

# Huntron Workstation HAT File Import Tutorial

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# Huntron Workstation HAT File Import Tutorial

The tutorial will guide the user through the steps required to create a Huntron ASCII Text or HAT file. The HAT file is used to create component data in Huntron Workstation. These files contain Component reference designators and number of pins for creating a sequence of components to speed up data entry. This also allows someone that is not familiar with Workstation to do the data collection. This creates a Top and/or Bottom Sequence and adds the parts in the list.

## Creating a HAT file for Import into Huntron Workstation

An Excel template is used to create a HAT File that can be read by Huntron Workstation to create a test database. This process describes how to create the HAT file. HAT files can also be created in a text editor (See Appendix 1 for the file format).

### Opening Excel Template

Open the Huntron Hat File Template.xlsx file located in the "Program Files (x86)\Huntron Workstation 4.3\Documents" folder with Microsoft Excel. Save a copy of the file as an unmodified master. There are three tabs shown at the bottom of the Excel file. The first tab is the Import tab that is used for basic text entry of the component information. The Import tab spreadsheet allows you to manually add the components that will saved to a HAT text file.

The second tab is the Library Import tab which is used for creating components with information that is drawn from the Library tab (third tab).

### Import Tab

Component information added in the Import tab is used to manually create a HAT file and does not use information from the Import Library or Library tabs. In the Import tab, columns in red are required. These include **Component Name** and **Number Of Pins**. The other columns can be left blank. The Test column default is set to TRUE, FALSE is the other valid setting. The **Package** column defaults to Multi, other valid settings are the Both, DIP, Front, Probe, SIP, DIP 2X, SIP 2X, MultiSIP, DIP II, SIP II, Cable.

If you need to create components that are on specific sides of your circuit board you will need to add Top or Bottom to the **Side** column. This will create Top or Bottom Sequences and place those components on the indicated side.

Any columns left blank will use defaults values when imported into Huntron Workstation.

Example entries in the Import tab:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Component Name	Number Of Pins	Order Number	Part Number	Test (default)	Package (Pin Spacing) Type	Part Package	Positive Part Tolerance	Negative Part Tolerance	Part Value	Replacement	Supplier	Rotation	Side	Height		
2	C1	1	1	PN123	FALSE	Probe	0.15 Cap	603	0.5	0.1	200uF	PN456	Mfg	0	Top	0.5"	
3	U1	20	2	PN789	TRUE	DIP	0.05 IC	SOIC				PN890	Mfg2	90	Top	0.2"	
4																	
5																	
6																	

## Library Tab

The **Library** tab is used to create a list of commonly used components that can be used when creating a HAT file in the **Library Import** tab. You can input components that key off on the **Part Number** to add data to the Library Import tab. It is best used when you have all the necessary parts input into the Library tab first before switching the Library Import tab to create your HAT file.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Part Number	Number Of Pins	Test (default)	Package (Pin Spacing) Type	Part Package	Positive Part Tolerance	Negative Part Tolerance	Part Value	Replacement	Supplier	Rotation	Side	Height		
2	74LS04	14		DIP	2540	TH DIP									
3	74HC14	14		DIP	1720	SOIC									
4															

