Fermilab
Computing Division

MISCOMP

User Documentation

EQUIPMENT DATABASE

Version 0.4

Edition 1.0

This manual is as complete as possible as of this date. Additional sections are in preparation. Please suggest additions, corrections, etc. via Email to MISCOMP@FNAL.GOV. *Revisions will be distributed as soon as they are available.*

June, 1994

MISCOMP EQUIPMENT DATABASE

Version 0.4

User Documentation

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MISCOMP EQUIPMENT DATABASE

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1. Accessing the System

1. Accessing the System

The MISCOMP Database contains information about equipment handled by the Computing Division. A more extensive description may be found in the Business Concept Section later in this book

A. Request Forms

The Computing Division (CD) Equipment Database is available to users with proper approvals. Users will be granted appropriate levels of access as determined by CD Management.

In order to access the CD Equipment Database, complete the following steps.
The required forms can be obtained through the CD Office/Library or electronically (call X2345 for assistance).

1. Fill out the Fermilab Central Computing Facilities, Computer Account Request Form. Make sure to indicate you want an account on FNCDUA.
2. Read and sign the Proper Use of Fermilab Computing Facilities form.
3. Fill out and submit a Fermilab Computing Division Request for UID Assignment form (if not already done).
4. Fill out a Request for Access to MISCOMP form.

Call X2345 if you wish to check on the completion of this approval process.

The CD Accounts Administrator will activate your account generally within one business day.

B. Accessing Equipdb

The MISCOMP Equipment Database resides on a Sun System. There are two methods by which the database can be accessed. You can use equipdb to gain access to a character mode application built in the Oracle SQL*FORMS Version 0.3 product. or, you can use miscomp to gain access to a GUI application built in Oracle Form s Version 0.4.

To run miscomp on the Mac, all that is needed is MacX or Telnet. All functions which equipdb requires keys for can be done using the mouse in the GUI miscomp application.

Users who will be running the GUI MISCOMP application must make certain that their DISPLAY environment variable is set correctly. And, if you are working on an x-terminal that is outside of the fncdua network hosts group, you must add the specific entry to your .hosts file. You may send mail to fncd-local-admin@fncdua.fnal.gov for help with this.

Also, users of the miscomp screens may want to remap their delete key using the alias provided with the setup of the Equipment Database called keyb_del. The keyb_del alias remaps the delete key at the X11 level so that it will perform a delete backward function as opposed to the delete current character function. Run this alias after you setup equipment_db and before you run miscomp.

To access Equipdb from the Macintosh, it is necessary to use a VT220 terminal emulator program, such as VersaTerm Pro or MacX, and an Apple extended keyboard. Since not all VT220 function keys are available on the Macintosh keyboard, it is necessary to use a keyboard overlay (such as from White Pines Software) to locate all correct VT220 function keys. Basically, the function keys on the Macintosh are "off" by 5, i.e. the F1 Macintosh key is the actual VT220 F6 key.

The user will log on to the System using the User Name and Password established in Section 1.

To run either sub-product of the Equipment Database, run the appropriate setup commands below.

Equipdb	Miscomp
setup equipment_db	setup equipment_db
equipdb	miscomp

You are now at the logon screen. Enter the appropriate Oracle Username and Password established in Section 1.

After entering your Username and Password, you will now be in the Equipment Database Main Menu. Depending on the Roles established, you will have access to different menu options. See Section C "The Equipdb Menus by Roles", or Section D " The Miscomp Menus by Role" for details on the menu options for the various roles.

C. The Equipdb Menus by Role

Perhaps the best way to become familiar with the Menu options available to you is to log on and explore. The following paragraphs provide an overview of the various menu possibilities, should you prefer to read about them first.

There are currently 4 Roles in which the Equiipdb Application may be accessed. Each of these Roles will allow access to various Equipdb menu items. This section documents all the menu options available for each role.

The Main Menu is depicted along with a summary of the access to the options for the roles . All sub-menus and the access privileges by role are documented in the following pages.

Main Menu

1. Physical Instruments
2. Logical Systems and Networks
3. Network Administration Reports
4. Supporting Data
5. Query and Report Access
6. Exit

Main Menu Role Access

	Data Admin	Data Entry	NW Admin	Query Only
1.	All	All	Limited	Limited
2.	All	All	All	Limited
3.	All	None	All	None
4.	All	None	None	None
5.	All	All	All	All

The Equipdb Menus by Role (continued)

Below, each of the Equipdb sub-menus are shown, including the roles that can access these menus. Notice that different menu options are available for different roles.

Roles: Data Admin, Data Entry

Physical Instruments

1. Maintain Fixed Assets
2. Maintain Physical Systems
3. Fixed Asset Turn In Screen
4. Fixed Asset Storage Screen
5. Service Provider Maintenance
6. Physical System Claim Maintenance
7. Query & Report Access
8. Previous Menu
9. Exit

Roles: NW Admin, Query Only

Physical Instruments

1. Maintain Fixed Assets
2. Maintain Physical Systems
3. Query & Report Access
4. Previous Menu
5. Exit

Roles: Data Admin, Data Entry, NW Admin

Logical Systems and Networks

1. Maintain Logical Networks
2. Maintain Nodes
3. Maintain Network Services and Groups
4. Maintain Physical Network Segments
5. Maintain Nodes (For Inventory)
6. Query & Report Access
7. Previous Menu
8. Exit

Roles: Query Only

Logical Systems and Networks

1. Maintain Logical Networks
2. Maintain Nodes
3. Maintain Network Services and Groups
4. Maintain Physical Network Segments
5. Query & Report Access
6. Previous Menu
7. Exit

Roles: Data Admin, NW Admin

Network Administration Reports

1. Generate Name Server Tables
2. DECNET Address to Name
3. DECNET Node List
4. Query & Report Access
5. Previous Menu
6. Exit

The Equipdb Menus by Role (continued)

Roles: Data Admin

Supporting Data

1. Maintain Physical Instrument Classes
2. Maintain Maintenance Contract Costs
3. Maintain People
4. Maintain Groups
5. Maintain Locations
6. Maintain Extra Attribute Types
7. Maintain Substitute Lists
8. Maintain Physical Instrument Construction Guidelines
9. Support Data for Report Submission
10. Previous Menu
11. Exit

Roles: Data Admin

Support Data for Report Submission

1. Maintain Reports
2. Maintain Printer Queues
3. Maintain Report Types
4. Maintain Printer Types
5. Maintain Operators
6. Maintain Report Classes
7. Previous Menu
8. Exit

Roles: All

Query & Reporting Access Menu

1. Report Submission
2. Fixed Asset Inquiry
3. Maintain Printer Queues
4. Previous Menu
5. Exit

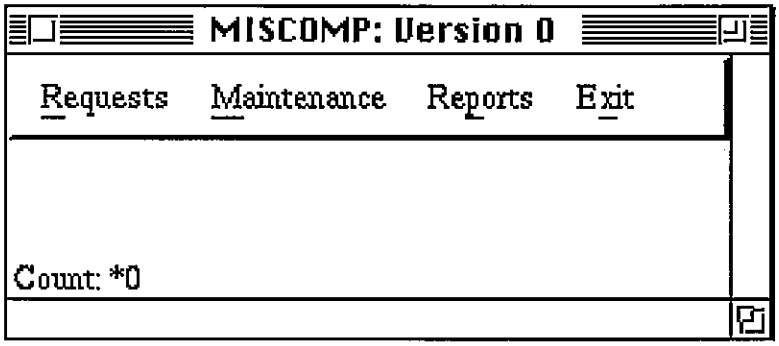
D. The Miscomp Menus by Role

Running the MISCOMP product puts you in an entirely new GUI menu. This menu is a pull-down menu which provides access to all of the newly implemented MISCOMP functions. From this menu, you can also get to the character mode version of Equipdb.

The menu options, broken out by the roles that can access them, are contained below. Brief descriptions of the function that each menu option provides are in the following section, MISCOMP Functions.

MAIN MENU

This menu is available to anyone who has access to the Equipment Database.

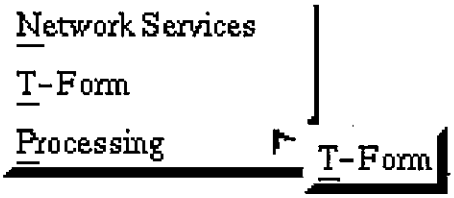


Menu: Requests

This menu is available to anyone who has access to the Equipment Database. The availability of menu options under this menu is dependent on the role you have been granted. A picture of the different menu options by role follows.

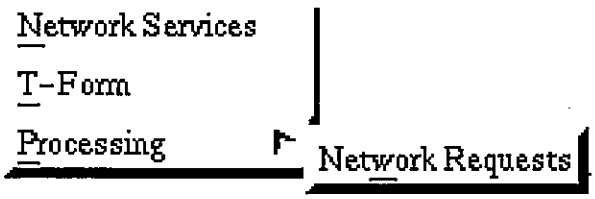
Roles: Data Admin

Sub Menus:



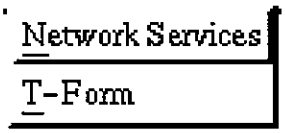
Roles: NW Admin

Sub Menus:



Roles: Sys Mgr,
Data Entry,
Query Only

Sub Menus:



Menu: Maintenance

This menu is available to anyone who has access to the Equipment Database. The availability of menu options under this menu is dependent on the role you have been granted. A picture of the different menu options by role follows.

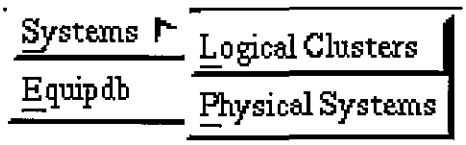
Roles: Data Entry,
NW Admin,
Query Only

Sub Menus:

Equipdb

Roles: Sys Mgr,
Data Admin (query only access to the Systems options)

Sub Menus:

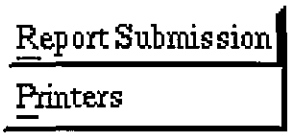


Menu: Reports

This menu is available to anyone who has access to the Equipment Database. The availability of menu options under this menu is dependent on the role you have been granted. A picture of the different menu options by role follows.

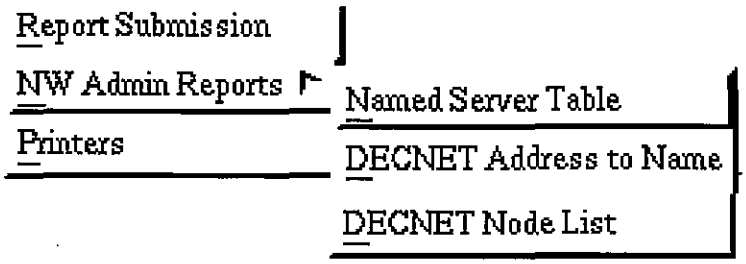
Roles: Data Admin,
Sys Mgr,
Query Only,
Data Entry,

Sub Menus:



Roles: NW Admin

Sub Menus:



MISCOMP EQUIPMENT DATABASE

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2. Using Oracle

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Introduction to Using Oracle

This section includes a description of how to use all of the Oracle tools that will be accessed when running the Equipment Database. A brief description of SQL*Menu, Oracle Forms and SQL*ReportWriter is contained below along with some basic end-user steps for running these products. This is meant to serve as a basic introduction needed by a user of the Equipment Database.

The products are presented in the order in which they will be accessed when running the Equipment Database. You will first access menus using SQL*Menu. Then, you will more than likely access forms to enter data using Oracle Forms. Finally, you will generate output reports using SQL*ReportWriter. This section presents the products in that order: SQL*Menu, Oracle Forms, and then SQL*ReportWriter.

In this section, every attempt was made to define all terms and hopefully alleviate the stress caused by not understanding the jargon used. The only formal document style used below is that function names are enclosed in brackets []. For example, [Down] indicates that you will perform the down function by hitting the down arrow on your keyboard. All function names are completely defined in section titled Function Definitions.

Additional, more detailed documentation on each of these products is available through Oracle Corporation's published manuals.

SQL*MENU

What is SQL*MENU?

SQL*Menu is a tool used by system development staff to create menus quickly and easily. Once created, you will use these menus to access business applications developed using other Oracle tools such as Oracle Forms and SQL*ReportWriter.

A menu is a list of choices, or menu items, that you can select at run time to specify your next action. Menu items can call other menus, execute commands, or run programs (such as forms or reports, discussed below).

A menu application is a set of interconnected menus from which operators can carry out the data processing needs. The structure of a menu application is represented by a menu tree.

A menu tree has a root menu, or main menu, connected to other menus, called submenus. A submenu is a menu that is called by an item in another menu, the parent menu. Any submenu can also be a parent menu if its items call other submenu.

Using SQL*Menu

The Equipdb sub-system uses a full-screen style menu which displays menu items in a vertical numbered list with identifying text. Highlighting indicates the current item, and the Enter Your Choice field contains the item number.

You can use either of the following two methods to select a menu item in the Equipdb application:

1. Select any item in the current menu by typing its item number in the Enter Your Choice field and pressing Return.

2. Highlight an item in the current menu by moving to it using your [Down] or [Up] arrow keys, then select it by pressing Return.

The MISCOMP sub-system uses pull-down style menus which you traverse with your mouse.

ORACLE FORMS

What is Oracle Forms?

Oracle Forms is an Oracle software tool that allows developers to create forms that support business applications. Once created, users can access these forms to perform their regular business functions.

There are two versions of Oracle Forms in use with the Equipment Database: Version 3 and Version 4. Forms Version 3 is a "fill-in-the blanks" template style product, while Forms Version 4 is a GUI, mouse-enabled, Macintosh style product.

The following sections describe both the Version 3 and 4 products, unless otherwise noted, the descriptions below apply to both versions.

The forms are fill in the blanks templates on your computer screen that allow you to enter, update, and query information in an Oracle database. Forms typically have data validations, calculations and other algorithms built-in to ensure that the data you enter follows the defined business rules for your system.

The ORACLE database organizes data into tables of related information. These tables are made up of rows and columns. A sample Equipment Database table is depicted below along with some sample data.

Sample Physical_System Table

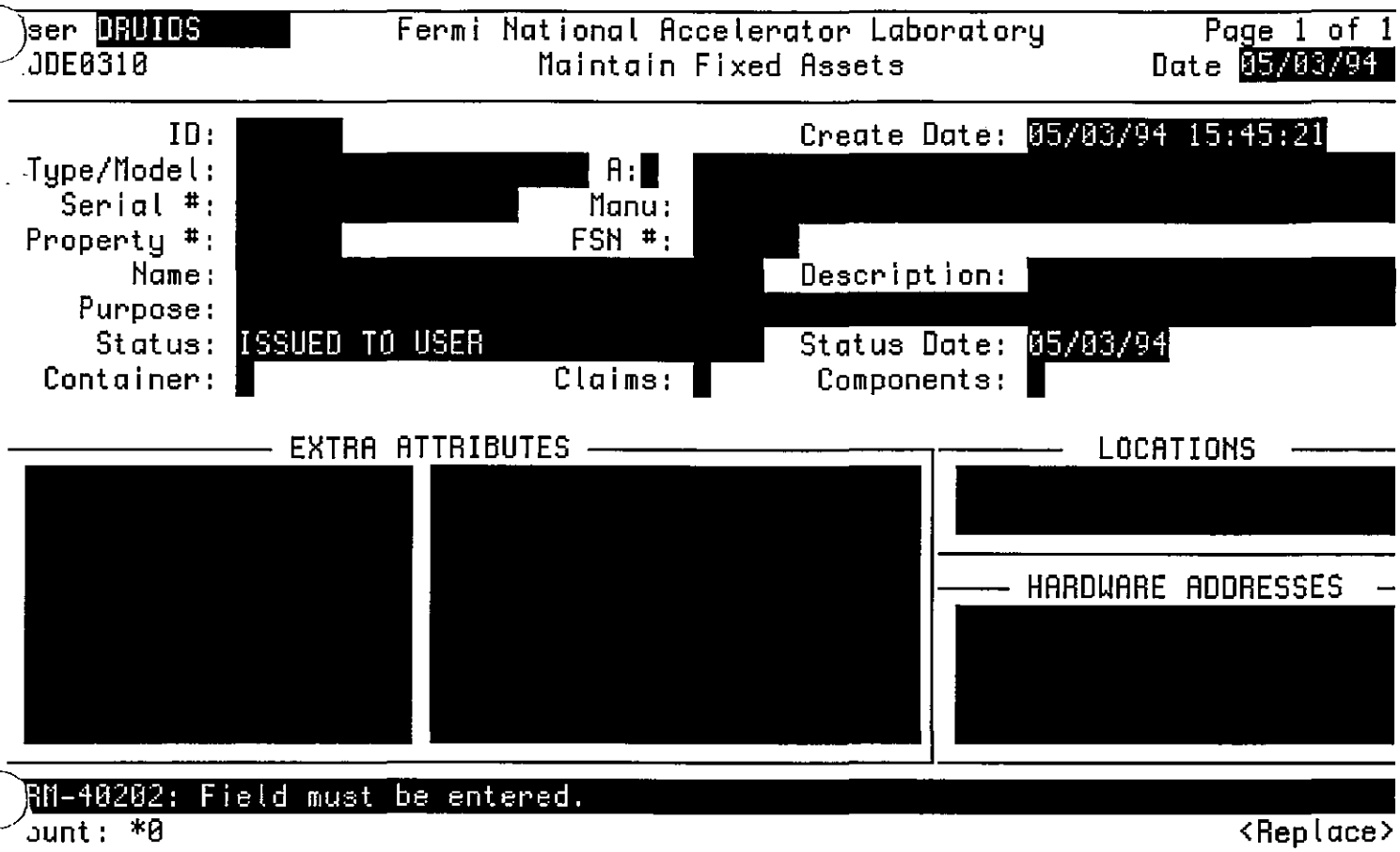
Id	Name	System Number	...
15002	FNL26G	S02116	...
15003	FNALR8	S00925	...

When you retrieve data into a form (execute a query), each record that is displayed comes from a row in a table. Therefore, if you enter, modify, or delete a record, your action causes a corresponding row in a table to be entered, modified, or deleted.

It should be noted, however, that Oracle Forms uses a work space to house the data that you see on the screen. In other words, data that you see on the screen is simply that, data on the screen. It does not overwrite the actual data in the database until you tell Oracle Forms to do so. This work space idea allows you to make changes and then either correct or disregard those changes before they are made permanent, protecting you from your own mistakes. More information regarding how to save or disregard your changes is contained below in Using Oracle Forms.

Form Structure - Oracle Forms Version 3

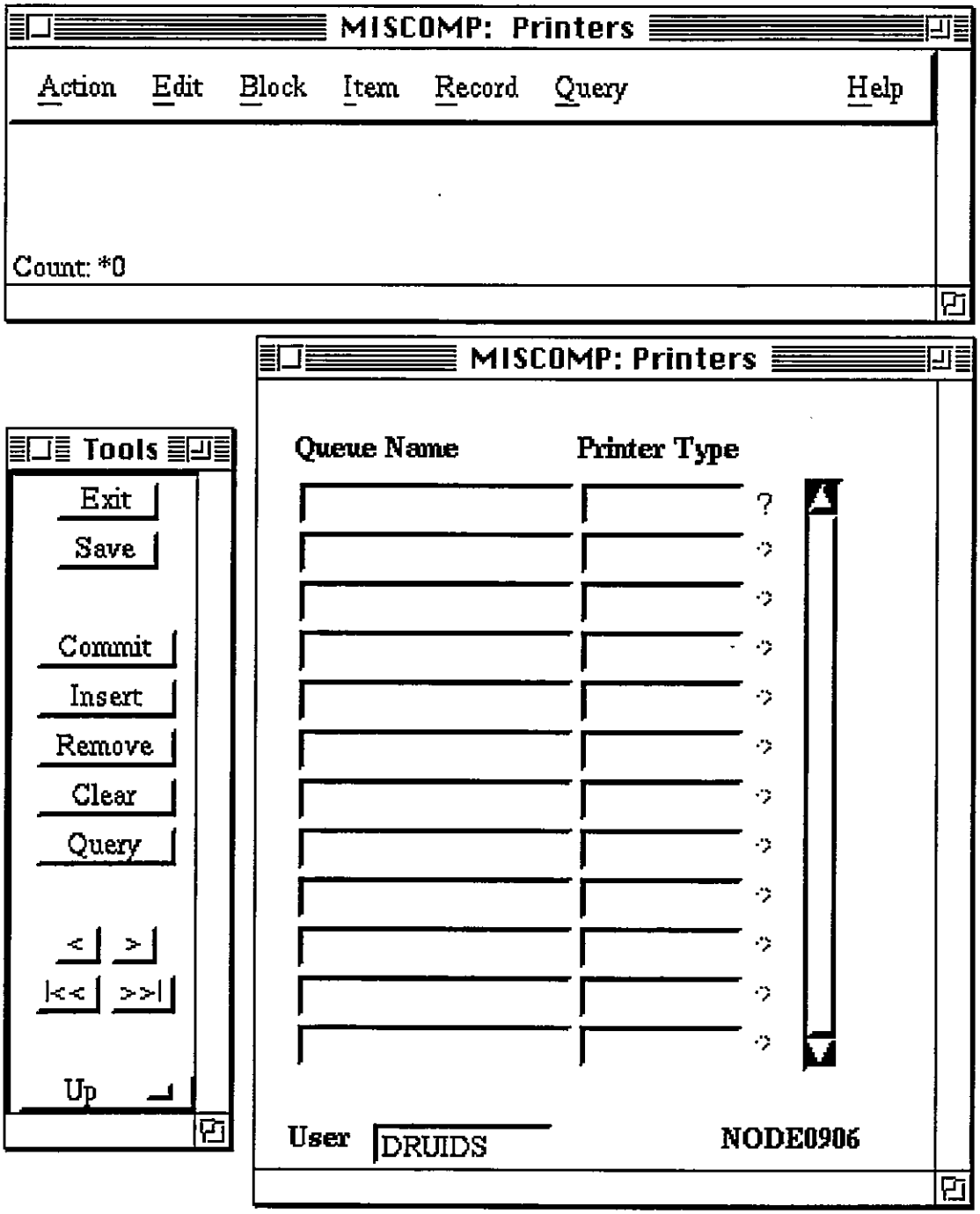
Forms are composed of blocks records and fields. A picture of a sample Equipdb form is below, followed by a detailed description of the areas of the form.



Block	A block is a group of related fields on a form. Blocks can span multiple pages, however it is quite typical for a block to be on only one page with all the fields closely grouped together. In Equipdb, blocks are denoted by a box surrounding all the fields within the block. Blocks can be navigated amongst using the Next Block and Previous Block keys. For more information on navigation see Navigation.
Record	A record is used to display the data from a row in a database or table. Each block can display either one, or more than one record at a time. Records within a block can be navigated between using the Up and Down arrows or the Next Record and Previous Record keys. For more information on navigation see Navigation.
Field	A field is an area on the screen that can display a value or accept an input value. A field normally represents a column from a database table. In Equipdb, fields are depicted by highlighted areas on the screen. Fields within a record can be navigated amongst using the Next Field (Tab or Return) and Previous Field Keys. For more information on navigation see Navigation.

Form Structure - Forms Version 4

Forms are composed of blocks records, fields, buttons, check boxes and scroll bars. Additionally, they are made up of one or more windows. A picture of a sample MISCOMP form is below, followed by a detailed description of the areas of the form.



Block	A block is a group of related fields on a form. Blocks can span multiple pages, however it is quite typical for a block to be on only one page with all the fields closely grouped together. In MISCOMP, blocks are denoted by a box surrounding all the fields within the block. Blocks can be navigated amongst using the mouse or the Next Block and Previous Block keys. For more information on navigation see Navigation. Some blocks allow you to query, insert, update and delete records in the database, while others just allow you to query records. Moving your mouse to a blank record in a query only block will produce an error message telling you that you cannot insert records in this block. An example of this is the Report Submission screen, in which none of the blocks allow inserts.
Record	A record is used to display the data from a row in a database or table. Each block can display either one, or more than one record at a time. Records within a block can be navigated between using the Up and Down arrows or the Next Record and Previous Record keys. For more information on navigation see Navigation.
Field	A field is an area on the screen that can display a value or accept an input value. A field normally represents a column from a database table. In MISCOMP, fields are depicted by highlighted areas on the screen. Fields within a record can be navigated amongst using the Next Field (Tab or Return) and Previous Field Keys. For more information on navigation see Navigation.
Button	A button is a clickable area on the screen that initiates some processing. For example, all MISCOMP forms have at least one button labeled with a question mark (?). These buttons can be used to perform the List of Values function. The buttons usually reside immediately to the right of the field for which they provides a list. In some blocks, however, a ? button can be found to the left of all fields in the block. This indicates that the button initiates a list function that applies to more than one field in the block.
Check Box	A check box is a box that toggles on or off when clicked based on its previous setting.
Scroll Bar	A scroll bar is used to scroll up/down lists of records or to scroll through long fields. In the MISCOMP sub-system, scroll bars are defined for all blocks that display multiple records.
Window	Each form can have multiple windows which behave very much like windows of the native window manager being used. You can display, hide, move and resize the windows much like other window programs. In MISCOMP, each form has at least three windows: the root window (described below), a tool bar window and a window which implements the form's main processing.

Root Window	Each window in an Oracle Forms Version 4 form must have a root window. This window contains, minimally, the message line discussed later. In MISCOMP, this window also houses the pull-down menu discussed below.
Menu	A pull-down menu exists in every form that allows you to perform every possible Oracle Forms function described later in this document. You can use this menu instead of learning the function keys. In MISCOMP, this menu can be found in the root window of each form.

Form Status Information - Oracle Forms Version 3

At the bottom of the screen are the message line and the status line.

Message Line: The message line displays messages informing you how to use the system. Upon entry into a field the message line will display the field hint text. The hint text will indicate if a List of Values is available for the field.

The working message indicates that the system is processing your last action and is either querying the database, writing to the database, or performing some other such action.

Status Line: From left to right, the status line may contain:

Count: Indicates the number of records retrieved by a query. Each time you display a record retrieved by a query, the count is increased. When you have retrieved the last record, an asterisk (*) is displayed before the count.

^ Indicates that there are records before the current record in the block. Moving the cursor down will display these records (see Navigation).

v Indicates that there are records after the current record in the block. Moving the cursor up will display these records (see Navigation).

ENTER QUERY Indicates that the screen is in the query mode, waiting for you to enter query conditions and execute the query.

<Insert> or <Replace> Displays the current character mode, either Insert or Replace. This indicates whether, when typing, the user will either replace characters in a field or will insert before them.

Form Status Information - Oracle Forms Version 4

At the bottom of the root window for a form are the message line and the status line.

Message Line: The message line displays messages informing you how to use the system. Upon entry into a field the message line will display the field hint text. The hint text will indicate if a List of Values is available for the field.

The working message, and/or the displayed clock indicate that the system is processing your last action and is either querying the database, writing to the database, or performing some other such action.

In MISCOMP, you may also receive messages in a pop-up window. When you receive a pop-up message, the message line will get overwritten with the text "Continue...".

Status Line: From left to right, the status line may contain:

Count: Indicates the number of records retrieved by a query. Each time you display a record retrieved by a query , the count is increased. When you have retrieved the last record, an asterisk (*) is displayed before the count.

^ Indicates that there are records before the current record in the block. Moving the cursor down will display these records (see Navigation).

v Indicates that there are records after the current record in the block Moving the cursor up will display these records (see Navigation).

ENTER QUERY Indicates that the screen is in the query mode, waiting for you to enter query conditions and execute the query.

<Insert> or <Replace> Displays the current character mode, either Insert or Replace. This indicates whether, when typing, the user will either replace characters in a field or will insert before them.

Using Oracle Forms:

When using a form there are two basic modes in which you will operate: query mode and normal mode. Query mode is used when you are retrieving data from the database. During query mode the only functions that you can perform are to enter query conditions, execute your query or cancel your query.

During normal mode you can perform any function. You can modify data (insert, update or delete); navigate to any location in the form; clear the screen; enter query mode; execute a blanket query retrieving all records from a table; or exit the form.

Modifying data can be broken down into three functions: Insert, Update and Delete. Inserting creates new records, while updating and deleting are performed on existing records. As discussed previously, when modifying data, your changes are buffered in a work space and will be written to the database only when you decide to make them permanent. You will make them permanent You can also combine operations, inserting, updating and deleting records all with one commit.

Details on how to perform each function are included below.

Using Oracle Forms: Basic Functions

A. Inserting a New Record

To insert a new record into the database, the user will simply move the cursor to a blank record and type data into the necessary fields for that record. This can be repeated for as many records as the user would like to enter at once. When ready to make the new records permanent in the database, the user simply hits the Commit function. A step by step depiction of this process is below.

1. Press [Insert Record] or move to a blank record.
2. Enter the field values.
3. To insert additional records repeat steps 1 and 2.
3. Make any other changes: updates, deletes or other inserts.
4. Press [Commit/Accept] when you are ready to finalize the changes in the database.

B. Updating a Record

Updating a records requires the user to locate the desired record and simply type the desired changes over the existing data. The desired record can be located either by performing a query function (described below) or by simply moving up or down to the desired record if it is already in the work space. A step by step process is depicted below.

1. Locate the desired record.
2. Move the cursor to each field to be updated and type in the new values.
3. Make any other changes: inserts, deletes or other updates.
4. Press [Commit/Accept] when you are ready to finalize the changes in the database.

C. Deleting a Record

Deleting a record, just like updating a record, requires you to first locate the desired record. Once your cursor is on any field in the record to be deleted, simply hit the [Delete Record] key. This deletes your record from the work space. A subsequent commit will then remove the record from the database permanently. Again, step by step instructions are below.

1. Locate the desired record.
2. Press the [Delete Record] key.
2. To delete additional records, move the cursor to the records to be deleted and press [Delete Record].
3. Make any other changes: inserts, updates or other deletes.
4. Press [Commit/Accept] when you are ready to finalize the changes in the database.

D. Performing a Query

A query is the means by which you will retrieve data from your Oracle database. There are multiple methods by which you can query your database. You can perform a straight query returning all records from a specific table or you can limit your query by certain conditions. Limiting your query can be done in many different ways. Below are details regarding 3 mechanisms by which you can query your database. Additional query methods are described below in Advanced Queries.

Retrieving all records in a table: Retrieving all records in a table is the simplest query you can perform. To do so, simply move your cursor to the block for which you want to retrieve data and then hit the [Execute Query] key.

1. Press [Execute Query].
2. Press [Next Record] and [Previous Record] to display the retrieved records.

Retrieving records by matching exact values: Retrieving records by exact matching is the next simplest query technique. Performing exact matching first requires you to enter the query mode discussed earlier. To enter the query mode press the [Enter Query] key. You will know that you are in the query mode by the ENTER QUERY on the status line. While in query mode, enter the value to be used to limit your query into the corresponding field. For example, to retrieve all reviews published on 3/13/92, simply type that date into the Published Date field. You may enter values into as many fields as you'd like, but note that the query will then only return records for which the data in the table matches the values for ALL fields you entered. Finally, to actually retrieve the data, hit the [Execute Query] key.

