



*ES601pc*  
Equipment Record Editor  
*For the ES601pc Companion Software Package*

Operating Manual



*ES601pc* Equipment Record Editor  
*For the ES601pc Companion Software Package*  
Operating Manual

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# **EQUIPMENT RECORD EDITOR OPERATING MANUAL**

# EQUIPMENT RECORD EDITOR

## Managing Equipment Records

**ES601Plus** "Equipment Records" relate an equipment control number of a medical device to a Test Procedure, allowing you to initiate comprehensive inspection and performance testing activities for a specific piece of equipment simply by entering the control number of the equipment into the **ES601Plus**. Such control numbers can be entered using the QWERTY touch keypad of the analyzer, or by an external PS/2 keyboard, or by an external barcode scanner.

Equipment Records are created with the accessory Equipment Record Editor for the *ES601pc* software package. The Editor allows you to create and/or modify up to 18432 Equipment Records which can then be loaded into the non-volatile memory of the **ES601Plus**.

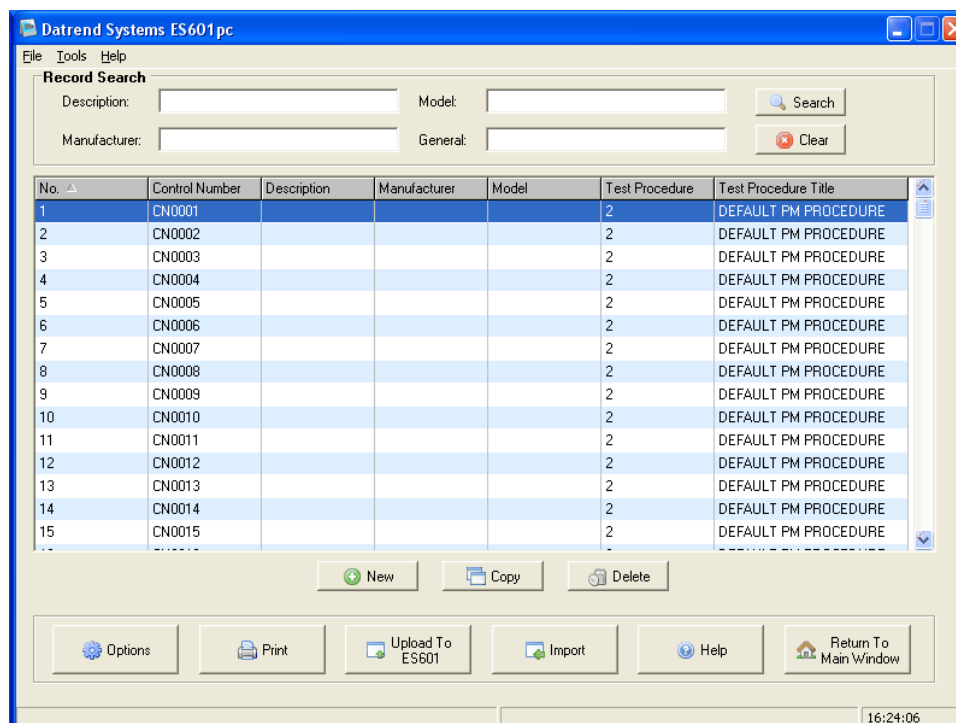
Additionally, the Editor allows you to input and save additional information about each device, such as description, make, model, and several other equipment details. Although this extra information is not communicated to the **ES601Plus** and saved in its memory, any additional information you may input is retained in the file system of the Equipment Record Editor. In conjunction with the Test Procedure Editor and Test Report Generator of *ES601pc*, the Equipment Record Editor provides you with a simple computer-based system for equipment tracking and maintenance, including means for:

- creating and monitoring an equipment inventory;
- retaining and reviewing the service history of equipment in your inventory; and
- creating PM inspection procedures for specific types of equipment.

If you already have a PC-based equipment management system (CMMS), the Equipment Record Editor provides data importing features that allow **ES601Plus** Equipment Records to be easily and rapidly generated from pre-existing equipment information exported from your CMMS data base.

## EQUIPMENT RECORD EDITOR OPERATING MANUAL

To run the Equipment Record Editor, click on the "Equipment Record Editor" button on the *ES601pc* main menu. The Equipment Record Table will then appear (**Figure 1**).



**Figure 1**

### ***Creating A New Equipment Record***

To create a new Equipment Record, click the "New" button below the Equipment Record Table. This will cause a new entry to be added at the end of the Table. The Equipment Record Editor will then appear, allowing you to enter specific information about the device such as its control number, make, model and so on.

### ***Copying Equipment Records***

To copy one or more pre-existing Equipment Records, click on a specific Record in the Table or click and drag the mouse over a group of consecutive Records, and then click "Copy". At the end of the Table, new Records will be created having the same attributes as the selected Records, except the control number



## EQUIPMENT RECORD EDITOR OPERATING MANUAL

field of each new Record will be left blank for later editing.

### *Deleting Equipment Records*

To delete one or more Equipment Records, click on a specific Record in the Table or click and drag the mouse over a group of consecutive Records, and then click "Delete". You will be asked to confirm the deletion. Click "Yes", and the selected Records will be removed from the Table.

