3-1-00

Memorandum

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Date: 1 March 2000

Subject: Equipment Database

Attached is the User's Guide for an equipment database that was developed to facilitate monitoring the location and status of equipment in the SIS lab. The database should be particularly useful for tracking equipment sent out for repair, and to document modifications made to NRAO-built equipment. For example, with this database we can identify which square-law detectors have been modified to operate from 1 – 18 GHz.

Developing the database was pretty easy: The difficult part is to maintain the discipline to keep the records current. Feel free to send me any suggestions you may have for improving it.

Equipment History Database

Users Guide

2000-03-01

Version 1.0

Revisions

Table 1: Document Revisions			
Revision Number	**Date**	**Who**	**Details**
1.0	2000-03-01	Jee	Initial

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1. Introduction

An "Equipment History" database and relevant forms is now available using Microsoft's Access database program. This document is a guide for using that database.

The purpose of this database is to allow tracking of lab equipment, and is particularly useful for:

1. Tracking equipment sent out for repair
2. Determining which pieces of identical NRAO-constructed equipment have undergone revisions.

2. Database File Location

The location of the Access database file that holds the equipment data (and form definitions) is:

```
\\eagle\cv-cdl-sis\MeasSys\Docs\Lab Equipment\EquipmentHistory.mdb
```

The database file can be opened by using the "Open Database" menu item from within Access, or by double clicking on the file from the Windows Explorer. Access must be installed on your machine to view this file.

2.1 Sample Screens

The dialog boxes shown in Figure 1 and Figure 2 show two different equipment records displayed with the program's main data entry and retrieval form. This dialog box loads automatically when the file is opened.

The dialog box is configured with several areas of interest. Referring to Figure 1, the equipment's description, make, model and type are shown at the top of the form. Since several pieces of equipment can have these characteristics in common, the area labeled "Serial Numbers" uniquely identifies equipment having the same description. An example is shown in Figure 2, where two synchronous receivers differ only by their serial numbers.

Selecting a particular serial number allows the history of that individual piece of equipment to be displayed in the lower part of the dialog box.

The "Equipment Type" dropdown box in the top area of the form may be useful for categorizing the records when generating reports. At present, this field contains the following entries:

```
O'Scope
SpecAnal
Tripler
Source
Meter-Volt
Meter-Multi
Meter-Power
NetworkAnal
```

These entries are stored in another table called "EquipmentTypes" in the same database file to simplify additions or modifications.

The "Status" dropdown box also contains the following values, which are stored in the table "Status":

```
To Be Repaired
Out for Repair
In Lab
Loaned ex CDL
Loaned in CDL
Requires Upgrade
```

