentioned above could display as red letters on a blue background. This function also enables you to select the colors for regular text and background on a screen.

NOTE: The Data General D430C terminal offers different color options from that of the Data General D220 and D230C terminals. Therefore, this function operates differently depending upon which of these Data General color terminals you are using. Each of these terminal types is discussed separately below.

D430C TERMINALS

When you select the CRT Color Selection function from a Data General D430C color terminal, the system displays the following screen:



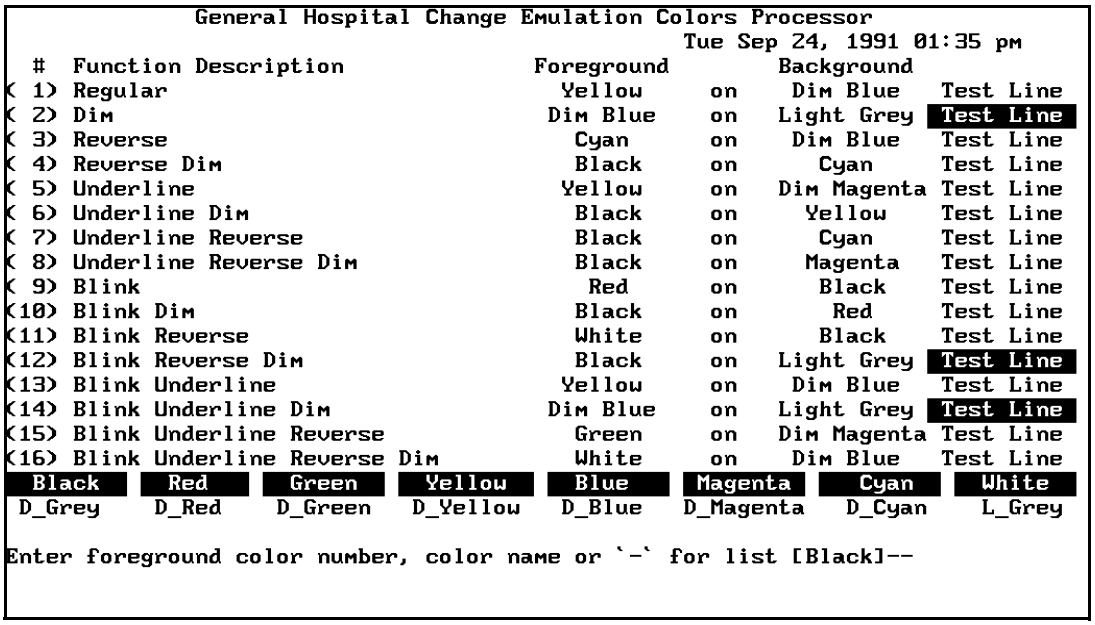
NOTE: The system displays this screen in color. In the Test Line column at the right of the screen, the system displays each highlighting method using the colors currently selected. Thus, the example above under Test Line for Reverse could display as cyan letters on a dim blue background.

EDITING PROCESSOR COLORS

You can change the text and background color for any of the 16 displayed highlighting methods. To change the text and background colors for a highlighting method:

1. Enter the number of the method for which you want to change colors.

The system highlights your selection and displays, at the bottom of the screen, the color options available on your CRT, as in the following example:



2. Select the color in which you want the text to display using one of the following techniques:

   - Enter the name of the color exactly as it displays on the screen (including underlines, where applicable).
   - Enter a hyphen (**-**) to display and select from a list of available colors.
   - press ENTER to accept the default color. This is the color in which the text is currently displayed.

   After you enter the new color the system displays your selection below the following prompt:

   Enter background color number, color name or `-` for list [Current]--

   Where *Current* is the name of the background color currently used for the selected option.

3. Select the color in which you want the text background to display. You can identify this color to the system using any of the methods you used to identify the foreground color.

   After you enter the new color, or press ENTER to retain the current color, the system displays an example of what the style will look like using the colors you

selected. It then asks if you want to change the style to the new colors. The optional responses are:

N - No, leave the colors as they existed before.

Y - Yes, change the colors as displayed.

The default is Y.

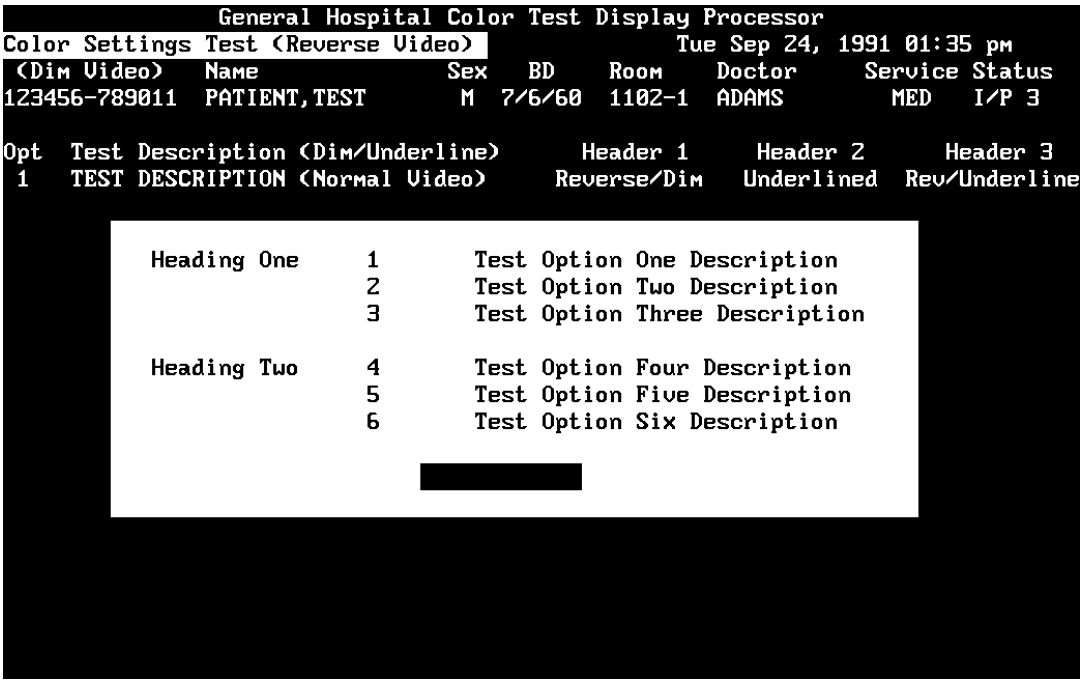
TESTING PROCESSOR COLORS

To display examples of current color settings for menus and screens on your CRT, enter **T** to the *Enter the color option to edit ...* prompt. The system displays the following prompt:

Enter test for a (M)enu or a (S)creen--

Test Menu Colors

To display an example of how menus display on your CRT according to the current settings for colors and menu type, enter **M**. The system displays a screen similar to the following:



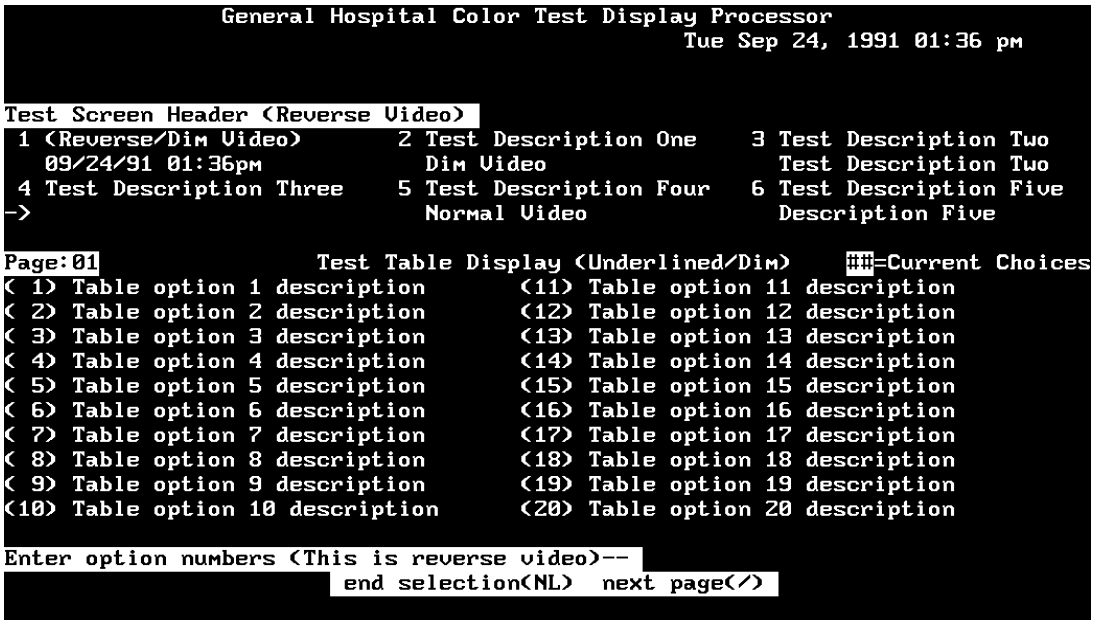
NOTE: The type of menu displayed on this screen depends on the current menu type selected. For more information on setting menu types, refer to "MENU TYPE SELECTION" on page 5-39.

This screen displays the current settings for methods used to highlight information on STAR application menus. You cannot edit these settings from this screen.

Press ENTER to return to the *Enter test for a ...* prompt.

TEST SCREEN COLORS

To display an example of how processor screens display on your PC according to the current settings for colors, enter **S**. The system displays a screen similar to the following:



This screen displays the current settings for highlighting methods used by STAR applications. You cannot edit these settings from this screen.

The fields and table on this screen operate like a normal processor screen, even though your entries to this screen have no impact on color settings or other operations of the system. Thus, to view how the system highlights a table selection, enter the number of an option on the table. In this example, after you finish selecting options from the table, the system places your entries in the Test Description Three field and displays the following prompt:

Enter field number or '/' starting field number--

To view how the system highlights a field, enter the number of one of the fields on the screen. If you press ENTER to this prompt, the system asks if you want to accept the screen. Enter **Y** or press ENTER to exit the example screen and return to the *Enter test for a ...* prompt.

RESETTING COLOR SETTINGS

The system enables you to select from two sets of default colors, one using the Data General factory settings for D430C terminals and one using the settings originally supplied by McKesson. The Data General default color set for the D430C uses the following color settings:

Text Type	Foreground Color	Background Color
Regular	Green	Black
Reverse	Black	Green
Dim	Dim Green	Black
Reverse Dim	Black	Dim Green
Underline	Green	Black
Underline Dim	Dim Green	Black
Underline Reverse	Black	Green
Underline Dim Reverse	Black	Dim Green
Blink	Red	Black
Blink Dim	Dim Green	Black
Blink Reverse	Black	Green
Blink Dim Reverse	Black	Dim Green
Blink Underline	Green	Black
Blink Underline Dim	Dim Green	Black
Blink Underline Reverse	Black	Green
Blink Underline Reverse Dim	Black	Dim Green

The McKesson default color set uses the following color settings:

Text Type	Foreground Color	Background Color
Regular	Yellow	Dim Blue
Reverse	Cyan	Dim Blue
Dim	Dim Blue	Light Gray
Reverse Dim	Black	Cyan
Underline	Yellow	Dim Magenta
Underline Dim	Black	Yellow
Underline Reverse	Black	Cyan
Underline Dim Reverse	Black	Magenta
Blink	Red	Black

Text Type	Foreground Color	Background Color
Blink Dim	Black	Red
Blink Reverse	White	Black
Blink Dim Reverse	Black	Light Grey
Blink Underline	Yellow	Dim Blue
Blink Underline Dim	Dim Blue	Light Gray
Blink Underline Reverse	Green	Dim Magenta
Blink Underline Reverse Dim	White	Dim Blue

To reset screen colors to one of the default color sets:

1. From the *Enter the color option ...* prompt displayed when you first access the function, enter **R**.

   The system displays the following prompt:

   Reset to (F)actory or (H)BO defaults [H] --

2. Enter **F** to use the default set for Data General D430C terminals. Enter **H** or press ENTER to use the McKesson default set for these terminals.

   The system redisplays the screen using the selected default color set.