1. Press [Enter Query].
2. Enter the values you want to match into the appropriate fields.
3. Press [Execute Query].

Retrieving records by using pattern matching: Pattern matching allows you to query data by entering a series of text and wildcards in fields. Just as with exact matching, you enter the search condition in the field for which it applies. A step by step description is included below, followed by some examples of pattern matching conditions.

1. Press [Enter Query].
2. Enter a value into the field where "_" represents one character of any kind and "%" represents any combination of characters (zero, one or more).
3. Press [Execute Query].

Pattern matching examples:

Pattern	Possible Matches
A%	ADAMS, ADAMSKI, ASK, etc.
ENTER%	ENTER, ENTERS, ENTERED, etc.
A%S	ADAMS, ABRAHAMS, APPLES, etc.
JON_S	JONES, JONAS, JONOS, etc.
S_AR_	SMART, SNARE, SHARE, SHARK, etc.
_IN%S	BINS, FINES, WINNERS, etc.

E. Navigation

The first step in navigating through an Oracle Forms application is to learn how to navigate from form to form. Selecting a form from a menu is done by simply picking that menu selection (see Using SQL*Menu). Exiting that form when finished is done by hitting the [Exit] function key.

When running a form you can move through the different areas by using function keys. Within a form, you can navigate from block to block by using [Next Block] and [Previous Block]. Within a block you can navigate from record to record using [Up] and [Down] or [Next Record] and [Previous Record]. In a block displaying multiple records on the screen at once, you can also use [Scroll Down] and [Scroll Up] to jump to the next screen of records. Finally, you can navigate through fields in a record by using [Next Field] and [Previous Field].

In Oracle Forms Version 4, you can also navigate anywhere on the form using your mouse.

F. Other Useful Functions

Some other functions that are extremely helpful when running your application are: List of Values, Help and Display Error. These functions are all intended to provide different sources of help as you begin to use the Equipdb system.

The List of Values function is a very useful utility to use when entering data. When positioned on a field, the message line will indicate if a list of valid values is available. To display the list, simply use [List of Values]. Once displayed, you can either scroll through the list using your function keys, or you can limit your list using the query capabilities. You may perform queries in the List of Values forms using the same techniques used in all other forms.

The Help function provides help for the given part of the Equipment Database application that you are currently using.

Display Error is a useful function when you encounter an unexpected error. Hitting [Display Error] provides a detailed error number and message text. This information may sometimes lead you to a solution to your error. If not, both the error number and text should be clearly communicated to your system maintenance staff.

G. Oops Keys

When entering or updating data, often times you may make mistakes and want to clear out your changes. There are a few different keys you can use to clear your changes. Each key has a different effect on your screen. These keys, sometimes referred to as the Oops Keys, are listed below along with a description of their function.

If you hit any of these keys while you have non-committed changes Oracle Forms will ask you whether you want to commit your changes or not, or cancel the operation. To clear your changes simply select (No).

Exit:	The Exit key is the quickest way to clear your changes. You should note, however, that this function will also exit you from your current screen and back to the menu.
Clear Form/ Rollback:	The Clear Form/Rollback key is the second quickest way to clear your changes. This function will clear ALL data from your current form. While this function can be useful, it can also be dangerous. If you are on the last page of a five page form and you use this function, you will clear ALL five pages and not just your current page.
Clear Block:	The Clear Block key is a more reasonable oops key than clear form. It simply clears your current block.
Execute Query:	Execute Query performs the same oops operation as Clear Block, it clears only your current block. However, it provides the added functionality of requerying your current block.
Enter Query:	Enter Query again performs similar to Clear Block, clearing only your current block. It too provides added functionality by placing you in query mode and allowing you to enter the desired query criteria.

Using Oracle Forms: Advanced Functions

A. Advanced Data Entry

When inserting records there are a few advanced features that you can use to eliminate redundant typing. If your cursor is currently sitting on a record and you would like to enter another record which will have many of the same values, you can use the Duplicate Record function. To use this function, simply move the cursor to a blank record (see Inserting a Record above) directly below the record which you would like to copy. Once on the blank record, hit [Duplicate Record]. You will now be looking at a record that looks identical to the previous record. Note: It is important that you change the necessary fields in this new record or else you will have two identical records.

1. Enter or retrieve your original record.
2. Press [Insert Record] or move to a blank record immediately following your original record.
3. Press [Duplicate Record].
4. Make the required changes to the copied record.
5. Use [Commit] to finalize your changes.

In addition to Duplicate Record, there is also a Duplicate Field function. If when inserting a series of records, there is one field for which you want to enter an identical value, Duplicate Field can save you the time of retyping that value. Much like Duplicate Record, to use Duplicate Field you will move your cursor to a blank record immediately following the record from which you want to copy a field. Once in the field that you would like to copy, simply hit [Duplicate Field] and the value from this field in the previous record will be copied to your current record.

1. Enter or retrieve your original record.
2. Press [Insert Record] or move to a blank record immediately following your original record.
3. Move your cursor to the field to be copied into.
3. Press [Duplicate Field].
4. Enter data into the remaining fields for this record.
5. Use [Commit] to finalize your changes.

B. Editing Long Fields

Certain textual fields in the Equipment Database are defined as long fields. These fields can hold large amounts of data. Displaying these fields on a form, however, requires that only a portion of the field (e.g. 60 characters) be displayed at once. To display a larger portion of the field on the screen you can use the [Edit] function. This will display multiple lines of the field for your viewing as well as provide you with some basic editing capabilities that you can use within this field. The capabilities are listed below, for a description of each function see Function Definitions.

Beginning of Line
Copy
Cut
End of Line
First Line
Insert Line
Last Line
Paste
Select

C. Advanced Queries

Queries performed through a form can include any number of SQL constructs. The basic queries described earlier included exact (=) conditions as well as pattern matching (LIKE). Other conditions can include any of the relational operators shown below. These conditions can be entered directly into the field along with the query limiting data if the field is long enough. The query would then be executed just as any other query.

Relational Operator	Meaning	Examples
=	equal to	= 'SMITH'
!=	not equal to	!= 19.5
>	greater than	> 100
>=	greater than or equal to	>= 2000
<	less than	< 'DAVIS'
<=	less than or equal to	<= 97
BETWEEN	between two values	between 100 and 110 between '12-Mar-92' and '15-Mar-92'

In the case when the query condition is longer than the field on the screen you can enter more detailed queries by using a variable substitution technique. When entering query conditions, simply enter a colon (:) followed by a variable name into the field for which you'd like to enter extended conditions. Then when you hit [Execute Query], you will be prompted to enter the WHERE condition. Type in any valid SQL WHERE condition, referencing the variable name if necessary, and hit [Return].

An example of this technique is included below:

Press [Enter Query]

2. Move the cursor to the field(s) for which you want to enter a variable.
3. Type a colon (:), followed by a variable name (for example, :SAL in the Salary field).
4. Press [Execute Query].
5. When the Query Where dialog box appears, enter any WHERE condition, using the entered variables or column names. You may also enter an optional ORDER BY clause. For example:

:SAL > 2500 order by name

This technique can be used to enter any level of SQL query. You can enter complex WHERE clauses, nested selects, etc. For more information on how to write any of these complex queries, refer to the Oracle SQL*Plus User's Guide and Reference Manual.

Function Definitions

The function keys listed alphabetically below are available any time you run a form. Because the keystrokes used to execute a function depend on the type of terminal you are using, we have listed function names rather than keystroke sequences. Function Key Mappings contains some standard function key mappings supported by Equipdb.

In Oracle Forms Version 4, every function listed below can be executed by simply moving your mouse to the appropriately named function in the pull-down menus

Some function key definitions have been customized for the Equipdb application. When looking at the Show Keys help screen, these customized keys are identified by the fact that their name(s) are in all capital letters. The names of these keys should clearly identify their functionality.

[Beginning of Line]
Moves the cursor to the first character in the line .

[Block Menu]
Displays a list of all the blocks in the current form. From this list, you can select the block to which you would like to move.

[Clear Block]
Clears all records from the current block out of the SQL*Forms work space. If there are changes to commit [Clear Block] will ask you if you want to commit them.

[Clear Field]
Clears the contents of the current field, beginning at the current cursor position.

[Clear Form/Rollback]
Clears all the blocks of the current form, erasing all uncommitted inserts, updates, and deletes in all blocks of the form from the work space. [Clear Form/Rollback] will prompt you to commit your changes. [Clear Form/Rollback] does not delete records from the database; it only removes records from the work space.

[Clear Record]
Removes the current record from the current block, reversing any uncommitted changes made to that record. [Clear Record] does not delete records from the database; it only removes records from the work space.

[Commit/Accept]
Enters into the database all changes made since the last [Commit/Accept] or [Clear Form/Rollback]. Commit/Accept is also used in List of Values forms and Edit Windows to close the window and accept your entry.

[Copy]
Copies an area of text after it has been selected with [Select] and stores it in the paste buffer.

Function Definitions (continued)

[Count Query Hits]
In Normal Mode, clears the current block and displays the number of rows that an [Execute Query] would retrieve if executed. In Enter Query mode, [Count Query Hits] does not clear the current block. When used in Enter Query mode after [Enter Query], [Count Query Hits] counts the number of records matching the search criteria.

[Cut]
Cuts an area of text after it has been selected with [Select] and stores it in the paste buffer.

[Delete Backward]
Deletes the character to the left of the current cursor position.

[Delete Character]
Deletes the character at the current cursor position.

[Delete Line]
Deletes the current line and stores it in the paste buffer.

[Delete Record]
Deletes a record from the screen and from the database. Records are not permanently deleted until you commit your changes to the database.

[Display Error]
Displays error information and/or advanced help information, if available, for the field where the last error occurred.

[Down]
Moves the cursor to the same field in the next record. If the next record is a new record Down] moves the cursor to the first field of the new record. In the pop-up editor, [Down] moves cursor down one line.

[Duplicate Field]
Copies the field values from the same field of the previous record into the current field.

[Duplicate Record]
Copies all field values from the previous record into a new record.

[Edit]
Displays a window in which the operator can edit a LONG field. Press [Edit] again to accept the contents of the window and remove the window from your screen. Press [Exit/Cancel] to remove the window without accepting the contents of it.

[End of Line]

Moves cursor to the right of the last character in the line.

Function Definitions (continued)

[Enter Query]
Clears the current block and allows you to enter query criteria.

[Execute Query]
Clears the current block and retrieves all the records from the database table referenced by the block. When used after [Enter Query], [Execute Query] executes a query with the criteria you have specified.

[Exit/Cancel]
Exits the current form and either returns to the previous form, the previous menu or out of the system. [Exit/Cancel] also terminates query processing or interrupts the [List] function.

[First Line]
Moves the cursor to the top of the text in the window (available only in the pop-up editor).

[Help]
Displays a brief help message for the current field. Pressing [Help] again displays advanced help information if available for that field.

[Insert Line]
Inserts a line break at any point in the editor and creates a blank line after the current line (available only in the pop-up editor).

[Insert Record]
Inserts a new record after the current record.

[Insert/Replace]
Toggles between Insert character mode and Replace character mode.

[Last Line]
Moves the cursor to the very last character in the text (available only in the pop-up editor).

[Left]
Moves the cursor one character to the left (within the field or line).

[List]
Invokes a list of values, if there is one available for the field.

[Menu]
Activates the main menu in SQL*Forms if it is available.

[Next Block]
Moves the cursor to the next block in the form.

[Next Field]
Moves the cursor to the next enterable field in the current record.

Function Definitions (continued)

[Next Primary Key Field]
Moves the cursor to the next enterable field in the current record that has been designated as part of the primary key--those fields that uniquely identify a particular row of a database table.

[Next Record]
Moves the cursor to the next record in the current block. If no more records are found [Next Record] creates a new blank record (unless the current record is blank).

[Next Set of Records]
Retrieves the next set of records into the current block from records that satisfy an active query. Used only in blocks that display multiple records.

[Paste]
Pastes text in paste buffer just before current cursor location.

[Previous Block]
Moves the cursor to the previous block in the form.

[Previous Field]
Moves the cursor to the previous enterable field in the current record.

[Previous Record]
Moves the cursor to the previous record in the current block.

[Print]
Writes the current screen to a file and asks if you want to print that file.

[Refresh]
Redraws the screen image. This function is useful if the screen image becomes distorted.

[Right]
Moves the cursor one character to the right (within the field or line).

[Scroll Down]
Shifts the window of the current block or list down by approximately 80% of the block's entire display length, displaying records that are below the current window.

[Scroll Left]
Shifts the field's window to the left by approximately 80% of the field's entire display width, displaying field contents that are outside of the window.

[Scroll Right]
Shifts the field's window to the right by approximately 80% of the field's entire display width, displaying field contents that are outside of the window.

Function Definitions (continued)

[Scroll Up]
Shifts the window of the current block or list up approximately 80%, displaying records that are above the current window.

[Search]
Displays a Dialog box for entering search and replace criteria. Searches forward or backward from the current cursor location (available only in the pop-up editor).

[Select]
Selects a choice in a list or in a dialog box. In a field, a scroll region, or the pop-up editor, [Select] marks a point on the screen that SQL*Forms uses for text cutting and pasting.

[Show Keys]
Displays the keyboard assignments for each of these functions.

[Up]
Moves the cursor to the same field in the previous record. In the pop-up editor, [Up] moves the cursor up one line.

SQL*REPORTWRITER

What is SQL*ReportWriter

SQL*Reportwriter is a report writing tool that is used by system developers to generate reports from a database. You will then use these reports to produce desired listings of data from the database.

In Equipdb, reports will be run simply by selecting them from the appropriate menu. When a report is selected, you will be prompted to enter certain parameters. Some samples of parameters and their valid choices are contained below.

Parameter	Valid Choices (meaning)
Destination Type	Screen (display listing on screen)
	File (write listing to file)
File Name/Spool Device	Dflt (system default for your userid)
	Any printer on the network
Number of Copies	Any number

In addition to these, you may also be prompted for a value for any of the fields in the Equipdb database. To limit your report output, simply enter a value for any of these parameters.

MISCOMP EQUIPMENT DATABASE

Version 0.4

User Documentation

3. Equipment Database Concepts

3. Equipment Database Concepts

A. INTRODUCTION

This section describes the key business concepts implemented in the Equipment Database. It is intended to provide you with an overview of the application, the data and the terminology used.

B. Business Model

Provision and Provision Classes

The key building blocks of the equipment database are provisions. Provisions is a term used to define anything which an actor (a person or group) may own, use or otherwise have an association. Each provisions is classified by a provision class. Provision classes are broken down into a hierarchical set of provision classes. Each class has certain attributes describing it and certain relationships with other classes and with actors.

Significant provision classes are the fixed asset, physical system, physical instrument, logical cluster, logical network, node, job and location classes. A description of each of these significant classes follows. A complete list of these and all other provision classes is included after these definitions.

FIXED ASSET

A fixed asset is a piece of hardware or equipment that is generally not decomposed. It is often thought of as an atomic building block for systems. Fixed assets have locations, owners, hardware addresses and in some cases components. An example of a fixed asset with components is a CPU box that contains boards. If the boards are significant, then both they and the CPU box would be fixed assets. The component sets of two fixed assets may *not* overlap.

PHYSICAL SYSTEM

A physical system is a construction of fixed assets and/or other physical systems. Sets of components between any two physical systems may *not* overlap. An example of a physical system would be the combination of the monitor, CPU box, mouse and keyboard at one's desk. Another example may be all of the components that make up one printer system. A physical system's location is derivable from the locations of all of its fixed assets. (In the Equipment Database, the users are forced to maintain this derivation.) Physical systems have users and managers, but do not have owners. A physical system can be a node on multiple logical networks.

The CD system managers have commonly referred to some physical systems as nodes. The Equipment Database distinguishes between a physical system and its role as a node on a logical network and its role as a component of a logical cluster. This was done because we needed to maintain a distinction between the hierarchical physical construction aspects of equipment (for ELS) and the often mutating networked construction rules of logical systems (for Data Comm).

An example of why this is necessary is that a physical system may still exist and have business relevance even if it is not connected to a network. Also, a physical system may be connected to multiple networks or even multiple times on the same network. In this case, we want to keep track of the physical construction of this system once, and be able to reuse its existence multiple times in the form of "nodes" and "logical cluster components."

PHYSICAL INSTRUMENT

A physical instrument is either a fixed asset or physical system. Sets of components between two physical instruments may *not* overlap.

LOGICAL CLUSTER

A logical cluster is a type of logical system that is composed of fixed assets, physical systems and/or other logical clusters. Sets of components between two logical clusters *may* overlap. Examples of logical clusters are LAVC clusters, farms, farmlets, and NIS domains. A logical cluster's location is derived from its components' locations. (In the Equipment Database, the users are forced to maintain this derivation.) Logical clusters have users and managers, but do not have owners. A logical cluster can be a node on multiple logical networks.

LOGICAL NETWORK

A logical network is another type of logical system. Logical networks are computer networks that provide communication via a specified protocol. Examples of a logical network are IP networks, DECNET networks, LAT networks, APPLETALK zones, ETHERTALK zones and LOCALTALK zones. Logical networks are made up of nodes (see below), are constructed from other logical networks, and run on physical network segments. Some logical networks are addressable (IP, DECNET) and some are not (LAT).

NODE

A node is an instance of a logical cluster or physical system on a logical network. Nodes have names and aliases. Nodes on addressable logical networks have distinct addresses. Nodes on the LAT network can provide network services. Nodes can belong to a node domain. And, a node can be attached to a logical network via a hardware address of a fixed asset component within the system or cluster playing the node.

The Equipment Database definition of a node is somewhat different from the CD system manager's definition, but both understandings are valid. The system managers understanding of a node is roughly equivalent to what the Equipment Database calls a physical system. Following the system manager's definitions, a node could be connected to many networks and/or to the same network multiple times, each connection would have a different address and potentially a different name. The Equipment Database definitions would restate this sentence in the following manner. A physical system or logical cluster could be connected to many networks and/or multiple times to the same network, each connection would have a different address and potentially a different name. Further, the Equipment Database would state that each instance of that physical system or logical cluster on a network would be a distinct instance of a node.

Clearly, both the system managers and the Equipment Database have very similar, if not equivalent, data schemas. The only difference is in how the different entities in these schema are named. Since the rest of the Equipment Database has been built with the Equipment Database definitions and rewriting all of the existing code is not, yet, a feasible alternative. The construction of system manager access to the Equipment Database will use the underlying the Equipment Database nomenclature, but the programmers will be sensitive to the nomenclature needs of the CD system managers. Likewise, future development of the DRUIDS subsystem will have to resolve these naming conventions in a division wide context in order to be widely accepted and applied.

JOB

The job class contains all activities that involve work performed by an actor. Typically, this job is intended to perform services required by a request. Currently, the only job implemented in the Equipment Database is the Node Registration job.

LOCATION

Location is a class used to describe any pertinent locations at Fermilab, including buildings, floors, offices, trailers, etc.

Actors and Actor Types

Actor is a term used to describe any person or group of interest to the Equipment Database. An actor may issue requests for services, make claims on equipment, or otherwise participate in the activities tracked by the database. A list of the different actor types follows.

Actor Tpyes

- Group
  - Persistent Group
    - Fermilab Group
      - Affiliation
        - Expert Group
        - Laboratory Group
    - University Group
    - Company
  - Temporary Group
    - Distribution List
    - Meeting
      - One Time Meeting
    - Conference
    - Meeting Group
- Individual
  - External Person
    - Applicant
  - Fermilab Person
    - Employee
    - Visitor
    - Contractor

Claims and Claim Types

Each provision may be the subject of one or more claims by actors. For example, a group may have an owner claim on a fixed asset, an individual may have a user claim on a system, the same individual may have a system manager claim on another system, etc. A list of all the different claim types follows.

Claim Tpyes

Name	Description
Reservation	
Service Provider Claim	The parent of all service provider claims.
Service provider under contract	The period of time a fixed asset is officially on a maintenance contract.
Service provider pending purchase notification	The start dateis the date the division approved the service provider for maintenance of a fixed asset. The end date is the date the vendor was contacted with the desire.
Service Provider pending vendor approval	The start date is the date the vendor was notified of Fermilab's desire to place the fixed assetunder contract. The end date is the date the vendor responded. If no SP UNDER CONTRACT claim is pursuant, assume the vendor did not wish to provide support.
Service Provider Pending CD approval	The period of time between when the SR Process is initiated and CD approval is complete.
Service Provider Pending SC Inventory	The period of time between when CD has approved and the SR/SC form has been handed to the DHG and when the SC inventory sheet has been given back to OLESA.
Sensitive Item Trustee	
Donator	
Repair responsibility	
Inventory Taker	
Issuee	
Property Management	
System Manager	
User	
Owner	

Requests and Request Details

A request can be made by anyone who has access to the Equipment Database. Requests will be made for services, jobs, or other functions. Currently, the Equipment Database allows for two basic request types: a network service request and a transfer request (a.k.a. T-Form request).

In turn, each request may have one or more request details, of either all one type, or sometimes of multiple types. For instance, the T-Form allows for only one request detail type, the items to be transferred. On the other hand, a network service request allows for entry of details of any one of seven available network service request detail types. For more information on the network service request detail types and their implementation, see the following section.

BUSINESS PROCESSES

The Equipment Database is currently used to support numerous business processes within the Computing Division. Currently, four areas of the Computing Division (Equipment Support, Equipment Logistics Support, Data Communications & Networks, and Operating Systems Support) base some of their business activities on the data in the Equipment Database. Over time, the database will be expanded to support more and more parts of the CD.

Some of the key business processes and other ways in which the Equipment Database supports CD operations are documented below.

Equipment Maintenance

Equipment definitions, system configurations, network definitions and other equipment information is maintained in the Equipment Database. The intent is to make this database the sole source for information regarding all equipment in the laboratory which the Computing Division owns, operates, manages, supports, or otherwise concerns itself. In addition to basic equipment information, the database is intended to support definitions of the multiple claim types described above, the location of equipment, and any hardware chargeback information.

Equipment Logistics Support and Equipment Support are the prime maintainers of the equipment configurations, with Data Communications & Networks responsible for network and node maintenance, and Operating Systems Support responsible for maintenance of logical clusters and their configurations.

Network Service Requests

A network service request is a solicitation for services from the CD Data Communications & Networks group. A request may be composed of multiple heterogeneous request details. The nature of these details will be discussed later.

WORK FLOW (or How a request becomes satisfied)

A CD person discovers that she needs some service to be performed by the Data Communications group (DC). This person then generates a request with potentially multiple details. After reviewing her request for accuracy and completeness, she submits the request to DC.

Someone in DC is watching for newly submitted requests and notices this new request with all of its details. At this point, DC reviews each detail of the submitted request. DC has four activities that they may perform with a submitted request detail: complete, cancel, reject , or pend.

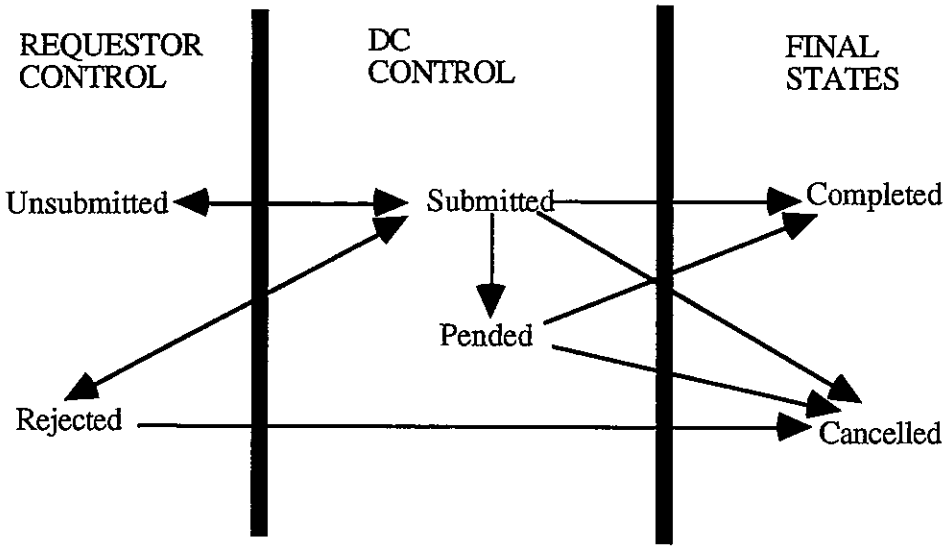
First and simplest, DC can complete the request detail, which automatically updates the database as needed and marks the detail as completed. For more details on the completion algorithm see Section 8, Network Request Processing.

Second, DC may cancel a request detail. Cancellation implies that the request detail will never again be worked on by any party.

Third, DC may reject the request detail because of lack of information or misunderstood information. Once a request detail is rejected, DC looses "control" of that request detail and the requester then may review DC's reasons and resubmit or cancel the rejected request detail.

Fourth, DC may pend the request detail. This will happen when a request is entered for new nodes for equipment that has not arrived at Fermilab. "Bogus" systems will be created as place holders for this equipment and be assigned network addresses, but the request detail will be marked as pending. Once DC obtains the detailed information about the devices, they will turn their "bogus" systems into real CD systems.

A diagram describing the state and transitions for a request detail is provided below:



NETWORK SERVICE REQUEST DETAIL TYPES

NODE REGISTRATION

The goal of a node registration request detail is to place a physical system or logical cluster on a logical network, i.e. create a node. This request detail type occurs in three flavors. The first and most common is to request a node for an existing physical system, the second is to request a node for an existing logical cluster and the third is to request a node for a fixed asset that has not yet been assigned to a physical system in the Equipment Database.

****** *The initial implementation of the network service registration screens will provide the ability to generate requests of the first and third flavors. Requests for nodes for logical clusters will be added later.* *****

When a requester attempts to create a request detail for an existing physical system, they must know either the physical system tag #, the property number of a fixed asset within the physical system, the serial number of a fixed asset within the physical system, or the hardware address of the fixed asset within the physical system.

If the physical system exists in the Equipment Database, the screen will be able to derive a single physical system based on one of the above pieces of information. If the Equipment Database has not heard of the device entered, then the requester will be able to create a "bogus" system with a generic CPU box content and attach that to the request detail. This situation will happen most frequently when a request is made for a physical system before that physical system has arrived at Fermilab, i.e. the physical system is on order. But, it may also occur for items not gathered via the inventory process or any ELS business process. The requester may also specify her understanding of the location of that physical system either by accepting what the database knows or by entering a new location.

On rare occasions when the requester identifies a fixed asset that exists in the database, but is not a component of a physical system, the requester will be prompted to create a bogus system for that fixed asset.

Once a physical system or fixed asset has been entered, the user must then specify which logical network or which type of logical network they want that system to be a node on. The user may also specify a node name, alias, and domain for the new node.

LAT SERVICE REGISTRATION

A LAT service registration request detail's goal is to allow a LAT node to provide a network service. The request detail type will prompt the requester for a known LAT node and a known network service.

NODE REMOVAL

The goal of a node removal request detail is to remove a physical system as a node on one or all of it's logical networks. The requester will either enter a known node or a known physical system. If a node is entered, the request details meaning is to remove just that node. If a physical system is entered, then the meaning is to remove all nodes for that physical system.

DEVICE MOVE

The goal of a device move request is to notify DC when a physical system is about to be moved, so that DC can check on networking ramifications for the new location of the device. The requester enters a known physical system and the location where the physical system is being moved.

NODE NAME CHANGE

The goal of the node name change request detail is to change the names of all nodes or one node for a physical system. The requester enters the new node name and either a known physical system or a known node. If a physical system is entered, then DC is supposed to change the name of all nodes for that system. If a node is entered, then DC is supposed to change only the name of that node.

DEVICE CHANGE

The goal of a device change request is to notify DC when a physical system is being replaced by another physical system. DC will have to adjust all of its node information to reflect the new physical system. The requester enters the old and the new physical systems.

HARDWARE ADDRESS CHANGE

The goal of this request detail is to notify that a hardware address has been changed. The requester enters an existing hardware address and enters the new hardware address. DC will then replace the existing hardware address with the new hardware address on the appropriate fixed asset and on all nodes that have been connected to a logical network via the old hardware address.

Network Service Request Processing

This section discusses how the various request detail operations affect the Equipment Database based on the type of the request detail. The following is a hierarchy of request detail types. You can assume that if an operation is defined for a supertype and *not* for a subtype, that the subtype inherits the supertype's operation. If the subtype has its own operation definition, then you should assume that it completely overrides the supertype's operation. However, a subtype may use pieces of a supertype's operation if noted.

Also, you should assume that the VERIFY_operation is always called before the operation is executed. Also, assume that the VERIFY_operation must not find any errors in order for the operation to be executed.

TYPE HIERARCHY

NW SERVICE REQUEST DETAIL
- NODE REGISTRATION REQUEST DETAIL
- NODE REMOVAL REQUEST DETAIL
- NODE NAME CHANGE REQUEST DETAIL
- HW ADDRESS CHANGE REQUEST DETAIL
- DEVICE CHANGE REQUEST DETAIL
- LAT SERVICE REGISTRATION REQUEST DETAIL
- DEVICE MOVE REQUEST DETAIL

NW SERVICE REQUEST DETAIL

VERIFY_UNSUBMIT:

An error is returned if the current status is not SUBMITTED.

VERIFY_SUBMIT:

An error is returned if the current status is not UNSUBMITTED or REJECTED.

VERIFY_REJECT:

An error is returned if the current status is not SUBMITTED.

VERIFY_CANCEL:

An error is returned if the current status is not SUBMITTED, PENDING or REJECTED.

VERIFY_COMPLETE:

An error is returned if the current status is not SUBMITTED or PENDING.

VERIFY_PEND:

An error is returned if the current status is not SUBMITTED.

UNSUBMIT:

Sets the status to UNSUBMITTED.

SUBMIT:

Sets the status to SUBMITTED.

REJECT:

Sets the status to REJECTED.

CANCEL:

Sets the status to CANCELED.

COMPLETE:

Sets the status to COMPLETED.

PEND:

Sets the status to PENDING.

DEVICE CHANGE REQUEST DETAIL

VERIFY_COMPLETE:

Executes NW SERVICE REQUEST DETAIL's VERIFY_COMPLETE.
Also returns an error if:
1. The system specified on the request detail that is to be replaced no longer exists.
2. The system specified on the request detail that is doing the replacing no longer exists.
3. The name or tag of the replaced system has changed from what the request detail holds.
4. The name or tag of the replacing system has changed from what the request detail holds.

COMPLETE:

1. Executes the NW SERVICE REQUEST DETAIL's COMPLETE.
2. For each node assigned to the replaced system, it updates the node with the replacing system.

DEVICE MOVE REQUEST DETAIL

VERIFY_COMPLETE:

Executes NW SERVICE REQUEST DETAIL's VERIFY_COMPLETE.
Also returns an error if:
1. The system being moved no longer exists.
2. The name or tag of the system being moved has changed from what the request detail holds.
3. The new location for the system does not exist.
4. The name of the new location has changed from what the request detail holds.