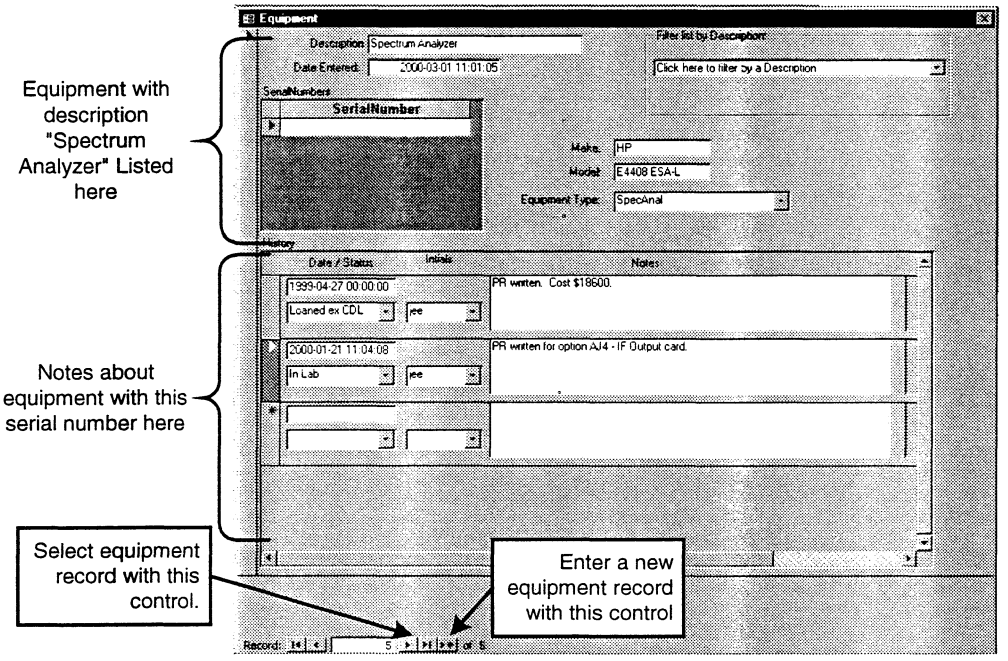

Figure 1: Screen Layout

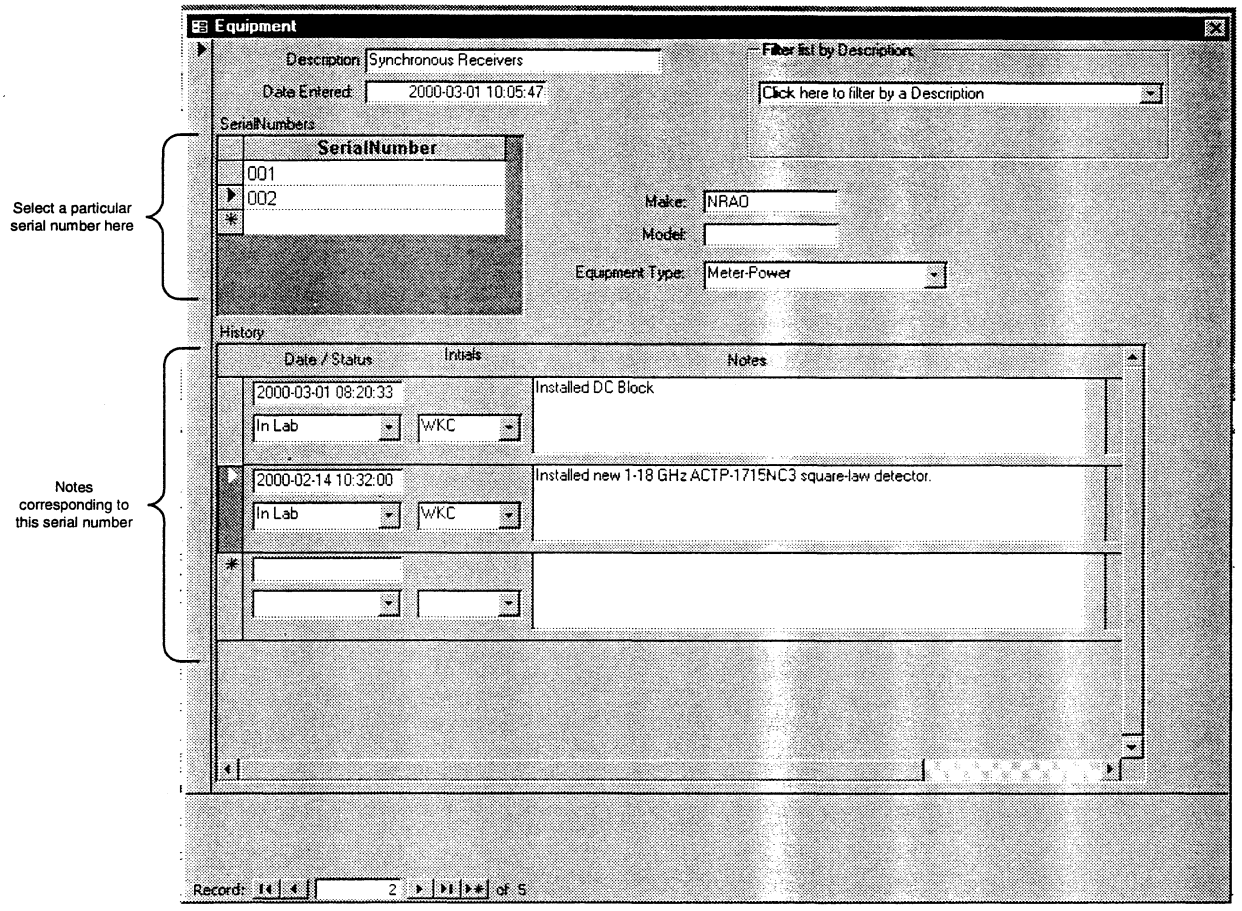

Figure 2: Selection of equipment with particular serial number.

3. Navigating to Different Equipment Records

The easiest way to find a particular equipment record is to use the dropdown box labeled "Click here to filter by a Description". This dropdown box displays a list of all the unique descriptions in the database. Selecting a particular description will apply a filter so that only records having the selected description are displayed. Press on the "Filter Off" button to remove the filtering and show all the records. The "Filter Off" button is only displayed if filtering is activated.

Equipment records can also be accessed sequentially using the right arrow button at the bottom of the dialog box, as highlighted in Figure 1.

4. Entering New Equipment Records

To enter new equipment records, click on the "New Record" control highlighted in Figure 1. The dialog box will then display empty text for each field to allow relevant information to be entered for the new instrument.

New serial numbers and notes about a particular piece of equipment can be entered by typing into a blank field value at the bottom of their respective sections on the dialog box.

5. Table Relationships

Figure 3 shows the tables defined, their relationships, and their field names. The lines, numbers, and infinity symbol define how the key fields are related in the tables. Each record in the table "Equipment" can map to multiple serial numbers, and each serial number record can have multiple records entered in the "History" table. Recall that all these tables and the forms shown above are stored in the single Access file.

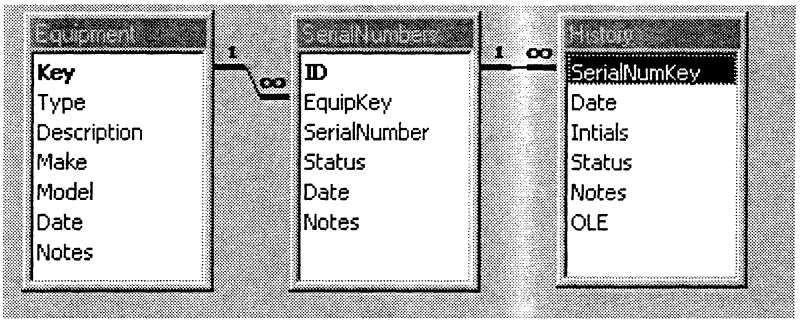

Figure 3: Table Relationships

6. Future Enhancements

Several useful enhancements should eventually be added to this database:

1. A query that displays all equipment currently on loan or out for repair.
2. A fast and easy way to document when and to whom equipment is loaned out to other groups in the lab.