## Editing Equipment Records

To edit the contents of an Equipment Record, double-click the Record in the Equipment Record Table, or select a Record and hit the <Enter> key on the keyboard. The Equipment Record Editor will appear (**Figure 2**). Text boxes are provided allowing you to input a Device Control Number, Manufacturer, Model, and Device Description. The Editor also provides three user-defined Custom Fields into which you can enter any desired information.

No.	Title
82	COMPUTER SYSTEM
83	CRYOSURGICAL UNIT
84	CURING UNIT
85	CUTTER/COAGULATOR, ULTRASO
86	DEFIBRILLATOR/MONITOR
87	DEFIBRILLATOR/MONITOR INTER
88	DEFIBRILLATOR/MONITOR, AUTO
89	DEFIBRILLATOR/MONITOR, WITH
90	DENSITOMETER, LABORATORY
91	DENTAL DELIVERY UNIT
92	DENTAL HAND PIECE
93	DETECTOR, METAL
94	DICTATION MACHINE
95	DICTATION SYSTEM, VOICE ACTIV
96	DII IITER

*Figure 2*

## EQUIPMENT RECORD EDITOR OPERATING MANUAL

The Test Procedure to be associated with the Device is selected by clicking on a Test Procedure in the list at the right of the dialog. To locate a specific Test Procedure in the list, enter part or all of the Procedure's name in the Search box, and then click the "Search" button or hit the <Enter> key on the keyboard. The Test Procedure list will then be filtered according to what you entered in the Search box. To restore the full listing of Test Procedures, click the "Search Clear" button to the right of the "Search" button.

To view the previous or next Equipment Record in the system without returning to the Equipment Record Table, click the "Previous" or "Next" buttons of the Equipment Record Editor.

Click "OK" to save the changes entered via the Editor, or click "Cancel" to return to the Equipment Record Table without saving.

Of the information you may potentially input via the Editor dialog, only the Device Control Number and the Test Procedure number will be transmitted to the **ES601Plus** for storage in the non-volatile memory of the safety analyzer. Any additional equipment information you may input, such as Device Model or Description, is saved to disk by the Editor but it is not transmitted to the **ES601Plus** since the information is not needed by the safety analyzer in order to run the Test Procedure. However, the additional equipment information you may choose to enter into a Record may prove helpful later on, when reviewing Equipment Records to determine how Test Procedures were assigned to Control Numbers in your system, or when creating new Equipment Records for devices added to your system in the future.

## Searching Equipment Records

To search Equipment Records, enter search terms in one or more of the Search boxes located above the Equipment Record Table (**Figure 1**). After entering one or more Search terms, you may then click the "Search" button or hit the <Enter> key on the keyboard. To search based on an equipment description, enter part or all of the description into the "Description" Search textbox. To search manufacturers, use the "Manufacturer" Search textbox. To search by equipment model name or number, use the "Model" Search textbox. To search all text fields provided by the Equipment Records, use the "General" Search textbox.

When the "Search" button is clicked, the Equipment Record Table is filtered by the search terms entered. Entering search terms into more than one search box

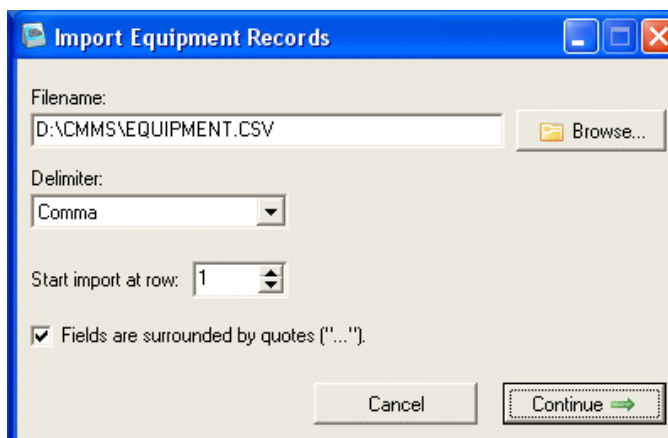
## EQUIPMENT RECORD EDITOR OPERATING MANUAL

will display all Equipment Records that include any of the terms specified.

To restore the full listing of Equipment Records after a search, click the "Search Clear" button below the "Search" button.

## Importing Equipment Records

To import Equipment Records from a Comma Separated Values (CSV) file, click the "Import" button below the Equipment Record Table (**Figure 1**). The Import Equipment Records dialog will then appear (**Figure 3**). Click "Browse" to select the CSV file containing the equipment data.



*Figure 3*

Each line of the CSV file must correspond to one piece of equipment, which typically will be identified by a unique control number in an equipment management system. The information fields appearing in each line of the equipment data are referred to as "columns" by the Equipment Record importer. In each line of equipment data, the columns must be delimited by a specific character, and the same character must be used consistently throughout the CSV file to delimit the columns. The delimiter character can be specified through the Delimiter dropdown list of the Import Records dialog. To specify a delimiter other than those appearing in the list, select "Other" and then enter a single character into the Delimiter textbox which appears.

If one or more lines at the beginning of the CSV file do not contain equipment

## EQUIPMENT RECORD EDITOR OPERATING MANUAL

information, use the spinner buttons to specify the number of lines to be skipped at the start of the file. The value shown corresponds to the line number of the CSV file at which equipment data importing will begin.