COMPLETE:

1. Executes the NW SERVICE REQUEST DETAIL's COMPLETE.
2. Changes the location of the system to the new location.

NODE REMOVAL REQUEST DETAIL

VERIFY_COMPLETE:

Executes NW SERVICE REQUEST DETAIL's VERIFY_COMPLETE.
Also returns an error if:
1. The requested system or node no longer exists.
2. The requested system has had its tag changed from what the request detail holds.
3. The requested node has had its name or address changed from what the request detail holds.
4. Neither a node nor a system is specified on the request detail.

COMPLETE:

1. Executes the NW SERVICE REQUEST DETAIL's COMPLETE.
2. If a system is specified then all nodes for that system are deleted.
3. If a node is specified, then it is deleted.

NODE NAME CHANGE REQUEST DETAIL

VERIFY_COMPLETE:

Executes NW SERVICE REQUEST DETAIL's VERIFY_COMPLETE.
Also returns an error if:
1. If the requested system or node does not exist.
2. If neither a system or node is on the request.
3. If the requested system's tag has changed from what the request detail holds.
4. If the requested node's name or address has changed from what the request detail holds.

COMPLETE:

1. Executes the NW SERVICE REQUEST DETAIL's COMPLETE.
2. If a system is specified, then all nodes for that system will have their names changed.
3. If a node is specified, then it will have its name changed.

LAT SERVICE REGISTRATION REQUEST DETAIL

VERIFY_COMPLETE:

Executes NW SERVICE REQUEST DETAIL's VERIFY_COMPLETE.
Also returns an error if:
1. The requested system no longer exists.
2. A LAT node is not specified or no longer exists.
3. The requested system has had its tag changed from what the request detail holds.
4. The requested node has had its name changed from what the request detail holds.
5. The requested system is not the same system as that of the requested LAT node.
6. A network service and group number have not been specified.

COMPLETE:

1. Executes the NW SERVICE REQUEST DETAIL's COMPLETE.
2. If no network service exists for the one requested, one is created.
3. If no network service group exists for the one requested, one is created.
4. If the requested network service is not a member of the network service group, then it is made a member.
5. The LAT node is assigned the network service/group number combination.

HARDWARE ADDRESS CHANGE REQUEST DETAIL

VERIFY_COMPLETE:

Executes NW SERVICE REQUEST DETAIL's VERIFY_COMPLETE.
Also returns an error if:
1. The fixed asset containing the hardware address being replaced no longer exists.
2. The fixed asset containing the hardware address being replaced has had its type, serial # or property tag changed since the request was created.
3. The hardware address being replaced belongs to a different fixed asset than what is specified on the request.
4. The fixed asset containing the replacing hardware address no longer exists.
5. The fixed asset containing the replacing hardware address has had its type, serial # or property tag changed since the request was created.
6. The replacing hardware address belongs to a different fixed asset than what is specified on the request.
7. The hardware address being replaced does not belong to any component of a physical system and thus cannot be attaching any physical system nodes.

COMPLETE:

1. Executes the NW SERVICE REQUEST DETAIL's COMPLETE.
2. Determine if the new hardware address exists, if not then create it and attach it the "new" fixed asset on the request.
3. Determine if the new fixed asset belongs to any physical system. If not then go to step 4. If so, then check if that system is the same as the system of the old hardware address. If so go to step 5. If not, go to step 7.
4. Attach the new fixed asset to the system of the old fixed asset.
5. Update all nodes by setting the hardware address to the new hardware address where the hardware address of the node = the old hardware address.

6 Go to 8.

7. Update all nodes by setting the system to the new hardware address' system and the hardware address to the new hardware address where the node's hardware address = the old hardware address.
8. DONE.

NODE REGISTRATION REQUEST DETAIL

VERIFY_COMPLETE:

Executes NW SERVICE REQUEST DETAIL's VERIFY_COMPLETE.
Also returns an error if:
1. The requested system's tag or name has been changed since the request was created.
2. The requested system is a bogus system that does not contain at least on fixed asset component that is tagged or serial numbered.
3. The request detail's status is SUBMITTED and a system cannot be derived from the request information.
4. The request detail's status is PENDING and the node that was created as a result of the pend transaction has a different system and/or the requested system does not exist.
5. The request detail does not specify a logical network.
6. The requested network no longer exists.
7. The requested network has had its name or address changed, since the request was created.
8. The request does not specify a new node name and one cannot be derived from the request's system.
9. The request specifies a node domain type, but not an actual node domain.
10. The requested node domain no longer exists.
11. The requested hardware address belongs to a different system than the requested system.
12. The hardware address does not exist anywhere and there is no CPU box within the requested system within which to attach it.
13. The specified location is not a known location.
14. The specified location no longer exists or has had its name changed since the request was created.

VERIFY_PEND:

Executes NW SERVICE REQUEST DETAIL's VERIFY_PEND.
Also returns an error if:
1. The request detail does not specify a logical network.
2. The requested network no longer exists.
3. The requested network has had its name or address changed, since the request was created.
4. The request does not specify a new node name and one cannot be derived from the request's system.
5. The request specifies a node domain type, but not an actual node domain.
6. The requested node domain no longer exists.
7. The requested hardware address belongs to a different system than the requested system.
8. The hardware address does not exist anywhere and there is no CPU box within the requested system within which to attach it.
9. The specified location is not a known location.
10. The specified location no longer exists or has had its name changed since the request was created.

COMPLETE:

1. Executes the NW SERVICE REQUEST DETAIL's COMPLETE.
2. If the request detail's status is PENDING, then if the node that was created a result of the pend operation has a different system than what is derived from the request detail, the node's system is replaced with the request detail's derived system.
3. If the request detail's status is SUBMITTED, then the algorithm is that same as that for PEND (except for step 1 of the PEND algorithm of course.)

PEND:

Note: This algorithm receives as input two parameters: LOCATION_CHANGE_FLAG and NODE_ADDRESS. LOCATION_CHANGE_FLAG is a boolean specifying whether the derived system's location should be changed to the location specified on the request detail. NODE_ADDRESS will become the new node's address.

1. Executes the NW SERVICE REQUEST DETAIL's PEND
2. Derive the system for the request.
   A. If a system is specified use it.
   B. If a fixed asset is only specified, then if it is in a system use that system.
3. If the hardware address on the request does not exist, then create it and attach it to a CPU in the derived system.
4. If no node exists that matches the requested node's name, NODE_ADDRESS, node type, network, and system, then create a new node. If one exists, then do not create a new node.
5. If the request has specified a node domain and a node was created in step 4, then attach that node to the node domain.
6. If the request has a location for the system and LOCATION_CHANGE_FLAG is true, then update the derived system's location. (This will of course cascade to all of the system's components.)

CANCEL:

1. Executes the NW SERVICE REQUEST DETAIL's CANCEL.
2. If the request detail's status is PENDING, then delete the node that was created as a result of the pend operation.

System Manager Access

This section describes the nature of the CD Operating System Support Department's access to the Equipment Database. First, it describes why system manager access to the Equipment Database is being provided. Second, it enumerates the capabilities and responsibilities for CD system managers within the Equipment Database. Finally, it comments on data security and development issues.

CD's system managers have a wealth of information about the ever-changing configurations of the larger computer systems managed by CD. The Equipment Database has a wealth of information about most of the components of these systems, but does not have a strong mechanism to keep this data up-to-date. It is our hope that by providing CD's system managers access to the database that we can enhance the system managers' knowledge of system component information, while providing better context and more accurate information for other CD groups using the Equipment Database.

SYSTEM MANAGER CAPABILITIES & RESPONSIBILITIES

LOGICAL CLUSTER MAINTENANCE

System managers are responsible for maintaining information about the VAX Clusters, UNIX Clusters (NIS Domains), Farms and Farmlets that they manage. These large systems are considered types of "Logical Clusters" within the Equipment Database context.

LOGICAL CLUSTER COMPONENT MAINTENANCE

System managers are responsible for maintaining lists of components for the above mentioned logical clusters. (components being physical systems, fixed assets, other logical clusters, and the special case of IP subnets "contained" within a Farmlet).

FIXED ASSET CREATION

In most cases the logical cluster component information will already exist in the Equipment Database and all the system manager will have to do is attach the component to the logical cluster. But, in some cases the system manager may need to add a component that does not already exist in the Equipment Database. In these cases, system managers will be able to create fixed asset records in the Equipment Database provided that they are attached as a logical cluster component. If the system manager does not choose to enter new fixed assets, then it is his responsibility to notify the ELS group that these equipment exist and have not been added to the Equipment Database.

FIXED ASSET OWNER CLAIM MAINTENANCE

System managers are capable of transferring ownership to another group when they are sure that the ownership, as noted in the Equipment Database, is out of date. System managers are required to specify an owner for any fixed asset that they create.

The owner of a fixed asset is the group that has purchased or acquired the asset via some "permanent" transaction. If an asset is eliminated, the owner would be the group that lost its capital. Most of the fixed assets in the Equipment Database are owned by CD, but some are not. All fixed assets should have an owner.

USER CLAIM MAINTENANCE

System managers are responsible for maintaining a current list of users for logical clusters, physical systems and, if necessary, fixed assets. This information is necessary for gaining a general understanding of resource utilization.

The user of a fixed asset, physical system or logical cluster is any combination of people or groups that use the fixed asset at some "macro" level. This concept of user is *not* synonymous with an operating system user. Examples of users would be: I am the user of the Mac system on my desk; Fermilab is the user of the FNAL cluster; CD is the user of the fncdua Sun system, etc... User claims are used to track group and individual usage of computing resources at a macro level. An item can have more than one user claim if it makes sense, e.g. suppose that CD and AD share a VAX system, then both CD and AD would be users of that system.

SYSTEM MANAGER CLAIM MAINTENANCE

System managers are responsible for maintaining which group (CD or non-CD) is primarily responsible for managing each physical system and logical cluster. System managers will also be responsible for maintaining a list of individuals who manage some aspect of a physical system or logical cluster. This list of people is not meant to replace any job scheduling system that is currently in use, so it will be less important to maintain a person list for CD managed systems. However, keeping a list of contacts for non-CD managed systems will be essential in aiding all of CD when troubles occur on those systems and we need support. Timely and accurate tracking of this information will be helpful in understanding the nature and magnitude of the resources that CD manages, while also providing information of who to contact with problems on non-CD managed systems.

GENERAL READ ACCESS TO THE EQUIPMENT DATABASE

System managers are able to use the general read privileges established for all Equipment Database data, including access to most of the reports and any ad-hoc query tool that might be added.

NETWORK SERVICE REQUEST GENERATION

System managers are expected to be users of the Network Service Request screens to generate requests for Data Comm to create and maintain IP nodes for their Farmlet components and DECNET nodes for their LAVC components. For a description of the Network Service Request process see Section 7, Network Service Requests.

Data Security & Access

All CD system managers will have equal access to the Equipment Database. We feel this will provide flexibility for all CD system managers in accomplishing their tasks. Further, we do not want to impose undue restrictions at this early stage in our understanding of how the system manager groups will be administered. Once a more appropriate data security method is understood, system manager access may be altered.

Inquiry and Reporting

Capabilities have been built that allow for general query only access to the Equipment Database. This access allows you to query the database using any of the screens currently used for data maintenance.

In addition, a set of pre-formatted reports has been developed and is accessible via the Report Submission utility. These reports are of a set format, but allow for the entry of various selection criteria at run time, allowing for some level of dynamic reporting.

A GUI, front-end query tool, called Business Objects, is also being deployed with the Equipment Database. Currently, the support and roll-out of this product has only been to those set of users doing equipment maintenance.

MISCOMP EQUIPMENT DATABASE

Version 0.4

User Documentation

4. The Application & Screens

4. The Application & Screens

List of Equipdb Forms (in numeric sequence)

Module	Name	Menu Title
NODE0308	Fixed Asset Turn-in	Physical Instruments
NODE0309	Fixed Asset Storage	Physical Instruments
NODE0310	Maintain Fixed Assets	Physical Instruments
NODE0310	Maintain Fixed Assets (Claims)	Physical Instruments
NODE0310	Maintain Fixed Assets (Components)	Physical Instruments
NODE0311	Maintain Service Provider Claims	Physical Instruments
NODE0313	Fixed Asset Inquiry	Query & Report Access
NODE0314	Maintain Locations	Supporting Data
NODE0319	Maintain Physical Systems Claims	Physical Instruments
NODE0320	Maintain Physical Systems	Physical Instruments
NODE0325	Maintain Physical Systems (Claims)	Physical Instruments
NODE0330	Maintain Physical Network Segments	Logical Systems & Networks
NODE0331	Maintain Nodes	Logical Systems & Networks
NODE0340	Maintain Logical Networks	Logical Systems & Networks
NODE0350	Maintain Network Services and Groups	Logical Systems & Networks
NODE0380	Maintain Physical Instrument Classes	Supporting Data
NODE0381	Maintain People	Supporting Data
NODE0382	Maintain Groups	Supporting Data
NODE0383	Physical Instrument Composition Guidelines	Supporting Data
NODE0384	Maintain Substitute/Role Lists	Supporting Data
NODE0385	Maintain Maintenance Contracts	Supporting Data
NODE0391	Maintain Attributes	Supporting Data

NODE0900	Report Submission	Query & Report Access
NODE0904	Report Types	Query & Report Access
NODE0905	Maintain Printer Types	Supporting Data
NODE0906	Maintain Printer Queues	Supporting Data
NODE0907	Maintain Report Operators	Supporting Data
NODE0908	Reports	Query & Report Access

List of Equipdb Forms (by Menu Title)

Physical Instruments

Module	Name	Menu Title
NODE0308	Fixed Asset Turn-in	Physical Instruments
NODE0309	Fixed Asset Storage	Physical Instruments
NODE0310	Maintain Fixed Assets	Physical Instruments
NODE0310	Maintain Fixed Assets (Claims)	Physical Instruments
NODE0310	Maintain Fixed Assets (Components)	Physical Instruments
NODE0311	Maintain Service Provider Claims	Physical Instruments
NODE0319	Maintain Physical Systems Claims	Physical Instruments
NODE0320	Maintain Physical Systems	Physical Instruments
NODE0325	Maintain Physical Systems (Claims)	Physical Instruments

Logical Systems and Networks

NODE0330	Maintain Physical Network Segments	Logical Systems & Networks
NODE0331	Maintain Nodes	Logical Systems & Networks
NODE0340	Maintain Logical Networks	Logical Systems & Networks
NODE0350	Maintain Network Services and Groups	Logical Systems & Networks

Supporting Data

NODE0314	Maintain Locations	Supporting Data
NODE0380	Maintain Physical Instrument Classes	Supporting Data
NODE0381	Maintain People	Supporting Data
NODE0382	Maintain Groups	Supporting Data
NODE0383	Physical Instrument Composition Guidelines	Supporting Data
NODE0384	Maintain Substitute/Role Lists	Supporting Data
NODE0385	Maintain Maintenance Contracts	Supporting Data
NODE0391	Maintain Attributes	Supporting Data
NODE0380	Maintain Physical Instrument Classes	Supporting Data
NODE0381	Maintain People	Supporting Data
NODE0382	Maintain Groups	Supporting Data
NODE0383	Physical Instrument Composition Guidelines	Supporting Data
NODE0384	Maintain Substitute/Role Lists	Supporting Data
NODE0385	Maintain Maintenance Contracts	Supporting Data
NODE0391	Maintain Attributes	Supporting Data
NODE0905	Maintain Printer Types	Supporting Data
NODE0906	Maintain Printer Queues	Supporting Data
NODE0907	Maintain Report Operators	Supporting Data

Query and Reporting Access

NODE0313	Fixed Asset Inquiry	Query & Report Access
NODE0900	Report Submission	Query & Report Access
NODE0904	Report Types	Query & Report Access
NODE0908	Reports	Query & Report Access

List of Miscomp Forms (in numeric sequence)

Module	Name	Menu Title
NODE0110	Network Services Registration Request	Requests
NODE0210	Network Services Request Processing	Requests
NODE0345	Logical Clusters	Maintenance
NODE0346	Physical Systems	Maintenance
NODE0900	Report Submission	Reports
NODE0906	Printers	Reports
T FORM	Online T-Form	Requests

List of Miscomp Forms (by Menu Title)

Module	Name	Menu Title
NODE0110	Network Services Registration Request	Requests
NODE0210	Network Services Request Processing	Requests
T FORM	Online T-Form	Requests
NODE0345	Logical Clusters	Maintenance
NODE0346	Physical Systems	Maintenance
NODE0900	Report Submission	Reports
NODE0906	Printers	Reports

MISCOMP Screen Documentation

NODE0110 - Network Service Registration Requests

This function calls a screen which allows the user to enter requests for network service. In all, there are 7 different types of requests that can be made. See Section 7, Network Service Requests for more details on this functionality.

It is envisioned that, eventually, this functionality will be used by anyone at Fermilab who wants any of the services described. Currently, however, network service requests will arrive at the Data Communications (DC) group via their current means. DC will then enter the requests into MISCOMP. This allows for a more thorough testing of the new business process prior to releasing it to the general public.

NODE0210 - Network Service Request Processing

This function calls a screen which allows DC to perform the required processing for the network service requests currently submitted. It will be used by DC only. A complete description of its processing can be found in Section 7, Network Service Requests and Section 8, Network Service Request Processing.

NODE0345 - Logical Clusters

This form is used to maintain logical cluster definitions and to tie physical systems to these clusters. From this form, you may call the Physical System Data Maintenance form to add new systems or new assets to systems.

This form is intended for use by the System Managers to keep their cluster configurations and system management assignments up-to-date in the Equipment Database. See Section 9, System Manager Access for more details on the functions to be performed by the System Managers.

NODE0346 - Physical Systems

This form is used to maintain physical system definitions, including system level information, system ownership, usage, management information and assets contained within the system.

This form is intended for use by the System Managers to keep their system configurations up-to-date in the Equipment Database. As such, it does not allow for the same level of functionality that is available by Data Admin users in the EQUIPDB character mode screen. For more information regarding what the System Managers will be editing, see Section 9, System Manager Access.

NODE0900 - Report Submission

The Report Submission screen allows you to run one of numerous canned reports. It provides you with a window that they can use for querying up any or all reports in the system. To select a report you simply click on the Do button for the appropriate report.

Each report has certain selection criteria that you are allowed to enter to dynamically change the content of the report. Simply select the criteria and enter the appropriate value(s). You can enter element values, which allow entry of one value, where clauses which allow you to build filters from operator and value combinations, and order by criteria, which allow you to choose how to sort the output.

After you have entered your report criteria and are ready to run the report, simply click on Run Report. When you do this, you will be prompted for the desired location of your output: the screen, a file, or a printer.

If you choose the screen, the output will be redirected to your initial window.
Note : Some MacX users may not be able to use this feature . MacX users using Telnet to access fncdua will be fine. Others using the capabilities of MacX to run a Unix file to create their window into the application will not. This second style of access from MacX does not support writing to its output window.

If you choose a file or a printer, you will be required to enter a value for the file name or the printer name. The printer must exist in the list of printers known by the Equipment Database. If your printer does not exist, you may add it using the Printers screen described below. If you are running multiple reports in the same session, the printer name will default to the same name used for the last report you ran.

NODE0906 - Printers

This menu option calls a form that you can use to edit the printer definitions in the Equipment Database. Only printers found in this list can be used from the Report Submission screen described above. If your printer does not exist you may add it using this screen. Note, however, that you will not be able to use this new printer immediately after you add it. Once you have added it, the system administration staff for fncdua will automatically be notified via e-mail. As soon as possible, they will add this new printer to fncdua's list of recognized printers. Once this has been done, you will then be able to print to this new printer.

T FORM - On-Line T-Form

At present, paper T-Forms are used to record the transfer of systems or assets from one group, user or location to another. They are also used to record the transfer of assets from one system to another. This new on-line T-Form function allows for the capture of all pertinent T-Form information. Note that this form contains some "loose validations." That is to say that it attempts to validate what you enter for system, asset, user, owner, location, class, and manufacturer information but does not strictly enforce these validations. This allows you to provide the database with information that may be missing or inaccurate as currently recorded.

MISCOMP EQUIPMENT DATABASE

Version 0.3

User Documentation

5. Reporting

The Equipment Database contains a robust set of reports which can be accessed via the Report Submission utility. These reports are of a pre-developed format, but allow for the entry of multiple selection criteria and sort criteria at run time, providing some level of user customizable reporting. All of these reports may be run using either the character mode EQUIPDB interface or the GUI mode MISCOMP interface to the system.

A complete list of all the available reports and detailed documentation of them is included in this section. This document describes all the available selection and sort criteria and any other special features of the reports.
Also in this section, you will find step-by-step instructions on how to use the Report Submission utility. There are instructions for both the EQUIPDB version and the MISCOMP version of the utility.

Report Class	Report Name	Title
CONTRACT	MAINT_COSTS	CONTRACT MAINTENANCE COSTS BY CLASS
	PENDING_CONTRACTS	PENDING CONTRACTS REPORT
	VENDOR_MAINT_COSTS	CONTRACT MAINTENANCE COSTS BY VENDOR
FIXED ASSET	FA_CLAIMS	CLAIMS ON FIXED ASSETS
	FA_DETAILS	FIXED ASSET DETAILS REPORT
	FIXED_ASSETS	FIXED ASSET SUMMARY REPORT
	ITEM_COUNT	EQUIPMENT COUNT BY CLASS
	I_FORM	I-FORM ATTACHMENT
	SERVICE_PROVIDER_CLAIMS	SERVICE PROVIDER CLAIMS
	STOCKROOM	STOCKROOM REPORT
	TRACKED_SPARES	TRACKED SPARES REPORT
	TRACKED_SPARES_GEN	TRACKED SPARES REPORT FOR SELECTED OLESA PARTNER
SPECIAL	DAILY_LOG	DAILY LOG REPORT
	PC_LIST	PERSONAL COMPUTERS BY GROUP OWNER
SYSTEM	CHARGEBACK	CHARGEBACK REPORT
	OFF_CONTRACT	SYSTEMS COMING OFF OF A SERVICE CONTRACT
	OWNER_COSTS	SYSTEMS BY OWNER SHOWING MONTHLY COSTS
	PRINTERS	PRINTER SYSTEMS
	SC_FORM	SYSTEM CONFIGURATION FORM
	SERVICER_COSTS	SYSTEMS BY SERVICE PROVIDER WITH MONTHLY COSTS
	SERVICER_SYSTEMS	SYSTEMS BY SERVICE PROVIDER
	SYSTEM_CPU_MFG	SYSTEMS BY CPU MANUFACTURER
	SYS_CLAIMS	SYSTEMS AND THEIR CLAIMS
	SYS_OWNER	SYSTEMS BY OWNER

Report Name	Title	Report Class	Width	Report Type
MAINT_COSTS	CONTRACT MAINTENANCE COSTS BY CLASS	CONTRACT	132	SRW

Report Help
Overview: This report prints the provision classes and their maintenance contract cost.

Content: This report displays the provision class name and description along with the contracted vendor and contract cost.
It is sorted in hierarchical order by provision class, starting with the Starting Class which you enter.

Tips: You will want to enter a Starting Class when running this report. If you want the costs for all types of Fixed Assets, enter Fixed Asset as the starting class. Running this report without a starting class may cause you to see classes multiple times due to the hierarchical sorting.

Printer Type Printer File
PS

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Starting Class Name	Element	%	Enter the class name to be used to begin printing the hierarchy. Default = %.
Service Provider	Element	%	Enter the Vendor name for which you want to print the provision classes. You can use % for all. Default = %.
Contract Date Value	Element	SYSDATE	Enter a date for which to print contract costs. Entering a value here will print all contract costs active on this date. Default = sysdate. If you want to enter a date range, make this value blank and use the Contract Date Range.
Contract Date Range	Where		Enter the date range to use when selecting classes on contract during a certain period.

Contract Start Date
Contract End Date

Report Name	Title	Report Class	Width	Report Type
PENDING_CONTRACTS	PENDING CONTRACTS REPORT	CONTRACT	180	SRW

Report Help

Overview: This report generates the fixed assets that are pending contracts; i.e.; items the have service provider claims types of PENDING PURCHASING NOTIFICATION (SPN) or PENDING VENDOR APPROVAL (SPA). Only current claims and current contarcts are listed.

Content: The system information, locations, owner, device information, service provider, budget code, claim type, contract dates, and monthly cost are shown in this report.

Tips: This report is driven by the chargeback group and the chargeback period. For the group you enter, the report will print that group and all its subordinate groups in hierarchical sort order. It will report all items to be charged back to any budget codes belonging to those groups.

You may NOT use wildcards for the group as it does an exact match on the group name to begin the hierarchical sorting. You may leave the group blank, but for best performance, it is recommended that you provide a value for group.

To limit the output, you may also enter a budget code belonging to the group you specified. You may NOT use wildcards for the group as it does an exact match.

Printer Type	Printer File
PS	PSLAN180

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Starting ChargeBack Group Name	Element	FL	Enter the Group name to be processed. This report will print pending contracts for the group you enter and all its subordinate groups.
Budget Code	Where		Enter the Budget Code(s) for printing pending contracts. The budget codes you enter must belong to either the group you entered or one of its subordinates.
Budget Code			
Service Provider	Where		Enter service provider selection criteria.
Service Provider Name			
Claim Type Abbr			
Claim Type			
Start Date			

Report Name	Title	Report Class	Width	Report Type
PENDING_CONTRACTS	PENDING CONTRACTS REPORT	CONTRACT	180	SRW

Selection Criteria Name	Type	Default	Help Text
Service Provider	Where		Enter service provider selection criteria.
End Date			
ChargeBack Budget Code			
Projected End Date			
Creator			
Create Date			
Last Updater			
Last Update Date			
System Order By	Order by		Enter the criteria for sorting systems within chargeback group.
System Number			
Bison Number			
System Name			

Report Name	Title	Report Class	Width	Report Type
VENDOR_MAINT_COSTS	CONTRACT MAINTENANCE COSTS BY VENDOR	CONTRACT	132	SRW

Report Help
Overview: This report prints the provision classes and their maintenance contract cost for the specified vendor(s).

Content: This report displays the vendor, the provision class name and description and the contract cost sorted by vendor. For each class on contract, the subclasses are which inherit the costs of this superclass are also printed.

Tips: This report performs best when run for a single vendor. Not specifying a vendor will print all the support contracts and their details.

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Service Provider	Element	%	Enter the Vendor name for which you want to print the maintenance contract details. You may use % for all. Default = %.
Contract Date Value	Element	SYSDATE	Enter a date for which to print contract costs. Entering a value here will print all contract costs active on this date. Default = sysdate. If you want to enter a date range, make this value blank and use the Contract Date Range.
Contract Date Range	Where		Enter the date range to use when selecting classes on contract during a certain period.
Contract Start Date			
Contract End Date			

Report Name	Title	Report Class	Width	Report Type
FA_CLAIMS	CLAIMS ON FIXED ASSETS	FIXED ASSET	180	SRW

Report Help
Overview: This report is to provide all claims on certain fixed asset(s).

Contents: The Property Tag, Manufacturer, Model information, Serial Number, FSN number, and Fixed Asset information will be listed in the report.

Tip: The report is driven by Fnal_number, Pool_number, FSN_number, Fixed Asset Name, Status, Model(Class) Name, Model Description, Manufacturer, Purpose, Fixed Asset Description, Status Date, Creator, Create Date, Last Updater, and Last Update Date.

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Parameters	Where		Type in the fixed asset parameters.
Claim	Where		Type in claim desired

Property Number (FNAL or POOL)
Fixed Asset Name
Status
Model Name
Model Description
Manufacturer
Purpose
Fixed Asset Description
Status Date
Creator
Create Date
Last Updater
Last Update Date

Claim Type Abbr
Claim Type
Start Date
End Date
Projected End Date
Creator

Report Name	Title	Report Class	Width	Report Type
FA_CLAIMS	CLAIMS ON FIXED ASSETS	FIXED ASSET	180	SRW

Selection Criteria Name	Type	Default	Help Text
Claim	Where		Type in claim desired
Create Date			
Last Updater			
Last Update Date			
ReqDB Number			
Order By	Order by		Type in the field name ordered by.
Fnal Number			
Manufacturer			
Model Name			
Model Description			
Fixed Asset Name			
Fixed Asset Description			
Creator Name			

Report Name	Title	Report Class	Width	Report Type
FA_DETAILS	FIXED ASSET DETAILS REPORT	FIXED ASSET	80	SRW

Report Help
Overview: This report is to provide the detail information about any fixed asset. Page Break will be on each asset.

Content: The provision class info, ids of the asset, creating info, updating info, status info, all claims associated, location, hardware address, all attribute info, container info and component info will be listed in the report.

Tip: The report is driven by Fermi Numbers, FSN Number, Asset Name, Asset Status, Provision Class Name/Description, Manufacturer, Purpose, Asset Description, Status Date, Creator, Create Date, Last Updater, and Last Update Date.

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
FA Selection Criteria	Where		Enter one of the following criteria to limit report output.

Property Number
Asset Name
Asset Status
Prov Class Name
Prov Class Description
Manufacturer
Purpose
Asset Description
Status Date
Creator
Create Date
Last Updater
Last Update Date

Report Name	Title	Report Class	Width	Report Type
FIXED_ASSETS	FIXED ASSET SUMMARY REPORT	FIXED ASSET		SRW

Report Help
Overview: List fixed assets by a wide range of criteria.
Content: The report displays status, status date, class name, class description, tags, serial numbers, locations, users, and container tags.

Tips: You may specify selected ckaims and selected claim types.

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Fixed asset selection	Where		Fixed asset selection criteria. Hit Next Block for selection items
Claim Type	Element		Select type of claim to query on; i.e. USER, OWNER; etc.
Group Name for Claim	Element		Select group name if you are selecting group claims. You may use the % character to wild card. For example specify FL/CD% to select all groups starting with FL/CD
Last Name for people claims	Element		Select last name of person if you are selecting person claims. You may use the % character to wild card. For example specify SMI% to select all people with last names starting with SMI

Status of Fixed Asset
Date of Status
Provision Class
Property Number (Fnal # or Pool #)
Serial Number
Location
Class Description

Report Name	Title	Report Class	Width	Report Type
FIXED_ASSETS	FIXED ASSET SUMMARY REPORT	FIXED ASSET		SRW

Selection Criteria Name	Type	Default	Help Text
First Name for People Claims	Element		Select first name of person if you are selecting person claims. You may use the % character to wild card. For example specify JO% to select all people with first names starting with JO%

Sort Specification Order by

Sort specification - Select Next Block for items

Status of Fixed Asset
Date of status
Provision Class
Property Number (Fnal # or Pool #)
Serial Number
Location
Class Description

Report Name	Title	Report Class	Width	Report Type
ITEM_COUNT	EQUIPMENT COUNT BY CLASS	FIXED ASSET	80	SRW

Report Help
Overview: This report provides the count on certain fixed assets.

Content: The instrument name and their sub total, total number in EQUIPDB are shown on the list.