D220 AND D230C TERMINALS

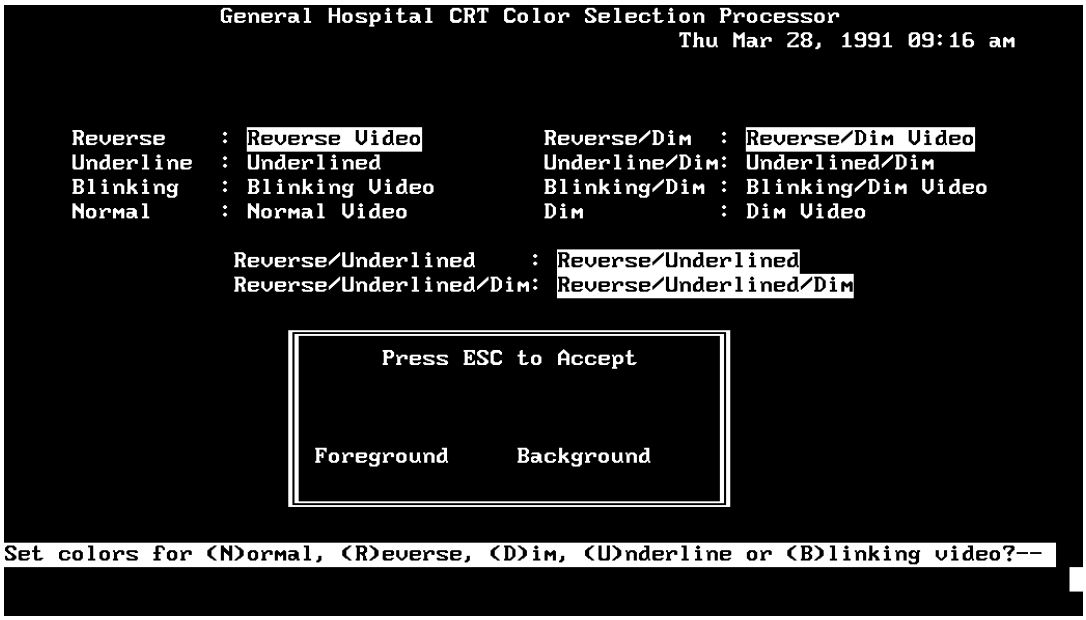
When you select the CRT Color Selection function from a Data General D220 or D230C color terminal, the system displays the following prompt:

Enter (E)dit color settings, (T)est display or (R)eset to defaults--

To edit the color settings for your DG color terminal, enter **E**. To view the color settings for your DG color terminal, enter **T**. The test option is discussed following the edit option in this section. To reset your color settings to either the factory or McKesson original settings, enter **R**. The reset option is discussed following the test option in this section.

Editing color settings

When you enter **E** to access the edit option, the system displays the following screen:



NOTE: The system displays this screen in color. For each highlighting method (such as Reverse, Underline), the screen displays the current settings for the highlighting method colors. For example, the text *Reverse Video* next to Reverse could display as red letters on a black background.

At the bottom of the screen the system displays:

Set colors for (N)ormal, (R)everse, (D)im, (U)nderline or (B)linking video?--

To change the text and background color for any of the 10 displayed highlighting methods:

1. Enter the first letter of the highlighting method (**N** for normal, **R** for reverse, etc.) you want to change and press ENTER. The system displays a small window on the screen. In this window, the system displays the name of the highlighting method you are changing (for example, Normal Color Display) in the colors currently defined. At the bottom of the window, the current foreground and background settings for this method display. The cursor is in the Foreground color selection.

2. To change the current color setting for the Foreground text in the window, cycle through the available colors by pressing:

    - The SPACE BAR or right arrow key to display the text in the next available color

- The left arrow key to display the text in the preceding available color

When the system displays the Foreground text in the desired color, press ENTER or TAB. The cursor then moves to the Background color selection.

3. Repeat step 2 to change the color setting for the background. You can switch between the foreground and background fields by pressing the ENTER key or TAB.

4. To accept the color settings for the foreground and background, press ESC. The system returns to the highlighting method prompt at the bottom of the screen.

Testing color settings

When you enter **T** in response to the *Enter (E)dit color settings, (T)est display or (R)eset to defaults*-- prompt, the system displays the following prompt:

Enter test for a (M)enu or a (S)creen--

To view the current color settings for a menu on your DG color terminal, enter **M**. To view the current color settings for a processor screen on your DG color terminal, enter **S**.

The test menu and screen display each of the highlighting method settings available on a DG color terminal, including:

- Normal text
- Reverse
- Underlined
- Blinking
- Dim
- Dim Reverse
- Dim Underlined
- Dim Blinking
- Reverse Underlined
- Reverse Underlined Dim

The test menu and screen are example screens only. You cannot edit any of the color settings or make any other impact on the STAR system from these screens.

Resetting color defaults

When you enter **R** in response to the *Enter (E)dit color settings, (T)est display or (R)eset to defaults*-- prompt, the system displays the following prompt:

Reset to (F)actory or (H)BOC defaults? [H]--

To reset your color display to the Data General defaults, enter **F**. To view a table of default color settings, refer to "Resetting Color Settings" on page 5-45. To reset your color display to the McKesson defaults, enter **H** or press ENTER. The following table displays the colors used in the McKesson default settings:

Text Type	Foreground Color	Background Color
Regular	White	Blue
Reverse	White	Red
Dim	Black	Blue
Reverse Dim	Red	Magenta
Underline	Green	Blue
Underline Reverse	Light Magenta	Magenta
Underline Dim	Blue	Black
Underline Dim Reverse	Yellow	Brown
Blink	Red	Black
Blink Reverse	Light Blue	Brown
Blink Dim	White	Blue
Blink Dim Reverse	Black	Magenta
Blink Underline	Yellow	Blue
Blink Underline Reverse	Blue	Magenta
Blink Underline Dim	Magenta	Black
Blink Underline Reverse Dim	Green	Brown

Chapter 6 - System Security

INTRODUCTION

For security purposes, the STAR Laboratory system is designed so that it can be accessed only by individuals who have been identified in the system's files. Thus, the laboratory must provide unique identification codes and other descriptive information regarding every individual it wishes to designate as a valid user of the system. This information not only secures the system and prevents use by unauthorized individuals, but it also enables management to generate various reports and lists on employees for a variety of purposes.

SECURITY OPTIONS

There are many different options that can be used to establish security on STAR Laboratory. Although security is extremely beneficial, keep in mind that the goal of installing STAR Laboratory is to facilitate patient resulting and reporting and information flow between hospital departments. A security system that is too elaborate can hinder the ability to report results and communicate patient information. Security on the system is set up by employee and by function to control both the location options employees can access and the types of transactions they can perform. Regardless of whether by employee or function, security is based on the definition of security levels which permit access to functions. Each laboratory may define security levels differently, based on their unique circumstances. Standard security levels usually range from 0 to 80 for hospital employees.

A typical laboratory might use the following security scheme:

Security Level	Description
0	Doctors (Patient Inquiry access only)
5	Receptionist
10	Phlebotomist
20	Student
30	Medical Laboratory Technician
40	Medical Technologist
50	Section Supervisor
60	Pathologist
70	Laboratory Administrator
80	System Manager

Specific security levels are usually defined at intervals of 5 to 10, leaving the levels in between for later assignments that may become necessary as the laboratory's size and structure changes.

Each security level is associated with a position. Level 5, for example, might be designated for office personnel and allow access to certain clerical functions but not to data-generating transactions. Level 80 is usually reserved for the system manager and levels above 80 for McKesson personnel. An employee can be assigned a higher security level for a specific period of time (for example, to fill in during vacations or illness). An expiration date must be established for this "temporary security."

The following list represents the order in which security and employee data is implemented in the STAR Laboratory system:

1. Establish security levels
2. Establish access codes (if applicable)
3. Enter employee sections/shifts
4. Enter employee positions
5. Define other parameters
6. Create employee records
7. Enter employee demographics

As mentioned previously, security levels are associated with employee positions. However, security levels can be increased or decreased independent of an employee's position. Using the Create/Edit Employee processor, you can change the security level of any employee. Therefore, it is important that this processor be properly secured.

Security can be imposed at the employee level in many different ways. For example, in multifacility/multidepartment environments, employee access to a facility or department can be controlled. Within a department, an employee can be limited to specific sections. For example, a Chemistry technologist can be limited to sign on directly into the Chemistry Section menu, with access denied to the Main menu so that other sections cannot be entered.

To access the system, an employee must use a combination of an identification (ID) code and a personal password or secret code. For more information about personal passwords, refer to Signing On in Chapter 2: Getting Started in the *General Information Volume* of the *STAR Laboratory Reference Guide*.

STAR Laboratory provides the ability to secure any function on the system, at the discretion of the laboratory. Function-level security works hand in hand with security levels assigned to employees. Unless the security level is specified for a function, the security level of the employee is meaningless. Security can be assigned down to the bay level. Test results can also be secured by use of security cross-links. Viewing of specific results within Patient Inquiry can also be limited to a security level.

Additional security clearance for selected employees can be provided through access codes specified for functions that the laboratory wants to restrict (rather than allowing access by all individuals at one security level).

Access codes are attached to a function and an employee's record in the system files. If you do not have the access code for a particular function you are unable to perform that function. For example, if a security level of forty (40) is attached to the Quality

Control function, all personnel with the security level of forty could access Quality Control. To restrict access to the Quality Control function to only certain Medical Technologists, an access code called *QC* could be created and attached to both the employee and the function called *Quality Control*. Access codes are not visible to the user and they do not have to be entered before using a function.

An access code called "Special Office Access" is already defined within the system. "Special Office Access" allows users of lower security levels to access a function normally reserved for a higher security level. (This functions in reverse of the above description). For example, if an office person with a security level of five (5) needs to access the Administration section, which might have a security level of fifty (50), assign "Special Office Access" to both the employee and the Administrative section. That employee can then access a function normally restricted due to the security level of that function.

NOTE: Access codes restrict users not assigned access codes from a function regardless of their security level. "Special Office Access," on the other hand, allows users of lowersecurity to access a function normally reserved for those of a higher security level.

Chapter 7 - Multifacility/Multidepartment

INTRODUCTION

In today's environment, most healthcare facilities do not attempt to provide all health-related services technology offers. Instead, hospitals are diversifying services based on market demand and arriving at alternative delivery systems. These alternatives include performing certain procedures and transferring others to neighboring facilities.

The STAR Laboratory system's multifacility/multidepartment concept addresses this need by allowing order placement and specimen collection at one facility and specimen shipment and result entry at a performing department. Specimens are tracked by the system with audit information captured at each step. Result entry is made by the performing department and results reported to the originating facility.

STAR Laboratory's multidepartment concept is defined as two or more laboratory departments operating within a single STAR Laboratory System. Although these departments can use the same central processing unit (CPU) and share common files, each laboratory department designs system tables and menu options to reflect their own operational needs.

Departments may be adjacent or remotely located to each other. Various locations can be linked by phone lines, direct cabling, microwaves or infrared communication. The method is determined by proximity of the PC to the CPU. From your perspective as a user, the CPU could be in the next room or the next city. Performance is not affected by CPU location. Hardware configuration (size and number of CPUs) is based on the sum of the operational requirements of the individual facilities and/or departments.

Advantages of a multifacility/multidepartment system design, include a shared database for patient conferencing and consulting and direct access to the database by authorized users from any department or facility within the system. This shared database is useful in compiling statistics for marketing and strategic planning.

Another advantage is affordability. Many times, due to the size of smaller institutions, computerization is out of the question. By employing a multifacility/multidepartment design, hospitals, clinics and laboratories can form joint ventures to share technologies and split the costs. These technologies include computerization, laboratory instrumentation and technical expertise.

FACILITY/DEPARTMENT CONFIGURATIONS

A variety of configurations can exist for multidepartment design. Check with your system manager for details on how your system is configured.

Configurations supported by STAR Laboratory include:

- One facility - one department
- One facility - multiple lab departments
- Multiple facilities - one lab department
- Multiple facilities - multiple lab departments

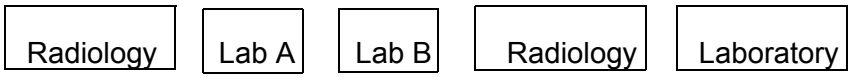
SYSTEM HIERARCHY

The hierarchy of multifacility and multidepartment, is as follows:

Facility refers to the location of a patient, for example, a hospital. The hospital information system which services the facility, (such as the STAR Patient Care system), controls the Service Item Master (SIM) which is a master file of all orderable services and procedures at the facility.

More than one SIM file can exist within STAR Patient Care when more than one hospital exists (multifacility).

Each Service Item Master is subdivided into ancillary departments such as laboratory and radiology.



NOTE: Ancillary departmental systems, such as the STAR Laboratory System, use the SIM file that is the same as STAR Patient Care. STAR Laboratory can service more than one laboratory department (multidepartment) within a facility. In a multidepartment environment, each department has its own SIM file.