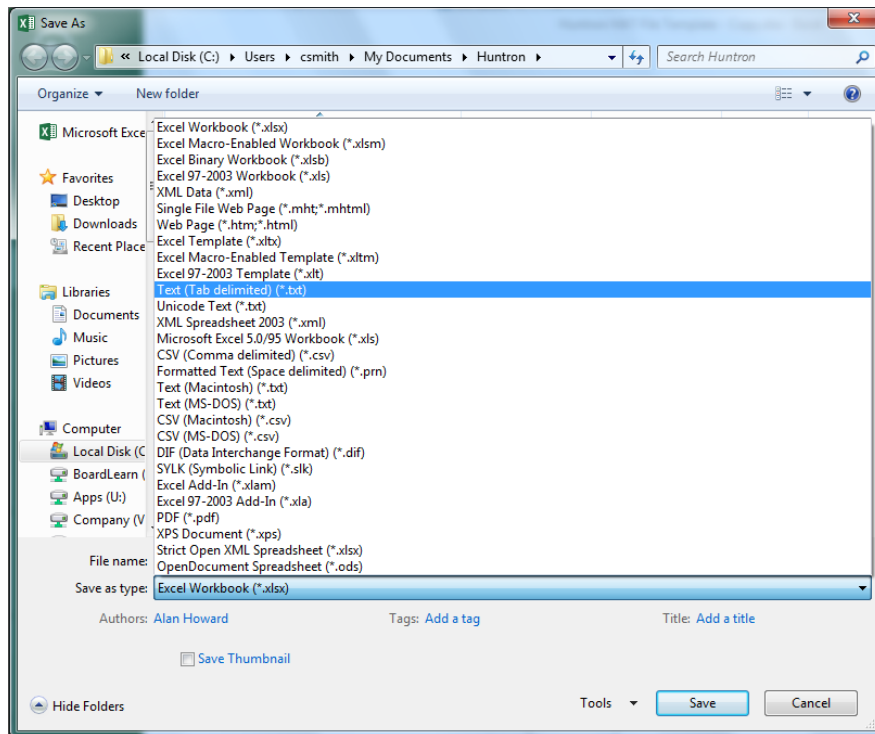
## Library Import

The Library Import tab will add components to the list with information drawn from the Library tab. The columns in red are required and these include **Component Name** and **Number Of Pins**. The green column **Part Number** is used to look up the component values from the Library tab so if you input this value first the other columns will be populated automatically based on information in the **Library tab**. Cells in the green column contains formulas and should not be overwritten. Any columns left blank will use default values when imported into Huntron Workstation. The **Test** column defaults to TRUE, FALSE is the other valid setting. The **Package** Column defaults to Multi, other valid settings are the Both, DIP, Front, Probe, SIP, DIP 2X, SIP 2X, MultiSIP, DIP II, SIP II, Cable. The other columns can be left blank.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Component Name	Number Of Pins	Order Number	Part Number	Test (default)	Package (Pin Spacing) Type	Part Package	Positive Part Tolerance	Negative Part Tolerance	Part Value	Replacement	Supplier	Rotation	Side	Height		
466	U10	14		74LS04		DIP	2540	TH DIP									
467	U2	14		74HC14		DIP	1720	SOIC									
468																	

## Saving a HAT File

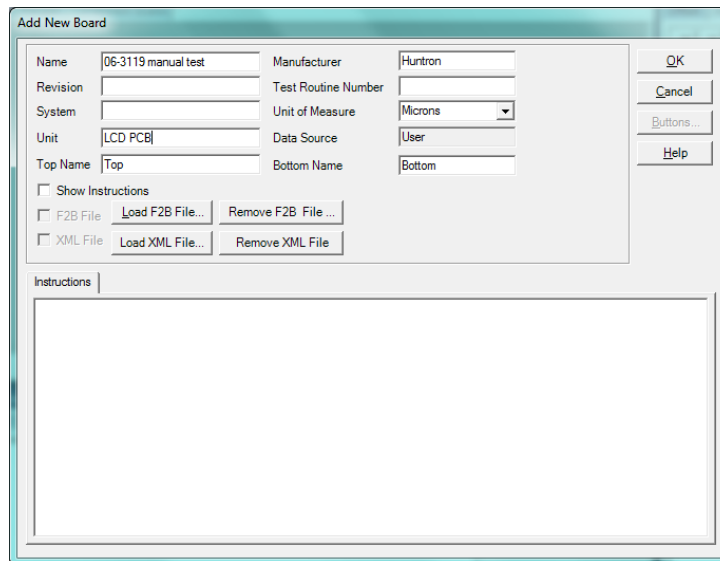
Select the **Import** or **Library Import** tab that contains the information to be imported. Select **File->Save As->Browse**. Select the file location. Change the Save as type to Text (Tab delimited) (\*.txt).



Enter a filename and click **Save**.

## Create a Board database

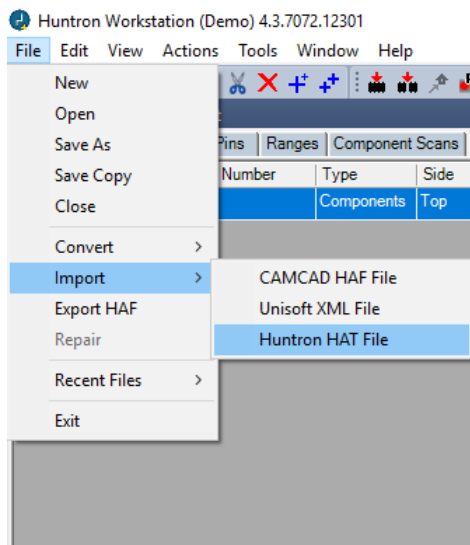
After starting the Huntron software the main menu is displayed. Select **File/New** from the menu bar.