Tips: This report is driven by the instrument names. If the 'LIKE' is to be entered as the operator, the percent sign "%" should be put at the end of the string if you do not want to spell out the whole instrument name. Ex: DEC%

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Level Number	Element	999	How many levels do you want to trace down?
Level Number			
Fixed Asset Name	Element	%	Enter The Equipment Name
Equipment Name			

Report Name	Title	Report Class	Width	Report Type
I_FORM	I-FORM ATTACHMENT	FIXED ASSET	180	SRW

Report Help
Overview: This report provides information on certain device which should be attached on an I-Form.

Content: The property tag,serial number,manufacturer name, model name,model description, device status, system tag number and REQDB number will be shown on the list.

Tips: This report is driven by property tag number, purchase order number(PO), purchase requestor name, and device status.

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Property Tag	Where		Enter parameters for inclusion of fixed assets based on property tag numbers (FNAL or POOL).
Property Number			
PO #	Where		Enter parameters for inclusion of fixed assets based on PO Number.
PO #			
PO Requester	Where		Enter parameters for inclusion of fixed assets based on PO Requester.
PO Requester			
Status Selection	Where		Enter parameter for inclusion of fixed assets based on status.
Status			

Report Name	Title	Report Class	Width	Report Type
SERVICE_PROVIDER_CLAIMS	SERVICE PROVIDER CLAIMS	FIXED ASSET	180	SRW

Report Help
Overview: This report is to provide certain service providers' claims on fixed assets information.

Content: The service provider, claims, service start/end dates, fixed asset information and system information will be listed on report.

Tips: The report is driven by service provider name, service claim type and service provided start/end dates.

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Service Selection Criteria	Where		Enter any of following criteria to fit the need of report output.

Service Provider Name
ChargeBack Budget Code
ChargeBack Group Name
Service Claim Abbr
Service Claim
Service Start Date
Service End Date

Sort Order	Order by	Enter Sort Order Criteria

Service Provider
Claim Type
ChargeBack Budget Code
ChargeBack Group Name
Start Date

Report Name	Title	Report Class	Width	Report Type
STOCKROOM	STOCKROOM REPORT	FIXED ASSET	180	SRW

Report Help
Overview: Display information about fixed assets including PO requester and reservation claim.

Content:

Tips:

Printer Type	Printer File
PS	PSLAN180

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Selection	Where		Selection Criteria
Status Status Date Class Description Class Name Property Number (Fnal # or Pool #) Location Name Serial Number			
Claim Type	Element		Select type of claim to query on; i.e. USER, OWNER; etc.
Group Name for Claim	Element		Select group name if you are selecting group claims. You may use the % character to wild card. For example specify FL/CD% to select all groups starting with FL/CD
Last Name for Claim	Element		Select last name of person if you are selecting person claims. You may use the % character to wild card. For example specify SMI% to select all people with last names starting with SMI
First Name for People Claims	Element		Select first name of person if you are selecting person claims. You may use the % character to wild card. For example specify JO% to select all people with first names starting with JO%

Report Name	Title	Report Class	Width	Report Type
STOCKROOM	STOCKROOM REPORT	FIXED ASSET	180	SRW

Selection Criteria Name	Type	Default	Help Text
First Name for People Claims	Element		Select first name of person if you are selecting person claims. You may use the % character to wild card. For example specify JO% to select all people with first names starting with JO%
Select PO Requestor	Element		Select a PO requestor. This is case sensative and you may wild card with the %.
Sort Order	Order by		Enter sort order criteria

Status
Status Date
Class Name
Property Number (Fnal # or Pool #)
Location Name
Serial Number
Class Description

Report Name	Title	Report Class	Width	Report Type
TRACKED_SPARES	TRACKED SPARES REPORT	FIXED ASSET	180	SRW

Report Help
Overview: This report lists fixed assets used as spares by DCD. This equipment must have Property Management claims of both OLESA and DCD.

Content: This report lists fixed assets and includes provision class information, status, tag numbers, and serial numbers. It also lists user and owner claims. Counts based on the class and status are displayed.

Tips:

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Class Name	Element	FIXED ASSET	Enter the Provision Class of the Items you want selected.
Repair Group	Element		If needed, enter the Repair Group for these items.
Selection Criteria	Where		Enter the Selection Criteria desired.

Fixed Asset Status
Fixed Asset Status Date
Property Number (Fnal # or Pool #)
Serial Number
Location Name

Report Name	Title	Report Class	Width	Report Type
TRACKED_SPARES_GEN	TRACKED SPARES REPORT FOR SELECTED OLESA PARTNER	FIXED ASSET	180	SRW

Report Help

Overview: This report lists fixed assets used as spares by DCD. This equipment must have Property Management claims of both OLESA and a select partner.

Content: This report lists fixed assets and includes provision class information, status, tag numbers, and serial numbers. It also lists user and owner claims. Counts based on the class and status are displayed.

Tips: You must select a partner - there is no default.

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Class Name	Element	FIXED ASSET	Enter the Provision Class of the Items you want selected.
OLESA Partner	Element		Enter the OLESA partner. This field is required.
Fixed Asset Status Fixed Asset Status Date Property Number (Fnal # or Pool #) Serial Number Location Name			
Repair Group	Element		If needed, enter the Repair Group for these items.
Selection Criteria	Where		Enter the Selection Criteria desired.
Fixed Asset Status Fixed Asset Status Date Property Number (Fnal # or Pool #) Serial Number Location Name			

Report Name	Title	Report Class	Width	Report Type
DAILY_LOG	DAILY LOG REPORT	SPECIAL	80	SRW

Report Help
Overview: Produces the daily log. Select all items within a specified date range. Both fixed assets and systems are reported on. You may select updater and selection criteria for both systems and fixed assets.

Content: Information on tags, serial numbers, claims, class descriptions, locations, and claims are reported on.

Tips:

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Input Start Date	Element	&DATE	Starting date for equipment records to retrieve.
Input End Date	Element	&DATE	End date for equipment records to be retrieved.
Updater Name	Element	%	User name of person who last updated records.
Selected Fixed Assets	Where		Selection criteria for fixed assets
Selected Systems	Where		Selection criteria for physical systems.

Provision Class
Fixed Asset ID
Property Number (FNAL # or POOL #)
FSN Number
Serial Number
Status

CD Reference Number
Provision Class
System Name
System ID
System Number

Report Name	Title	Report Class	Width	Report Type
PC_LIST	PERSONAL COMPUTERS BY GROUP OWNER	SPECIAL	80	SRW

Report Help
Overview: This report is to list all IBM and AST PCs owned by the group selected as well as those owned by all its child-groups.

Content: The owner, and PC information will be provided in the report.

Tips: It does not need to type in any parameter.

Printer Type	Printer File
PS	PC_LIST.LIS

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Group Owner Selection Criteria	Element		Enter the owner parent group name to print the all IBM PCs owned by it and its child group(s).

Parent Owner Group Name

Report Name	Title	Report Class	Width	Report Type
CHARGEBACK	CHARGEBACK REPORT	SYSTEM	180	SRW

Report Help

Overview: This report is to generate the service charge back list for items on maintenance contract during a specified time period.

Content: The system information, locations, owner, device information, service provider, budget code, and monthly cost are shown in this report.
The report prints the monthly cost based on the maintenance contract cost(s) for the item while on contract. For items whose contract expires during the chargeback period, the report forecasts out the current cost from the end date of the current contract to the chargeback period end date. This forecast record is printed in bold.

Tips: This report is driven by the chargeback group and the chargeback period. For the group you enter, the report will print that group and all its subordinate groups in hierarchical sort order. It will report all items to be charged back to any budget codes belonging to those groups.
To limit the output, you may also enter a budget code belonging to the group you specified. You may use wildcards for the group, but note that this may cause the report to print the group multiple times due to the hierarchical sorting. You may leave the group blank, but for best performance, it is recommended that you provide a value for group. Also, you must enter both a start and end date for the chargeback period or nothing will be reported.

You may use wildcards for the group, but you must enter both a start and end date for the chargeback period or nothing will be reported.

Printer Type	Printer File
PS	PSLAN180

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
ChargeBack Group Name	Element	FL	Enter the Group name to be charged back. This report will print chargebacks for the group you enter and all its subordinate groups.
Budget Code	Where		Enter the Budget Code(s) for printing chargebacks. The budget codes you enter must belong to either the group you entered or one of its subordinates.
Budget Code			
Chargeback Start Date	Element	01-OCT-93	Enter the start date to begin chargeback reporting.

Report Name	Title	Report Class	Width	Report Type
CHARGEBACK	CHARGEBACK REPORT	SYSTEM	180	SRW

Selection Criteria Name	Type	Default	Help Text
Chargeback End Date	Element	30-SEP-94	Enter the end date for reporting chargebacks.
Service Provider	Where		Enter service provider selection criteria.

Service Provider Name
Claim Type Abbr.
Claim Type
Start Date
End Date
ChargeBack Budget Code
Projected End Date
Creator
Create Date
Last Updater
Last Update Date

System Order By	Order by	Enter the criteria for sorting systems within chargeback group.

System Number
Bison Number
System Name
Manufacturer
Serial Number
Property Number
Status
Status Date

Report Name	Title	Report Class	Width	Report Type
OFF_CONTRACT	SYSTEMS COMING OFF OF A SERVICE CONTRACT	SYSTEM	180	SRW

Report Help

Overview: This report displays all systems which have assets coming off of a service provider contract within a certain time period. It then displays all of those assets.

Content: System information including name, user, location; Asset information including property tag, serial number, model name, owner; and service provider information.

Tips: Enter a Service Provider name to limit the contents of this report. Also, enter a date range for the desired time period. Omitting the date range will print service provider claims regardless of whether or not they are coming off of contract.

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Service Provider Name	Element	%	Enter the Service Provider Name.
Date Range	Where		Enter the date range for selecting items coming off of service provider contract.
Projected End Date			
Chargeback Group Name	Element	%	Enter the Chargeback Group Name.
System Selection	Where		Enter additional criteria for limiting the systems displayed.
System Number Name Old System Number			
System Sort	Order by		Enter criteria for sorting the systems displayed.
System Number Name Old System Number			

Report Name	Title	Report Class	Width	Report Type
OWNER_COSTS	SYSTEMS BY OWNER SHOWING MONTHLY COSTS	SYSTEM	180	SRW

Report Help
Overview: Display systems and monthly costs for fixed assets for select owwners of CPU's in a system.

Content: Systems information (system name, system tags, locations users), fixed asset information (tags, model names, serial numbers, owner, budget codes, service provider information, monthly costs) are displayed.

Tips:

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Owner Selection	Where		Select the Owner Group
Owner Group Name			
System Selection Criteria	Where		Select systems to be listed for the report
System Name			
System Number			
Old CD Ref Number			
System Sort	Order by		Select the System display order
System Name			
System Number			
Old System Number			
CPU Manufacturer	Element		Enter the CPU manufacturer

Report Name	Title	Report Class	Width	Report Type
PRINTERS	PRINTER SYSTEMS	SYSTEM	180	SRW

Report Help
Overview: Display printer systems for selected manufacturers.

Content: The report displays system information (system number, old system number, system name, location, user) printer information (model name, serial #, owner, FNAL or
pool #, budget code, service provider).

Tips: You must specify the manufacturer or no printers will be listed.

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Manufacturer	Element		Enter Manufacturer Name; you may user the % to wild card. For example specify DIGITAL% to select all printer manufacturers starting with the characters "DIGITAL",
Manufacturer			
System Selection Criteria	Where		Enter System Selection Criteria
System Name			
System Number			
Old System Number			
Creator			
Creation Date			
System Sort	Order by		Enter System Sort Criteria
System Name			
Old System Number			
System Number			

Report Name	Title	Report Class	Width	Report Type
SC_FORM	SYSTEM CONFIGURATION FORM	SYSTEM	180	SRW

Report Help
Overview: Generate the System Configuration Form

Content: Displays complete systems and its fixed assets including information about system managers, users, and owners.

Tips:

Printer Type	Printer File
PS	PSLAN180

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
System Selection	Where		Enter criteria for system selection.
Sort Order	Order by		Enter system sort criteria.

System Selection

- System Name
- System Number
- Old System Number
- Class Name
- System Purpose
- Creator
- Creation Date

Sort Order

- System Number
- System Name
- Old System Number
- Class Name
- System Purpose

Report Name	Title	Report Class	Width	Report Type
SERVICER_COSTS	SYSTEMS BY SERVICE PROVIDER WITH MONTHLY COSTS	SYSTEM	180	SRW

Report Help

Overview: Display systems and monthly costs for fixed assets for select service providers and service provider claim criteria.

Content: Systems information (system name, system tags, locations users), fixed asset information (tags, model names, serial numbers, owner, budget codes, service provider information, monthly costs) are displayed.

Tips: If no service provider criteria is specified all service providers are selected.

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Service Provider	Where		Select the service provider(s) for the report
Service Provider Name			
Service Provider Selection	Where		Select the service provider type for the report
Claim type codes			
Chargeback budget code			
Claim creator			
Claim creation date			
Last updater			
Last update date			
Claim start date			
Claim end date			
Projected end date			
System Selection Criteria	Where		Select systems to be listed for the report
System Name			
System Number			
Old CD Ref Number			
Creator			
Creation Date			
System Sort	Order by		Select the System display order

Report Name	Title	Report Class	Width	Report Type
SERVICER_COSTS	SYSTEMS BY SERVICE PROVIDER WITH MONTHLY COSTS	SYSTEM	180	SRW

Selection Criteria Name	Type	Default	Help Text
System Sort	Order by		Select the System display order

System Name
System Number
Old System Number

Report Name	Title	Report Class	Width	Report Type
SERVICER_SYSTEMS	SYSTEMS BY SERVICE PROVIDER	SYSTEM	180	SRW

Report Help
Overview: Display systems for selected service providers and service provider claim types.

Content: Systems information (system name, system tags, locations, users), fixed asset information (tags, model names, serial numbers, owner, budget codes, service provider information) are displayed.

Tips: If no service provider criteria is specified all service providers are selected.

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Service Provider	Where		Select the service provider(s) for the report
Service Provider Name			
Service Provider Selection	Where		Select the service provider type and other claim criteria for the report
Claim type codes			
Chargeback budget code			
Claim creator			
Claim creation date			
Last updater			
Last update date			
Claim start date			
Claim end date			
Projected end date			
System Selection Criteria	Where		Select systems to be listed for the report
System Name			
System Number			
Old CD Ref Number			
Creator			
Creation Date			
System Sort	Order by		Select the System display order

Report Name	Title	Report Class	Width	Report Type
SERVICER_SYSTEMS	SYSTEMS BY SERVICE PROVIDER	SYSTEM	180	SRW

Selection Criteria Name	Type	Default	Help Text
System Sort	Order by		Select the System display order

System Name
System Number
Old System Number

Report Name	Title	Report Class	Width	Report Type
SYSTEM_CPU_MFG	SYSTEMS BY CPU MANUFACTURER	SYSTEM	180	SRW

Report Help
Overview: Report on systems for selected CPU manufacturers.

Content: Report displays system information (system number, old system number, system name, location, user) and CPU/ Fixed asset information (cpu type, model name, serial number, owner, tag #, budget code and service provider).

Tips: You must select the CPU manufacturer criteria information or no information will be listed.

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Manufacturer	Element		Enter Manufacturer Name, you may use the % to wild card. For example you may specify DIGITAL% to select all manufacturers starting with DIGITAL.
Systems Information	Where		Enter criteria for selecting systems.
System Sort Criteria	Order by		Enter system sorting criteria

System Number
System Name
Old System Number
Creater
Creation Date

System Numner
Old System Number
System Name

Report Name	Title	Report Class	Width	Report Type
SYS_CLAIMS	SYSTEMS AND THEIR CLAIMS	SYSTEM	180	SRW

Report Help
Overview: This report will provide all claims information on certain systems.

Content: The system information, claims on the system, the claim group/person name, each component information and claims on it, claim group/person will be listed.

Tips: This report is driven by system number, or bison number, or system node name.

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
System Select Criteria	Where		Type in the system parameters
System Claims Selection Critea	Where		Type in any claim desired

System Select Criteria:
- System Number
- Bison Number
- System Name
- Model Name
- Model Description
- Purpose
- System Description
- Creator
- Create Date
- Last Updater
- Last Update Date

System Claims Selection Critea:
- Claim Type Abbr
- Claim Type
- Start Date
- End Date
- Projected End Date
- Creator
- Create Date
- Last Updater
- Last Update Date

Report Name	Title	Report Class	Width	Report Type
SYS_CLAIMS	SYSTEMS AND THEIR CLAIMS	SYSTEM	180	SRW

Selection Criteria Name	Type	Default	Help Text
System Claims Selection Critea	Where		Type in any claim desired

ReqDB Number

Report Name	Title	Report Class	Width	Report Type
SYS_OWNER	SYSTEMS BY OWNER	SYSTEM	180	SRW

Report Help
Overview: Display systems and their fixed assets for select owners.

Content: Systems information (system name, system tags, locations users), fixed asset information (tags, model names, serial numbers, owner, budget codes, service provider information) are displayed.

Tips: No cost information will be displayed. Use OWNER_COSTS to display cost information.

Printer Type	Printer File
PS	

Report Selection Criteria and Parameters

Selection Criteria Name	Type	Default	Help Text
Sub-Heading	Element		Enter a user specified sub-heading to appear at the top of each page along with the standard heading.
Owner Selection Crieria	Where		Select the Owner Groups
Owner Group Name			
System selection	Where		Select the system to be listed in the report
System Name			
System Number			
Old CD Ref Number			
System Sort Criteria	Order by		Select the system sort criteria
System Name			
System Number			
Old System Number			
CPU Manufacturer	Element		Enter the CPU manufacturer

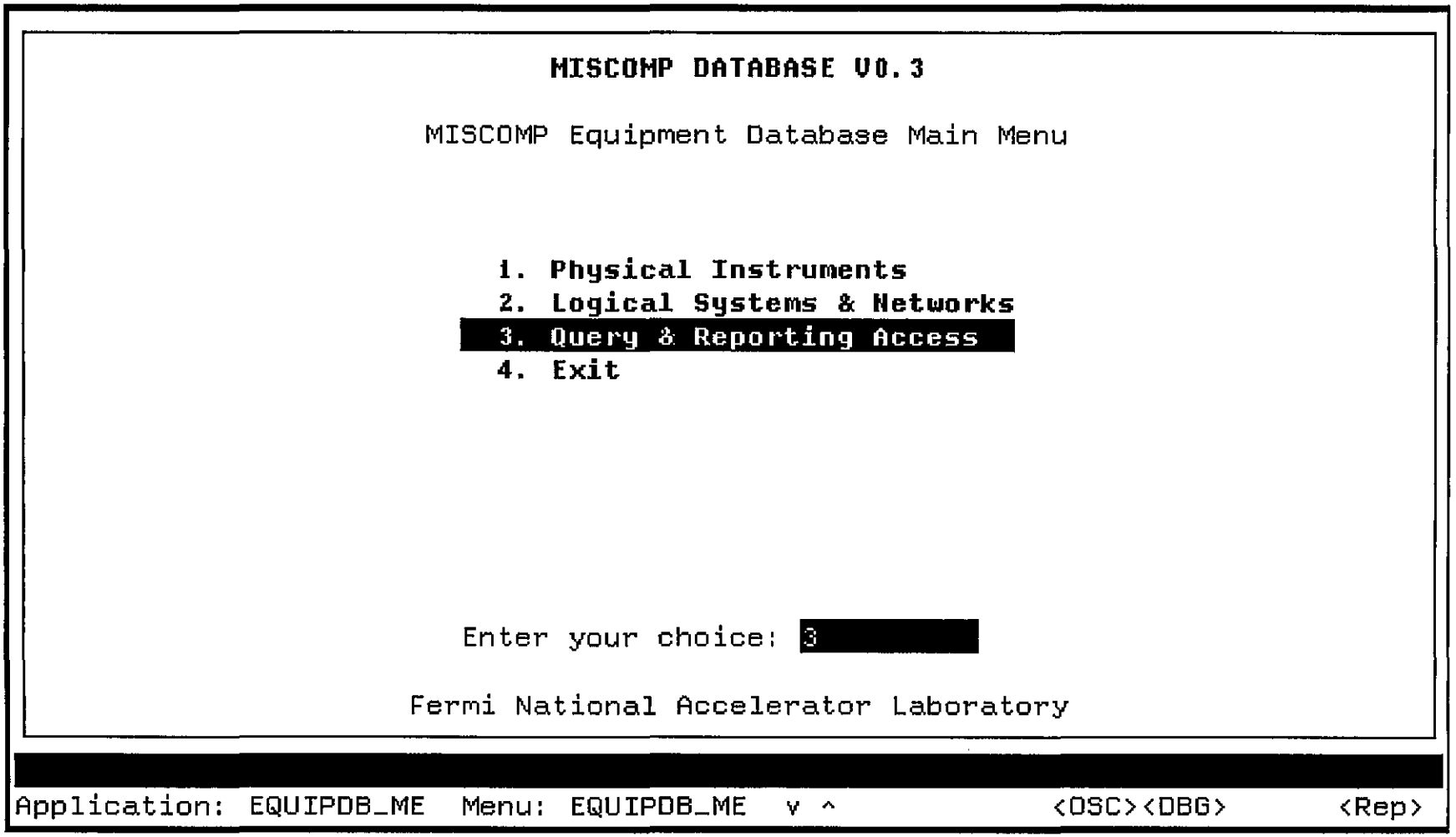
EQUIPDB REPORT SUBMISSION

This section describes how to use the Report Submission utility in EQUIPDB. The utility allows the user to specify values for report parameters and customize the report's sort order. The developer of a report determines, based on user needs, the format of the report and the parameters and sort columns provided. You may then use any of the provided selection or sort criteria to run the reports differently each time executed.

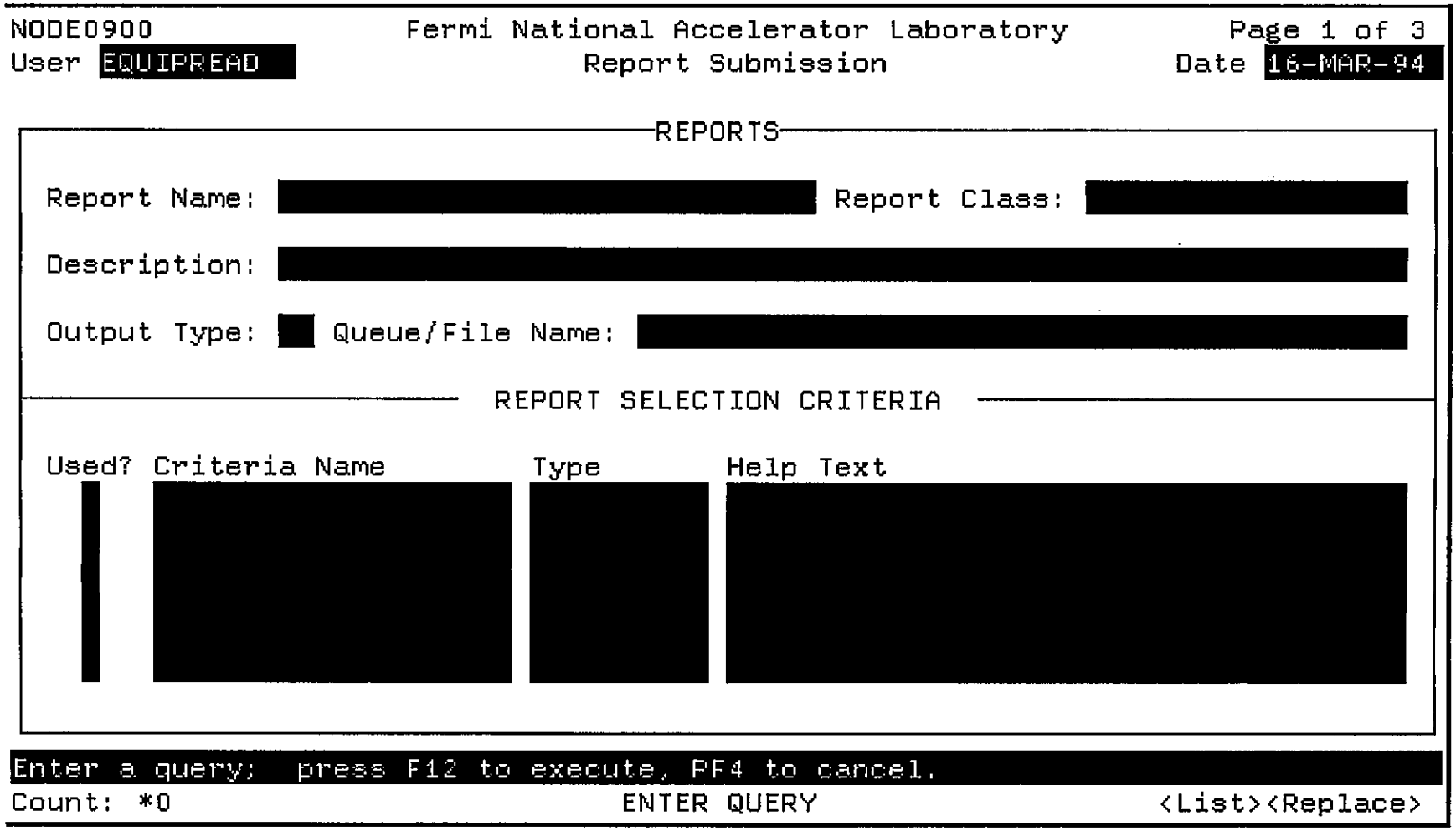
USING THE REPORT SUBMISSION SCREEN

Entering the Report Submission Screen

Select "Query & Reporting Access " screen from any MISCOMP Equipment Database Menus follows:


MISCOMP DATABASE V0.3
MISCOMP Equipment Database Main Menu
1. Physical Instruments
2. Logical Systems & Networks
3. Query & Reporting Access
4. Exit
Enter your choice: 3
Fermi National Accelerator Laboratory
Application: EQUIPDB_ME Menu: EQUIPDB_ME v ^
<OSC><DBG>
<Rep>

The Reports screen will appear as follows:



Selecting a Report to Run

You can select a report in one of two ways:

1. Query the report:

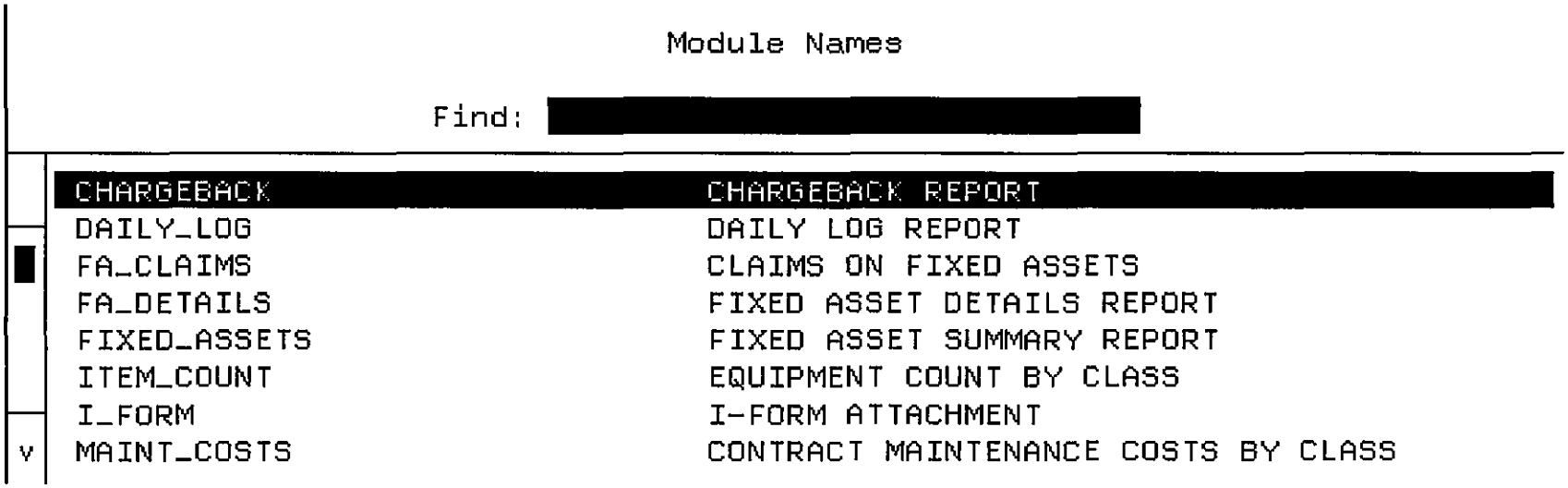
   When you enter the form you will be in query mode. Enter the query in the Report Name field and press the EXECUTE QUERY key. You can then scroll through the list using the arrow keys. For example, to query all reports starting with "DHG", enter DHG%.

2. Use a list of values (2 options):

   a. Press the List key, scroll to the desired report, press RETURN, and then press the EXECUTE QUERY key, *or*

   b. Press the List key, TAB to the Find field, enter the first few characters of the report name and press RETURN. Then scroll to the desired report, press RETURN, and press EXECUTE QUERY.

   List of values example:



Selecting an Output Type

To select an output type, tab to the Output Type field and type one of the following:

1. **P** - the report will go to a specified printer. To specify the printer, tab to the Queue/File name field and type the queue name (or press List and select the desired printer from a list).

2. **S** - the report will be displayed on the screen.

3. **F** - the report will go to a specified file in text format. To specify a file name, tab to the Queue/File name field and type the name of the file. The file will be created in the current directory.