IMPACT OF MULTIPLE DEPARTMENTS/FACILITIES

Areas of the laboratory affected by multidepartment are:

- Case login
- Charge schemes
- Order entry
- Specimen transfer processing
- Specimen check-in
- Result entry
- Result reporting
- Workload recording
- Quality control
- Specimen tracking (Patient Inquiry)
- Spooler functions
- Management reporting
- Special reporting

Files and tables are categorized as either:

- System-wide (for example, workload procedure codes)
- Facility-specific (for example, doctors)
- Department-specific (for example, laboratory sections)

Specimen Transfer processors are provided with STAR Laboratory. These processors are specifically designed to accommodate multidepartment environments. For detailed information on using the Specimen Transfer processors, refer to Chapter 5: Specimen Transfer in the *General Applications Volume I* of the *STAR Laboratory Reference Guide*.

Chapter 8 - Master Patient Index Data

INTRODUCTION

The hospital is required to define a patient type for each category of patient visit that can be admitted in the STAR Laboratory System. If an admitted patient is assigned a room and bed number, the visit is considered an in-house patient visit. Patient types such as out-patients, contract patients, emergency room patients, series patients and pre-admission patients may or may not involve room and bed assignment.

Admission can occur directly on STAR Laboratory (stand-alone environment) or the transaction can be passed across the interface from the Hospital Information System (HIS). When STAR Laboratory is networked to the STAR Patient Care System, admissions are controlled by STAR Patient Care.

In a networked environment, patient types as well as other common "shared" tables are controlled by only one of the networked systems (or products). Networking provides automatic updates to these common tables within the network environment (that is, within the connected STAR systems). When an edit is made to a table, it must be made on the controlling (master) system in order for the update to automatically occur in the other systems. STAR Patient Care is the recommended controlling product for patient types.

IDENTIFYING A PATIENT

Upon first-time admission to the hospital, a patient is assigned a unique unit number (per facility) and a unique corporate number (across facilities). The system automatically increments both numbers as new patients are admitted to ensure that no two patients are assigned the same number. A patient retains a single unit number per facility and corporate number (which is the same for all facilities) for every admission at that facility. A patient is also assigned an account number when admitted to the hospital. A new account number, based on the patient type, is assigned with each visit.

DISCHARGING A PATIENT

The account number is considered "active" upon assignment and orders/charges can then be placed against it. After the patient is discharged, the account remains active for a specified number of days according to the hospital-defined "suspense" days. Active accounts can still have add on orders, charges, cancellations, and credits applied after discharge up until the suspense period is reached, at which time the account becomes inactive.

NOTE: In the STAR Financial environment, late charges can be placed on an inactive patient.

Regular outpatients are automatically discharged at midnight on the day of admission, although no discharge transaction is actually performed. The account remains active for charge activity according to the hospital defined suspense days.

Series or recurring patient types can be automatically or manually discharged. Accounts for these patients use the "hold" method of determining discharge dates. The hospital defines a "hold" day value for each patient type. "Hold" is used in conjunction with the admission date and account activity to determine when the account is automatically discharged. For example, an outpatient is admitted on June 1 and charges are placed against the new account on that date. Assuming the number of hold days is ten for this patient type, if no additional charge activity (charges, cancellations, credits) has been applied to this account by June 11, the account is automatically discharged at midnight on June 11. If a charge is applied sometime within that period, the number of hold days is added to the charge date and used as the new date for auto-discharge.

ARCHIVING A PATIENT

Hold days plus suspense days determine how long the patient account is active in the system. Once the account becomes inactive, no orders, cancellations, credits and/or manual charges can be applied to the account (unless in the STAR Financials environment). Tests which have been ordered under an active account number, however, can still be resulted after the account has been inactivated.

Once an account has been inactivated, the system allows clinical data to be archived as a means of minimizing growth of the data base. Clinical data archiving is considered account-based in that an account is not archived until it is inactive and all laboratory work is completed. Once all workis complete, the account is archived in the next archive run on or after the calculated archive date for the account. Only result information is removed from disk during the archiving process. In Patient Inquiry, you still have access to patient demographic and account information. Tests ordered for a particular account are listed with a status of "Archived." This data, along with other miscellaneous historical patient data can be purged from the system at a later date based on system parameters.

Chapter 9 - Help Text (Character-Based)

HELP TEXT

Another user-friendly feature of the STAR Laboratory System is the Help Text function. Help Text is online documentation consisting of explanations and instructions on how to complete various system transactions.

NOTE: This form of help is not the same as the help files attached to STAR GUI applications.

Building and maintaining Help Text is entirely the responsibility of your laboratory. Once built, Help Text is accessed by entry of a question mark (?) in any menu, sub-menu, screen or field. This causes the online documentation to display on the screen. Help Text assists in rapidly educating users in addition to increasing the productivity of personnel interacting with STAR Laboratory. By modifying the text to reflect changes in department-specific procedures, Help Text provides laboratories with a dynamic training and on-line reference tool.

USING HELP TEXT

Except for the sign-on Help Text screen, STAR Laboratory is not equipped with any on-line Help Text. This is because the menus, functions and screens are explained by the prompt. However, your laboratory can add Help Text to provide additional information to the technologist or to specify laboratory policies and procedures in completing the functions.

Help Text may be added or modified at any time by the user via the Maintenance Functions. Help Text modification is typically restricted to the system manager or section coordinator security level as are other Maintenance Functions.

The sign-on Help Text screen, accessed by entry of a question mark (?) at the sign-on prompt, is provided as part of the base STAR Laboratory System. This screen can be edited by the laboratory through the Employee Data Maintenance processors. For an example of the sign-on Help Text screen, refer to Chapter 2: Getting Started in the *General Information Volume* of the *STAR Laboratory Reference Guide*.

Chapter 10 - Softkey Editor

INTRODUCTION

McKesson incorporates a user-friendly type of text entry called Softkey Editor. Softkey Editor enables you to create, edit and format results with several functional aids. Each of these aids is shown at the screen's bottom in highlighted blocks of reverse video.

Along the top of each PC keyboard are 12 function keys numbered F1 to F12. These function keys correspond to the blocks along the screen's bottom; in effect, they provide a map to the function keys.

NOTE: If you do not have 15 function keys on your keyboard, use the ALT key in conjunction with the first five function keys to replicate function keys 11 through 15.

The Softkey Editor utility is comprised of four basic components:

1. Text entry via the PC keyboard and numeric key pad
2. Cursor movement via cursor control keys
3. Text manipulation via function keys and other special keys
4. Error messages

TEXT ENTRY

Valid Keys

The Softkey Editor supports entry of characters and numbers via the PC keyboard and numeric key pad. Valid text characters are:

- Letters a-z and A-Z
- Numbers 0-9
- Punctuation characters: !@#$%^&*()-`~\•[]{};:'",.<>/?

Undefined Keys

The following keys on a PC keyboard are invalid for use with the Softkey Editor:

All CMD keys

ERASE PAGE

PRINT

C2

C3

C4

The following keys on a PC keyboard are invalid for use with the Softkey Editor:

BREAK

ESC

All CTRL character keys

SPCL

If you press an invalid key, the system displays the following error message:

Invalid key

CURSOR MOVEMENT

The Softkey Editor utility supports rapid and efficient cursor movement via five cursor control keys: up arrow, down arrow, right arrow, left arrow, and HOME. These keys are located next to the main key pad on most PCs.

ENTER

When you press the ENTER key, the cursor advances to the first column of the next line. If you are on the last line of the screen, the cursor moves to the first line of the next screen.

Up Arrow

When you press the up arrow key, the cursor moves to the same column in the line above, or to the last character in the line above, whichever is shorter. If you are at the top line of the screen display and press the up arrow key, the system displays the Top Line error message.

Down Arrow

When you press the down arrow key, the cursor moves to the same column in the line below, or to the last character in the line below, whichever is shorter. If you are at the bottom line of the screen display or at the last line in your document and press the down arrow key, the system displays the Bottom Line error message.

Right Arrow

When you press the right arrow key, the cursor moves one column to the right in the current line provided it is not at the last character of the line. If you are at the last character of the line and press the right arrow key, the system displays the End of Line error message. The maximum length of a line is 72 characters; This does not include the blank space following the last word in a line.

Left Arrow

When you press the left arrow key, the cursor moves one character to the left in the same line. If you press the left arrow key while at the first character of the line, the system displays the Left Margin error message.

One HOME Key Plus Cursor Control Key

The HOME key is used in conjunction with the four cursor movement keys previously described to alter their basic functions and to expand the range of cursor movement. If you press the HOME key, release it, then press the up arrow key, the cursor moves up five lines on the screen; the same restrictions and error message as described for the up arrow apply.

The down arrow used with the HOME key moves the cursor down five lines on the screen; the same restrictions and error message as described for the down arrow apply.

The right arrow used with the HOME key advances the cursor to the next word in the line. If the cursor is on a blank space in the line, the system moves it one character to the right. The same restrictions and error message apply as described for the right arrow.

The left arrow used with the HOME key moves the cursor one word to the left, with the same restrictions with respect to word position and left arrow usage.

Two HOME Keys Plus Cursor Control Key

If you press the HOME key twice then the up arrow, the cursor moves to the top line of the display. If you are at the top line, the corresponding restrictions and error message apply.

Pressing the HOME key twice then the down arrow, moves the cursor to the last line of the screen display or the last line of your document; The same restrictions apply.

Pressing the HOME key twice then the right arrow, moves the cursor to the end of the current line.

Pressing the HOME key twice then the left arrow, moves the cursor to the first character in the current line.

NOTE: You have approximately 5 seconds after pressing each HOME key to complete your cursor move; When the time-out length is exceeded, the system disregards your entry and returns the arrow keys to their normal functionalities.

TEXT MANIPULATION

TAB Key

The TAB key allows you to insert or overwrite five blanks into your document. By pressing the TAB key in Insert mode where each entered character is inserted into the document, (moving all following text to the right), the system inserts five blank spaces at the cursor position. (See F1--Insert/Overwrite). Then, if the length of the text in the line exceeds the maximum, the system automatically places you into Insert Text mode. (See F6--Insert Text)

If you are in the Overwrite mode where each entered character replaces existing characters, pressing the TAB key overwrites five existing characters with blank spaces.

Delete Key

The Delete key deletes or removes the character to the immediate left of the cursor position, provided you are not already at the first character in the line. If you are, the system displays the Invalid Key error message.

C1 Key (DG Terminal Only)

The C1 key deletes the character at the cursor position, provided you are not already at the end of the line. If you are, the system displays the Invalid Key error message.

ERASE EOL Key (DG Terminal Only)

If you press the ERASE EOL key, the system deletes all characters from the right of the cursor to the end of the current line.

Function Keys

On the PC keyboard there are 12 function keys labelled F1 to F12. These function keys perform insert, delete, copy, move, and reformat functions. All of the appropriate function keys display along the bottom of the Softkey Editor screen.

Since the display screen is limited in width, function key identification is normally shortened into meaningful abbreviations. The Softkey Editor design provides considerable functionality by grouping all aids controlling lines of text under one key labelled Line Functions.

NOTE: If you do not have 15 function keys on your keyboard, use the ALT key in conjunction with the first five function keys to replicate function keys 11 through 15.

FUNCTION KEY USE WITHOUT KEYBOARD EMULATION

KEY	FUNCTION	ON-SCREEN ABBREVIATION
F1	Insert or Overwrite	INSTR/OVR-WRT
F2	Line Functions	LINE FCT
F3	Insert Document	INS DOC
F4	Screen Forward	SCN FWD
F5	Screen Back	SCN BCK
F6	Insert Text or End Text	INS TXT/END TXT
F7	Insert Line	INS LN
F8	Center Line	CTR LN
F9	Delete Line	DEL LN
F10	Delete Word	DEL WRD
F11	Mark Line	MRK LN
F12	Mark Page	MRK PGE
F13	Format Screen	FMT SCN
F14	Patient Inquiry	PDR
F15	End Edit	END EDT

FUNCTION	KEY	DESCRIPTION
INSERT OVERWRITE	F1	This key is a toggle switch at which you can shift back and forth between Overwrite and Insert modes. Insert mode is the default mode you are in when entering Softkey Editor. Through this key, you can enter (Insert) additional text at the cursor location by moving existing text to the right. When the line lacks free space, the system automatically takes you into Insert Text mode unless you are at the end of the document (See the F6 key). In Overwrite mode, you can type over existing text in the line. When you reach the end of the line, the system automatically takes you into Insert Text mode

		unless you are typing at the end of the document. Note that the TAB key functionality varies according to the mode; In Insert mode, by pressing the TAB key, you can insert five blank spaces at the cursor position pushing all text to the right of the cursor further to the right. If the line does not have enough room for the inserted five blanks plus the remaining text, the system automatically takes you into Insert Text mode. Upon your exit from Insert Text mode, the system reformats the text. In Overwrite mode, when you press the TAB key, the system overwrites five characters with blank spaces beginning at the cursor position.
LINE FUNCTIONS	F2	You can access the second level function keys by pressing this key. For more information, refer to "Line Function Mode" on page 10-15.
INSERT DOCUMENT	F3	You can select one or more standard result text documents to copy into your document. The system inserts the standard result text one line below the cursor. The system prompts you to identify the standard result text code to copy. At this point, enter a standard result text code, a partial code followed by a hyphen (**-**), or a hyphen (**-**) to select from the available text document. The system continues to maintain all of the lines before and after the point of insertion and does not automatically reformat the resulting text. Upon completion of the copy, the system moves the cursor to the left margin of the line above the inserted text documents. As with other areas of system functionality, when you enter a period (.), the system returns to the point you left off with no changes accepted.
SCREEN FORWARD	F4	You can advance the display of your document by a number of lines; the number of lines varies by the function from which you access the Softkey Editor utility. The last line of the screen text displays in dim reverse above the first line of the new text for easy position location when appropriate. When you edit amulti-screen document and are not on its last page, the system displays the number of remaining pages in dim reverse at the bottom right-hand corner of the document. Also in a multi-screen document, if you are on a screen other than the first, the system displays the number of preceding screens in the document in dim reverse video at the top right-hand corner. When you are on the last screen of your document, the system displays a message stating that no next screen exists.