If the equipment information fields or columns are, in addition to being separated by a delimiter, also surrounded by quotation characters ("), then check the "Fields are Surrounded by Quotes" box on the Import Records dialog.

Once the import settings have been selected, click the "Continue" button. If the "Continue" button is not enabled, either the filename or the delimiter has not been entered correctly. Make sure the CSV file exists and review your delimiter settings in this case.

After "Continue" is clicked, the Import Records dialog will change appearance and will show how the first line of equipment-related information in the CSV file will be imported (**Figure 4**). Via this dialog, you can choose which CSV data fields or columns are mapped to the fields of the *ES601pc* Equipment Record. The fields of the Equipment Record are listed on the left-hand side of the dialog and include "Device ID"; "Device Description"; "Manufacturer"; and so on. Three "Custom" fields which can contain arbitrary data are also provided.

Found 7 columns

Select a Column Number to associate it with a Field Name. A Column Number must be chosen for Device ID before importing can begin.

Field Name	Column Number	Field Preview
Device ID	Column 1	CN00001
Device Description	Column 5	DEFIBRILLATOR
Manufacturer	Column 2	HEWLETT-PACKARD
Model	Column 3	CODEMASTER XL+
Custom 1	Column 4	R5A12955-04521
Custom 2	Column 6	EMERG
Custom 3	Column 7	ST JOSEPHS HOSP
Test Procedure Number	<None>	

Back Cancel Import

*Figure 4*

## EQUIPMENT RECORD EDITOR OPERATING MANUAL

If the equipment control number is the first field or column of each line in the CSV file, select "Column 1" in the dropdown list box shown to the right of "Device ID" on the Import dialog. If the selection is correct, the equipment control number from the first line of equipment data should appear in the Field Preview textbox at the far right.

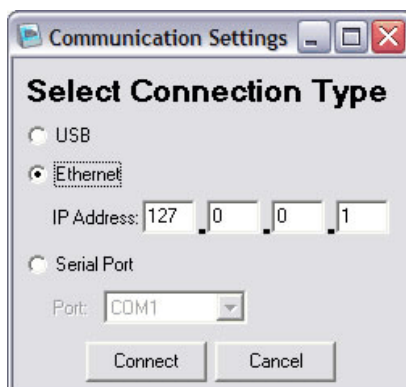
Repeat the column-selection process for each field of the Equipment Record. If you do not want any data to be imported into a particular field of the Equipment Record, then set the "Column Number" for that field to "None". The only field which you must specify is the Device ID. The import cannot be initiated if the CSV column containing the equipment control number is not identified.

Once the CSV columns have been mapped to their respective Equipment Record fields, click the "Import" button to begin the import process. If a duplicate Device ID is found in the CSV file, a message box will appear allowing you to input an alternative Device ID for the duplicate, or you can choose to skip the duplicate and thus omit it from the imported results. When the import process has finished, the Equipment Records will appear in the Equipment Record Table. Depending on how the CSV columns were assigned prior to the import, certain columns in the Equipment Record Table may appear blank.

Refer to Appendix A for a specific example of importing equipment records.

## Uploading Equipment Records

To transmit Equipment Records to the **ES601Plus**, click the "Upload" button below the Equipment Record Table (**Figure 1**). This will cause a communications selector to appear (**Figure 5**).



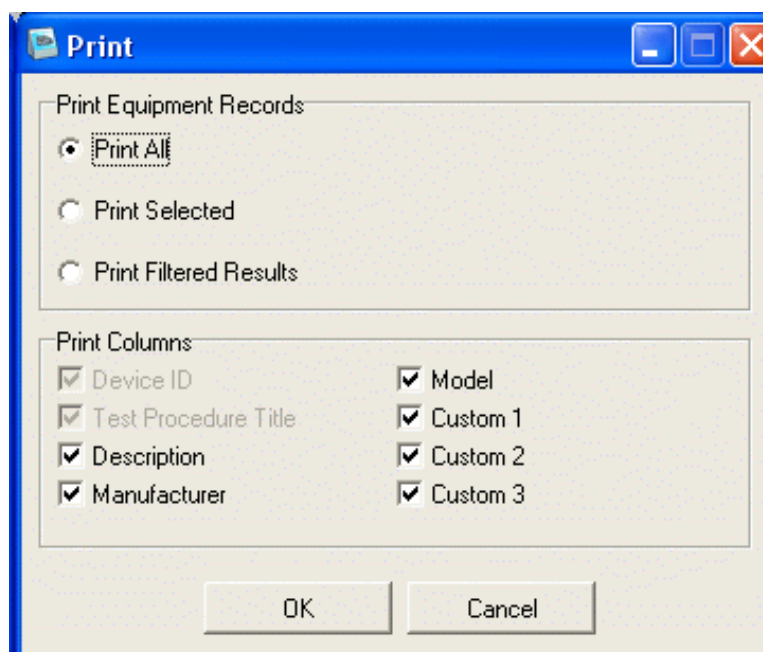
*Figure 5*

## EQUIPMENT RECORD EDITOR OPERATING MANUAL

Choose to communicate via USB, Ethernet, or Serial Port. If the connection is via ethernet, enter the IP address assigned to the **ES601Plus** (note this IP address is displayed on the LCD of the ES601 when the analyzer is operating in "Ethernet Mode"). If the connection is via serial port, choose the COM port to which the **ES601Plus** is connected. Once the communications options have been set, click "Connect" to send the data to the **ES601Plus**.