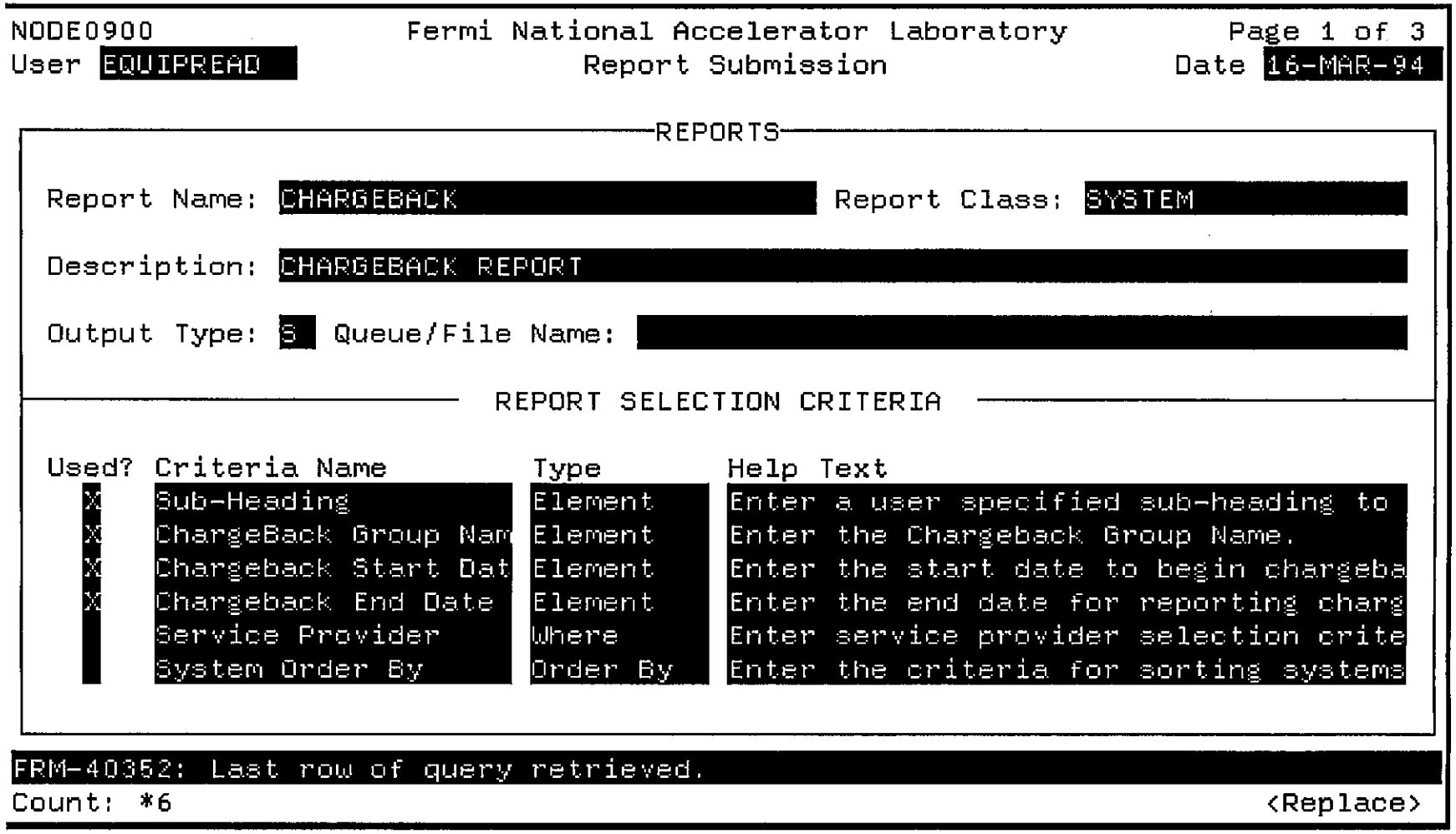
4. **FB** - the same as for **F** except that the report is submitted in "batch" mode.

5. **PB** - the same as for **P** except that the report is submitted in "batch" mode

Selecting Report Criteria

After specifying a report name and output type, press the Next Block key to go to the Report Selection Criteria section as follows:

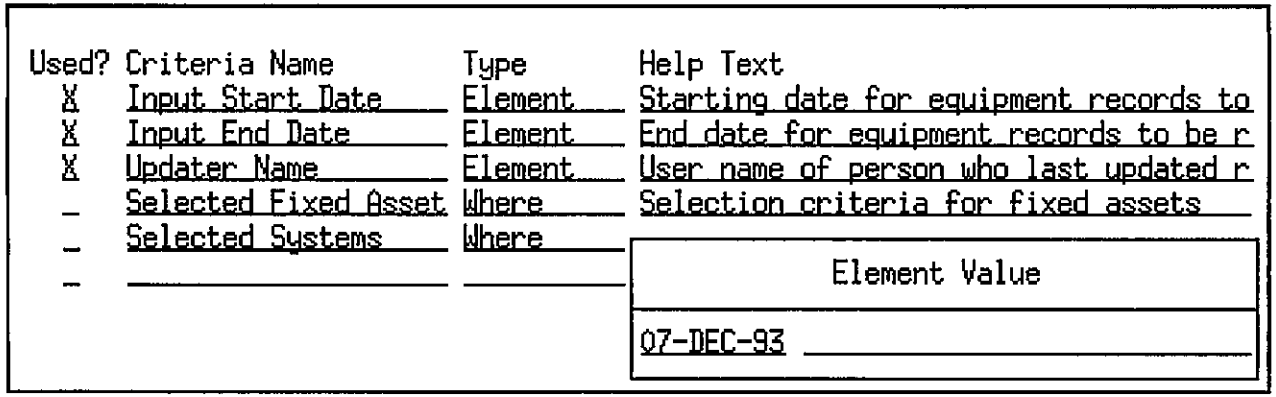
(Note: After a criteria has been specified, an "X" will appear in the Used column. Element criteria types are considered to be already used.


NODE0900 Fermi National Accelerator Laboratory Page 1 of 3
User EQUIPREAD Report Submission Date 16-MAR-94
REPORTS
Report Name: CHARGEBACK Report Class: SYSTEM
Description: CHARGEBACK REPORT
Output Type: S Queue/File Name:
REPORT SELECTION CRITERIA
Used? Criteria Name Type Help Text
X Sub-Heading Element Enter a user specified sub-heading to
X ChargeBack Group Nam Element Enter the Chargeback Group Name.
X Chargeback Start Dat Element Enter the start date to begin chargeba
X Chargeback End Date Element Enter the end date for reporting charg
Service Provider Where Enter service provider selection crite
System Order By Order By Enter the criteria for sorting systems
FRM-40352: Last row of query retrieved.
Count: *6
<Replace>

There are three *types* of selection criteria.

1) *Element*

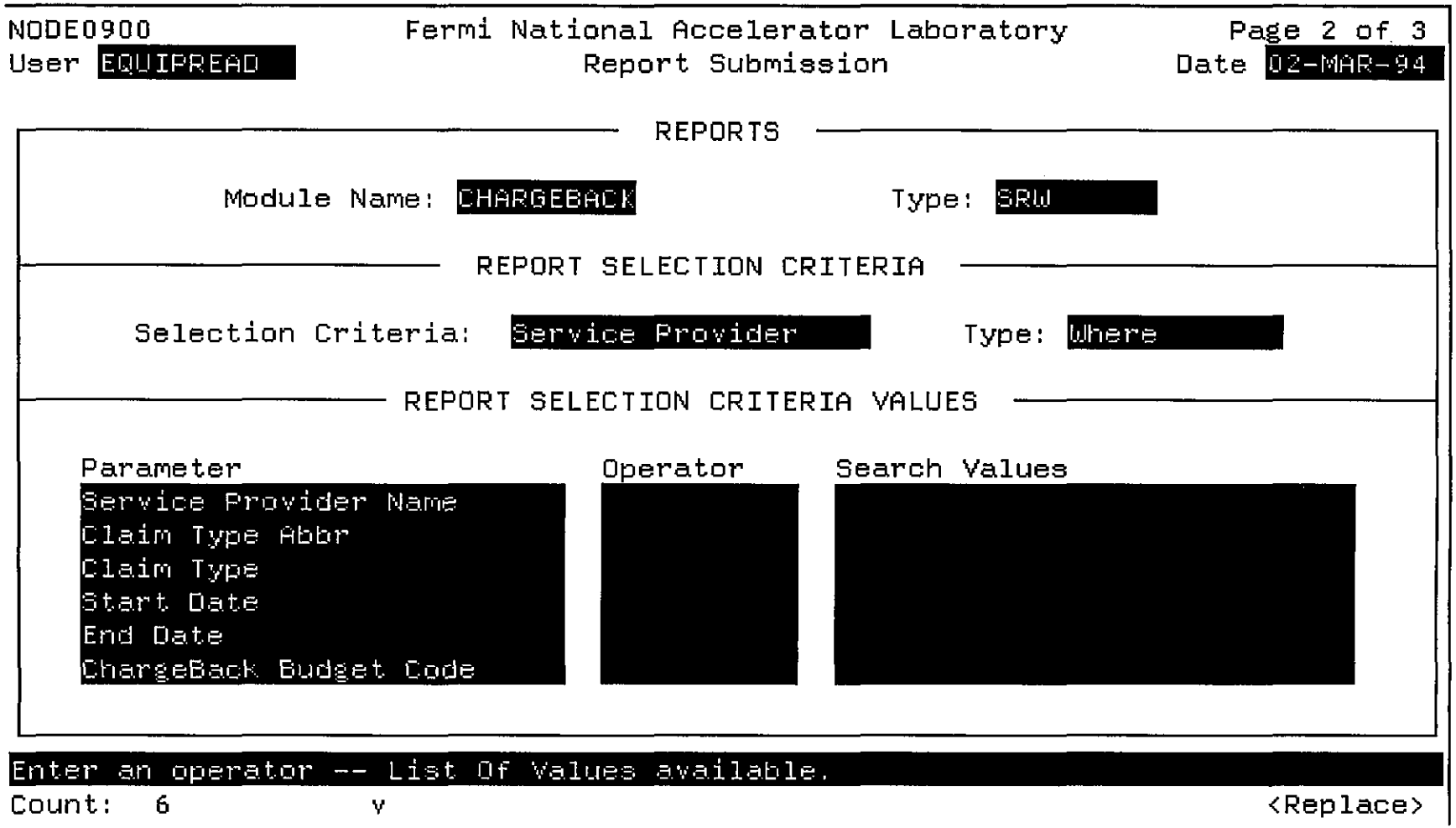
For element criteria, the user enters a single value. Press the Next Block key while the cursor is on the criteria name. A small form for entering the element value will pop up:



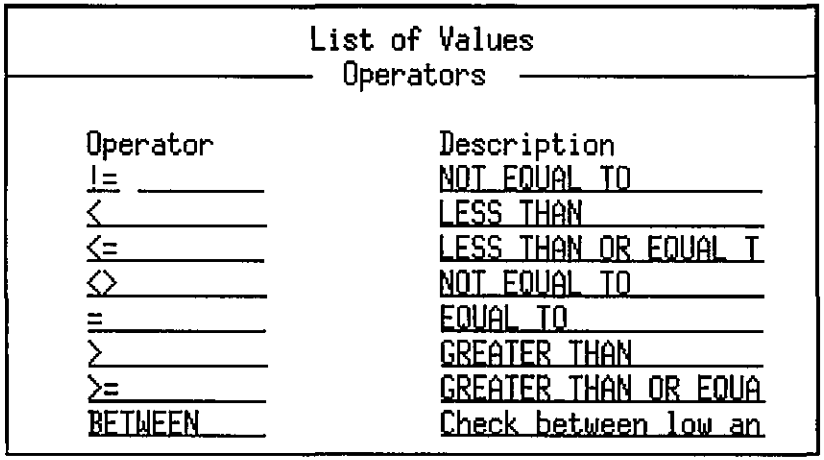
Enter an element value and press return. (A default value may be provided. A default value of "%" means all values. You can change the default value.)

2) *Where*

For where criteria, the user enters search conditions for the parameters. Press the Next Block key while the cursor is on the criteria name. A form for entering criteria values appears:



You will see a list of available parameters. Conditions are entered for those parameters for which you want to narrow the search. A condition consists of the parameter, an operator and a search value. To enter an operator (=, >, LIKE, etc.), either type in the operator or press the LIST key and select an operator.



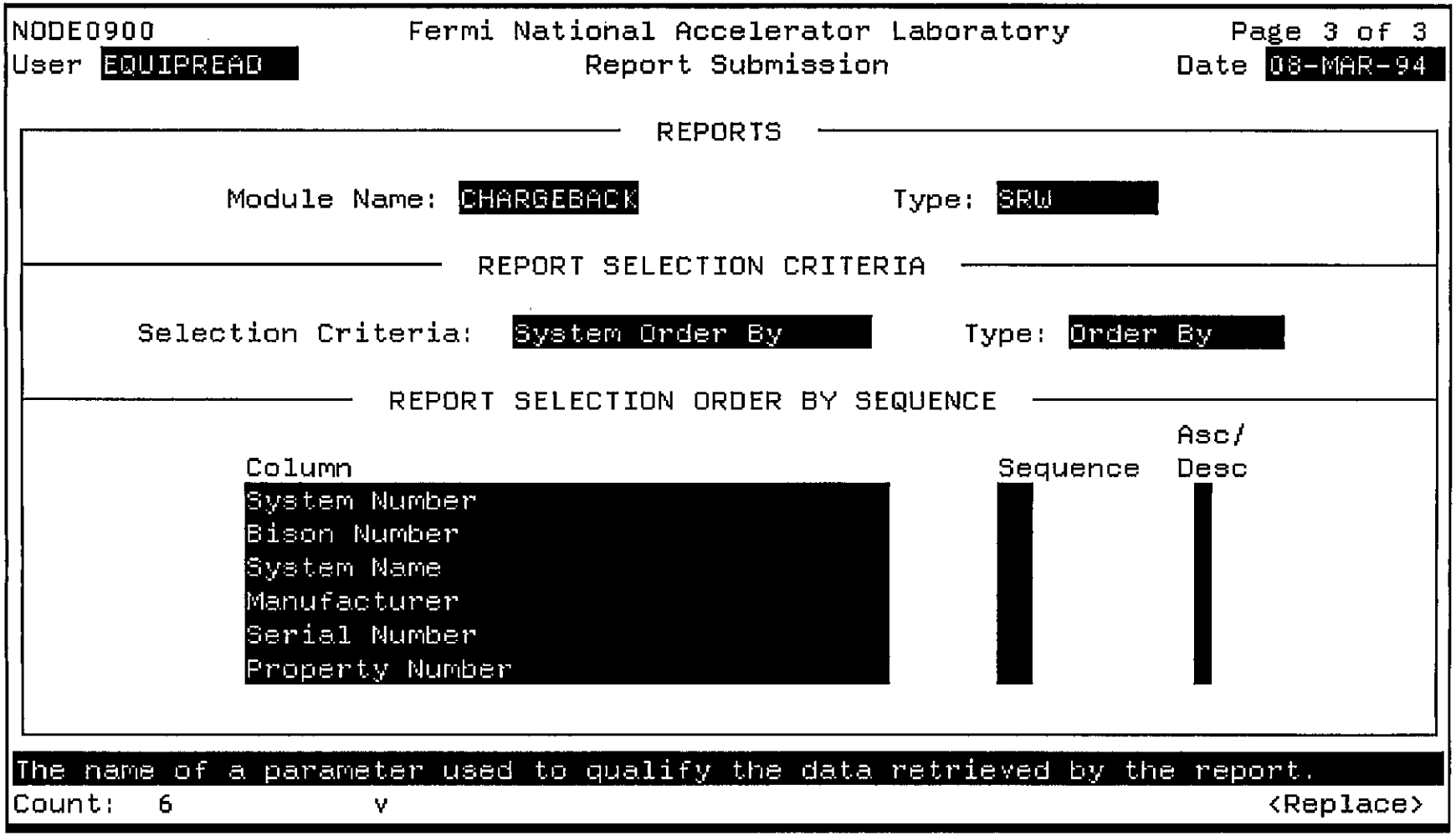
After entering an operator, type in the search value. Here are some examples:

Parameter	Operator	Search Value
FNAL Number	=	25800
FNAL Number	IN	25105,25290,26840
FNAL Number	BETWEEN	25800 AND 25850
FNAL Number	IS NOT NULL	
Provision Class	LIKE	FIXED ASSET

To return to the Report Selection Criteria screen, press the PREVIOUS BLOCK key. If you are finished entering criteria, you can execute the report from the current screen by pressing the ACCEPT key.

3) *Order by*

For order by criteria, the user determines the sort order of the report. Press the NEXT BLOCK key and the following screen appears:

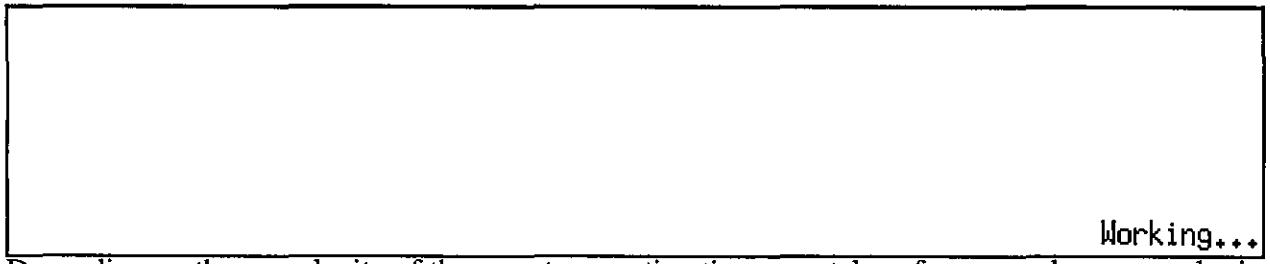


Enter a number in the Sequence column to select the sort sequence. Enter A or D in the Asc/Desc column to select ascending or descending sort order.

To return to the Report Selection Criteria screen, press the PREVIOUS BLOCK key. (If you are finished entering criteria, you can execute the report from the current screen by pressing the ACCEPT key.)

Submitting the Report

After entering the report criteria, press the ACCEPT to submit the report to the output type you have specified. After a few seconds you will get the message "working" at the bottom of the screen:



Depending on the complexity of the report, execution time may take a few seconds or several minutes.

To cancel execution of a report press CONTROL-C and RETURN twice.

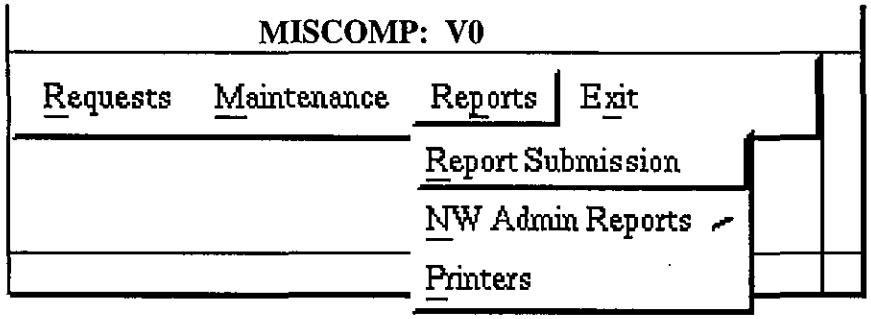
MISCOMP REPORT SUBMISSION

This section describes how to use the Report Submission utility in MISCOMP. The utility allows the user to specify values for report parameters and customize the report's sort order. The developer of a report determines, based on user needs, the format of the report and the parameters and sort columns provided. You may then use any of the provided selection or sort criteria to run the reports differently each time executed.

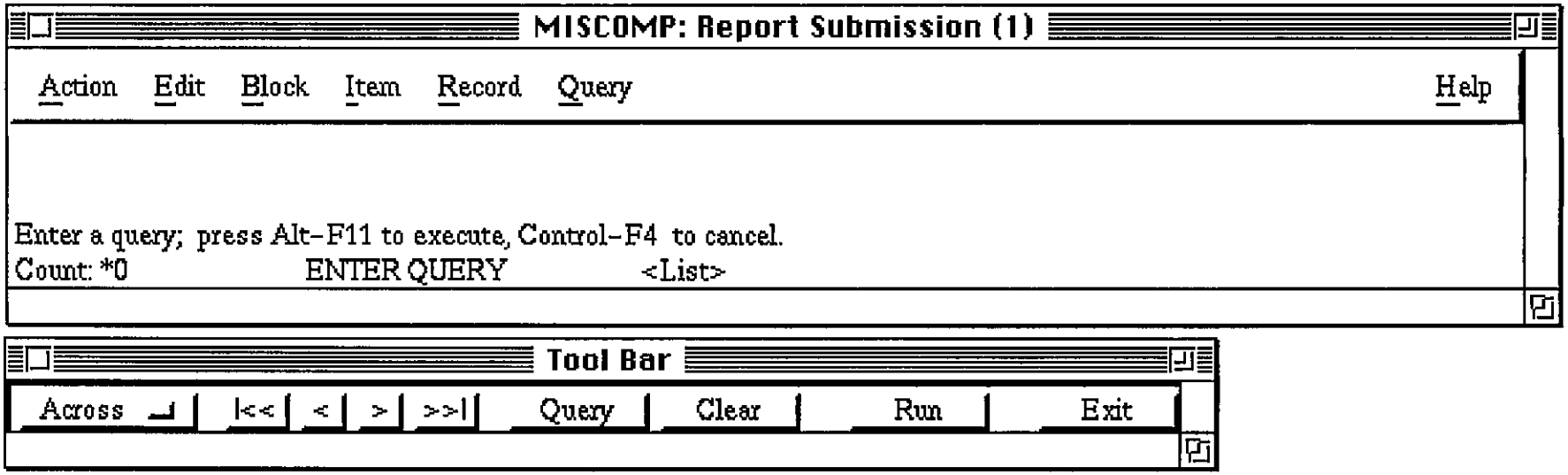
USING THE REPORT SUBMISSION SCREEN

Entering the Report Submission Screen

Select "Reports: Report Submission" from the MISCOMP: V0 pull-down menu.



The Report Submission Screen will appear:



Query the Desired Report(s):

You can query the reports in one of two ways:

1. Query the report:

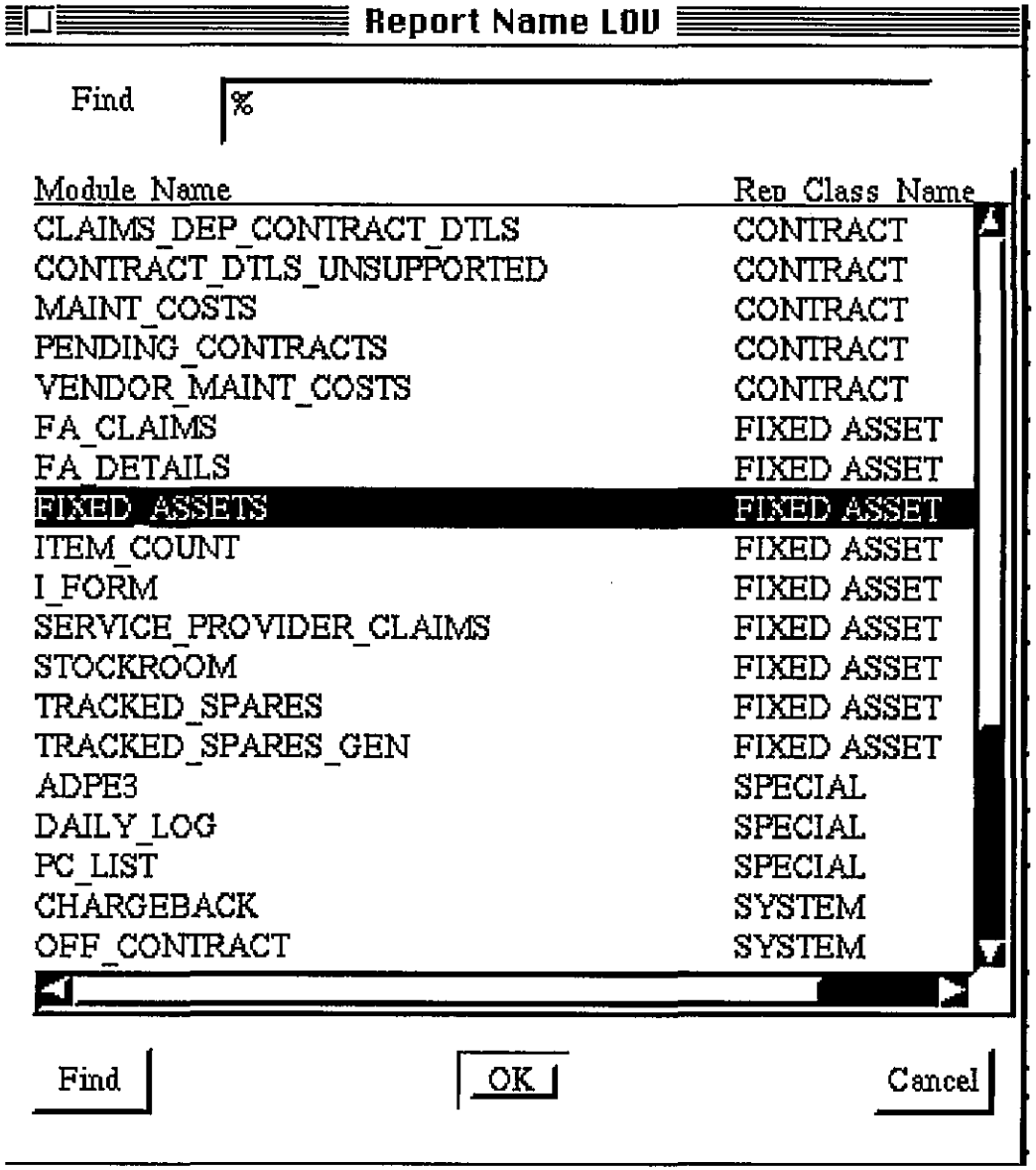
   When you enter the form you will be in query mode. Enter query criteria in either the Report Name field, or the Report Class field and press the QUERY button. You can then scroll through the list using the scroll bar or the arrow keys. For example, to query all reports starting with "SYS", enter SYS%.

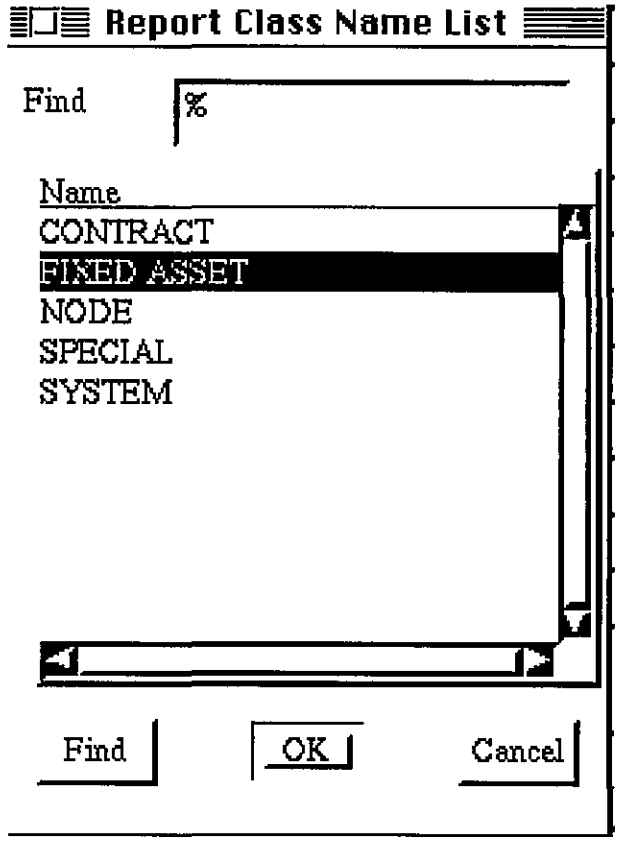
2. Use one of the list of values (2 options):

   a. Press the list of values button for the Report Name field (denoted by the ? to the right of the field), and double click on the desired report name *or*

   b. Press the list of values button for the Report Class field (denoted by the ? to the right of the field), and double click on the desired report class. This will then query all reports of this class.

   The two list of values windows are shown below.

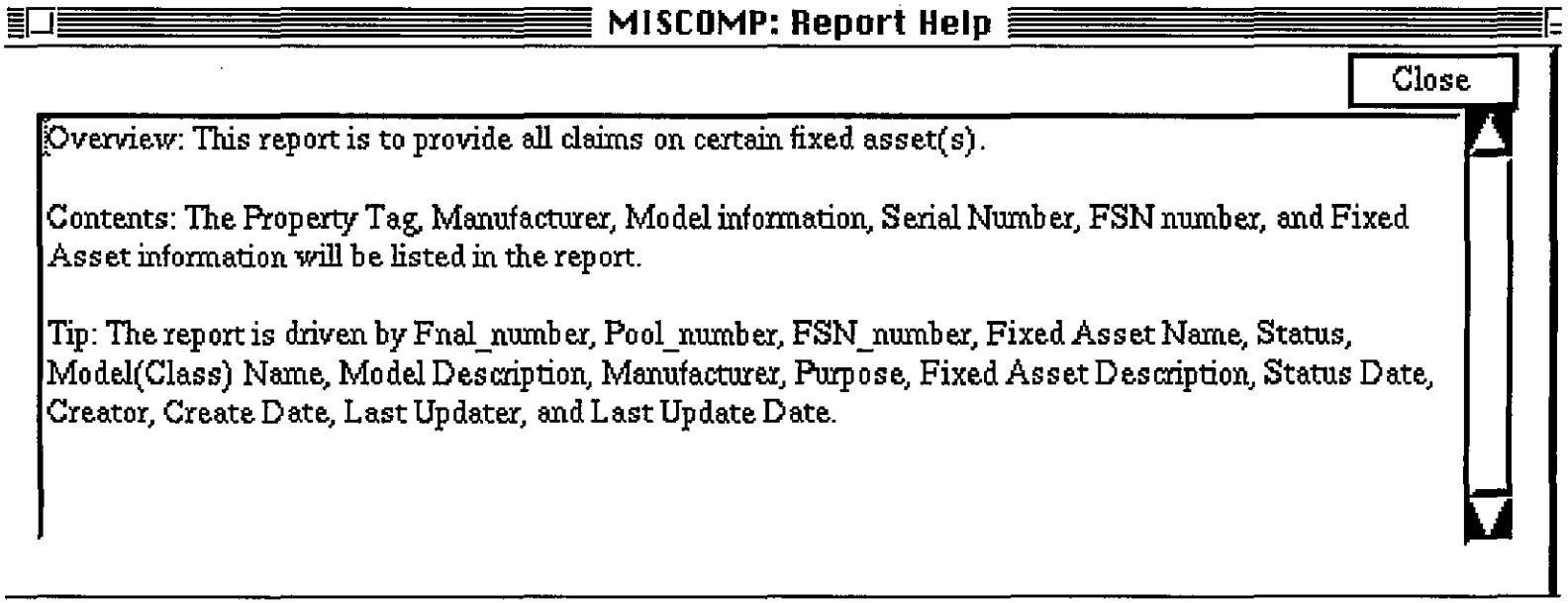

Report Name LOV
Find
%
Module Name
Rep Class Name
CLAIMS_DEP_CONTRACT_DTLS
CONTRACT
CONTRACT_DTLS_UNSUPPORTED
CONTRACT
MAINT_COSTS
CONTRACT
PENDING_CONTRACTS
CONTRACT
VENDOR_MAINT_COSTS
CONTRACT
FA_CLAIMS
FIXED ASSET
FA_DETAILS
FIXED ASSET
FIXED_ASSETS
FIXED ASSET
ITEM_COUNT
FIXED ASSET
I_FORM
FIXED ASSET
SERVICE_PROVIDER_CLAIMS
FIXED ASSET
STOCKROOM
FIXED ASSET
TRACKED_SPARES
FIXED ASSET
TRACKED_SPARES_GEN
FIXED ASSET
ADPE3
SPECIAL
DAILY_LOG
SPECIAL
PC_LIST
SPECIAL
CHARGEBACK
SYSTEM
OFF_CONTRACT
SYSTEM
Find
OK
Cancel


Report Class Name List
Find
%
Name
CONTRACT
FIXED ASSET
NODE
SPECIAL
SYSTEM
Find
OK
Cancel

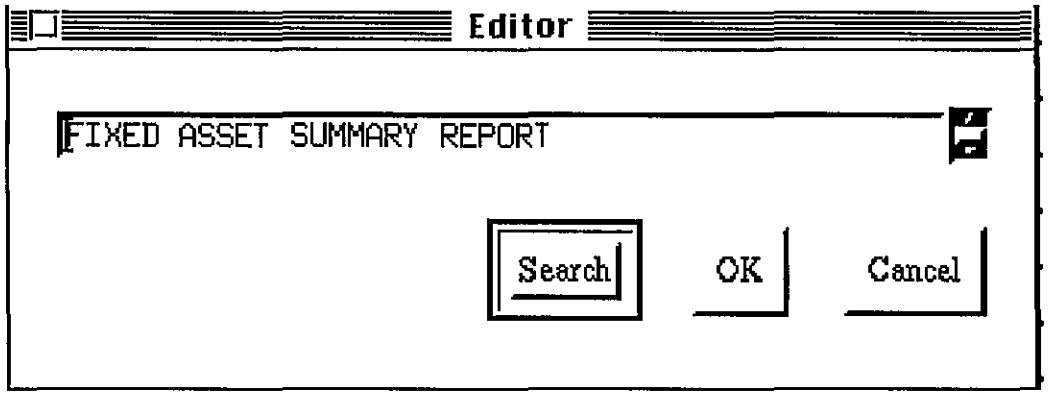
Review the Queried Reports:

Once you have queried one or more reports from the database, there are a few features you can use to determine more information about the report. This information may help guide you in determining which report to run.