SCREEN BACKWARD	F5	You can move back one screen of text at a time. The last line of the screen text displays in dim reverse above the first line of the new screen text for easy position location. When you are on the first screen of your document and attempt to "screen back", the system displays a message stating that no previous screen exists.
INSERT TEXT/ END INSERT	F6	You can open the document at the cursor's location and insert several lines of text. The Insert Text function enables you to format the screen into an organized display. While in this mode, the system "removes" all the text following the cursor enabling you to type lines into an empty window. The system displays the "removed" text in dim video on the line below the last line of text within the window for easy position location. Note the following keys are inactive while in the Insert Text mode: F2, F3, F14, and F15; If you press one of these four keys, the system displays a message stating that you must first exit the Insert Text mode. While in the Insert Text mode, you can type past the end of the screen. The system advances the screen while displaying a blank window on which you can continue inserting text. While inserting text, you cannot place the cursor on lines not part of the inserted material preventing problems associated with modifying non-inserted text. When you finish inserting the text, press the F6 or F13 key to exit the Insert Text mode. You can backup on the same line before your previous location and insert more text. If the line has no extra space, the system displays an error message stating you must first finish the insert; Note you cannot enter "double" Insert Text Mode or the text to follow. When the appropriate error message displays, exit the Insert Text mode to complete your second insert then re-position the cursor and resume entering data. Keep in mind the Insert Text mode and Insert mode have differing functionality.
INSERT LINE	F7	You can open the text to insert text one line at a time; the system will insert a blank line at the cursor in your document. The text that occupied the line (and all following lines) is moved down one line.
CENTER LINE	F8	The line of text with the cursor, if shorter than the line length, is centered within the margins.
DELETE LINE	F9	You can delete the entire line on which the cursor is located. If you attempt to delete the only line of text in a document, the system displays a message stating this line is the last

one; The Softkey Editor utility cannot process a blank document - at least one line must exist.

DELETE WORD F10 If you position the cursor on a non-blank space within the document, the system deletes the word at that position along with the blank space following it. If the cursor is not positioned on a word, the system displays a message stating it cannot find a word to delete. All text following the deleted text is moved to the left. The system does not automatically reformat the screen; If you wish to reconstruct the paragraph, press the F13 key.

MARK LINE F11 When you press this function key, the cursor line is "line marked"; Only the cursor line is prevented from being concatenated to the line above it in a reformat operation (See the F13--Reformat Screen). To ensure that this line is kept exactly as-is, the line folbwing the cursor line may also require marking. A letter L in dim reverse displays in the margin to the right of the line indicating the line is marked. Press this key again to remove the mark.

MARK PAGE F12 When you press this function key, the cursor line is "page marked"; It functions similarly to the Mark Line insofar as the Reformat Screen function is concerned; however, when the system prints the document, a page-marked line is the first line of text on the page. The system performs a page advance just prior to printing the page-marked line in the document. Keep in mind you should not page-mark the first line in a document for it is always located, by default, at the top of the page. A dim reverse letter P displays in the margin to the left of the line indicating the line is page-marked. Press this function key again to remove the mark. Note a line can be both line- and page-marked although page-marking performs all functions of the line-marking feature.

FORMAT SCREEN F13 You can format the screen into an organized display for a later printing. When you press this function key, also when you exit Insert Text mode, the system reformats the document in the region of the current screen display. The system scans backwards the lines in the document past the top of the current screen until the start of a paragraph (or the start of the document), and forwards past the end of the current screen until the end of a paragraph (or the end of the document). The system processes the range of lines and forms paragraphs using the following rules:

- A paragraph begins with a line that:
  - Has line or page marks
  - Contains one or more blanks in the first position(s)
  - Follows a blank line
  - Is the first line of the document
- A paragraph ends with a line that:
  - Is followed by a blank line
  - Is the last line of the document
  - Is followed by a line- or page-marked line
- Text is placed on the line without trailing blank spaces. When lines are joined, if they lack a single space between them, the system inserts one.
- Blank lines are preserved.

During the reformat process, lines can be joined to reduce the total number of lines. The system maintains the relative cursor line position, when possible, if displaying the screen. If the only line of the current screen display is moved upwards and lost, the system automatically moves to the previous screen and places the cursor on the last line.

As described previously, the process of exiting the Insert Text mode involves using the Reformat Screen function to ensure the inserted text is properly reformed into paragraphs. Just prior to initiating the reformat, the system joins the text following the point of insertion at the cursor

position, possibly at the start of a blank line. To ensure a blank line, the line above the cursor line must be blank.

PATIENT INQUIRY F14 You can save Softkey Editor edits and access the Patient Inquiry screen to easily retrieve pertinent patient data without requiring the transcriptionist to sign-off the Softkey Editor utility. When you exit the Patient Inquiry screen, the system allows you to begin editing and places the cursor on the first screen of the document. The system does not necessarily return you to the same screen you were on prior to accessing the Patient Inquiry function. This key is temporarily disabled while in Insert Text mode.

NOTE: This key's functionality is dependant on the STAR system accessed. In STAR Radiology, the key permits entry in to the Patient Data Review function. In STAR Laboratory, the key permits entry in to the Patient Inquiry function. In STAR Pharmacy, this key is not functional.

END EDIT F15 You can leave Softkey Editor and retain all documentation changes through this last key on both Softkey Editor screens. In the Insert Text mode, this key is temporarily disabled.

DG AND VT KEYBOARD EMULATION

The following keys perform special functions within this text editor:

ANSI or DEC VT Terminal Keys	Data General Terminal Keys	Function
F6	F1	Deletes the current line (indicated by the cursor location).
F7	F2	Inserts a line at the cursor location and move all listing lines down by one.
F8	F3	Centers the current line of text on the screen.
F9	F4	Exits the editor function.
F10	F5	Copies the current line into a save buffer to be used for later retrieval into another location in the editor (see F6).
F11	F6	Places the line in the save buffer into the editor area at the line containing the cursor (see F5).
F12	F7	Packs text beginning at the cursor to the end of the text area, terminating at the first blank line encountered. The text is packed by placing one space between each word.

ANSI or DEC VT Terminal Keys	Data General Terminal Keys	Function
F13	F10	Displays help screens for the supported function keys. Move the cursor up one line, maintaining the current column.
Down Arrow (↓)	Down Arrow (↓)	Moves the cursor down one line, maintaining the current column.
Right Arrow (→)	Right Arrow (→)	Moves the cursor one column to the right.
Left Arrow (←)	Left Arrow (←)	Moves the cursor one column to the left.
DEL	DEL	Deletes the current character, closing the line to the left (destructive backspace).
N/A	ERASE EOL	Erases from the cursor to the end of the current line.
N/A	ERASE PAGE	Erases the entire text area.
TAB	TAB	Moves to the next tab position (every 10 characters).
N/A	SHIFT/Right Arrow (→)	Inserts one character.
N/A	SHIFT/Left Arrow (←)	Deletes one character.
N/A	HOME/Right Arrow (→)	Moves the cursor to last character on the line.
N/A	HOME/Left Arrow (←)	Moves the cursor to first character on the line.
N/A	HOME/Up Arrow (↑)	Moves the cursor to top line, maintaining the current column.
N/A	HOME/Down Arrow (↓)	Moves the cursor to bottom line, maintaining the current column.
N/A	HOME/HOME	Moves the cursor to the HOME position (top left corner).

NOTE: There are two ways to exit the text editor.

- Press the appropriate key to exit. On PC keyboards, press the F4 key. On ANSI or DEC VT keyboards, press the F9 key.

- Enter data in the bottom right position of the screen. This means that if you begin entering text at the HOME position and continue until the entire text area is full, the editor function stops once you reach the bottom right corner of the screen.

Line Function Mode

All line functions operate on complete lines of text regardless of paragraph positions, line-marks or page-marks. The system clears the marks placed on text lines. Function keys F4, F5 and F15 (Screen Forward, Screen Backward and Exit Softkey Editor) function as previously described.

You cannot type text into the document in the Line Functions mode. If you attempt to enter text, the system displays an error message saying to exit theline functions mode. If you press an undefined function key while in Line Functions mode, the system displays the Invalid Key error message.

Press the F2 key, and these Line Functions become operational:

KEY	FUNCTION	ON-SCREEN ABBREVIATION
F1	Blank	--
F2	Blank	--
F3	Blank	--
F4	Screen Forward	SCN FWD
F5	Screen Back	SCN BCK
F6	Set Start Mark	STR MRK
F7	Set End Mark	END MRK
F8	Copy Text	CPY TXT
F9	Move Text	MV TXT
F10	Delete Text	DEL TXT
F11	Clear Mark	CLR MRK
F12	Blank	---
F13	Blank	---
F14	Main Menu	MN MNU
F15	End Edit	END EDT

FUNCTION KEY DESCRIPTIONS

SCREEN FORWARD (F4) and SCREEN BACKWARD (F5)

The F4 key and the F5 key function the same regardless of whether or not Line Function mode is used.

SET START MARK (F6)

Identify a point in which a future copy, move or deletion should be made by using both this key and the End Mark key. If a start mark was set on another line, the system moves the start mark to the cursor line. Note the marked line displays in reverse video along with a dim reverse letter S in the left margin. If you attempt to set a start mark on a line that is located after the line containing the end mark, the system displays the Start Mark After End Mark message to indicate you need to re-position the cursor. If you attempt to copy, move or delete without setting a start mark, the system displays the Missing Start Mark message. A start mark is necessary to complete the process. If you attempt to copy, move or delete text without setting marks, the system displays the Must Define Block First message. A block of text must be marked to complete the process.

SET END MARK (F7)

You can identify the ending line of text being copied, moved or deleted when using this key. Note the mark is not required for copying, moving or deleting a single line of text. To remove an end mark, press the Clear Mark key. If an end mark was previously set on another line, the system places the end mark at the cursor line. Note the cursor line and all lines between the start and end marks display in reverse video unless just an end mark is set. A dim reverse letter E displays to the right of the right margin on the line defined as the end mark. If you attempt to set an end mark on a line that displays before the one containing the start mark, the system displays the End Mark Before Start Mark message. At this point, re-position the cursor.

COPY TEXT (F8)

You can copy typed text to other locations through this function. The system copies the lines indicated by the start and end marks to the position following the current cursor line. Place the cursor in front of the text to be copied then press the Start Mark (F6). Move the cursor to the end of this information and press the End Mark (F7). Now, move the cursor to the text's destination point and press Copy Text (F8). The system displays the text at both the source and destination locations, while moving the cursor to the line above the copied text lines. Note the total number of lines in the document is increased by the number of lines copied.

After performing a copy, the system clears the marks. If you attempt to copy text to an area within the marked text lines, the system displays the Within Marked Text message indicating a copy function into the middle of text to be copied cannot be performed. At this point, move the cursor to a line outside of the marked area to try again.

MOVE TEXT (F9)

Use this key with Start and End marks. Once you identify starting and ending points, move the cursor to the desired location, then press the Move Text key. The system moves the lines between the start and end marks to the lines following the current cursor line. It then deletes the original marked line(s) from the document leaving the total number of lines unaffected. Next, the system places the cursor on the same line prior to the move unless you perform a move from a point in the document before the cursor line; in the latter case, the system moves the cursor down (forward) by the number of moved lines in the document thus displaying it on the last moved line. After the move, the system automatically clears the start and end marks. If the cursor is on a line within the marked text lines, the system displays the Within Marked Text message indicating a move function into the middle of text to be copied cannot be performed. At this point, move the cursor to a line outside of the marked area to make another attempt.