## Printing Equipment Records

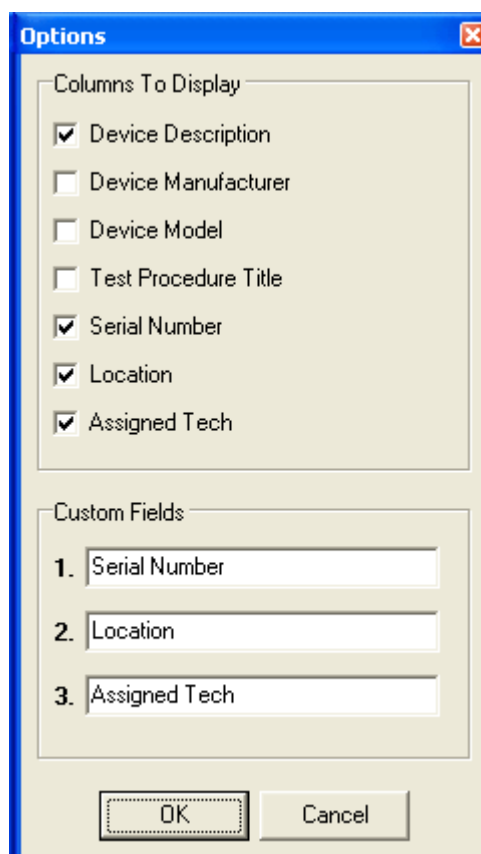
To print Equipment Records, click the "Print" button below the Equipment Record Table (**Figure 1**). You may optionally choose to print all Records, selected Records, or filtered results as they are currently being shown in the Table (**Figure 6**). As well, certain Equipment Record fields can be excluded from the printout, by unchecking the box corresponding to the undesired information. By default, all fields of the Equipment Record are included in the printout.



*Figure 6*

## Options Menu

To modify the viewing options of the Equipment Record Table, click the "Options" button below the Table (**Figure 1**). The Options dialog will then appear (**Figure 7**). Columns can be unchecked and excluded from view in the Table. The names assigned to the three Custom fields of the Equipment Record can also be edited via the textboxes provided. Click "OK" to accept and save the changes, or click "Cancel" to return to the Equipment Record Table without saving.



*Figure 7*

With viewing options set according to **Figure 7**, the Equipment Record Table will appear as shown in **Figure 8** (example data only).

## EQUIPMENT RECORD EDITOR OPERATING MANUAL

**Datrend Systems ES601 pc**

File Tools Help

**Record Search**

Description:  Model:  Search

Manufacturer:  General:  Clear

No. ▲	Control Number	Description	Test Procedure	Serial Number	Location	Assigned Tech
1	CN1001	Anesthesia Units	40	8139	OR-3	JPS
2	CN1002	Carbon Dioxide Mon	170	13779X	CCU	MW
3	CN1003	Defibrillators, Line	86	2334356654	Cardiac Rehab	TPR
4	CN1004	Oximeters, Pulse	213	20592095	E.R.	JPS
5	CN1005	Hyperthermia Unit	127	161749	Central Supply	RCM
6	CN1006	Physiologic Mon	175	2492	E.R.	RCM
7	CN1007	Lamp, Examination	148	N/A	Radiology	RCM
8	CN1008	Warmers, Blood/Sol	309	N/A	OR-2	JPS
9	CN1009	Xenon Systems	147	1011	Radiology	TPR
10	CN1010	Centrifuges, Floor H	76	23452868	Chemistry	TPR
11	CN1011	View Boxes, X-Ray	148	N/A	Pediatrics	JPS
12	CN1012	Beds, Electric	65	9347	Central Supply	MW
13	CN1013	Hyperthermia Unit	125	0002599	Central Supply	RCM
14	CN1014	Coagulation Analyzer	18	K92792	OR-3	RCM
15	CN1015	Fluoroscope, HX-3	105	00014000	OR-2	RCM