First, note the help button immediately to the left of the fields in the Report Submission main window. Clicking on this Help button will pop-up a window displaying scrollable, multi-line help for the report. This help text is available for every report and can easily be changed by anyone with Data Admin privileges for the Equipment Database. A sample of the help window is included below.



Also, each report has a description. On the Report Submission main window, only a portion of the description is displayed because of the limited space available. In many cases, this is the entire description. In other cases, there is more description available past the length of the field. For these cases, you have two choices to view the text. You may enter the field and use the arrow key to scroll to the right, or you may simply click on the + button to the right of the field. This + button will display an editor window like the one shown below. If you click on the + button for a report whose description fits entirely in the field length, you will be notified by a message in the root window of the form.

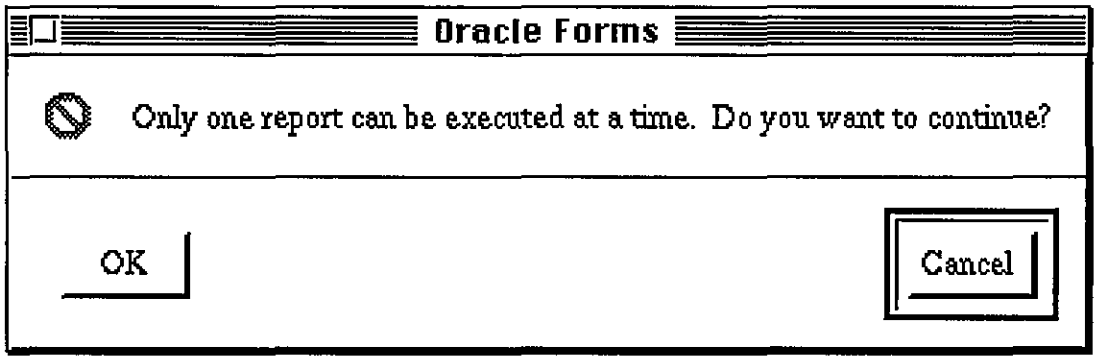


Select a Report to Run:

When you have determined which report you want to run, simply click on the Choose Check Box to the right of the report. If this button was not previously chosen, and no other reports are chosen, you will be presented with the Selection Criteria window for the report.

If the button was previously selected for this report, it will simply be deselected.

If this report was not previously selected, but another report was, you will be presented with the following message. Choosing Continue will deselect the previous report, select this report, and display the Selection Criteria window. Choosing Cancel will simply cancel your original Choose operation.

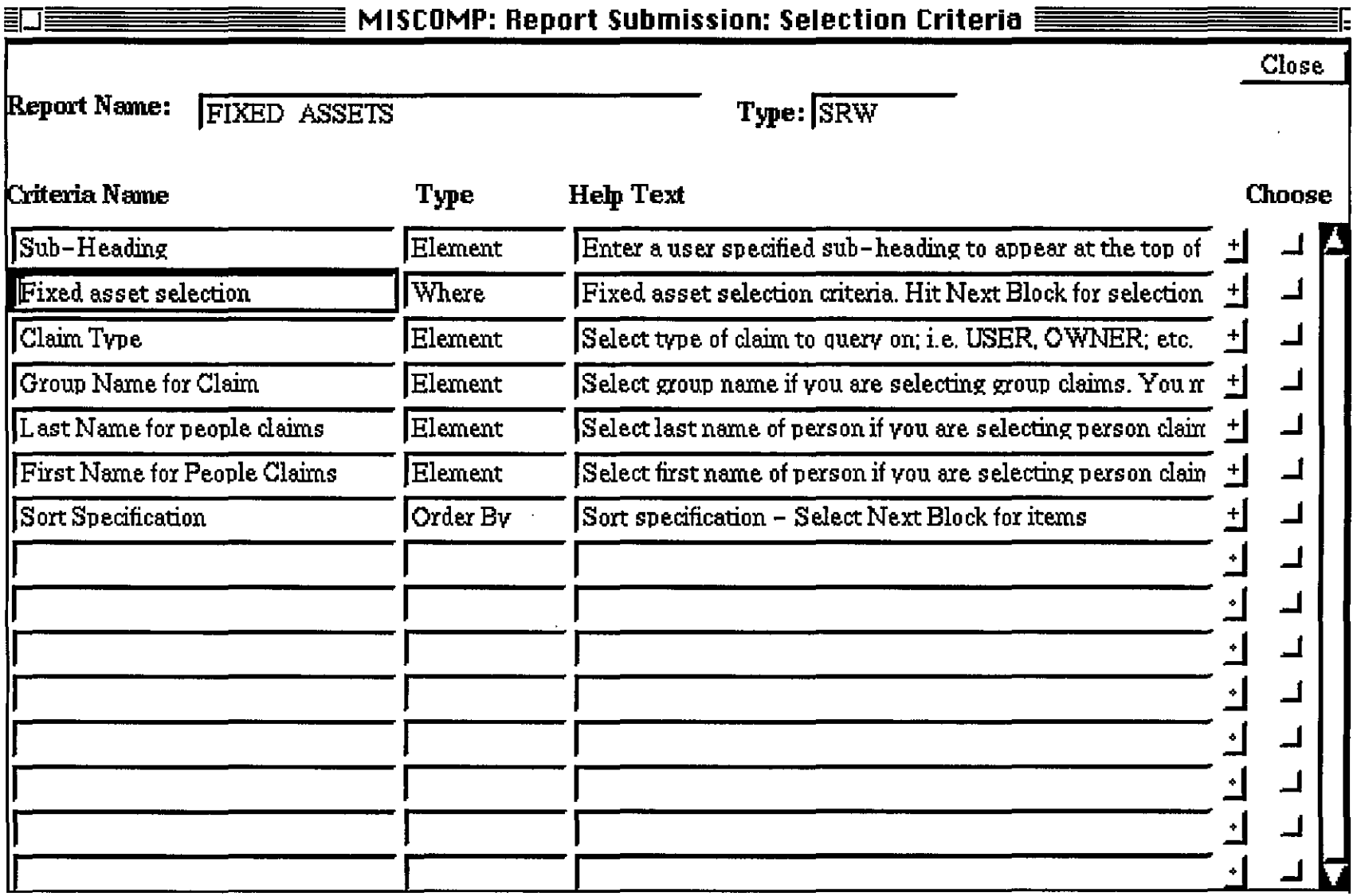


Selecting Report Criteria

After choosing a report, enter the Report Selection Criteria for limiting and/or sorting your report output. To do so, you will simply click on the Choose check box for the criteria which you want to enter. There are three different types of selection criteria, each described below: Element, Where, and Order By.

Once a criteria has been selected, and a value(s) entered for that criteria, the Choose check box will be highlighted. If you "choose" an option and do not enter any value(s), the check box will not be highlighted.

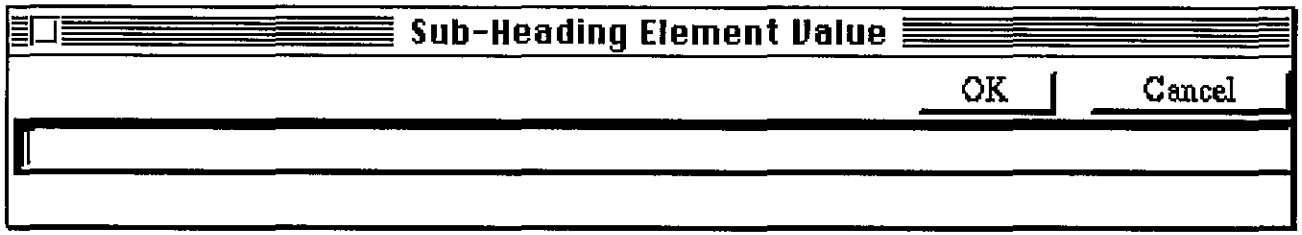
You may notice that upon entering the Selection Criteria window, some elements already have the Choose check box highlighted. This is because these elements have default values, which, unless changed or cleared, will be used to limit the report's output.


MISCOMP: Report Submission: Selection Criteria
Close
Report Name: FIXED ASSETS
Type: SRW
Criteria Name
Type
Help Text
Choose
Sub-Heading
Element
Enter a user specified sub-heading to appear at the top of
Fixed asset selection
Where
Fixed asset selection criteria. Hit Next Block for selection
Claim Type
Element
Select type of claim to query on; i.e. USER, OWNER; etc.
Group Name for Claim
Element
Select group name if you are selecting group claims. You m
Last Name for people claims
Element
Select last name of person if you are selecting person claim
First Name for People Claims
Element
Select first name of person if you are selecting person claim
Sort Specification
Order By
Sort specification - Select Next Block for items

1) *Element*

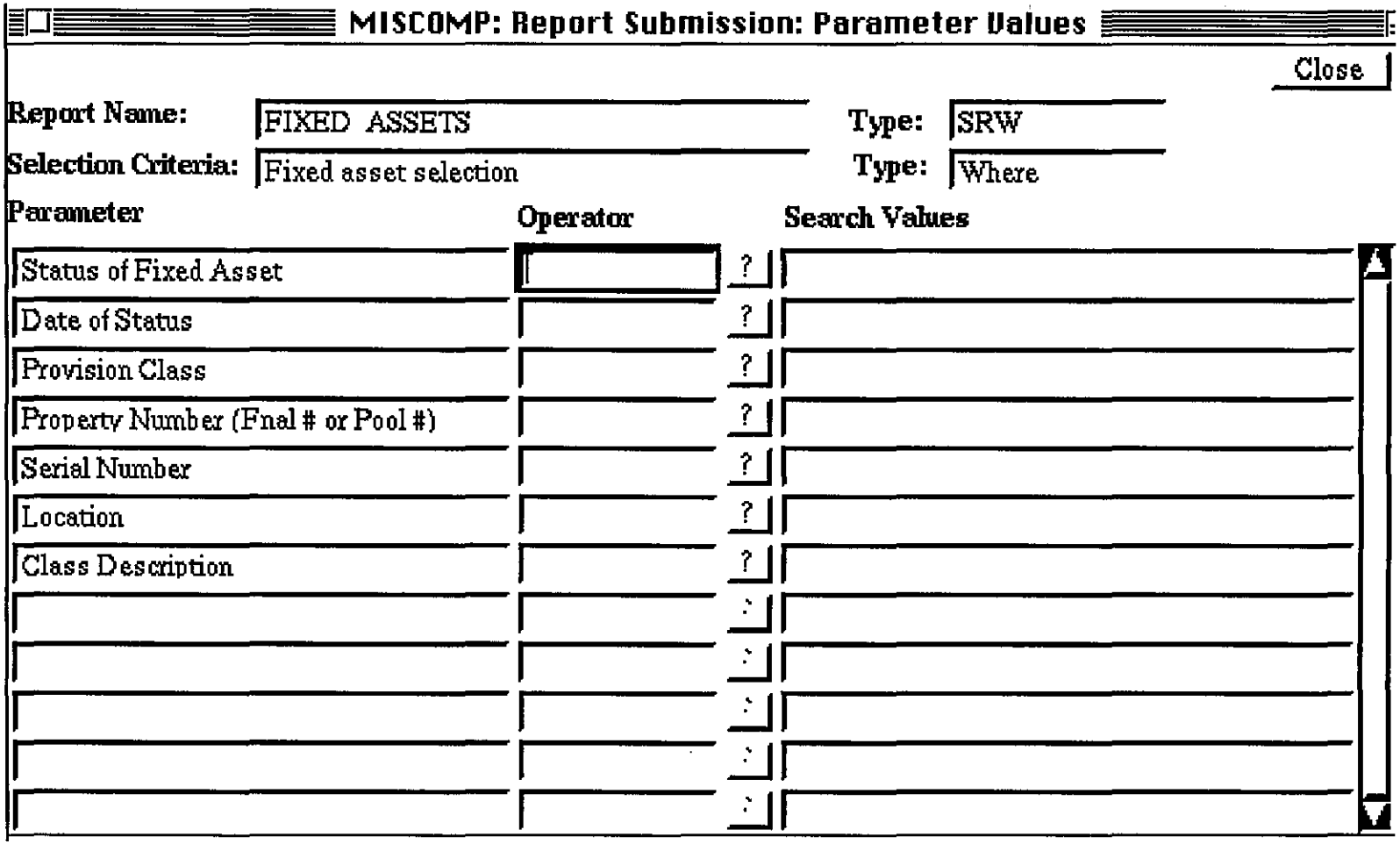
Element criteria accept a single input value, which may consist of wildcards (%). Some element values have a default value which will be used unless you change or clear it.

You may either enter a new value for the element or cancel the entry. To accept your input, you may either hit return, or click on OK. To cancel your entry, simply click on cancel. Canceling the entry does not clear the element, but rather leaves it set to the value it was when you came into this window.

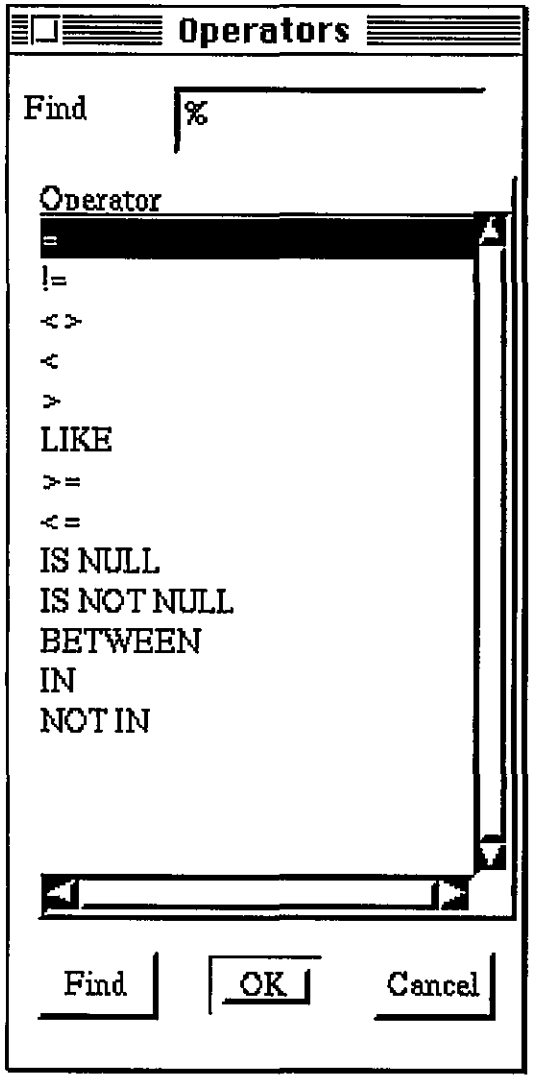


2) *Where*

Where criteria accept entry of a SQL operator and a parameter value for one or more parameters. Upon selecting a where criteria, you will be presented with a window showing all the parameters available for it. Conditions are entered for those parameters for which you want to narrow the search. A condition consists of the parameter, an operator and a search value. To enter an operator (=, >, LIKE, etc.), either type in the operator or use the list of values (? button) to select an operator.



The operator list of values is shown below.

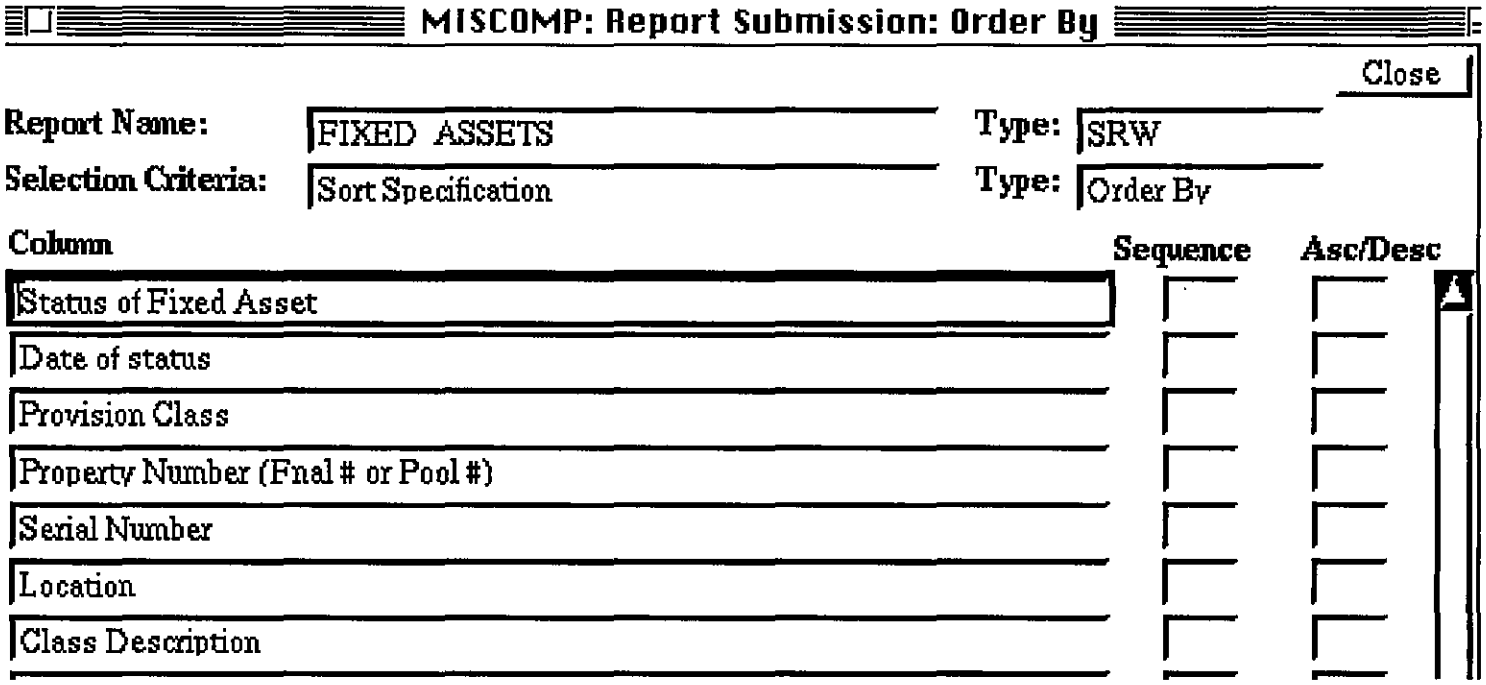


After entering an operator, type in the search value. Here are some examples:

Parameter	Operator	Search Value
FNAL Number	=	25800
FNAL Number	IN	25105,25290,26840
FNAL Number	BETWEEN	25800 AND 25850
FNAL Number	IS NOT NULL	
Provision Class	LIKE	FIXED ASSET

2) *Order By*

Order By criteria are used to determine the sort output of the report. Each report has its own set of Order By criteria. To sort by any of the available criteria, you need only enter a number in the Sequence column. This number denotes the sorting sequence.
You may also enter whether or not you want to sort in ascending (A) or descending (D) order. The default for this Asc/Desc field is A.



Running the Report

After selecting a report and entering all of the selection criteria desired, you will then run the report. Click the Run button in the Toolbar to run the report. You will be prompted for a Report Output. Enter one of the following types.

1. **P** - the report will go to a specified printer. To specify the printer, tab to the Queue/File name field and type the queue name (or use the list of values button (?) and select the desired printer from the list).

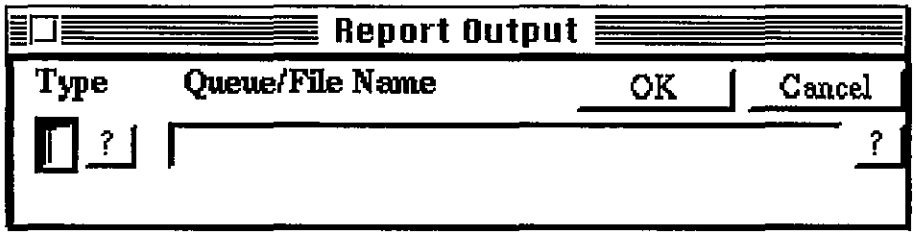
2. **S** - the report will be displayed on the screen.

3. **F** - the report will go to a specified file in post script format. To specify a file name, tab to the Queue/File name field and type the name of the file. The file will be created in the current directory, or the directory you specify.

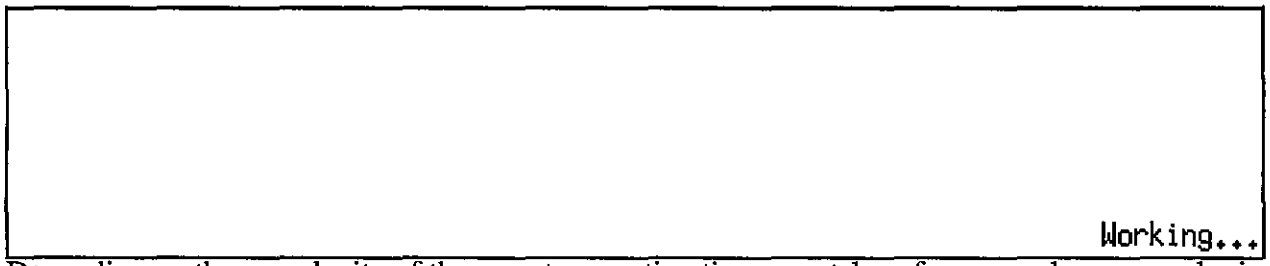
4. **FB** - the same as for **F** except that the report is submitted in "batch" mode.

5. **PB** - the same as for **P** except that the report is submitted in "batch" mode.

You may then hit the OK button, or simply use the return key to run the report.



When the report is running, you will get the message "working" at the bottom of the screen:



Depending on the complexity of the report, execution time may take a few seconds or several minutes.

To cancel execution of a report press CONTROL-C and RETURN twice.

MISCOMP EQUIPMENT DATABASE

Version 0.4

User Documentation

6. Business Objects

EQDB UNIVERSE

Introduction

Business Objects is designed to allow end users to access data in a relational database in a simple and natural way using familiar terminology. A manager creates a Universe that contains the required objects for producing queries against the database. The manager is familiar with the structure of the database and builds the Universe on a local computer. When a version of the Universe is completed, it is exported to an Oracle database server where it is stored in tables known as the Universe Repository. End users may access that universe by importing it to their local computers. The manager creates the users and assigns them access to selected Universes.

Business Objects and user modules are available for Mac, PC (Windows and DOS), UNIX/Motif, OpenLook, X-Windows, and Character terminals. At the present time, only Mac is being supported. Tests are underway for other typical Fermilab environments. These will be made available in the near future.

A Universe consists of three main components: classes, objects, and joins.

Classes are groups of objects. Each class defines a main section of the application for which the Universe is defined. Usually, classes are loosely associated with tables and views in the database.

Objects define a basic element of the Universe. Objects are, usually, loosely associated with database fields but may relate to several fields, perform calculations on fields, or perform aggregate functions on data. The definition of an object also includes which database tables and views from which it is derived. Classes and objects are generally named using terminology familiar to the end users of the Universe.

Joins define relationships between the database tables and views referenced in the object definitions. When queries are defined, the joins are automatically applied. The end user is never concerned with join definitions or relationships between database tables.

The end user builds a query by selecting the objects to be include from the specific classes. Conditions on the objects also may be specified defining a selection criteria for the query. Business Objects uses the definitions of the objects selected and the join definitions referencing the tables selected to build a SQL select statement for the query. When the query is executed, the results can be viewed. The results may also be analyzed by generating reports and charts using Business Objects. Query results may also be exported to other programs such as Microsoft Excel and Microsoft Word.

See *The Business Objects User's Guide* for detailed information on using Business Objects.

General Overview of the EQDB Universe

The EQDB Universe consists of 7 main classes. A brief description of each class appears below. Descriptions of the objects in each class are presented in the following sections.

SYSTEM
- Select attributes of a Physical System

SYS MANAGER CLAIMS
- Select system manager group or individual claim

FIXED ASSETS
- Select attributes of fixed assets.

GENERAL CLAIMS
- Select information on claims for fixed assets.

OWNER CLAIMS
- Select owner groups or owner persons for fixed assets.

USER CLAIMS
- Select user groups or user persons for fixed assets.

RESERVATION CLAIMS
- Select groups or people holding reservation claims for fixed assets.

PURCHASE ORDER INFORMATION
- Select purchase order information on fixed assets.

MAINTENANCE CONTRACTS
- Select information on contracts and service providers.

SYSTEMS Class

Contains objects relation to physical systems.

OLD SYSTEM NUMBER - Bison Number

SYSTEM CLASS DESCRIPTION

SYSTEM CLASS NAME

SYSTEM DESCRIPTION

SYSTEM ID - Internal Oracle ID

SYSTEM NAME

SYSTEM NUMBER - System tag

SYSTEM PURPOSE

SYSTEM TYPE
When this is selected you will be prompted for a "System Type Hierarchy"; you must enter a provision that applies to systems such as COMPUTER SYSTEM or PRINTER SYSTEM. You may wild card and can enter % to get all systems.

SYS MANAGER CLAIMS Class

SYS MANAGER BADGE NUMBER

SYS MANAGER CLAIM HOLDER
Selects either a group name (if group claim) or full name (if person claim)

SYS MANAGER CLAIM STATUS
Either OPEN or CLOSED - if you want current claims specify
SYS MANAGER CLAIM STATUS equals OPEN

SYS MANAGER EMAIL ADDRESS

SYS MANAGER END DATE - claim end date

SYS MANAGER FIRST NAME

SYS MANAGER FULL NAME

SYS MANAGER LAST NAME

SYS MANAGER MAIL STOP

SYS MANAGER MIDDLE INITIAL

SYS MANAGER START DATE - Claim start date

SYS MANAGER USAGE DESCRIPTION

FIXED ASSETS Class

COUNT
Aggregate object that provides counts of groups selected

FIXED ASSET CLASS DESCRIPTION

FIXED ASSET CLASS HIERARCHY
When this object is selected, you will be prompted for the top of the class hierarchy for fixed asset selection. For example CPU BOX will cause all CPU fixed assets to be selected.

FIXED ASSET CLASS NAME

FIXED ASSET ID - internal Oracle ID

FIXED ASSET LOCATION ADDRESS

FIXED ASSET LOCATION AREA

FIXED ASSET LOCATION DESCRIPTION

FIXED ASSET LOCATION NAME

FIXED ASSET MANUFACTURER

FIXED ASSET PROPERTY # - Fnal or Pool number

FIXED ASSET PURPOSE

FIXED ASSET SERIAL NUMBER

FIXED ASSET STATUS

FIXED ASSET STATUS DATE

GENERAL CLAIMS Class

CB BUDGET CODE - Chargeback budget code for the claim

CLAIM END DATE

CLAIM START DATE

CLAIM STATUS
Either OPEN or CLOSED - if you want current claims specify CLAIM STATUS equals OPEN

CLAIM TYPE - Type of claim (OWNER, USER; etc.)

CLAIM TYPE ABBR

PROJECTED END DATE

REQDB NUMBER

USAGE DESCRIPTION

BADGE NUMBER

CLAIM HOLDER - Group or person

DIVISION NAME

EMAIL ADDRESS

FIRST NAME

FULL NAME

GROUP DESCRIPTION

GROUP NAME

LAST NAME

MAIL STOP

MIDDLE INITIAL

OWNER CLAIMS Class

OWNER BADGE NUMBER

OWNER CLAIM HOLDER - Group or person

OWNER CLAIM STATUS
Either OPEN or CLOSED - if you want current claims specify
OWNER CLAIM STATUS equals OPEN

OWNER END DATE - Claim end date

OWNER FIRST NAME

OWNER FULL NAME

OWNER GROUP DESCRIPTION

OWNER GROUP NAME

OWNER LAST NAME

OWNER MIDDLE INITIAL

OWNER PROJECTED END DATE

OWNER START DATE - Claim start date

OWNER USAGE DESCRIPTION

USER CLAIMS Class

USER BADGE NUMBER

USER CLAIM HOLDER - Group or person

USER CLAIM REQDB NUMBER

USER CLAIM STATUS
Either OPEN or CLOSED - if you want current claims specify
USER CLAIM STATUS equals OPEN

USER EMAIL ADDRESS

USER END DATE - Claim end date

USER FIRST NAME

USER FULL NAME

USER GROUP DESCRIPTION

USER GROUP NAME

USER LAST NAME

USER MAIL STOP

USER MIDDLE INITIAL

USER PROJECTED END DATE

USER START DATE - Claim start date

USER USAGE DESCRIPTION

RESERVATION CLAIMS Class

RES BADGE NUMBER

RES CLAIM HOLDER - Group or person

RES CLAIM REQDB NUMBER

RES CLAIM STATUS
Either OPEN or CLOSED - if you want current claims specify
RES CLAIM STATUS equals OPEN

RES EMAIL ADDRESS

RES END DATE - Claim end date

RES FIRST NAME

RES FULL NAME

RES GROUP DESCRIPTION

RES GROUP NAME

RES LAST NAME

RES MAIL STOP

RES MIDDLE INITIAL

RES PROJECTED END DATE

RES START DATE - Claim start date

RES USAGE DESCRIPTION

MAINTENANCE CONTRACTS

CHARGEBACK BUDGET CODE

CHARGEBACK CLASS DESCRIPTION

CHARGEBACK CLASS NAME

CHARGEBACK GROUP

CONTRACT END DATE

CONTRACT START DATE

CURRENT CONTRACT
If this object is selected only current contracts will be selected; i.e., today's date is between the start and end date of the contract.

MONTHLY COST - The monthly cost for the provision class.

PENDING CONTRACT
If this object is selected only pending contract claims will be selected (claim types of SPN or SPA).

PROJECTED COST
Provides the projected cost of the contract over a specified period. The user is prompted for the start date and end date of the period.

SPC CLAIM STATUS - Service provider claim status
Either OPEN or CLOSED - if you want current claims specify
SPC CLAIM STATUS equals OPEN

SPC CLAIM TYPE

SPC CLAIM TYPE ABBR

SPC END DATE - End date of the service provider claim

SPC PROJECTED END DATE

SPC START DATE - Start date of the service provider claim

SPC VENDOR

TOTAL MONTHLY COST
Aggregate total monthly cost of the items selected.