DELETE TEXT (F10)

This key is equivalent to the F9--Delete key on the main menu; the lines indicated by the start and end marks are deleted from the document. You can delete large portions of text by placing the cursor at the beginning of the text which is to be deleted. Press Start Mark (F6). Then move the cursor to the end of the text which is to be deleted and press End Mark (F7). The system deletes the text within the marked lines, then clears the marks. Note the start and end marks must be on the current screen; you cannot delete lines not currently displayed. If you attempt to delete lines not on the current screen display, the system displays the Start Or End Mark Off Screen message. At this point, you must construct a marked area entirely on the current screen before a deletion can be performed.

CLEAR MARK (F11)

After completing a Copy or Move Text operation, you can remove beginning or ending marks from the screen to ensure future copy and move operations within the text.

MAIN MENU (F14)

Exit the second level of keys by pressing this key. The system clears any start or end marks placed but not acted upon.

END EDIT (F15)

You can leave the Softkey Editor utility. Press this key on both screens when editing is complete.

ERROR MESSAGES

The Softkey Editor utility notifies you of an invalid entry by displaying error messages on the line below the first line of the next screen display; the system automatically removes them when you press a key.

The following is a summary of all error messages:

ERROR MESSAGE	EXPLANATION
Invalid key	The pressed key is not defined for use in the Softkey Editor utility in the current mode.
Top line	You are currently at the top line of the display.
End of line	You are currently on the last character of the line.
Bottom line	You are currently at the last line of the display or document
Left margin	You are currently on the first position of the line.
Finish insert first	While in the Text Insert mode, you typed text using the Insert mode now no room exists on the current line to continue insertion.
Exit insert text mode	You have attempted a function that is temporarily first disabled in the Insert Text mode.
No next screen	You are currently positioned at the last screen of the document.
No previous screen	You are currently at the first screen of the document.
Last line	You are on the last line in your document and you cannot delete it.
Can't find a word	The cursor is on a blank space rather than a word.
Missing start mark	You have a defined end mark but no start mark. Text copy/ move/delete requires a start mark.
Start or end mark off	The Delete Text Lines function requires both marks on the current screen display.
Must define block first	You cannot move/copy/delete since no marks are defined.
Within marked text	You cannot copy or move to a destination within your marked text.

Must exit line functions mode	You cannot type text while in the Line Function mode.
Start mark after end mark	You cannot place a start mark on a line following an end mark.
End mark before start mark	You cannot place an end mark on a line preceding the start mark.

The system displays the following messages during the editing process within the Softkey Editor utility:

Formatting screen	You have pressed the F13 key and a screen format is in progress.
Completed	The format is finished, and you can resume editing.

Glossary

8-HOUR CHECK
In the Cytology QA function, each screener's maximum slide count must be performed in *no less than 8 hours*, as well as complying with CLIA '88 24-hour limit. The system offers an 8-hour check that monitors thescreener's slide count rate by tracking the rate of result entry. If results are entered in a *batch mode* (enter results at the end of the shift), the 8-hour check cannot be used. If results are entered in a *real time* mode (as soon as each case examination is complete), the system can be used to check the 8-hour limit for each screener.

-A-

"*" (ASTERISK)
Used in the Patient Inquiry and Results Entry prompts to access additional prompts and options.

"A" (ACCEPT)
Option in results entry used to accept the results as entered and, once all required results are entered, to generate a Primary Result Report.

"/A" (ADD-ON ORDER)
A slash followed by A (**/A**) is entered to add an order on to the accession number that you are currently resulting.

ABSURD VALUES
Result values that are not within the defined valid range for a component.

ACCESS CODES
Optional codes assigned to the ID codes of particular individuals. Such codes, which are assigned internally within the system and are not visible to you, can be used to differentiate levels of security so that only specified employees have access to particular functions.

ACCESSION
To acknowledge the laboratory's receipt of specimens and identify the test procedures to be performed on those specimens. Accession labels are automatically generated if not previously printed at order entry. These labels allow specific, positive identification of patient specimens for separation into aliquots and preparation of slides and assist in routing specimen aliquots and slides to the proper bay for test processing.

ACCESSION NUMBER
A unique number automatically assigned to each specimen entered in the system. The accession number identifies that order record for collection, accession, test processing and inquiry purposes. When determining and assigning accession numbers, STAR Laboratory performs consolidation logic as part of the order management process. The system evaluates the following as part of this consolidation procedure: nurse collection, specimen type, specimen modifier, priority, and requested collection date

and time. A secondary step in the consolidation includes the evaluation of the container type, tests per draw set against limit, and the number of test per accession limit. Once this consolidation is completed, STAR Laboratory assigns an accession number to each draw set.

ACCOUNT NUMBER
A unique number assigned for each patient visit; this number is used for billing purposes and for identifying activities associated with that visit, such as test orders.

AD HOC REPORTING
An advanced module capable of producing reports compiled from a data base search for specific elements or fields and presented in user-defined report format. Searches may be based on pre-defined report types or specific ad hoc reports can be created.

ADMISSION
Refers to logging a patient visit to the facility in the STAR system.

ADT
Abbreviation for the admission, discharge and transfer capabilities of the system.

ADT NOTICES
Notices which print automatically on selected printers when admissions, transfers or discharges occur.

ADVANCED MICROBIOLOGY MODULE
An advanced module of STAR Laboratory which addresses the functions performed in the microbiology area of the clinical laboratory.

ALPHA LOCK KEY (Data General Terminals Only)
A keyboard key located to the right of the space bar, which, when pressed, illuminates a red light labeled "Alpha Lock" at the top of the keyboard. When illuminated, all alphabetic characters display in upper case as they are typed. Pressing the key again causes the light to go out, and characters can then be typed in upper and lower case.

ALPHA LOOK-UP
The ability to view databy entering an alpha character(s) fdlowed by a hyphen (-). This causes an alphabetic table listing to display.

ALPHABETIC
Data consisting of the letters A-Z only.

ALPHANUMERIC
Data consisting of the letters A-Z and digits 0-9.

ANATOMIC PATHOLOGY MODULE
An advanced module of STAR Laboratory which addresses the functions performed in the surgical/anatomical pathology area of the clinical laboratory.

ARCHIVING
A means of minimizing growth of the data base by removing patient clinical data from the system and storing it on another medium (usually microfiche). Data is archived once it has been retained for a user-defined period of time after the account is inactive.

ARROWS
Four keys which reside on the screen management keypad. In edit mode, the right and left arrows move the cursor to the right and left respectively without changing the characters. This allows you to position the cursor as needed. The up and down arrows allow insertion and deletion of spaces at the cursor position.

AUDIT TRAIL
Activity tracking mechanism by which each transaction made to a patient account (such as orders, charges, credits, or revisions) is documented with an explicit audit trail of data such as ID codes of individuals who entered data, and transaction dates and times. Audit trail information for each step of test processing beginning with order entry and ending with result reporting can be viewed through Patient Inquiry.

AUTOMATIC CELL COUNTING
The ability to configure the numeric keypad so that it can be used as a tallying device; used most frequently in hematology where many tests (such as differentials, reticulocyte counts, and eosinophil counts) require enumeration of cell types observed on slides or hematology analyzers.

AUTOMATIC TIME OUT
An automatic sign-off mechanism designed to protect electronic signatures from use by unauthorized individuals; automatic time out occurs when the keyboard is not used within a specified time period.

-B-

"B" (Blood Product Availability)
Used in Patient Inquiry to access a summary listing of blood products ordered, available, issued, transfused, and expired for the patient.

BED CODE
A number typically designed by combining the last two digits of the room number and the last digit of the bed number.

BACK-UP
A copy of the system on tape or disk to provide a back-up in case the storage media is damaged or destroyed.

BAR CODE
A pattern of parallel bars and spaces which represent numeric or alphanumeric information in machine-readable form.

BASE
Refers to the base STAR systems which are demonstrated to the departments in the hospital as a basis for the Product Workshops.

BATCH (ORDER MANAGEMENT)
A group of orders to be collected in the same drawing round by the same phlebotomist. Batches may be created manually at your command or automatically by system-directed parameters.

BATCH (RESULTING)
A group of results to be resulted as a batch and accepted without having to enter and accept each result separately. Batches are created manually at your command or automatically by system directed parameters.

BAY
An area within the laboratory section where actual test processing and results entry occurs. A bay is defined to the system by the test procedures performed within it. An example is the "Coulter bay" located within the Hematology section.

BIT
The smallest unit of data handled by a computer; derived from Binary Digit.

BLOCKS
Data is stored on disk in groups of information called data blocks. Each disk drive can store only a defined number of data blocks. When blocks are "full", data must either be archived or a new drive must be added to the system.

BPA
Blood Product Availability

BULLETIN BOARD
The Bulletin Board is a free-text screen of information usually maintained by data processing personnel. The screen may contain announcements, schedules of meetings, or other information. The Bulletin Board automatically displays on an inactive terminal after the user signs-off.

BYTE
Connected bits of data.

-C-

"C" (CHECK PREVIOUS)
A **C** can be entered at the prompt in Results Entry to allow you to view previously reported results without backing out of Results Entry.

"/C" (CHECK PREVIOUS)
A slash followed by C (**/C**) is entered in the result field in Results Entry to allow you to view previously reported results without backing out of Results Entry.

CALCULATIONS
Specified formulas within STAR Laboratory used to derive a result, provided the necessary raw data has been entered and verified. Mathematical calculations can be specified in the Master Test File for any tests having numeric results. The system automatically performs the calculation upon completion of result entry.

CANCER PROTOCOL
Cancer case summaries or checklists accompanied by background documentation which includes detailed outlines, explanatory notes, and references. The College of American Pathologist (CAP) creates cancer protocols as a resource to pathologists to effectively deliver the information necessary to provide quality patient care.

CAP
College of American Pathologists

CENSUS
Current patient occupancy. Census summaries are available by station, physician, isolation or all.

CHARACTER
Letter, number or special symbol which can be entered from the keyboard onto the screen.

CIHI
Canadian Institute for Health Information. CIHI is responsible for the ongoing management of the Clinical Laboratory WMS.

CMS
Centers for Medicare and Medicaid Services

COLLECTION TIME
The date and time that the specimen was obtained from the patient.

COLLECTION WALK ORDER
User-defined order in which collection labels are printed. This order is based on nursing stations and room and bed locations.

COMPONENT
The base elements used to define a test. Components are used to defined test result fields within test codes.

CONSOLIDATION LABELS
An optional Collection label for notification only. STAR Laboratory determines when to print Consolidation labels as follows: For any accession that you have assigned a priority and is defined to print Collection labels immediately, STAR Laboratory performs a search on the uncollected orders for the patient and account. However, the system performs this search only if you have chosen to print Consolidation labels and only on nurse-collected accessions.

The system searches before the Consolidation label is printed, using the consolidation window that you defined in the Collection Batch Management processor. If the search finds tests in the uncollected orders for the patient being printed on a Consolidation label, and if the tests are eligible for collection with the current accession, Consolidation labels print with the other Collection labels.

CONSOLE PRINTER
A printer connected directly to the PC used for error message printing and operations/ applications control.

CONTRACT BILLING
An advanced module of STAR Laboratory that allows the laboratory to function as a reference lab. This includes the ability to produce detailed patient and management reports and to apply multiple pricing levels and volume discounts per contract.

CONVERSION
A set of programs run by McKesson to modify the way data is stored on disk internally. Conversion processes are typically run with new releases.

CORPORATE NUMBER
A system-assigned number unique to each patient.

CORRECTED REPORT
A second report with *Corrected Report* printed at the bottom. This report prints if external results are altered after the original Primary Result report has printed and if the status of the test is Done. The original and corrected results, along with the audit trail for the correction, which can be viewed in Patient Inquiry.

CPU
The portion of the computer which controls and performs the execution of instructions (programs). Located in the Data Processing department.

CROSS-HATCH
Presentation of sensitivity results in columnar format for sensitivity comparison.

CROSSLINKS (RESULTS)
A unique feature which allows equivalent results to be defined between tests. For example, all serum sodium results can be linked so that entry of one sodium value automatically inserts identical values in all other sodium result fields within that accession. The advantage of crosslinks is reduced time and effort required to enter the same result for different tests within the same accession record.

CRT (CATHODE RAY TUBE)
A TV-like device, also referred to as terminal or VDU (Video Display Unit), used in conjunction with the keyboard to interact with the system.

PC KEYBOARD
The typewriter-like device used to enter information into the system. The PCkeyboard has four major sections: the main keypad, the screen management keypad, the numeric keypad and a set of special function keys.