New Copy Delete

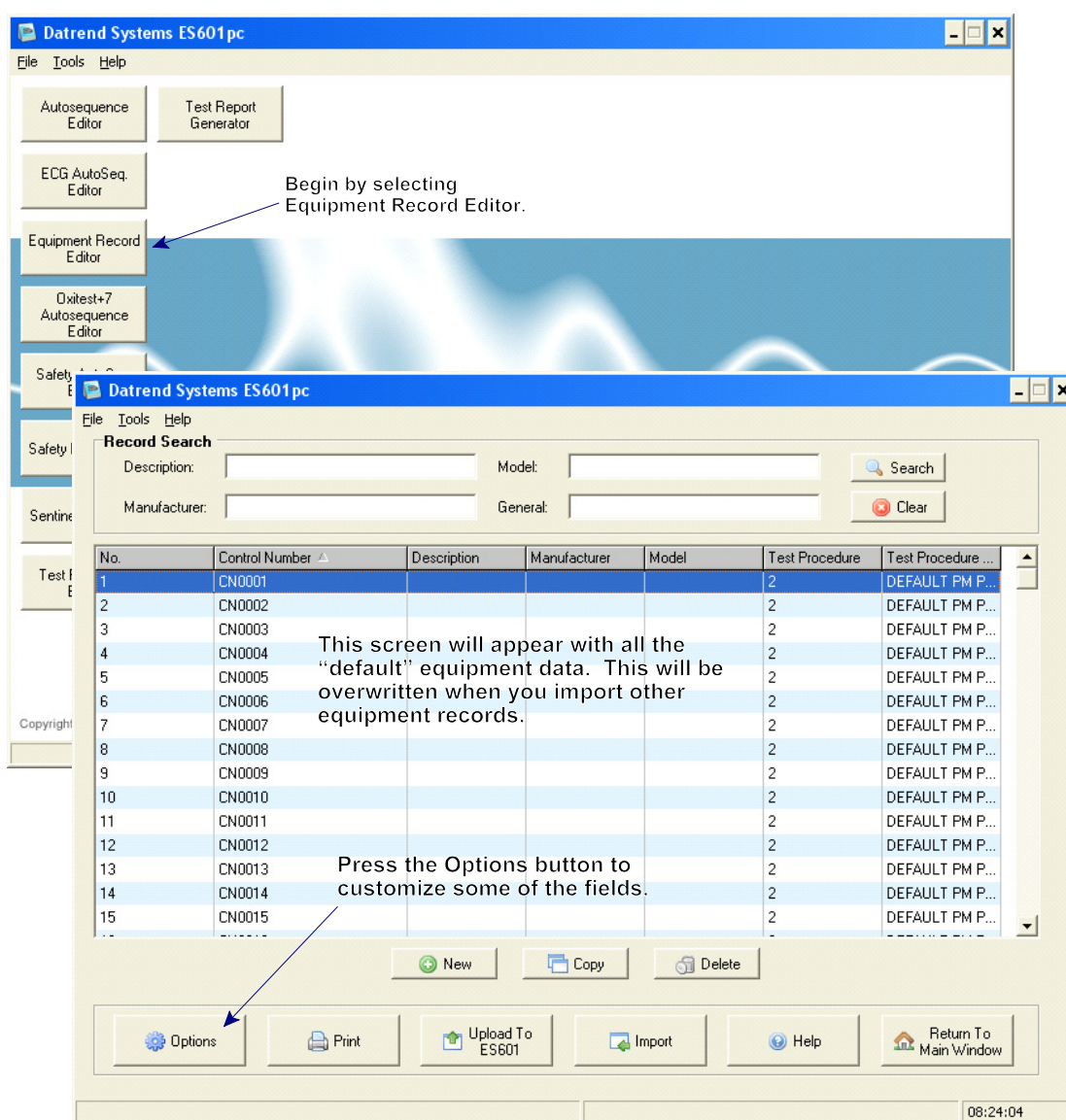
Options Print Upload To ES601 Import Help Return To Main Window

17:49:54

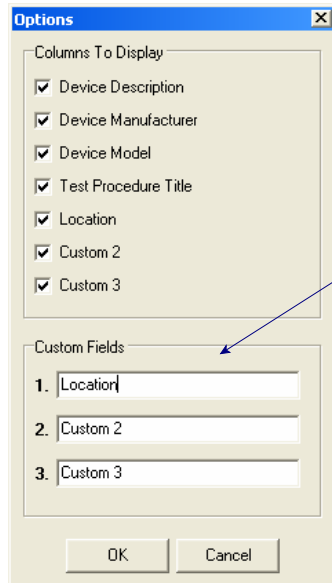
Figure 8



## Appendix A - Importing Equipment Records



## EQUIPMENT RECORD EDITOR OPERATING MANUAL



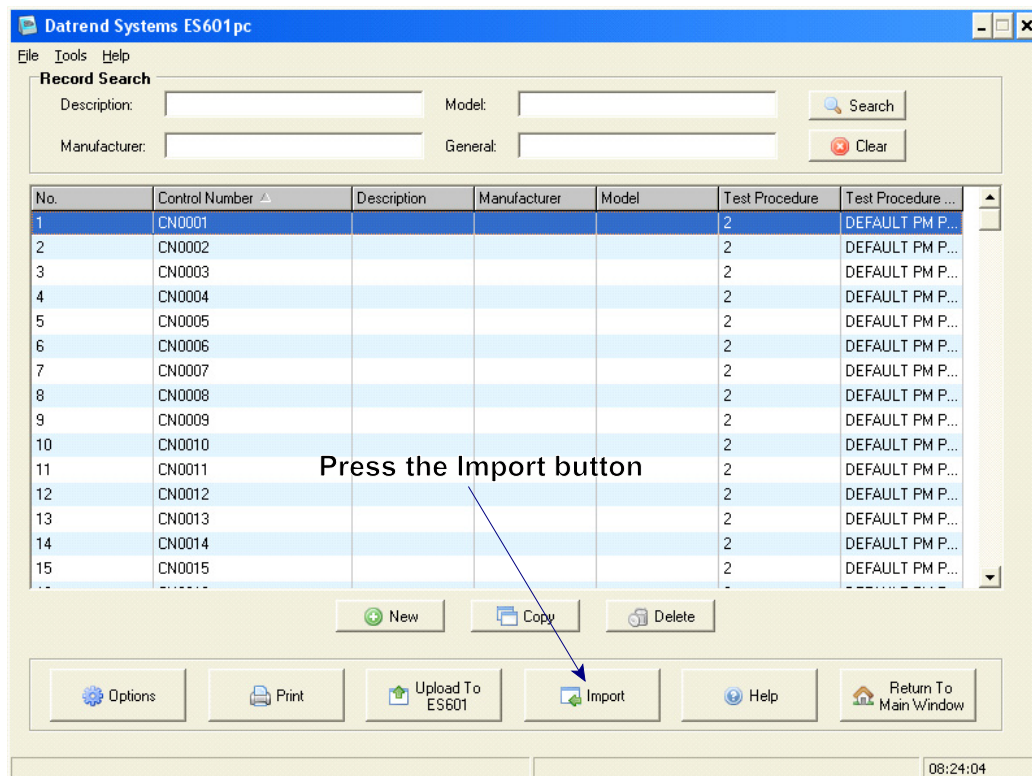
The Options dialog box has a title bar with a close button. It contains two sections: 'Columns To Display' and 'Custom Fields'. The 'Columns To Display' section has a list of checkboxes, all of which are checked: 'Device Description', 'Device Manufacturer', 'Device Model', 'Test Procedure Title', 'Location', 'Custom 2', and 'Custom 3'. The 'Custom Fields' section has three numbered text input fields: '1. Location', '2. Custom 2', and '3. Custom 3'. At the bottom are 'OK' and 'Cancel' buttons.