TOTAL PROJECTED COSTS
Aggregate total projected costs over a specified period of the items selected.

UNDER CONTRACT
If this object is selected, only current contract claims will be selected.

PURCHASE ORDER INFORMATION Class

DATE DELIVERED - Date item delivered to the Lab

PO BUDGET CODE

PO DATE

PO ITEM COST

PO NUMBER

PO REQUESTER

PO VENDOR

TOTAL PO ITEM COST
Aggregate total of the item costs grouped by the items selected.

Query Creation Tips

For information on creating queries, reports, charts, etc.; see the Business Objects User's Guide. Some helpful hints on creating query are given below.

If you select objects from just one class only information concerning that class will be retrieved. For example, if you select objects from the SYSTEMS class, only, information on physical systems will be displayed. You can also access system manager claims using the SYS MANAGER CLAIMS class.

If you select objects from both the SYSTEMS and FIXED ASSETS classes, each line will contain system information and a fixed asset member of that system. To make sure systems are grouped together **be sure to sort on a system object such as the SYSTEM NAME, SYSTEM NUMBER or SYSTEM ID.**

The only claims for systems are the system manager claims. All other claims are attached to fixed assets.

If you select objects from GENERAL CLAIMS one row for each claim will appear in the report; i.e., if there are three claims on a specific fixed asset, 3 lines will be list showing the different claims for that asset.

The specific OWNER CLAIMS and USER CLAIMS should be used to get owner and user fixed asset claim information. If you select objects from both OWNER CLAIMS and USER CLAIMS classes, all the claim data for a given fixed asset will appear on a single line.

Certain objects when selected automatically will prompt you for information when you execute the query.

SYSTEM TYPE will prompt you for the top node of the system class hierarchy where you specify the type of systems to be selected. You may wild card with the %.

FIXED ASSET CLASS HIERARCHY prompts you for the top node of the provision class hierarchy to define the fixed assets to be listed. For example specify CPU BOX to get all CPU's or DISK DRIVE to get all disk drives. You may wild card with the %.

The MAINTENANCE CONTRACTS class contains objects for service provider claims, maintenance contracts, and chargeback groups.

Certain objects when selected determine how the query will be executed.

CURRENT CONTRACT selects only contracts that are active at this time; i.e., where today's date is between the contract start date and end date.

UNDER CONTRACT selects only under contract claims.

PENDING CONTRACT selects only claims that have pending contract claim types.

The PROJECTED COST object allows you to project the cost of an item in a contract over a specified period. A query containing this object will prompt you for the START and END date or the period. Dates must be specified in the standard Oracle date format dd-mon-yy; i.e. 01-MAY-94.

Objects starting with the word TOTAL are aggregate objects. This means they sum up values for all rows selected grouped by all non-aggregate values in the query. If you selected SYSTEM NAME and TOTAL MONTHLY COST in a query, each line of the report contains a system name and the sum of the monthly costs for all fixed assets belonging to system. Aggregate objects are TOTAL MONTHLY COST, TOTAL PROJECTED MONTHLY COST, and TOTAL PO ITEM COST. The FIXED ASSETS class object COUNT provides aggregate counts of items selected.

Restrictions and Limitations

Only first level fixed assets components of systems are accessed. This is because accessing lower levels degrades performance considerably.

For a contract cost item to be associated with a provision class, the cost item must point directly at the provision class. References to a provision class higher in the tree will be ignored. This is due to limitations on the length of complex join conditions in Business Objects. Hence, contract costs displayed in Business Objects queries should be considered approximations and not exact values.

Currently a retrieval limit of 1500 rows and a time limit of 900 seconds are imposed on all queries. These limits can be changed by the system manager.

MISCOMP EQUIPMENT DATABASE

Version 0.4

User Documentation

7. Release Notes

Fermilab

MISCOMP
Equipment Database

Version 0.4 Release Notes

May 23, 1994

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ABSTRACT

Version 0.4 of the MISCOMP Equipment Database includes many new features and functions. A set of new functionality has been implemented using a new graphical user interface, and other features have been added and changed to the existing character mode functions. This document presents a brief overview of the new functionality provided in Version 0.4.

For a complete description of the MISCOMP Equipment Database see the MISCOMP Equipment Database Version 0.4 User Documentation.

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Overview of System Access and Menu Changes

SYSTEM ACCESS CHANGES

The current setup and access mechanism remains the same, with the current commands working exactly as before, taking you into the character mode version of the Equipment Database. To enter the GUI functionality, simply execute miscomp instead of equipdb. Samples of setting up and running each product are below:

Character Mode	GUI Mode
setup equipment_db	setup equipment_db
equipdb	miscomp

Users who have currently been granted read only access to the equipdb screens will undergo a change in how they access these screens. For security reasons, read only users will no longer be allowed to access the EQUIPDB portion of the Equipment Database using their own account. They will be required to use the EQUIPREAD/READER account for this access. They will, however, be able to access the MISCOMP portion of the Equipment Database using their own account, and then get to the EQUIPDB screens using the Equipdb menu option provided.

Users who will be running the GUI MISCOMP application must make certain that their DISPLAY environment variable is set correctly. And, if you are working on an x-terminal that is outside of the fncdua network hosts group, you must add the specific entry to your .rhosts file. You may send mail to fncd-local-admin@fncdua.fnal.gov for help with this.

Also, users of the miscomp screens may want to remap their delete key using the alias provided with the setup of the Equipment Database called keyb_del. The keyb_del alias remaps the delete key at the X11 level so that it will perform a delete backward function as opposed to the delete current character function. Run this alias after you setup equipment_db and before you run miscomp. See bug # 5 in Section 11, Known Bugs for more details.

MENU CHANGES

The character mode Equipdb menu has had some options added and some removed. See the changes below along with the explanations.

New Menu Options Added

- Contracted Fixed Assets Maintenance: Added to the Physical Instruments menu. Calls form NODE0315 - Maintain Current Svc Provider Under Contract Claims. See the details about this form in Section 3, Equipdb Form Changes.

- Budget Code Maintenance: Added to the Supporting Data menu. Calls form NODE0386 - Maintain Budget Codes. See the details about this form in Section 3, Equipdb Form Changes.

- Supporting Data for System Configuration: Added to the Supporting Data menu. It is a new menu which contains three menu options that were previously on the Supporting Data menu. The forms that allow you to change the underlying data structures and rules of the Equipment Database have been moved to this new menu. They should not be used

often and have been moved to keep the Supporting Data menu at a reasonable size, due to the addition of the Budget Code Maintenance option. The forms on this new menu are: NODE0391 - Maintain Attributes, NODE0384 - Maintain Substitution/Role Lists, and NODE0383 - Physical Instrument Composition Guidelines.

Menu Options Removed

- Node Maintenance (for Inventory): Removed from the Logical Systems and Networks menu as it was no longer used.

Overview of Equipdb Changes

The changes to the Equipdb functionality include the addition of some new find features for entry of individual and group names, and system numbers and property tags. Also included are changes in the chargeback model and changes in the logical cluster model in Equipdb. These changes are described below.

NEW FIND FEATURES

A series of new find features has been implemented to facilitate the data entry efforts. These new find features allow you to enter partial data into a field, and have the system determine if a value exists in the database based on this partial data. The following finds have been implemented in all of the Equipdb forms.

Individual: Last name, first name and middle initial have been combined into one field. You may enter the leading edge of the last name, followed optionally by a space and the leading edge of a first name, followed optionally by a space and the middle initial, and the system will find the name that most closely matches. If more than one match exists it returns the individual for which the string count in their name is nearest to the string you entered. Or, you may also enter the badge number directly into the name field and the system will retrieve the name of the individual with this badge number. Wildcards are allowing using the %.

Group: You may enter a portion of a group name, even a portion from the middle of the name, and the system first checks to see if a FL/CD group exists with the string you entered anywhere in its name. If one or more exists, it returns the one whose string count most closely matches the string count you entered. If none exists, it checks non FL/CD groups with this string in their name. You may use % as a wildcard.

Class Name: You may enter a partial class name by entering the leading edge of the name. The system will then find the closest matching class name applicable to the screen or field in which you are working. You may also use % as a wildcard.

System Number: You may enter a portion of a system number and Equipdb will add the initial S and subsequent zeros to provide a full length system number. All you are required to enter is the non-zero, numeric portion of the system number.

System Name: You may enter the leading edge of a physical system name and Equipdb will find the best match. Again, wildcards are allowed.

Property Number: Enter the property number as shown on most equipment. You may omit the leading 0 or 5 and any subsequent zeros as Equipdb will automatically add these to the length of property tags. The tie breaker logic states that matches with leading 0's beat out matches with a leading 5.

Serial Number: You enter the leading edge of the serial number and the system will find the closest matching serial number. You may use % as a wildcard.

SERVICE PROVIDER CLAIM CHANGES

Three main changes have been implemented regarding service provider claims. The use of chargeback group and chargeback budget code on service provider claims has changed, a new

form has been added that provides for an easy means for editing multiple service provider claims, and all reports have been modified to fit these changes.

First, the relationship of groups to budget codes has been implemented. A table called budget_codes has been added with the format noted below. All current budget codes have been loaded into this new table with every budget code mapped to an existing group. New groups were created when needed.

Budget Codes Table

id	not null	number
budget_code	not null	varchar(3)
owner_group_id	not null	number

Second, the service provider claim maintenance mechanism has changed. You are no longer allowed to enter a chargeback group for this claim type. Instead, you will enter the chargeback budget code and the group will be derived from the table above. The budget code you enter must exist in the table before you can use it as a chargeback budget code. There is also a list of values available when you are entering the chargeback budget code.

Also, a new form was added to facilitate the maintenance of service provider claims. This form, NODE0315 - Maintain Current Service Provider Under Contract Claims, allows you to maintain only current service provider under contract claims. It provides an easy means to display a list of all such claims based on various criteria and to edit such things as the end date, the projected end date, etc. See the section title Equipdb Form Change Details for a complete description of this new screen.

Finally, the chargeback report and all other service provider reports were modified to support this new structure.

SYSTEM MANAGER CLAIM CHANGES

The primary manager flag has been removed from system manager claims.

LOGICAL CLUSTERS CHANGES

The logical network model in Version 0.3 of the Equipment Database has been divided into two pieces, logical networks and logical clusters. Logical networks now include only IP, DECNET, APPLETALK and LAT. Farms, farmlets, LAVCs and Unix Clusters are now considered logical clusters.

Version 0.4 now allows for either a physical system or a logical cluster to be the device for the node. Nodes are only allowed to be assigned to logical networks. What used to be a node of a farm, farmlet or LAVC will now be a logical cluster component. Only LAT nodes will be allowed to provide network services.

NEW QUICK KEYS

In addition to the new find features described earlier, some new quick keys have been added for the service provider groups. You may now enter the quick key and the complete vendor name will be derived for you. Below is the list of quick keys added.

Quick Key	Vendor
BA	Bell-Atlantic
DEC	Digital Equipment Corporation
HA	Harris Adacom
QMS	Quality Micro Systems
SGI	Silicon Graphics Inc.
SUN	SUN Microsystems

Detailed Description of Form Changes

NODE0308 - Fixed Asset Turnin

New finds for Property Number and Serial number have been implemented in this form. See New Find Features above for details.

NODE0309 - Fixed Asset Storage

New finds for Property Number and Serial number have been implemented in this form. See New Find Features above for details.

NODE0310 - Maintain Fixed Assets

New find for Class Name has been implemented in this form. See New Find Features above for details.

NODE0311 - Maintain Service Provider Claims

Chargeback Group is derived from Chargeback Budget Code. You cannot enter a group name in the chargeback group field as this field is now based on the budget code you enter.

There is a list of values for Budget Codes. If there is no data in the budget code field when you do the list, the list of values will find all budget codes. If you have some data in this field, this will restrict the list to your restrictions. For example, if the user enters 'D' in the budget code field and then does the list, only those budget codes starting with D will be found.

New finds for Property Number, Serial number and Group have been implemented in this form. See New Find Features above for details.

Also, the Service Provider field now allows use of the "quick keys." For example, the user can enter BA for Bell Atlantic, etc. See the section titled New Quick Keys above.

NODE0315 - Maintain Current Svc Provider Under Contract Claims

****** New Form ******

This is a new form that was developed to maintain Current Service Provider Under Contract Claims.

This form can be used to modify or add Start Date, End Date, Projected End Date, Chargeback Budget Code, Chargeback Group, and Comments. This form does NOT allow new claims to be entered or existing claims to be deleted.

You can restrict the claims based on System Number; a list of values for system numbers is available. If you enter a system number, the current service provider under contract claims will be restricted to this system. Otherwise, the default is all current service provider under contract claims.

You can further restrict the claims based on any of the fields in the second block: property #, serial #, Class Name, Service Provider, Start Date, End Date, Projected End Date, Budget Code, Chargeback Group, Comments.

NODE0319 - Maintain Open Physical System Claims

Primary Manager flag has been removed.

A bug that was found while trying to delete a record has been fixed. Not all claims could be deleted. This was due to the status date containing the date and time. This has now been fixed and claims can be deleted as needed.

If you are entering a new group claim in the System Claim block, you will get a caution pop-up message that says, 'No individual matches *data_entered.*' After acknowledging the message, the group will be entered into the system claim block. This is due to a revision in the code. The code first checks to see if the data entered is a valid individual. If not, then it checks to see if it is a valid group.

New finds for Group and Individual have been implemented in this form. See New Find Features above for details.

NODE0320 - Maintain Physical Systems

New find for Class Name has been implemented in this form. See New Find Features above for details.

NODE0321 - Maintain Physical Instrument Components

New finds for Class Name, Property Number, Serial Number, Group and System Name have been implemented in this form. See New Find Features above for details.

NODE0325 - Maintain Claims

Primary Manager flag has been removed.

Badge Number has been removed from the Individual Claims block.

Chargeback Group is derived from Chargeback Budget Code. You cannot enter a group name in the chargeback group field. This field is now based on the budget code.

A REQDB number can now be entered for a GROUP Claim of Claim Type 'RESERVATION', this is in addition to the claim type of 'USER.'

The individual name has been changed to display the last name, first name middle initial, and the new finds for Group and Individual have been implemented in this form. See New Find Features above for details.

NODE0330 - Maintain Physical NW Segments

The new finds for Class Name, Property Number, and Serial Number have been implemented in this form. See New Find Features above for details.

NODE0331 - Maintain Nodes

Allows for either a physical system or a logical cluster to be the device for the node. Only allows nodes for the network types listed in NODE0340. What used to be a node of a farm, farmlet or LAVC will now be a logical cluster component. Only LAT nodes will be allowed to provide network services.

Also, the new finds for Class Name, System Number and System Name have been implemented in this form. See New Find Features above for details.

NODE0331INV - Maintain Nodes for Inventory

This form has been removed from the menus as it is no longer used.

NODE0340 - Maintain Logical Networks

This screen no longer allows maintenance of farms, farmlets, LAVCs or Unix Clusters. The only types of logical networks that will be maintained here are IP, DECNET, APPLETALK and LAT.

Also, new find for Class Name has been implemented in this form. See New Find Features above for details.

NODE0381 - Maintain People

The Fermilab Phone field has been lengthened to 20 characters.

NODE0382 - Maintain Groups

If you try to delete a group that has a budget code associated with it, you will get the following pop-up error message, 'Cannot delete this group as it is referenced by budget code records.'

The new find for Groups has been added for the entry of parent groups only. See New Find Features for details.

NODE0385 - Maintain Maintenance Contracts

The new finds for Class Name and Group have been added. See New Find Features for details.

NODE0386 - Maintain Budget Codes

This is a new form to maintain budget codes and their associated groups.

All budget codes can have only one associated group. If you try to enter a budget code that already exists, you will get an error.

To add a new budget, you will enter a 3-character budget code. Budget codes must contain 3 alpha characters. You will get an error message if they try to enter something other than this.

Then, you will enter a valid Group Name. A list of values is available for help in entering the group name. You can also enter a set of unique characters that will try to match a valid group. For example, if the user enters 'PAT' as a group, the database will return 'FL/CD/OFF/PAT' as a valid group. See the description of the New Find Features above for more details on this capability.

Using the New GUI Features

The MISCOMP functionality added is all implemented using a new GUI interface, OracleForms Version 4. When running this part of the Equipment Database, you must use either an x-terminal or a Mac running MacX. You can do everything in this new part of the Equipment Database using your mouse. All form operations such as commit, execute query, etc. which you must know function keys for in the EQUIPDB screens can be performed using your mouse and either the new tool bar window or the pull-down menu displayed in the message window.

Every new form displays with a message window, a tool bar window, and the window containing its functionality. The message window is used to display certain system level messages to you and to hold the pull-down menus that perform OracleForms functions.

The tool bar window contains buttons for certain common OracleForms functions and is simply a quicker means than using the pull-down menu. The tool bar can also be somewhat user tailored. Using the pop-up list field in the tool bar, you can specify that you like to see this window in one of four styles: across (the default), up, down, or reverse. Simply click on the field and select the option you like best.

Certain forms also provide additional buttons to do operations specific to their function. For example, the T-Form has a Fill button that allows you to automatically default the To information based on the From information, the Physical Systems screen has a Fixed Asset Components button to display and enter components to the system, the Network Service Requests screen has a Submit Request button to submit the request to Data Communications, the Network Services Requests Processing screen has a Complete button to perform the completion functions, etc.

A button found in each form in the new set of MISCOMP functionality is the list of values button. This button is labeled with a ?. It is used to provide a standard list of values feature for the field directly to the left of the button. Certain blocks, such as the fixed assets block on numerous screens, have this button to the left of the fields to indicate that the list applies to more than one field in the block. Depending on the list you select, you may be asked to further reduce the list. All long lists ask you to reduce the list. You may choose not to reduce the list by not providing a value, but you should note that doing so may be very slow for these long lists.

Lists and other blocks of data containing multiple rows all display with a scroll bar to the right of the list. For blocks that allow you to select an item from the list, a button exists directly to the left of the scroll bar. For example, the Report block in the Report Submission screen has a Do button that allows you to select a report to run.

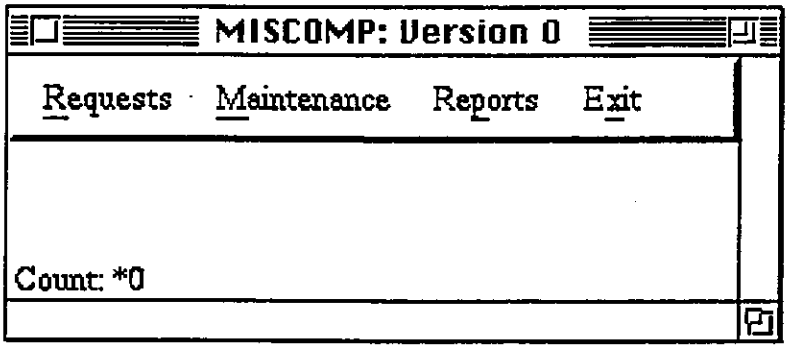
MISCOMP Menu Access Privileges and Menu Options

Running the MISCOMP product puts you in an entirely new GUI menu. This menu is a pull-down menu which provides access to all of the newly implemented MISCOMP functions. From this menu, you can also get to the character mode version of Equipdb.

The menu options, broken out by the roles that can access them, are contained below. Brief descriptions of the function that each menu option provides are in the following section, MISCOMP Functions.

MAIN MENU

This menu is available to anyone who has access to the Equipment Database.

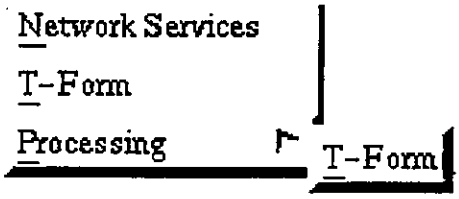


Menu: Requests

This menu is available to anyone who has access to the Equipment Database. The availability of menu options under this menu is dependent on the role you have been granted. A picture of the different menu options by role follows.

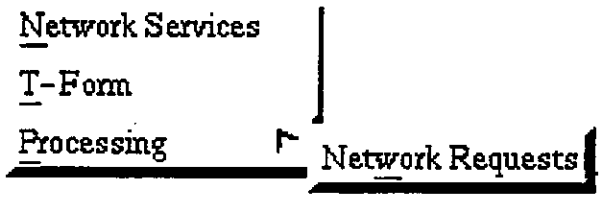
Roles: Data Admin

Sub Menus:



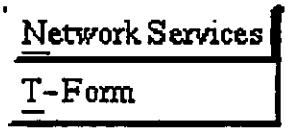
Roles: NW Admin

Sub Menus:



Roles: Sys Mgr,
Data Entry,
Query Only

Sub Menus:



Menu: Maintenance

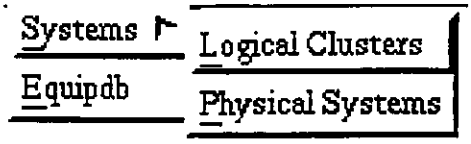
This menu is available to anyone who has access to the Equipment Database. The availability of menu options under this menu is dependent on the role you have been granted. A picture of the different menu options by role follows.

Roles: Data Entry,
NW Admin,
Query Only

Sub Menus:

Roles: Sys Mgr,
Data Admin (query only access to the Systems options)

Sub Menus:

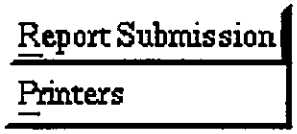


Menu: Reports

This menu is available to anyone who has access to the Equipment Database. The availability of menu options under this menu is dependent on the role you have been granted. A picture of the different menu options by role follows.

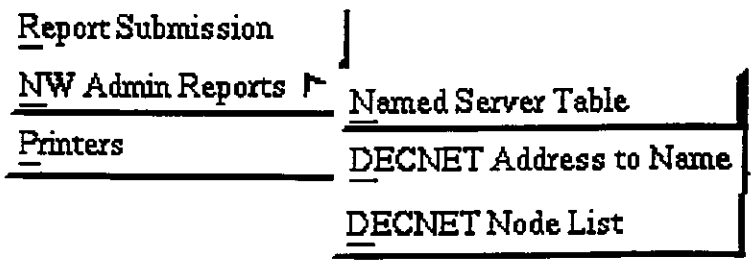
Roles: Data Admin,
Sys Mgr,
Query Only,
Data Entry,

Sub Menus:



Roles: NW Admin

Sub Menus:



Overview of New MISCOMP Forms

NETWORK SERVICE REQUESTS

This function calls a screen which allows the user to enter requests for network service. In all, there are 7 different types of requests that can be made. See Section 7, Network Service Requests for more details on this functionality.

It is envisioned that, eventually, this functionality will be used by anyone at Fermilab who wants any of the services described. Currently, however, network service requests will arrive at the Data Communications (DC) group via their current means. DC will then enter the requests into MISCOMP. This allows for a more thorough testing of the new business process prior to releasing it to the general public.

T-FORM REQUESTS

At present, paper T-Forms are used to record the transfer of systems or assets from one group, user or location to another. They are also used to record the transfer of assets from one system to another. This new on-line T-Form function allows for the capture of all pertinent T-Form information. Note that this form contains some "loose validations." That is to say that it attempts to validate what you enter for system, asset, user, owner, location, class, and manufacturer information but does not strictly enforce these validations. This allows you to provide the database with information that may be missing or inaccurate as currently recorded.

NETWORK SERVICE REQUEST PROCESSING

This function calls a screen which allows DC to perform the required processing for the network service requests currently submitted. It will be used by DC only. A complete description of its processing can be found in Section 7, Network Service Requests and Section 8, Network Service Request Processing.

T-FORM REQUEST PROCESSING

At present, the T-Form processing option calls the same form as the T-Form menu option. It is envisioned that, after some initial use of the on-line T-Form and some key decisions on the business process, additional logic will be added to the T-Form to assist ELS in the closure of T-Forms entered by users.

LOGICAL CLUSTER DATA MAINTENANCE

This form is used to maintain logical cluster definitions and to tie physical systems to these clusters. From this form, you may call the Physical System Data Maintenance form to add new systems or new assets to systems.

This form is intended for use by the System Managers to keep their cluster configurations and system management assignments up-to-date in the Equipment Database. See Section 9, System Manager Access for more details on the functions to be performed by the System Managers.

PHYSICAL SYSTEM DATA MAINTENANCE

This form is used to maintain physical system definitions, including system level information, system ownership, usage, management information and assets contained within the system.

This form is intended for use by the System Managers to keep their system configurations up-to-date in the Equipment Database. As such, it does not allow for the same level of functionality that is available by Data Admin users in the EQUIPDB character mode screen. For more information regarding what the System Managers will be editing, see Section 9, System Manager Access.

EQUIPDB

This menu option calls the same character mode forms as running equipdb. It will initiate the character mode session in the original window from which you invoked the GUI version of the Equipment Database.

Note : Some MacX users may not be able to use this feature . MacX users using Telnet to access fncdua will be fine. Others using the capabilities of MacX to run a Unix file to create their window into the application will not. This second style of access from MacX does not support writing to its output window. Users using MacX in this way will need to access Equipdb by running equipdb from the command line as noted above in Section 1, Accessing the System.

REPORT SUBMISSION

The Report Submission screen allows you to run one of numerous canned reports. It provides you with a window that they can use for querying up any or all reports in the system. To select a report you simply click on the Do button for the appropriate report.

Each report has certain selection criteria that you are allowed to enter to dynamically change the content of the report. Simply select the criteria and enter the appropriate value(s). You can enter element values, which allow entry of one value, where clauses which allow you to build filters from operator and value combinations, and order by criteria, which allow you to choose how to sort the output.

After you have entered your report criteria and are ready to run the report, simply click on Run Report. When you do this, you will be prompted for the desired location of your output: the screen, a file, or a printer.

If you choose the screen, the output will be redirected to your initial window.
Note : Some MacX users may not be able to use this feature . MacX users using Telnet to access fncdua will be fine. Others using the capabilities of MacX to run a Unix file to create their window into the application will not. This second style of access from MacX does not support writing to its output window.

If you choose a file or a printer, you will be required to enter a value for the file name or the printer name. The printer must exist in the list of printers known by the Equipment Database. If your printer does not exist, you may add it using the Printers screen described below. If you are running multiple reports in the same session, the printer name will default to the same name used for the last report you ran.

NETWORK ADMINISTRATION REPORTS

This menu options allows Data Communications personnel to run any of the reports needed to generate the Named Server file and the DECNET server file.

PRINTERS

This menu option calls a form that you can use to edit the printer definitions in the Equipment Database. Only printers found in this list can be used from the Report Submission screen described above. If your printer does not exist you may add it using this screen. Note, however, that you will not be able to use this new printer immediately after you add it. Once you have added it, the system administration staff for fncdua will automatically be notified via e-mail. As soon as possible, they will add this new printer to fncdua's list of recognized printers. Once this has been done, you will then be able to print to this new printer.

Overview of the Business Process and its Implementation

ABSTRACT

This section describes the network service request business (formerly node registration) and how it is automated in the Equipment Database. It briefly outlines the purposes of the network service request prototype. Next, it describes the work flow for network service requests. Then, it defines the various types of requests that the Equipment Database supports and will eventually support. And lastly, it provides a brief overview of the screens developed.

For an introduction to the significant terms and concepts of the Equipment Database see Section 10, Equipment Database Concepts.

PURPOSES OF THE NETWORK SERVICE REQUEST PROTOTYPE

1. Help automate Data Communications work flow.
2. Integrate network information with physical instrument tracking data.
3. Improve the consistency of CD data through this integration.
4. Test the MISCOMP business analysis models for requests.
5. Test the effectiveness of the Oracle Forms GUI product.
6. Provide a better understanding to CD personnel of the MISCOMP vision through a generally accessible tool implementing part of this vision.

NETWORK SERVICE REQUEST BUSINESS BASICS

REQUESTS & REQUEST DETAILS

The centerpiece object of the network service request system is the network service request itself. A network service request is a solicitation for services from the CD Data Communications group. A request may be composed of multiple heterogeneous request details. The nature of these details will be discussed later.

WORK FLOW (or How a request becomes satisfied)

A CD person discovers that she needs some service to be performed by the Data Communications group (DC). This person then generates a request with potentially multiple details. After reviewing her request for accuracy and completeness, she submits the request to DC.

Someone in DC is watching for newly submitted requests and notices this new request with all of its details. At this point, DC reviews each detail of the submitted request. DC has four activities that they may perform with a submitted request detail: complete, cancel, reject , or pend.

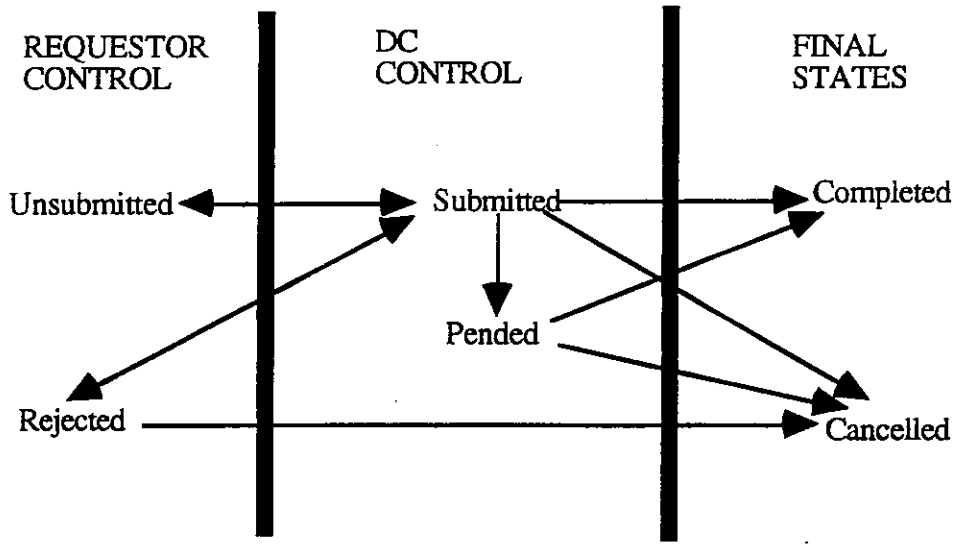
First and simplest, DC can complete the request detail, which automatically updates the database as needed and marks the detail as completed. For more details on the completion algorithm see Section 8, Network Request Processing.

Second, DC may cancel a request detail. Cancellation implies that the request detail will never again be worked on by any party.

Third, DC may reject the request detail because of lack of information or misunderstood information. Once a request detail is rejected, DC looses "control" of that request detail and the requester then may review DC's reasons and resubmit or cancel the rejected request detail.

Fourth, DC may pend the request detail. This will happen when a request is entered for new nodes for equipment that has not arrived at Fermilab. "Bogus" systems will be created as place holders for this equipment and be assigned network addresses, but the request detail will be marked as pending. Once DC obtains the detailed information about the devices, they will turn their "bogus" systems into real CD systems.