CUMULATIVE TREND REPORTS
A type of patient report in which laboratory test data is arranged in columns (either vertically or horizontally) to facilitate detection of trends. Results can consist of both numeric values and short text. Comments may appear at the bottom of the report in *footnote* fashion.

CURRENT 24 HOUR WINDOW
The current/active 24-hour time period for capturing screener workload. The start time of the current 24-hour window cannot overlap the screener's previous 24- hour window.

CURSOR
A symbol on the screen, either flashing or solid, that indicates your position on the monitor screen.

CYTOLOGY WORKLOAD/QC SCREEN
The screen presentation used to view and capture QC (quality control) and workload information at the case and screener levels. Fields are grouped by (1) current 24-hour window information, (2) current case information, and (3) other workload/QC information.

This screen is used to capture workload/QC information during Result Reporting, Repeat Queue processing, Discrepancy Queue processing, and Review Queue processing.

-D-

"D" (DRAFT)
D is entered to generate a draft copy of the Anatomic Pathology Long report on an alternate printer in Result Reporting.

DATABASE
Refers to a systematic storage device which allows easy accessing of patient information.

DATABASE QUERY
The ability to define parameters for a system-search of the data base for specific results. Hard-copy reports can be printed with the findings.

DATA RETENTION
Length of time that specified data is retained in the system.

DEFAULT
The response to a field or prompt when a specific response is not entered at the prompt before pressing ENTER. The default usually appears in the prompt within brackets [ ].

DEL (Delete Key on Data General Terminals Only)
The key, located above the CR key on the main keypad, used to erase (in a backward direction) numbers and characters previously typed on the screen. Holding the key down deletes consecutive characters or numbers.

DELETION AUDIT RETENTION
The number of days to retain the Recall Deletion Audit. When a patient (recall accession) is removed from the Recall process, the patient is listed on the Recall Deletion Audit. This audit provides a means to review all patients who are removed from the Recall process. The Deletion Audit Retention automatically deletes a group of patients from the Deletion Audit.

DELINQUENT QUEUE RETENTION
The number of days to retain a recall accession in the Delinquent Queue in Recall Management. During the Recall process, once all defined reminder periods have been exceeded, the patient (recall accession) is placed in the Delinquent Queue. The patient will be deleted from the queue if a follow-up test is performed. The Delinquent Queue Retention days provide a way to automatically delete a group of patients from the Recall process who have been in the Delinquent Queue for a long period of time.

DELTA CHECKS
An automatic check performed by STAR Laboratory for significant changes in a patient's test results over a particular period. Delta checks may be based on absolute or percentage values and are specified by component within the Result Component file.

DEMOGRAPHICS
Characteristic information used to identify each patient in the system. Name, sex, date of birth, unit number and race are examples of patient demographic data.

DEPARTMENT
Refers to a subsection of a facility's Service Item Master file. Examples are the laboratory, physical therapy and radiology departments.

DIAGNOSIS CATEGORIES
These categories are defined at the case level to group cytology cases for management reporting. One diagnosis category will be defined as the *negative* indicator to randomly select certain gynecologic cases for repeat testing and to conform with CLIA '88 regulations that require that a minimum 10% of all gynecologic cases be examined by screeners who are *not* technical supervisors or pathologists. If these cases are interpreted to be negative or normal, they must be reviewed a second time (QC) before results are reported.

Two diagnosis categories can be assigned to each case: (1) the original diagnosis entered during Result Reporting workload capture and (2) the QC diagnosis entered during Repeat Queue workload capture. Only one diagnosis category will be associated with a case for management reporting.

DIM REVERSE
A type of video display in which the background surrounding a field is darker than the rest of the screen and the print within the field is black.

DISCREPANCY QUEUE PROCESSOR
This processor enables the technical supervisor to review and process tests with result discrepancies. After reviewing both sets of results, the technical supervisor can: (1) designate the discrepancy as clinically significant or not, (2) select a discrepancy category as indicated, and (3) based on the current status of the test, choose which set of results (or neither set) to report or validate. Corrective action comments are also entered through this processor. The system will then assign a *miss* to the appropriate screener(s) as indicated and define the final diagnosis for the case for management reports.

DISK SPACE
The capacity of a data storage device or the amount of space on a data storage device that is not currently storing data. When you run out of disk space, data must either be archived or a new drive must be added to the system. See also Blocks.

DISPLAY
The monitor's visual representation of data.

DOWNTIME
A period of time in which the computer is unavailable for use.

DONE
A test status used in Patient Inquiry to indicate that all required results have been entered and the test is completed.

DUPLICATE REPORT
A Primary Result Report, Summary Report, or Long Report printed via the Patient Inquiry processor. STAR Laboratory prints *Duplicate Report* at the bottom of these reports.

-E-

"E" (EDIT)
The ability to alter an option by either changing or deleting the text.

EDIT MODE
Also referred to as correction mode. Result text can be edited by entering two slashes (*//*) for a particular result field. The previously entered text displays in the prompt. The arrow keys can be used to insert of delete characters. Edit mode eliminates retyping an entire field. Edit mode is available only when keyed data is not modified by the

system for display purposes. For example, if **Y** is entered and it displays as Yes, it has been modified by the system, and edit mode cannot be used. Edit mode is not available for all result fields.

ELECTRONIC SIGNATURE
A combination of your ID code and personal password. The electronic signature is automatically captured as a by-product of signing on.

ENTER KEY
Located above the right-hand SHIFT key on the main keypad, the ENTER key is used more frequently than any other key on the keyboard. It must be pressed after most entries in order to transmit the typed information to the computer system. An ENTER key is also located on the numeric keypad and functions in the same way. (This key may also be referred to as NEW LINE or NL in the STAR system.)

EOL (Data General Terminal Only)
End of line key. Erases a field to the end of the line. The cursor moves to the beginning of the field erasing any previously typed information.

ERROR MESSAGES
A message (usually associated with an audible "beep") displayed on the screen when an unacceptable response is entered. Common error messages include:

- Invalid Sign-On
- Invalid Entry format
- This Field Required
- Entry Out of Range
- Entry Too Long

System error messages, a different type of message, prints on the console log.

EXEMPT SLIDES
The actual (physical) number of slides in hand that are examined by the screener *and are NOT counted against a screener's 24-hour maximum slide count limit*. Exempt slide counts provide a means of tracking slide counts at the screener level while excluding those counts from the screener's 24-hour workload limit *when indicated*.

The following assumptions apply to slide counts and exempt slides as they relate to cytology workload:

- All slide counts entered through Result Reporting will be counted against the 24-hour maximum. They cannot be exempt.

- Slide counts entered through the Repeat Queue processor can be defined as exempt or not, depending on the circumstances and the screener involved. *Defining slides here as exempt or not exempt is completely up to the screener (user) signed on and is NOT controlled by any special security level control*.

- All slide counts entered through the Discrepancy Queue processor are considered exempt. They will not be counted against the 24-hour limit.

- Slide counts entered through the Review Queue processor can be defined as exempt or not, depending on the circumstances and the screener involved.

EXIT CODE
A way of exiting a function or processor and backing out to the previous screen or menu level by entering a period (**.**) or by simply pressing ENTER. Entering a pound sign (#) displays the sign-on menu; entering ***/./*** results in system sign off.

-F-

"F" (FILL)
An option in Results Entry which automatically moves the cursor to each blank result field sequentially, beginning with the first blank field.

"F" (CHECK FIVE TEST)
An option in Patient Inquiry to view the last five tests of the same test code that were completed on a patient in the last six months. The display is in a cumulative format and can be printed.

"/F" (CHECK FIVE)
A slash followed by F (**/F**) is entered to review the results of the last five occurrences of the test you are currently resulting. This is the same as "F" above, except that CHECK FIVE is used in Resulting rather than Patient Inquiry.

FACILITY
Facility refers to the location of a patient, for example, a hospital.

FEATURES
Special prominent characteristics of the system.

FIELD
Data entry areas provided on the PC screen. Usually a field, such as a result field, has a limited number of characters which can be entered.

FIELD ARROW
Arrow that rests on the current field. Identifies the field which the prompt is currently referencing. Found only in vertical and horizontal screens.

FLAG
A visible indication and/or audible "beep" to denote a situation considered to warrant immediate attention. Flag also refers to system options within the Maintenance

Processors used to control system functions, such as "Print Bad Specimen Labels?." Flags are often called parameters.

FORMAT
The arrangement of data elements or characters comprising any field.

FREE-FORM ENTRY
Entering a field by typing your user description rather than matching a predefined format such as a table code, menu option, or field length and format.

FUNCTION
A descriptive title associated with certain actions which may be performed when chosen from the menu.

FUNCTION KEYS
Top row of keys on the keyboard commonly referred to by an F. Function keys are used in the Softkey Editor word processing package.

-G-

GYN
Gynecologic specimens (for example: PAP smears)

-H-

"H" (HISTORY CARDFILE)
An H is entered to allow access to the History Cardfile processor from Patient Inquiry. The History Cardfile is an on-line result file storage system which maintains user-selected results.

"/H" (HISTORY CARDFILE)
A slash followed by an H (**/H**) is entered to allow access to the History Cardfile processor from Result Reporting. This is the same as the "H" above used to access History Cardfile from Patient Inquiry. The History Cardfile is an on-line result file storage system which maintains user-selected results.

HARD COPY
Implies a printed version of a report as opposed to a screen display.

HARDWARE
Refers to the computer system's physical elements such as the CPU, peripheral devices (printers and monitors) and storage media.

HBB
Horizon Blood Bank

HEALTHQUEST PATIENT ACCOUNTING
McKesson's IBM-based patient accounting system (formerly called MediPac).

HELP TEXT
A system feature which displays additional instructions relating to a field. Help Text can be accessed by entering a question mark (**?**) at the prompt. This user-defined option may contain portions of procedure manuals.

HIGH RISK
Any case on a patient considered to have a high probability of developing cervical cancer. A determination of *high risk* is based on available patient information submitted by the physician or from previous results. An option exists to send all high risk cases to the Repeat Queue processor for concurrent testing.

HISTORY FILE
Long-term data base maintained on each admitted and registered patient. This is often referred to as the Master Patient Index (MPI).

HL7®
Health Level Seven®

HOLD KEY
Key in the upper right corner of the keyboard. When it illuminates, the system cannot be entered. This light should always be off.

HOME
Left-most position in the field.

-I-

"/I" (INQUIRY)
A method of reviewing a patient's order and test information while in Results Reporting via the Patient Inquiry processor. A slash followed by I (**/I**) allows you to access all test results on the patient you are currently resulting.

"/II" (INQUIRY)
A method of reviewing patients' order and test information while in Results Reporting via the Patient Inquiry processor. A slash followed by two I's (**/II**) allows you access to the Patient Inquiry processor to look up test results on any patient, not just the one you are currently resulting.

ID CODE
A permanent, unique number assigned to an individual employee for the duration of employment. If employment is terminated, the code is "retired" but not reused by another individual. The ID code is recorded for each data-generating transaction made by the employee and is permanently stored in the system.

INCOMPLETE WORKLIST
A management report used to keep personnel informed of work pending. The status of each ordered test determines if it will appear in the Incomplete Work report. This report may be viewed on-line or printed.

INPATIENT DISCHARGE SUMMARY REPORT
A report containing all laboratory work done for an inpatient from the date of admission through discharge.

INPUT
Any data "fed" into the computer system.

INS
Insert key. This key places a blank at the cursor's position and all characters to the right of the cursor move one space to the right when in the edit mode.

INSTRUMENT INTERFACES
See ON-LINE INSTRUMENTS

INTERFACE
A communications mechanism linking two or more computer systems which allows the transfer of data from one system to another. Examples include online and tape interfaces.

INTERDEPARTMENT LABORATORY
A laboratory department within a multidepartment environment. Interdepartment laboratories are connected to the STAR Laboratory System.

INTERIM SUMMARY REPORTS
Nursing unit reports containing all laboratory work done since the last printing of the Interim Summary report.

INVALID SIGN-ON
An error message indicating that a key other than L or C has been pressed to log on the system.

INVALID VALUES
You can set a flag in STAR Laboratory to restrict valid responses to a component to those in the valid values list. When this flag is set, any response to the component that is not on the list is considered an invalid value.

-J-

"J" (SPECIMEN REJECTION)
A **J** can be entered to indicate you want to review rejection information on a specimen. This can be entered in Patient Inquiry, Advanced Microbiology, or during Review Queue processing.

JOB STATUS
A screen displaying current system activity.

-K-

"K" (COMMENT REVIEW)
A **K** can be entered to perform comment review in Patient Inquiry, Advanced Microbiology, or during Review Queue processing.