Columns To Display	
<input checked="" type="checkbox"/>	Device Description
<input checked="" type="checkbox"/>	Device Manufacturer
<input checked="" type="checkbox"/>	Device Model
<input checked="" type="checkbox"/>	Test Procedure Title
<input checked="" type="checkbox"/>	Location
<input checked="" type="checkbox"/>	Custom 2
<input checked="" type="checkbox"/>	Custom 3

Custom Fields	
1.	Location
2.	Custom 2
3.	Custom 3

Enter any Field Names you wish. These can include Location, Facility, anything at all.

Press OK when you have finished.



The main window of the Datrend Systems ES601pc software. It features a menu bar (File, Tools, Help), a 'Record Search' section with input fields for Description, Model, Manufacturer, and General, and a 'Search' button. Below this is a table with columns: No., Control Number, Description, Manufacturer, Model, Test Procedure, and Test Procedure ... The table contains 15 rows of data. At the bottom are buttons for 'New', 'Copy', 'Delete', 'Options', 'Print', 'Upload To ES601', 'Import', 'Help', and 'Return To Main Window'. A status bar at the bottom right shows the time '08:24:04'.

**Record Search**

Description:  Model:  Search   
Manufacturer:  General:  Clear

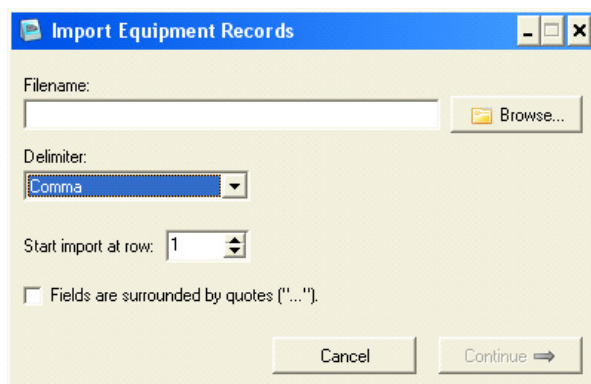
No.	Control Number	Description	Manufacturer	Model	Test Procedure	Test Procedure ...
1	CN0001				2	DEFAULT PM P...
2	CN0002				2	DEFAULT PM P...
3	CN0003				2	DEFAULT PM P...
4	CN0004				2	DEFAULT PM P...
5	CN0005				2	DEFAULT PM P...
6	CN0006				2	DEFAULT PM P...
7	CN0007				2	DEFAULT PM P...
8	CN0008				2	DEFAULT PM P...
9	CN0009				2	DEFAULT PM P...
10	CN0010				2	DEFAULT PM P...
11	CN0011				2	DEFAULT PM P...
12	CN0012				2	DEFAULT PM P...
13	CN0013				2	DEFAULT PM P...
14	CN0014				2	DEFAULT PM P...
15	CN0015				2	DEFAULT PM P...

Buttons: New, Copy, Delete, Options, Print, Upload To ES601, Import, Help, Return To Main Window