A diagram describing the state and transitions for a request detail is provided below:



NETWORK SERVICE REQUEST DETAIL TYPES

NODE REGISTRATION

The goal of a node registration request detail is to place a physical system or logical cluster on a logical network, i.e. create a node. This request detail type occurs in three flavors. The first and most common is to request a node for an existing physical system, the second is to request a node for an existing logical cluster and the third is to request a node for a fixed asset that has not yet been assigned to a physical system in the Equipment Database.

****** *The initial implementation of the network service registration screens will provide the ability to generate requests of the first and third flavors. Requests for nodes for logical clusters will be added later.* *****

When a requester attempts to create a request detail for an existing physical system, she must know either the physical system tag #, the property number of a fixed asset within the physical system, the serial number of a fixed asset within the physical system, or the hardware address of the fixed asset within the physical system.

If the physical system exists in the Equipment Database, the screen will be able to derive a single physical system based on one of the above pieces of information. If the Equipment Database has

not heard of the device entered, then the requester will be able to create a "bogus" system with a generic CPU box content and attach that to the request detail. This situation will happen most frequently when a request is made for a physical system before that physical system has arrived at Fermilab, i.e. the physical system is on order. But, it may also occur for items not gathered via the inventory process or any ELS business process. The requester may also specify her understanding of the location of that physical system either by accepting what the database knows or by entering a new location.

On rare occasions when the requester identifies a fixed asset that exists in the database, but is not a component of a physical system, the requester will be prompted to create a bogus system for that fixed asset.

Once a physical system or fixed asset has been entered, the user must then specify which logical network or which type of logical network they want that system to be a node on. The user may also specify a node name, alias, and domain for the new node.

LAT SERVICE REGISTRATION

A LAT service registration request detail's goal is to allow a LAT node to provide a network service. The request detail type will prompt the requester for a known LAT node and a known network service.

NODE REMOVAL

The goal of a node removal request detail is to remove a physical system as a node on one or all of it's logical networks. The requester will either enter a known node or a known physical system. If a node is entered, the request details meaning is to remove just that node. If a physical system is entered, then the meaning is to remove all nodes for that physical system.

DEVICE MOVE

The goal of a device move request is to notify DC when a physical system is about to be moved, so that DC can check on networking ramifications for the new location of the device. The requester enters a known physical system and the location where the physical system is being moved.

NODE NAME CHANGE

The goal of the node name change request detail is to change the names of all nodes or one node for a physical system. The requester enters the new node name and either a known physical system or a known node. If a physical system is entered, then DC is supposed to change the name of all nodes for that system. If a node is entered, then DC is supposed to change only the name of that node.

DEVICE CHANGE

The goal of a device change request is to notify DC when a physical system is being replaced by another physical system. DC will have to adjust all of its node information to reflect the new physical system. The requester enters the old and the new physical systems.

HARDWARE ADDRESS CHANGE

The goal of this request detail is to notify that a hardware address has been changed. The requester enters an existing hardware address and enters the new hardware address. DC will then

replace the existing hardware address with the new hardware address on the appropriate fixed asset and on all nodes that have been connected to a logical network via the old hardware address.

EQUIPMENT DATABASE SCREENS & REPORTS

REQUEST SUBMISSION AND REJECTED REQUEST SCREEN

This screen allows requesters to create unsubmitted requests and then submit them to DC.

DATA COMMUNICATION WORK QUEUE SCREENS

This screen provides the queue of submitted and pending request details for DC. DC may review the queue as well as the details of each record in the queue. DC may reject, cancel, pend or complete these records. For some of these request details, the pend and complete processes will initiate a series of background processing that performs the necessary database operations for that function. For example, pend may create a "bogus" system and then create a node for a Node Registration Request Detail.

REQUEST STATUS QUERY SCREEN

This screen allows any user to check on the status of all request details by request.

NETWORK ADMINISTRATION REPORTS

Reports exist that allow DC to generate the Named Server file and the DECNET server file directly from the Equipment Database. Other reports exist that may also assist DC in their monitoring of systems, networks, nodes, etc.

Operational Algorithms for Network Service Request Detail Types

ABSTRACT

This section discusses how the various request detail operations affect the Equipment Database based on the type of the request detail. The following is a hierarchy of request detail types. You can assume that if an operation is defined for a supertype and *not* for a subtype, that the subtype inherits the supertype's operation. If the subtype has its own operation definition, then you should assume that it completely overrides the supertype's operation. However, a subtype may use pieces of a supertype's operation if noted.

Also, you should assume that the VERIFY_operation is always called before the operation is executed. Also, assume that the VERIFY_operation must not find any errors in order for the operation to be executed.

TYPE HIERARCHY

NW SERVICE REQUEST DETAIL
- NODE REGISTRATION REQUEST DETAIL
- NODE REMOVAL REQUEST DETAIL
- NODE NAME CHANGE REQUEST DETAIL
- HW ADDRESS CHANGE REQUEST DETAIL
- DEVICE CHANGE REQUEST DETAIL
- LAT SERVICE REGISTRATION REQUEST DETAIL
- DEVICE MOVE REQUEST DETAIL

NW SERVICE REQUEST DETAIL

VERIFY_UNSUBMIT:

An error is returned if the current status is not SUBMITTED.

VERIFY_SUBMIT:

An error is returned if the current status is not UNSUBMITTED or REJECTED.

VERIFY_REJECT:

An error is returned if the current status is not SUBMITTED.

VERIFY_CANCEL:

An error is returned if the current status is not SUBMITTED, PENDING or REJECTED.

VERIFY_COMPLETE:

An error is returned if the current status is not SUBMITTED or PENDING.

VERIFY_PEND:

An error is returned if the current status is not SUBMITTED.

UNSUBMIT:

Sets the status to UNSUBMITTED.

SUBMIT:

Sets the status to SUBMITTED.

REJECT:

Sets the status to REJECTED.

CANCEL:

Sets the status to CANCELLED.

COMPLETE:

Sets the status to COMPLETED.

PEND:

Sets the status to PENDING.

DEVICE CHANGE REQUEST DETAIL

VERIFY_COMPLETE:

Executes NW SERVICE REQUEST DETAIL's VERIFY_COMPLETE.
Also returns an error if:
1. The system specified on the request detail that is to be replaced no longer exists.
2. The system specified on the request detail that is doing the replacing no longer exists.
3. The name or tag of the replaced system has changed from what the request detail holds.
4. The name or tag of the replacing system has changed from what the request detail holds.

COMPLETE:

1. Executes the NW SERVICE REQUEST DETAIL's COMPLETE.
2. For each node assigned to the replaced system, it updates the node with the replacing system.

DEVICE MOVE REQUEST DETAIL

VERIFY_COMPLETE:

Executes NW SERVICE REQUEST DETAIL's VERIFY_COMPLETE.
Also returns an error if:
1. The system being moved no longer exists.
2. The name or tag of the system being moved has changed from what the request detail holds.
3. The new location for the system does not exist.

4. The name of the new location has changed from what the request detail holds.

COMPLETE:

1. Executes the NW SERVICE REQUEST DETAIL's COMPLETE.
2. Changes the location of the system to the new location.

NODE REMOVAL REQUEST DETAIL

VERIFY_COMPLETE:

Executes NW SERVICE REQUEST DETAIL's VERIFY_COMPLETE.
Also returns an error if:
1. The requested system or node no longer exists.
2. The requested system has had its tag changed from what the request detail holds.
3. The requested node has had its name or address changed from what the request detail holds.
4. Neither a node nor a system is specified on the request detail.

COMPLETE:

1. Executes the NW SERVICE REQUEST DETAIL's COMPLETE.
2. If a system is specified then all nodes for that system are deleted.
3. If a node is specified, then it is deleted.

NODE NAME CHANGE REQUEST DETAIL

VERIFY_COMPLETE:

Executes NW SERVICE REQUEST DETAIL's VERIFY_COMPLETE.
Also returns an error if:
1. If the requested system or node does not exist.
2. If neither a system or node is on the request.
3. If the requested system's tag has changed from what the request detail holds.
4. If the requested node's name or address has changed from what the request detail holds.

COMPLETE:

1. Executes the NW SERVICE REQUEST DETAIL's COMPLETE.
2. If a system is specified, then all nodes for that system will have their names changed.
3. If a node is specified, then it will have its name changed.

LAT SERVICE REGISTRATION REQUEST DETAIL

VERIFY_COMPLETE:

Executes NW SERVICE REQUEST DETAIL's VERIFY_COMPLETE.
Also returns an error if:
1. The requested system no longer exists.
2. A LAT node is not specified or no longer exists.
3. The requested system has had its tag changed from what the request detail holds.
4. The requested node has had its name changed from what the request detail holds.

5. The requested system is not the same system as that of the requested LAT node.
6. A network service and group number have not been specified.

COMPLETE:

1. Executes the NW SERVICE REQUEST DETAIL's COMPLETE.
2. If no network service exists for the one requested, one is created.
3. If no network service group exists for the one requested, one is created.
4. If the requested network service is not a member of the network service group, then it is made a member.
5. The LAT node is assigned the network service/group number combination.

HARDWARE ADDRESS CHANGE REQUEST DETAIL

VERIFY_COMPLETE:

Executes NW SERVICE REQUEST DETAIL's VERIFY_COMPLETE.
Also returns an error if:
1. The fixed asset containing the hardware address being replaced no longer exists.
2. The fixed asset containing the hardware address being replaced has had its type, serial # or property tag changed since the request was created.
3. The hardware address being replaced belongs to a different fixed asset than what is specified on the request.
4. The fixed asset containing the replacing hardware address no longer exists.
5. The fixed asset containing the replacing hardware address has had its type, serial # or property tag changed since the request was created.
6. The replacing hardware address belongs to a different fixed asset than what is specified on the request.
7. The hardware address being replaced does not belong to any component of a physical system and thus cannot be attaching any physical system nodes.

COMPLETE:

1. Executes the NW SERVICE REQUEST DETAIL's COMPLETE.
2. Determine if the new hardware address exists, if not then create it and attach it the "new" fixed asset on the request.
3. Determine if the new fixed asset belongs to any physical system. If not then goto step 4. If so, then check if that system is the same as the system of the old hardware address. If so goto step 5. If not, goto step 7.
4. Attach the new fixed asset to the system of the old fixed asset.
5. Update all nodes by setting the hardware address to the new hardware address where the hardware address of the node = the old hardware address.
6 Goto 8.
7. Update all nodes by setting the system to the new hardware address' system and the hardware address to the new hardware address where the node's hardware address = the old hardware address.
8. DONE.

NODE REGISTRATION REQUEST DETAIL

VERIFY_COMPLETE:

Executes NW SERVICE REQUEST DETAIL's VERIFY_COMPLETE.
Also returns an error if:
1. The requested system's tag or name has been changed since the request was created.
2. The requested system is a bogus system that does not contain at least on fixed asset component that is tagged or serial numbered.
3. The request detail's status is SUBMITTED and a system cannot be derived from the request information.
4. The request detail's status is PENDING and the node that was created as a result of the pend transaction has a different system and/or the requested system does not exist.
5. The request detail does not specify a logical network.
6. The requested network no longer exists.
7. The requested network has had its name or address changed, since the request was created.
8. The request does not specify a new node name and one cannot be derived from the request's system.
9. The request specifies a node domain type, but not an actual node domain.
10. The requested node domain no longer exists.
11. The requested hardware address belongs to a different system than the requested system.
12. The hardware address does not exist anywhere and there is no CPU box within the requested system within which to attach it:
13. The specified location is not a known location.
14. The specified location no longer exists or has had its name changed since the request was created.

VERIFY_PEND:

Executes NW SERVICE REQUEST DETAIL's VERIFY_PEND.
Also returns an error if:
1. The request detail does not specify a logical network.
2. The requested network no longer exists.
3. The requested network has had its name or address changed, since the request was created.
4. The request does not specify a new node name and one cannot be derived from the request's system.
5. The request specifies a node domain type, but not an actual node domain.
6. The requested node domain no longer exists.
7. The requested hardware address belongs to a different system than the requested system.
8. The hardware address does not exist anywhere and there is no CPU box within the requested system within which to attach it.
9. The specified location is not a known location.
10. The specified location no longer exists or has had its name changed since the request was created.

COMPLETE:

1. Executes the NW SERVICE REQUEST DETAIL's COMPLETE.
2. If the request detail's status is PENDING, then if the node that was created a result of the pend operation has a different system than what is derived from the request detail, the node's system is replaced with the request detail's derived system.
3. If the request detail's status is SUBMITTED, then the algorithm is that same as that for PEND (except for step 1 of the PEND algorithm of course.)

PEND:

Note: This algorithm receives as input two parameters: LOCATION_CHANGE_FLAG and NODE_ADDRESS. LOCATION_CHANGE_FLAG is a boolean specifying whether the

derived system's location should be changed to the location specified on the request detail. NODE_ADDRESS will become the new node's address.

1. Executes the NW SERVICE REQUEST DETAIL's PEND
2. Derive the system for the request.
   A. If a system is specified use it.
   B. If a fixed asset is only specified, then if it is in a system use that system.
3. If the hardware address on the request does not exist, then create it and attach it to a CPU in the derived system.
4. If no node exists that matches the requested node's name, NODE_ADDRESS, node type, network, and system, then create a new node. If one exists, then do not create a new node.
5. If the request has specified a node domain and a node was created in step 4, then attach that node to the node domain.
6. If the request has a location for the system and LOCATION_CHANGE_FLAG is true, then update the derived system's location. (This will of course cascade to all of the system's components.)

CANCEL:

1. Executes the NW SERVICE REQUEST DETAIL's CANCEL.
2. If the request detail's status is PENDING, then delete the node that was created as a result of the pend operation.

Capabilities & Responsibilities in the Equipment Database

ABSTRACT

This section describes the nature of a proposed CD system manager access to the Equipment Database. First, it will describe why system manager access to the Equipment Database is being provided. Second, it will enumerate the capabilities and responsibilities for CD system managers within the Equipment Database. Third, it will comment on data security and development issues. And lastly, it will conclude with why we are committed to supporting system managers and why we ask for reciprocal commitment from the system managers

For a detailed description of the significant terms and concepts in the Equipment Database, see Section 10, Equipment Database Concepts.

PURPOSE

CD's system managers have a wealth of information about the ever-changing configurations of the larger computer systems managed by CD. The Equipment Database has a wealth of information about most of the components of these systems, but does not have a strong mechanism to keep this data up-to-date. It is our hope that by providing CD's system managers access to the database that we can enhance the system managers' knowledge of system component information, while providing better context and more accurate information for other CD groups using the Equipment Database.

SYSTEM MANAGER CAPABILITIES & RESPONSIBILITIES

LOGICAL CLUSTER MAINTENANCE

System managers are responsible for maintaining information about the VAX Clusters, UNIX Clusters (NIS Domains), Farms and Farmlets that they manage. These large systems are considered types of "Logical Clusters" within the Equipment Database context.

LOGICAL CLUSTER COMPONENT MAINTENANCE

System managers are responsible for maintaining lists of components for the above mentioned logical clusters. (components being physical systems, fixed assets, other logical clusters, and the special case of IP subsubnets "contained" within a Farmlet).

FIXED ASSET CREATION

In most cases the logical cluster component information will already exist in the Equipment Database and all the system manager will have to do is attach the component to the logical cluster. But, in some cases the system manager may need to add a component that does not already exist in the Equipment Database. In these cases, system managers will be able to create fixed asset records in the Equipment Database provided that they are attached as a logical cluster component. If the system manager does not choose to enter new fixed assets, then it is his responsibility to notify the ELS group that these equipment exist and have not been added to the Equipment Database.

FIXED ASSET OWNER CLAIM MAINTENANCE

System managers are capable of transferring ownership to another group when they are sure that the ownership, as noted in the Equipment Database, is out of date. System managers are required to specify an owner for any fixed asset that they create.

The owner of a fixed asset is the group that has purchased or acquired the asset via some "permanent" transaction. If an asset is eliminated, the owner would be the group that lost its capital. Most of the fixed assets in the Equipment Database are owned by CD, but some are not. All fixed assets should have an owner.

USER CLAIM MAINTENANCE

System managers are responsible for maintaining a current list of users for logical clusters, physical systems and, if necessary, fixed assets. This information is necessary for gaining a general understanding of resource utilization.

The user of a fixed asset, physical system or logical cluster is any combination of people or groups that use the fixed asset at some "macro" level. This concept of user is *not* synonymous with an operating system user. Examples of users would be: I am the user of the Mac system on my desk; Fermilab is the user of the FNAL cluster; CD is the user of the fncdua Sun system, etc... User claims are used to track group and individual usage of computing resources at a macro level. An item can have more than one user claim if it makes sense, e.g. suppose that CD and AD share a VAX system, then both CD and AD would be users of that system.

SYSTEM MANAGER CLAIM MAINTENANCE

System managers are responsible for maintaining which group (CD or non-CD) is primarily responsible for managing each physical system and logical cluster. System managers will also be responsible for maintaining a list of individuals who manage some aspect of a physical system or logical cluster . This list of people is not meant to replace any job scheduling system that is currently in use, so it will be less important to maintain a person list for CD managed systems. However, keeping a list of contacts for non-CD managed systems will be essential in aiding all of CD when troubles occur on those systems and we need support. Timely and accurate tracking of this information will be helpful in understanding the nature and magnitude of the resources that CD manages, while also providing information of who to contact with problems on non-CD managed systems.

GENERAL READ ACCESS TO THE EQUIPMENT DATABASE

System managers are able to use the general read privileges established for all Equipment Database data, including access to most of the reports and any ad-hoc query tool that might be added.

NETWORK SERVICE REQUEST GENERATION

System managers are expected to be users of the Network Service Request screens to generate requests for Data Comm to create and maintain IP nodes for their Farmlet components and DECNET nodes for their LAVC components. For a description of the Network Service Request process see Section 7, Network Service Requests.

DATA SECURITY & ACCESS

All CD system managers will have equal access to the Equipment Database. We feel this will provide flexibility for all CD system managers in accomplishing their tasks. Further, we do not want to impose undue restrictions at this early stage in our understanding of how the system manager groups will be administered. Once a more appropriate data security method is understood, system manager access may be altered.

CONCLUSION

We must be committed to making our own business processes provide value to our organizational customers in a timely and cost-effective manner. To that end, we must understand that the information we generate is a product and the people who use that information are our customers. Thus the sharing of information across CD's functional groups is essential to the efficient operations and effective management of the division.

At present, the mechanism for sharing information is the Equipment Database. In order for this implementation to continue its success and provide more value to CD, we need commitment and feedback from all CD departments. We believe CD's system manager's commitment is essential to our organization's viability and look forward to matching that commitment with continuous improvements to our information sharing mechanisms.

Basic Concepts of the Database and Application

DEFINITIONS OF SIGNIFICANT OBJECTS

FIXED ASSET

A fixed asset is a piece of hardware or equipment that is generally not decomposed. It is often thought of as an atomic building block for systems. Fixed assets have locations, owners, hardware addresses and in some cases components. An example of a fixed asset with components is a CPU box that contains boards. If the boards are significant, then both they and the CPU box would be fixed assets. The component sets of two fixed assets may *not* overlap.

PHYSICAL SYSTEM

A physical system is a construction of fixed assets and/or other physical systems. Sets of components between any two physical systems may *not* overlap. An example of a physical system would be the combination of the monitor, CPU box, mouse and keyboard at one's desk. Another example may be all of the components that make up one printer system. A physical system's location is derivable from the locations of all of its fixed assets. (In the Equipment Database, the users are forced to maintain this derivation.) Physical systems have users and managers, but do not have owners. A physical system can be a node on multiple logical networks.

The CD system managers have commonly referred to some physical systems as nodes. The Equipment Database distinguishes between a physical system and its role as a node on a logical network and its role as a component of a logical cluster. This was done because we needed to maintain a distinction between the hierarchical physical construction aspects of equipment (for ELS) and the often mutating networked construction rules of logical systems (for Data Comm).

An example of why this is necessary is that a physical system may still exist and have business relevance even if it is not connected to a network. Also, a physical system may be connected to multiple networks or even multiple times on the same network. In this case, we want to keep track of the physical construction of this system once, and be able to reuse its existence multiple times in the form of "nodes" and "logical cluster components."

PHYSICAL INSTRUMENT

A physical instrument is either a fixed asset or physical system. Sets of components between two physical instruments may *not* overlap.

LOGICAL CLUSTER

A logical cluster is a type of logical system that is composed of fixed assets, physical systems and/or other logical clusters. Sets of components between two logical clusters *may* overlap. Examples of logical clusters are LAVC clusters, farms, farmlets, and NIS domains A logical cluster's location is derived from its components' locations. (In the Equipment Database, the users are forced to maintain this derivation.) Logical clusters have users and managers, but do not have owners. A logical cluster can be a node on multiple logical networks.

LOGICAL NETWORK

A logical network is another type of logical system. Logical networks are computer networks that provide communication via a specified protocol. Examples of a logical network are IP networks, DECNET networks, LAT networks, APPLETALK zones, ETHERTALK zones and LOCALTALK zones. Logical networks are made up of nodes (see below), are constructed from other logical networks., and run on physical network segments. Some logical networks are addressable (IP, DECNET) and some are not (LAT).

NODE

A node is an instance of a logical cluster or physical system on a logical network. Nodes have names and aliases. Nodes on addressable logical networks have distinct addresses. Nodes on the LAT network can provide network services. Nodes can belong to a node domain. And, a node can be attached to a logical network via a hardware address of a fixed asset component within the system or cluster playing the node.

The Equipment Database definition of a node is somewhat different from the CD system manager's definition, but both understandings are valid. The system managers understanding of a node is roughly equivalent to what the Equipment Database calls a physical system. Following the system manager's definitions, a node could be connected to many networks and/or to the same network multiple times, each connection would have a different address and potentially a different name. The Equipment Database definitions would restate this sentence in the following manner. A physical system or logical cluster could be connected to many networks and/or multiple times to the same network, each connection would have a different address and potentially a different name. Further, the Equipment Database would state that each instance of that physical system or logical cluster on a network would be a distinct instance of a node.

Clearly, both the system managers and the Equipment Database have very similar, if not equivalent, data schemas. The only difference is in how the different entities in these schema are named. Since the rest of the Equipment Database has been built with the Equipment Database definitions and rewriting all of the existing code is not, yet, a feasible alternative. The construction of system manager access to the Equipment Database will use the underlying the Equipment Database nomenclature, but the programmers will be sensitive to the nomenclature needs of the CD system managers. Likewise, future development of the DRUIDS subsystem will have to resolve these naming conventions in a division wide context in order to be widely accepted and applied.

Descriptions and Tips to Avoid Them

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7.) Entry of an invalid username and password when logging into miscomp gives an error message that says "Normal, successful completion". You will need to acknowledge this erroneous message and re-enter the correct username and password.

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Descriptions of Revisions in This Version

1.) The four forms in the table below all had windowing problems that would cause a window to be popped to the front of the screen when users, whose system setup allowed for mouse navigation to activate a window instead of a mouse click, moved through the window. This has been fixed. You will now have to mouse click in a window to activate and pop it to the front.

NODE0110: Network Registration Requests: Physical Systems screen
NODE0345: Logical Clusters
NODE0346: Physical Systems
NODE0900: Report Submission

2.) NODE0110: Network Service Registration Request

Details from the Physical System screen will be filled in upon return, if a new system was entered.

The Node Domain information will be defaulted to FNAL.GOV

The LAT Node Name list of values on the LAT Service Request Detail window has been tuned. It was taking many minutes and now takes a matter of seconds to display this list.

The View Nodes button on the Node Removal and Node Name Change request details now allows you to view nodes after entering a system name or number and then clicking the button. Previously, you were required to force the validation on either field by moving out of it before clicking this button.

It was impossible for you to query, and hence edit and resubmit, requests which were rejected by Data Comm. This has been fixed.

3.) NODE0110: Network Service Registration Requests: Physical Systems screen

Window level scroll bars were removed from the fixed asset components and nodes windows. These scroll bars were nonsensical and would only serve to confuse users.

The hardware address field should now validate appropriately.

A new system cannot be created unless it has both at least one fixed asset component and at least one individual system manager.

4.) NODE0210: Network Service Request Processing

The hardware address fields will handle proper formats of XX-XX-XX-XX-XX-XX.

Rejection of any request detail now works.

If no name exists for a system which is being used on a NODE REGISTRATION REQUEST DETAIL, then the system's name will be updated with the new node's name when the node is first created. This may be done with either the pend or the complete operation on the request detail.

5.) NODE0345: Logical Clusters

The operation of the NW Adr and Detail buttons in the Physical System Components window was improperly displaying the information about the record your cursor was placed on prior to the button press. This has been adjusted so that the buttons now display the information about the record corresponding to the button you press.

6.) The following reports all had their output files renamed per Data Comm's specifications.

Report	Report Title	New Output File Name
NODE0252:	DECNET Node List	decnet-node-list
NODE0253:	Name Server Table - Master	domain-name-service.master
NODE0254:	Name Server Table - Reverse	domain-name-service.reverse

7.) The Name Server Table - Reverse report has been added to the NW Admin Reports option on the MISCOMP menu.

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1. Accessing the System

The MISCOMP Database contains information about equipment handled by the Computing Division. A more extensive description may be found in the Business Concept Section later in this book

A. Request Forms

The Computing Division (CD) Equipment Database is available to users with proper approvals. Users will be granted appropriate levels of access as determined by CD Management.

In order to access the CD Equipment Database, complete the following steps.
The required forms can be obtained through the CD Office/Library or electronically (call X2345 for assistance).

1. Fill out the Fermilab Central Computing Facilities, Computer Account Request Form. Make sure to indicate you want an account on FNCDUA.
2. Read and sign the Proper Use of Fermilab Computing Facilities form.
3. Fill out and submit a Fermilab Computing Division Request for UID Assignment form (if not already done).
4. Fill out a Request for Access to MISCOMP form.

Call X2345 if you wish to check on the completion of this approval process.

The CD Accounts Administrator will activate your account generally within one business day.

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A button has been added that allows the user to instantly view more data about the network when processing a request.

Order of Used Node Addresses:

The Used Node Addresses window ordered the node addresses by their character string value. This was a problem in that the following items appeared as ordered: 131.225.220.10, 131.225.220.105, 131.225.220.20. The addresses are now ordered by their individual numeric parts, so that they appear as ordered: 131.225.220.10, 131.225.220.20, 131.225.220.105.

Display status changes on first block:

Once a status change was made and the user returned to the first window, that change was not reflected until the user re-queried the block. Now this change is seen immediately upon returning to the block.

Email requester on status change:

Once a request was processed, the original requester had no idea of knowing that the request had been completed, cancelled or rejected. The person processing the request had to remember to notify the user. If they forget, then the user had to make an effort to go back into the database to check on their request. Now, upon changing the status of a request, the processor will be given the option of notifying the requester automatically via e-mail. If the requester's e-mail address exists in EQUIPDB, it will be the default e-mail address. The address can be changed, or even more e-mail addresses can be added, separated by a space.

6) In the GUI MISCOMP application, users can now change their own passwords. This is done by selecting "Change Password" from the "Setup" menu of the application. The current user name is displayed

7) Three terminal types are now supported in their native mode. These are SUN, SGI, and VT220. The "setup equipment_db" command uses the TERM environment variable to determine which keyboard mapping to use. If the TERM variable definition is unknown to the setup file, it will default to VT220. The following variable definitions are known to setup: vt220, sun-cmd, iris-ansi.

Problems Fixed in this Version

1) In the GUI MISCOMP application, the List of Values for nodes in some cases displayed the Network ID instead of the System Number. The System Number now correctly displays.

2) In the GUI MISCOMP application, some of the List of Values were missing titles and/or column headings. These have been added.

3) Button styles (in the GUI MISCOMP application) in some cases varied in appearance. All now use the "default style".

4.) The Report Submission screen built in the GUI MISCOMP application was only using the selection criteria that you entered to limit the report output if you closed all windows back to the main report window and then ran the report. If you entered your parameters, and then, with the parameter window still open, ran your report, the parameters you just entered were not used. If you did this your report would return all records retrieved by the report's base queries, not just your desired subset. This has been fixed so that you can now run a report from anywhere in the Report Submission screen and the report will limit your output based on your selection criteria.

5) Entry of an invalid username and password when logging into miscomp no longer gives an error message that says "Normal, successful completion".

6) When selecting a list of values that popped up a window for entering reduction criteria, you always had to select OK or Cancel to exit the window. If you navigated out of the window using your mouse without selecting one of these options, all guidance in the form was de-activated and you no longer received any hints or indications of errors. This problem has been fixed.

Known Bugs

1) The current window navigation is not consistent. Occasionally, you may see windows repaint themselves before settling down. In particular, you will note that the message window in each form jumps around quite frequently when you move between forms. This is a known problem in the OracleForms x-terminal interface.

2) Occasionally, you may find yourself in what appears to be a loop of window repainting. We have found that either clicking on a window, or selecting one of the "action" buttons stops this looping effect.

3) The user name field at the bottom of each forms initial window, meant for display purposes only, allows you to move into this field and change its value. Doing so provides no functional value and is not recommended.

4) Most date fields are of the format mm/dd/yy (e.g. 06/02/94). However, date fields that are display only do not allow for formatting and are displayed as dd-mon-yyyy (e.g. 02-JUN-1994). Again, this is a known bug in the OracleForms product.

5) By default, the delete key deletes the character on which your cursor is placed, and not the character to the left of the cursor. To make the delete key behave as it does in most other applications, the X11 key mapping must be modified. For your convenience, we have created an alias that you can use to do this for you: keyb_del. This alias should be run after you setup equipment_db, and before you run miscomp.

   NOTE: Depending on the terminal type you are using, changing the X11 key behavior with this alias may negatively effect your Unix environment. Please be advised.

6) The current system configuration is very limited on available memory and the current OracleForms product is very hungry for memory. Coupled, these two issues may cause some problems with your use of the system. If you receive either an "out of memory" type error, a "Segmentation Fault", a "core dump", or other such errors please notify miscomp-admin@fncdua.fnal.gov immediately.

7) In form NODE0110, Network Service Registration Requests, when entering a Node Name Change Request Detail, you must enter the New Node Name before you can view the existing nodes for this system using the View Nodes button. Logically, you may want to view the nodes, determine the node you want to rename, and then enter the new node name. However, the system does not currently allow this.

8) In form NODE0110, Network Service Registration Requests, when entering a new system and fixed asset, you cannot enter a serial number which matches the *beginning* of another longer serial number already in the database. The fixed asset record being added will be overwritten by the one with the longer matching serial number.

9) The Tool Bar for the the Report Submission screen is missing the "Across" default label.

10) When exiting from EQUIPDB application to the GUI MISCOMP using the "Exit" menu option, a meaningless message "Record must be entered or deleted first" displays.

ADDENDUM: New Production Server

The production version of EQUIPDB has been moved to the **fncdug** server. To access the database, first logon to **fncdug** and then follow the usual setup procedures to run Equipdb.

For MacX users, both the remote command and the host list must be modified. For the remote command the path should be changed from /usr/bin/X11/xterm to **/usr/openwin/bin/xterm**. For the host list, add fncdug.fnal.gov to the list and select it.