KEYBOARD
The device, designed like a typewriter, which is used to enter information into the system. The keyboard attaches to the PC with a small cable.

-L-

LABELS, ACCESSION
A set of labels automatically generated by the system for every accession. They may or may not be bar coded as your laboratory designated. Sets may contain the following label types:

- Bay labels are generated for accessions requiring specimen separation and routing to various bays for processing.
- Master accession labels list all tests within an accession record and are used for maintaining a current, legible Master Accession Log.
- Slide labels are condensed accession labels suitable for glass slides. Each label contains the patient demographics and test information. The number and type of accession labels are defined for each test in the Master Test file.

LABELS, COLLECTION
Labels containing complete test order information used for specimen collection and record-keeping and to facilitate accessioning. Collection labels may print automatically at order entry or upon demand. They may or may not be bar coded per system design. A set of Collection labels is produced for each order and may include: Master Collection label(s) and Container label(s). Other Collection labels (produced according to need) are: Isolation labels, Pediatric labels and Special Instruction labels.

- Container labels include patient demographics, abbreviated test name, minimum collection volume, container type and accession number.
- Consolidation labels are optional labels for notification only. STAR Laboratory determines when to print Consolidation labels based on order processing consolidation logic.
- Pediatric Collection labels contain the same information as Container labels but have a special cutout portion in the lower right-hand corner on which the accession number is repeated. This portion is attached to the small specimen containers required to collect samples from children and infants.

- Isolation labels can be automatically generated for patients in isolation to alert the laboratory personnel to take special precautions during specimen collection and handling.

- Master Collection labels print for each order and list all tests within the order. They can be used to maintain a Master Collection Log in the laboratory or as an indication of specimen collection at the nursing station.

- Special Instruction labels automatically print for any test requiring special handling as defined in the Master Test File.

LABELS, EMPLOYEE MAILING
Labels containing the name and address of each employee in the laboratory.

LABELS, SPECIALLY DESIGNED
Labels designed according to user-specifications. These labels, printed using the same label stock and printers as Collection and Accession labels, can be used to identify such items as reagents and control samples.

LABELS, SPECIMEN REJECTION
Labels produced at accessioning or result entry when a specimen is determined unsuitable for analysis.

LABELS, USER-DEFINED
The system prints user-defined dot matrix labels on a dot matrix printer and you can modify the format for each label type. This format type uses forms processing. The system prints user-defined Bar Code Labels on a bar code printer and you can modify the format for each label type. Base formats for each label type are part of STAR Laboratory and you can modify the format.

LIKE SPECIMENS
Specimens that are similar enough to the default specimen to use the same reference ranges and flagging.

-M-

MAIN KEYPAD
The portion of the keyboard that works like a regular typewriter with letters and numbers.

MANUAL RESULT ENTRY
Entry of test results using the keyboardas opposed to automatic transmission through an interfaced instrument.

MASTER CHARGE LIST REPORT
A list of all procedures in the Master TestFile with their corresponding billing or charge codes and prices.

MASTER INSTRUMENT TEST
A test set up for each instrument in the Master Test File and used by the system to sort test results processed by on-line instruments. The Master Instrument Test should contain all possible test results produced by the instrument, in the same order as the instrument's output is generated.

MASTER TEST FILE
A file containing each laboratory procedure, whether performed in-house or sent to another laboratory for testing. Information for each test includes result names, normal ranges, maximum allowable specimen ages, etc. The Master Test File is defined by each laboratory.

MASTER TEST LIST
A report listing all test codes and test names defined in STAR Laboratory.

MAXIMUM COUNT (24-HOUR LIMIT)
CLIA '88 regulations limit the number of slide counts allowed each screener in a 24-hour period to 100. Maximum count values are assigned to each screener in the Cytology Personnel builder and can be modified (higher or lower) to assure quality.

MAXIMUM SPECIMEN AGE
The maximum allowable time that can elapse between specimen collection and accessioning. Tests in which specimen age is critical to producing valid results can have a "Maximum Specimen Age" defined in the master test file. When any of these tests are accessioned, the system automatically calculates the specimen age according to the time of collection versus the time of accessioning. If the age falls outside the acceptable limits, the system alerts the user by a flashing signal and audible beep.

McKesson
The name of the company providing the STAR Laboratory System.

MEMORY
A place in the computer where data and programs can be stored.

MENU
A numbered listing of available processors from which the user may select to complete a desired task.

MESSAGE
Capability to communicate information to any hospital department having a printer designated to receive messages.

MIDNIGHT PROCESSING
A set of programs initiated automatically (usually at midnight) which serve as a "housekeeping" process for the system. This process marks the end of the day and initiates several system "status" checks.

MISCELLANEOUS CHARGE
Charges placed by the laboratory for additional procedures or other chargeable items associated with an ordered test but not included in the charge for that test.

MODEM
Device used to send or receive data over telephone circuits.

MODULE
A set of applications which perform a set of functions within the total software package, for example, the Anatomic Pathology module is a module of STAR Laboratory.

MPI
Master Patient Index. Refers to patient/insurance/demographic information retained in the system for an indefinite length of time. Eliminates the need to rekey certain data when a patient is readmitted.

-N-

NAME INQUIRY
Capability of the system to locate any patient in the system by entering a few letters of the patient's last name (see also Alpha Look-up).

NETWORK
A communications system for sharing information between one or more STAR applications or between PCs.

NEW LINE KEY (Data General Terminal Only)
See *ENTER*.

NONGYN
Specimens that are not gynecologic; (for example, body fluids).

NON-NUMERIC RESULT VALUES
Any result value that contains an alpha character. This includes result values such as *positive, negative,* and responses to titers.

NON-SERVICE RECIPIENT WORKLOAD or NON-SERVICE WORKLOAD
Work performed by laboratory staff that does not directly service the patient such as, phlebotomy, test, or quality control workload. Examples of non-service workload include staff meetings, in-service, or travel.

NORMAL RANGE
The range of resulting report values that the system uses to flag as high or low values. A normal range can consist of a single number, for example 0 or 11.

NORMAL VALUE REPORT
A report containing the results and corresponding normal values for each test defined in the Master Test File.

NUMBER OF SLIDES
The actual (physical) number of slides in hand that are examined by the screener to determine the diagnosis for a cytology case. The number of slides for each case is tracked by the system and is separate from the slide count value used to track screener workload.

The number of slides for each case is a whole number and is not determined by the method of slide preparation. The number of slides on a case can be duplicated at the screener level if more than one screener is associated with the case, but will not be duplicated at the department level for management reporting purposes.

NUMBERING POOLS
A pool or set of numbers established within each laboratory section used to store and retrieve processed specimens and/or slides. Numbering pool numbers are assigned by the system at accessioning and printed on appropriate labels. The number pool number for a specimen may be viewed in Patient Inquiry.

NUMERIC
Data consisting of the digits 0-9. Occasionally a decimal point (.) is also allowed.

NUMERIC RESULTS
Any result value that begins with a numeric character or one of the following characters: "<>.-". Examples are: 10.5, <10.5, < 10.5, -5, .2, >2.5, >3, 0.324.

NUMERIC KEYPAD
Number keys located to the right of the main keypad. These keys can be defined for use in specialized counting procedures such as differentials.

-O-

"/O" (ORDER ENTRY)
A slash followed by O (**/O**) allows you to place a new test order on the patient you are currently resulting without leaving Result Reporting.

"/OO" (ORDER ENTRY)
A slash followed by two O's (**/OO**) allows you to place a new test order for any patient, not just the one you are currently resulting, without leaving Result Reporting.

ONLINE
Refers to the status of the monitor in relation to its connection to the PC; a monitor is *online* if it is currently activated with the computer system.

ON LINE KEY (Data General Terminal Only)
Located to the right of the space bar, the ON LINE key can be used to activate or deactivate the terminal's connection to STAR Laboratory. When activated, a red light labeled "ON LINE" is illuminated at the top of the keyboard.

ON LINE LIGHT (Data General Terminal Only)
The ON LINE light, appearing at the top of the keyboard, must always be illuminated. Illumination occurs by pressing the CMD key and the ON LINE key. This enables you to enter the online mode (see Online definition.)

ORDER CANCELLATION
The process of cancelling and crediting both uncollected orders and accessioned tests. Reasons for both the cancellation and the credit are required and stored (along with the ID of the person performing the cancellation) in Patient Inquiry.

ORDER CANCELLATION REPORT
A report listing all orders cancelled within a user-specified period of time.

ORDER ENTRY
Order entry is the process of identifying the test(s) to be performed for a given patient account. All laboratory orders must be entered through the Order Entry processor before they can be accessioned. In systems which are interfaced or networked to a Hospital Information System, the Order Entry function is usually performed by the nursing staff using the communications system.

ORDER INQUIRY
An inquiry processor designed to provide users with information concerning tests which have been ordered but not collected on a patient.

ORDERING CATEGORIES
Classifications used by STAR Laboratory to group ordering priorities and to control order pooling, printing of Primary Result reports and label generation. STAR Laboratory provides the following types of ordering categories: Routine, STAT and ASAP. Categories must be linked to the various ordering priorities recognized by the facility. Each category can be further broken down into two sample sizes for ordering purposes only: macro or micro. Each test in the Master Test File is defined by the category for which it can be ordered and by the allowable sample size.

ORDER PROCESSING CONSOLIDATION
STAR Laboratory consolidates orders as part of the order processing procedure. The system evaluates the following as part of this consolidation procedure: nurse collection, specimen type, specimen modifier, priority, and requested collection date and time. A secondary step in the consolidation includes the evaluation of the container type, tests per draw set against limit, and the number of test per accession limit. Once this consolidation is completed, STAR Laboratory assigns an accession number to each draw set.

ORDERING PRIORITIES
Each facility has its own method of identifying the priority of tests and procedures at order entry. An unlimited number of priorities can be established by the laboratory, however, each priority must be linked to one of the ordering categories described above.

OUTPATIENT SUMMARY REPORT
A report containing all laboratory work performed for an outpatient on the date of service. Outpatient Summary Reports are usually printed once daily and include work done in all sections of the laboratory.

OUTPATIENT CHARGE DOCUMENTATION (OPCD)
Tools needed to assist providers in complying with various CMS billing requirements for the Outpatient Medicare population. These tools facilitate documentation needs at the time of order/charge entry. Outpatient Charge Documentation (OPCD) is now known as CMS Compliance Checking.

OUTPUT
Any information generated through computer calculations or processing. Output is either printed or displayed.

OVERWRITING RESULTS
Re-entry of all or individual result values for a test. When a technologist selects a completed or partially completed test through a result entry processor, the system alerts the user with a displayed message and audible beep.

-P-

"P" (PREVIOUS)
An option in Patient Inquiry to access the next previous days work on a patient.

"P" (PRINT)
An option in Result Entry and ESP used to force a hard-copy print of a Primary Result Report even though the test is not completed. This report copy is labelled "TEMPORARY" and "To Follow" is indicated in the empty fields.

PAC
Product Advisory Committee.

PANIC VALUES
Life-threatening values defined for any test result in the Master Test File. When a panic value is entered in a results entry processor, the technologist is alerted by a flashing signal and an audible beep.

PARAMETERS
Most areas of the STAR Laboratory System can be tailored for your department's needs. These areas are defined through "flags" called parameters.

PARTIAL
A test status indicating that the specimen has been accessioned and test processing has been partially completed.

PATIENT ACCOUNT NUMBER
See Account Number.

PATIENT DEMOGRAPHICS
See DEMOGRAPHICS.

PATIENT INQUIRY
An inquiry processor designed to provide users with up-to-the-second information on patient demographics, ordered tests (optional), accessioned tests, test results and data surrounding these activities.

PATIENT MANAGEMENT
Processors used to admit, register, discharge and transfer patients within STAR Laboratory.

PATIENT TYPE
The STAR Patient Care/STAR Laboratory way of categorizing the patient population. Patient types are user-defined by parameters such as admission screen sequence, pre-admission testing capabilities, and account number group. Patient types must match across all STAR products.

PATIENT UNIT NUMBER
See Unit Number.

PERSONAL PASSWORD
Also called the secret code, the "personal password" is chosen by each user and must be updated periodically (as defined by the laboratory). This password must be entered directly after entry of the employee number before you can sign-on to the system.

PHYSICIAN UTILIZATION REPORT
A statistical report containing information on the ordering patterns of individual physicians. Orders are broken down by category (STAT, ASAP, routine) and may be further detailed with patient demographics and accession information.

PRIMARY RESULT REPORTS
A report generated immediately upon completion of each test procedure. This report contains the patient demographics, collection information, test results and normals.