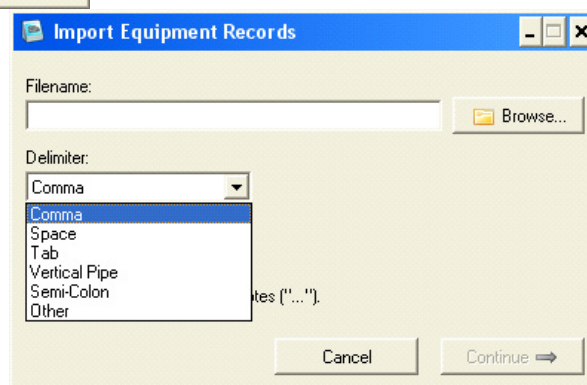
Status: 08:24:04

Press the Import button

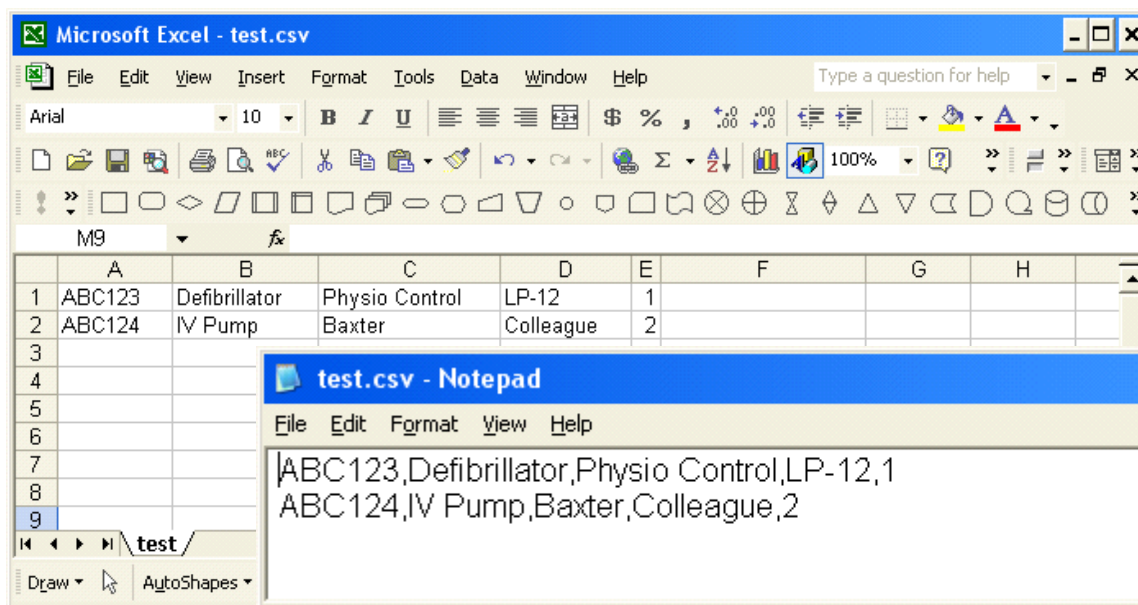
## EQUIPMENT RECORD EDITOR OPERATING MANUAL



The Import option screen will open to choose the file to import. Generally, a CSV (comma separated values) file is easiest to work with.

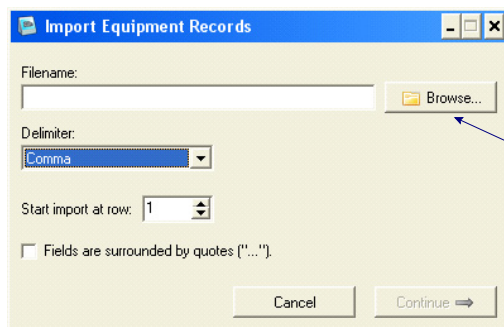


Although columns may be matched later in the process, the equipment records to be imported should be in the following format:



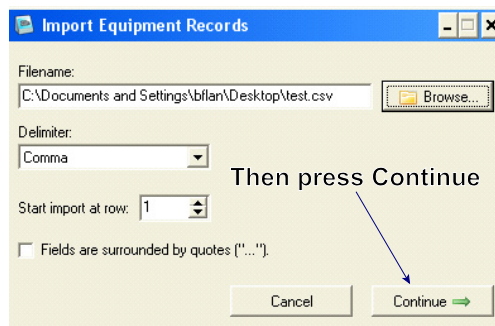
## EQUIPMENT RECORD EDITOR OPERATING MANUAL

The preceding is an example of a short equipment list. There can be more fields, but this will demonstrate the function. In this case, Column E is the test procedure number - This can be added or changed later. Be sure to save the file as “.CSV”.



The dialog box titled "Import Equipment Records" has a "Filename:" text field, a "Browse..." button, a "Delimiter:" dropdown menu set to "Comma", a "Start import at row:" spinner set to "1", and a checkbox "Fields are surrounded by quotes ('\"'\"')". At the bottom are "Cancel" and "Continue" buttons.

Press Browse to locate the file you wish to import.

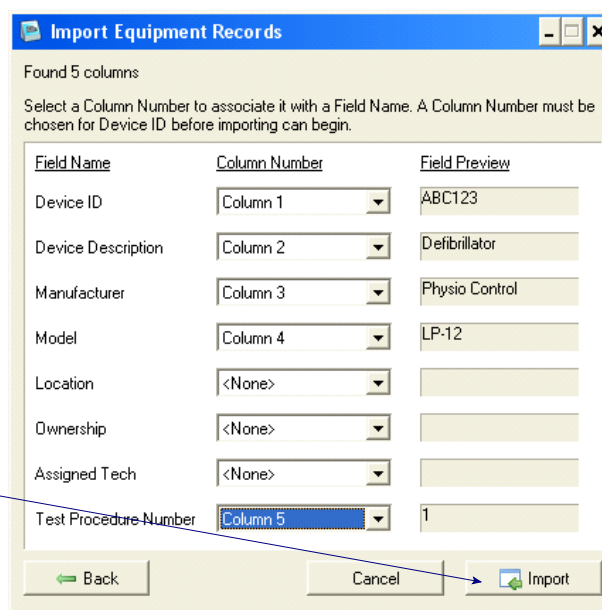


The dialog box now shows the filename "C:\Documents and Settings\blan\Desktop\test.csv". The "Continue" button is highlighted with a green arrow.

Then press Continue

This screen may be used to match fields with columns. A preview of the field will appear when the column is selected. Match as few (at least the Device ID), or as many, of the fields as you wish.

When finished, press Import.



The dialog box shows "Found 5 columns" and a message: "Select a Column Number to associate it with a Field Name. A Column Number must be chosen for Device ID before importing can begin." Below is a table for mapping fields to columns.

Field Name	Column Number	Field Preview
Device ID	Column 1	ABC123
Device Description	Column 2	Defibrillator
Manufacturer	Column 3	Physio Control
Model	Column 4	LP-12
Location	<None>	
Ownership	<None>	
Assigned Tech	<None>	
Test Procedure Number	Column 5	1

At the bottom are "Back", "Cancel", and "Import" buttons.

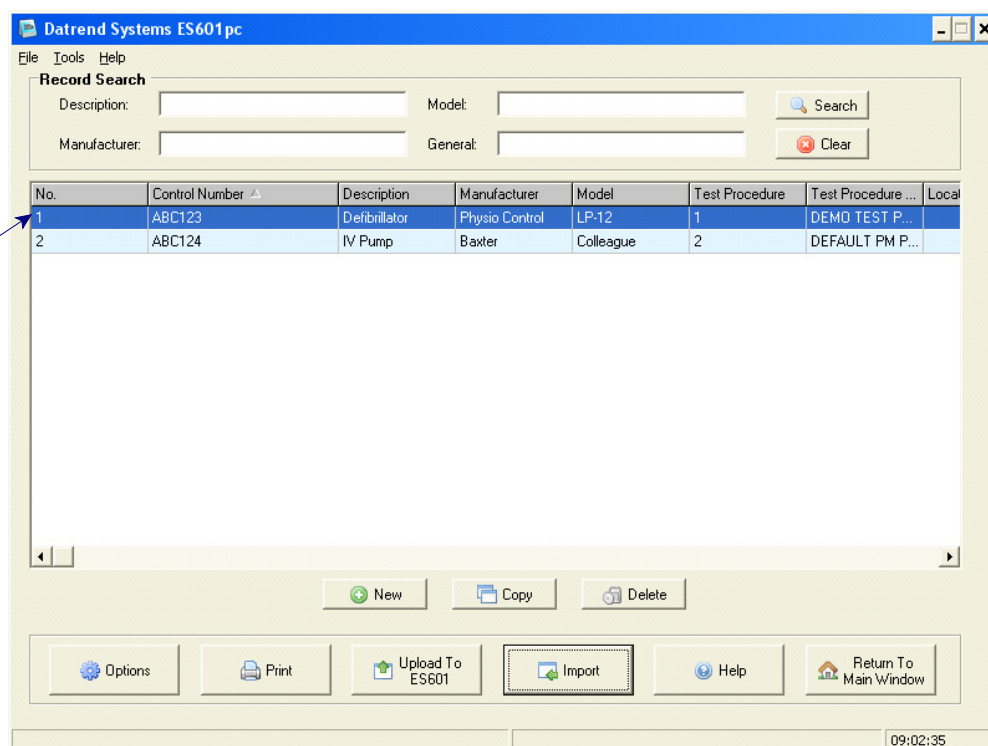
## EQUIPMENT RECORD EDITOR OPERATING MANUAL

For this simple example, the import process will run very quickly. The amount of time required to import will depend of the number of records in the input CSV file. Press OK when the import completes.



You will notice that the default equipment records have been replaced by the new data.

Double-click a record to view/edit.



If not already assigned, test procedures can be assigned now, and custom fields can be added or edited.



## EQUIPMENT RECORD EDITOR OPERATING MANUAL

**Equipment Record Editor**

**Equipment Record #1**

Device Control Number: ABC123

Device Manufacturer: Physio Control

Device Model: LP-12

Device Description: Defibrillator

Location:

Ownership:

Assigned Tech:

Test Procedure: 1 - DEMO TEST PROCEDURE

Test Procedure List

No.	Title
14	ANALYZER, BREATH ALCOHOL
13	ANALYZER, BLOOD GLUCOSE
12	ANALYZER, BLOOD GAS/PH
11	ANALYZER, BLOOD CULTURE
10	ANALYZER, BILIRUBIN
9	ANALYZER, BICHROMATIC
8	ANALYZER, BACTERIOLOGICAL
7	ANALYZER, AMINO ACID
6	ANALYZER, AMALASE/LIPASE
5	ANALYZER, AMALASE
4	AMALGAMATOR
3	AGGLUTINATION VIEWER
2	DEFAULT PM PROCEDURE
1	DEMO TEST PROCEDURE

Search:

Previous Next OK Cancel

Ensure the ES601*Plus* is connected to the PC then upload the data to the unit, and the equipment records and associated test procedures will be ready.

**Datrend Systems ES601pc**

File Tools Help

**Record Search**

Description: Model: Search

Manufacturer: General: Clear

No.	Control Number	Description	Manufacturer	Model	Test Procedure	Test Procedure...	Local
1	ABC123	Defibrillator	Physio Control	LP-12	1	DEMO TEST P...	
2	ABC124	IV Pump	Baxter	Colleague	2	DEFAULT PM P...	

New Copy Delete

Options Print Upload To ES601 Import Help Return To Main Window

09:02:35