PRINTER
A computer output device which produces a typewritten copy of processed information. Character printers print one character at a time while line printers print one line at a time.

PRINTER MATRIX
An option allowing collection labels and Primary Reports to be routed to printers based on ordering priority, patient location or patient type.

PROCESSOR
A part of the system used to perform a group of related tasks, including receiving, manipulating and generating data. An example is the order entry processor.

PROFESSIONAL BILLING
STAR Laboratory includes a Professional Billing processor that enables you to enter professional billing parameters, provided professional billing reports, and perform charge inquiry.

PROGRAMS
A set of instructions or steps which tells the computer exactly how to perform a task.

PROMPT
A reverse video band at the bottom of the screen which contains the prompt or question required by the system for the next transaction to occur. Almost every screen in STAR Laboratory displays a prompt at the bottom instructing the user on how to proceed.

PURGE
The process of permanently removing data from the system.

-Q-

"Q" (QUEUE)
Used to queue results in result reporting to a review queue.

QUALITY CONTROL
An automated quality control system within STAR Laboratory allowing entry and storage of QC records in computerized files.

QUEUE
A waiting line. Refers to programs or information waiting to be processed by the computer or printed by a printer.

-R-

"R" (REPLICATE)
Performing certain steps within a specific test procedure multiple times. **R** is used to enter multiple sets of results such as duplicate performance of prothrombin times. The workload unit value assigned to such tests takes into account that replicate steps will be performed during results entry.

"RR" (REPEAT)
Unplanned activities performed during test processing; used for workload recording purposes. When **RR** is entered, the user is prompted to specify if workload is to be disabled. Repeats performed to resolve a problem qualify for workload capture. Duplicate performance for quality assurance purposes without a reasonable cause does not qualify for workload capture. Repeating a procedure because of tech error also does not qualify for workload.

READER
A device for reading bar code.

REAL TIME
Instantaneous; concurrent with processing. Real time processing changes files immediately upon data entry, unlike batch, where the information is accumulated and files are changed in the future (for example, during Midnight Processing).

RECALL DELETION AUDIT
When a patient is removed from the Recall process, the patient is added to the Recall Deletion Audit. This audit provides a means to review all patients that are removed from the Recall process.

RECALL MANAGEMENT
A STAR Laboratory feature that provides an online method to track the need for follow-up testing and notify the necessary individuals. This feature is most often used for Cytology, but can be used in other areas of the laboratory as well.

RECALL PROCESS
This term is used to describe the overall system process a patient goes through once an accession is added to a recall queue. It includes movement into and out of hold and reminder queues, delinquent queues, and the printing of reminder letters, etc.

RECALL QUEUES
All queues that a patient (recall accession) can be processed through, using the Recall Management features and options. These queues include hold queues, first, second, third reminder queues and delinquent queues.

REFERENCE LAB INTERFACE
An advanced module of STAR Laboratory that enables electronic transfer of information between the hospital and the reference laboratory.

REPEAT QUEUE PROCESSOR
A result entry processor for tests that have undergone an initial Result Reporting episode and have been selected (automatically by the system or manually by the user) for repeat screening. Some result components (if defined) are automatically carried over from the original Result Reporting episode; all other components are available for QC result entry.

REPT
Repeat key. Holding this key and certain cursor control keys simultaneously can eliminate repeated use of one key. For example, holding the arrow key and the Rept key causes the cursor to move to the right or left more than one space.

REQUIRED FIELD
A field which requires a reply before permitting you to continue onto the next one.

RESPONSE TIME
The time it takes a computer to respond to a user's request for information.

RESULT CATEGORIES
A parameter used to determine if a test result is required or optional, and whether the result will appear on patient reports and in Patient Inquiry. Result categories are:

- Required External results are required for the test to be complete and appears on reports and in Patient Inquiry.
- Optional External results are not required for the test to be complete but, if entered, will appear on reports and in Patient Inquiry.
- Required Internal results are required for the test to be complete but will not appear on reports or in Patient Inquiry.
- Optional Internal results are not required for the test to be complete and will not appear on reports or in Patient Inquiry.

RESULT TABLE
A result entry feature allowing results to be selected from a user-defined table or list of options.

REVIEW QUEUE
The ability to send specified tests to a queue for on-line storage until results have been reviewed and accepted.

-S-

"S" (SKIP)
Use in resulting and review queue reporting to "skip" or pass over a patient in the batch to the next patient.

SCANNER
An optical and electronic device which scans bar code symbols and translates the information.

SCREEN
Refers to the display on the video screen of the PC.

SCREENER
The employee who performs the actual microscopic slide examination on a cytology order. ORIGINAL SCREENER is used to denote the individual associated with initial Result Reporting on a case. QC SCREENER refers to the individual responsible for the Repeat Queue results. All screeners are defined in the Cytology Personnel builder and are eligible for workload capture.

Certain screeners can be defined as exempt from the QC portion of this enhancement; that is, they are not required to have their cases included in the second blind review as described in the CLIA '88 regulations.

SECRET CODE
Also called personal password, the secret code is chosen by each user and must be updated periodically as defined by the laboratory department. This password must be entered directly after entry of the employee number in order to sign-on to the system.

SECTION
A main area within the laboratory; sections are composed of individual bays. An example is the chemistry section.

SECURITY
The ability of the system to limit access of information based on an identification code and secret password.

SECURITY LEVELS
A mechanism used by STAR Laboratory to control system access and the types of transactions users are authorized to perform. Security levels range from 0 to 80. Each laboratory uses levels within this range to define security level positions, usually in intervals of 10.

SENDOUT INTERFACE TEST
A test performed at a reference laboratory for which test order and result information is transmitted electronically between STAR Laboratory and the designated reference laboratory, using the STAR Laboratory Reference Lab Interface.

SENDOUT LAB
A commercial reference laboratory providing services to a STAR Laboratory department, such as Specialty Laboratories.

SIGN-ON KEYS
Sign-on keys, which are determined by the user, initiate signing onto the system making available appropriate functions and programs. In STAR Laboratory, the letter L is used.

SIGNING OFF
Exiting the system. When finished using STAR Laboratory, entry of slash period slash (***/./***) at the prompt followed by ENTER results in system sign off at that terminal. The screen then displays the Bulletin Board.

SIGNING ON
Accessing (logging on to) the system. The first step in signing on is to press the L key on the main keypad. The system then requires entry of ID code (or wanding of the bar code) and entry of the personal password. Once the ID code and personal password are entered correctly, the screen temporarily flashes the name and position of the person signed on. The initial menu then displays for selection.

SIM
Service Item Master. The SIM file contains entries for all departments for which a coded order or charge may be placed.

SLIDE COUNT
Slides examined by an individual screener that count against that screener's Cytology workload. Slide Count is the valueused by the system to track the limits for a screener as mandated by the CLIA '88 regulations.

For more information about slide count and its impact on the Number of Slides field, see Workload/QC Processing in Cytology QA in the Applications chapter of the *Anatomic Pathology Module*. For more information about other slide counts and other duties, see Workload/QC Processing in Cytology QA in the Applications chapter of the *Anatomic Pathology Module*.

SLIDE POOLS
A method used by STAR Laboratory to combine slide labels for an individual accession.

SNOMED®
Systematized Nomenclature of Medicine

SNOMED CT®
Systematized Nomenclature of Medicine Clinical Terms.

SNOMED CODE OR ID
A unique numeric identifier based on concepts, descriptions, hierarchies, and attributes as defined by SNOMED International.

SOFTWARE
Refers to the computer programs.

SOUNDEX
A feature used to access patient information when the exact spelling is not known. An approximate spelling along with the correct number of consonants of the last name prefixed must be entered for a soundex search. Once this is indicated, a list of patient names beginning with the same sounding letter and having the same number of syllables displays for user selection.

SPEC RECD
A test status indicating that the specimen has been received and accessioned and the work is in progress, but no results are available.

SPECIAL REVIEW REPORTS
A processor used to obtain specific laboratory data for research projects or other unique tasks. The search capabilities for Special Review Reports are identical to those for the Supervisor/Pathologist Review Reports, but the test selection criteria will vary with each user.

SPECIMEN COLLECTION REPORT
A management report specifying the collection requirements for every test in the laboratory. The Specimen Collection Report can be distributed to nursing units and other areas outside the laboratory where specimen requirements for each test are needed.

SPECIMEN REJECTION
Rejecting a specimen that you judge to be unsuitable for analysis or that the system determines exceeds the maximum allowable specimen age for the ordered test according to the Master Test file.

SPOOLER
A system utility used to store formatted data on disk prior to routing to the appropriate devices (printers, interfaces, disk).

SPOOLER QUEUE
The utility used to distribute spooled data to the appropriate devices.

STANDARD RESULT TEXT
Predefined text used as a base document for lengthy textual results. Standard text summaries are often created for particular pathologists, specimen types, disease states, or a combination of these.

STAR PATIENT CARE
McKesson's patient information system.

SUMMARY REPORTS
Patient reports that consolidate laboratory test result information. These include:

- Discharge Summary Reports
- Outpatient Summary Reports
- Interim Summary Reports
- Physician Batch Summary Reports
- Post Discharge Summary Reports

SUPERVISOR/PATHOLOGIST REVIEW REPORTS
A variety of reports on test and patient data compiled by user-defined review criteria and used by laboratory supervisors and pathologists. Review criteria are stored in the system and used to monitor test results. Review reports are printed on a scheduled basis, usually once daily.

-T-

TABLE
A list of related codes and descriptions maintained internally by the computer. Tables are used to simplify data entry.

TEMPORARY REPORTS
Temporary copies of the Primary Result Report generated for partially completed tests through the "Print" option of results entry. Temporary Reports, labelled "TEMP" at the bottom, provide interim information only and should not be placed on the patient's chart. The sole purpose of Temporary Reports is to provide the physician with information needed to proceed with patient care.

TEST PROCESSING
All the activities involved in entering and reporting test results.

TEST STATUS INDICATORS
A way of indicating the stage of completion of ordered tests. Statuses are: Ordered, Order Cancelled, Spec Recd, Reject, Test Cancelled, Courier, Sendout, Received, Review, Partial, Done and Archived.

TITERS
Titers result values are numeric result entries expressed in ratios. For example, 1/3 or 1/25 are titers. Since these entries contain a slash (/) which is an alpha character, these result entries are considered non-numeric.

TRANSACTION
Refers to the interaction between the user and the system.

TRUNCATE
To shorten or abbreviate; for example, some results must be truncated to fit on the screen.

-U-

UNIT NUMBER
Patient Unit Number, medical record number and history number are synonymous; a unit number is unique to each patient within a facility. It is assigned to a patient on their first visit to the facility and permanently retained on that patient for each subsequent visit.

USER-DEFINED
Refers to any system parameter determined by the laboratory. These parameters are usually defined during installation of the system, however, most can be edited using the Maintenance Functions processors.

-V-

VALID RANGE
The range of acceptable numeric result values for a component. STAR Laboratory considers entries outside of this range absurd values.

VALID VALUE
A non-numeric value which is assigned as a valid response to a component. If the Restriction option is set to Restricted, STAR Laboratory accepts no entry of any result outside of the valid value list. You must enter a security override for invalid values.

VDU
Video Display Unit.

-W-

WMS
Workload Management System

WORKLOAD
Standard time unit values assigned to procedures for the purpose of estimating the amount of work performed.

WORKLOAD EPISODE
One iteration of workload capture for a screener on a case. An indvidual screener can have more than one workload episode on a case if that case is processed by the screener through more than one workload-eligible activity. For example: a screener will capture workload on a case twice if that screener enters results through Result Reporting and the Repeat Queue processor. Each workload episode has a unique date/time stamp which is recorded at the time of workload capture for the case and screener.

WORKLOAD RECORDING
Tabulating workload units as a by-product of normal operations within STAR Laboratory.

-X-

"X" (Fax)
Prompt option in Patient Inquiry and Result Reporting that enables you to fax reports previously printed. This only applies to reports that have been issued for a test.

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V

W

■ Reader Comment Form ■

We value your suggestions for improving our documentation. Please use this form to evaluate the *General Information Volume* of the *STAR Laboratory Reference Guide* for Release 17.0.

Topic	Poor	Fair	Good	Excellent
Organization of information	❑	❑	❑	❑
Accuracy of information	❑	❑	❑	❑
Completeness of information	❑	❑	❑	❑
Clarity of information	❑	❑	❑	❑
Amount of overview information	❑	❑	❑	❑
Explanation of processes	❑	❑	❑	❑

Are there parts of this manual that could be made more helpful to you? Please explain.

Other Comments:

Thanks for your help in improving the documentation.

Your Name and Position _____

Hospital/Organization Name _____

Telephone Number _____

May we contact you? Yes or No (circle one)

■

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