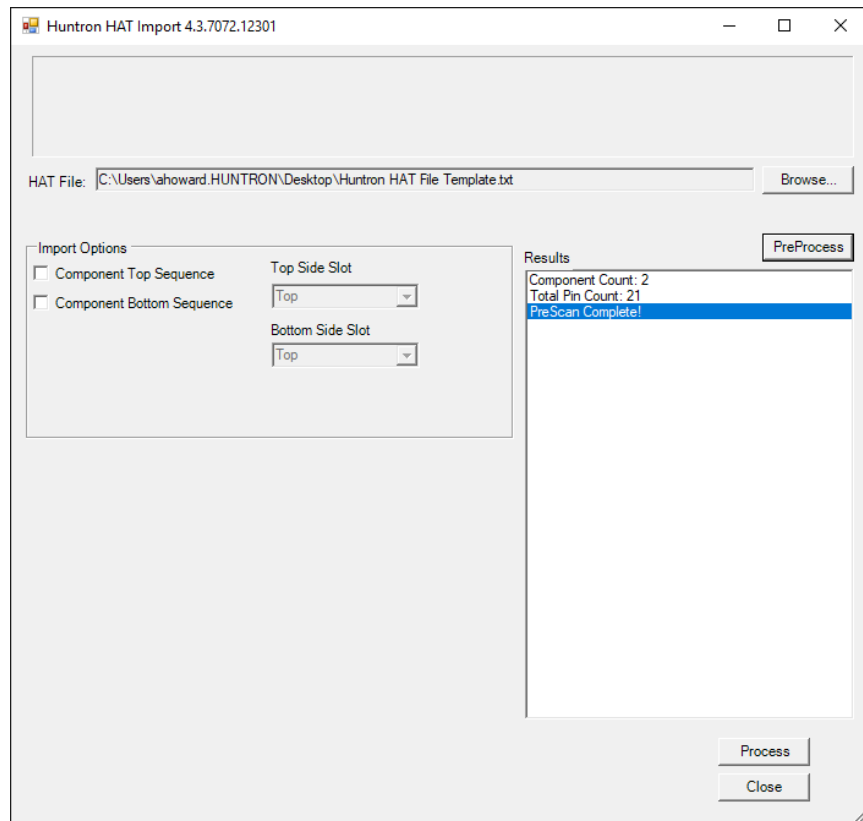
The Add New Board window will be displayed. Type a name into the Name field. Adding information to the additional fields (i.e. revision, system, etc.) is not necessary to create a new board. Click **OK** to save the new Board information.

## File Import

After creating a Board database, select **File/Import/Huntron HAT File** from the menu bar.



The HAT File Importer window will open where you will configure your settings for the new Sequence(s).



The process for using the Workstation Importer for HAT files essentially works from top to bottom. Following is a description of each setting and how it is used.

**HAT File:** Browse to and select the **HAT** or **TXT** file created.

**PreProcess button:** Click this button when the HAT or TXT file is selected. Note that all of the fields and checkboxes below are greyed out until this step is completed. Once this step is completed successfully you can move on to the Import Options.

## Import Options

### **Component Top Sequence checkbox:**

Enable to add a Top side Component based Sequence to the Board

### **Component Bottom Sequence checkbox:**

Enable to add a Bottom side Component based Sequence to the Board

### Top Side Slot drop-down:

Select the Prober slot (Top, Middle, Bottom or Base) to be used when the Top side Sequence is created.

### Bottom Side Slot drop-down:

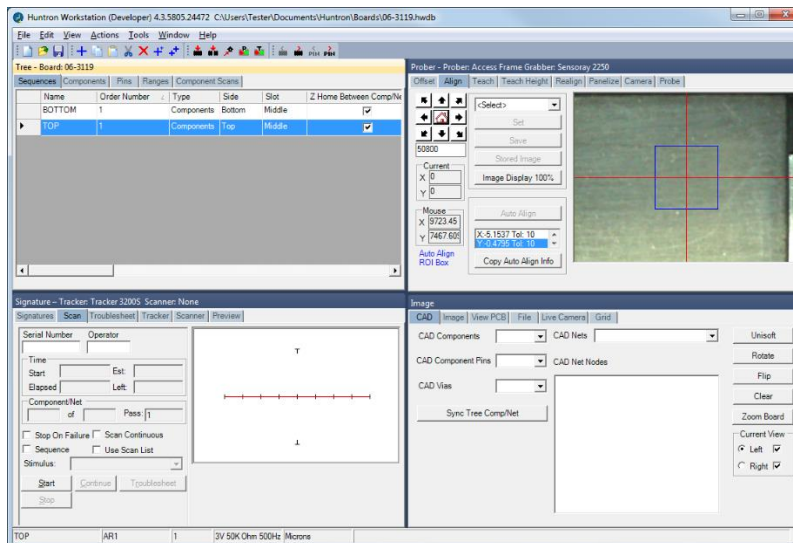
Select the Prober slot (Top, Middle, Bottom or Base) to be used when the Bottom side Sequence is created.

When all of the Import settings are configured, click the **Process** button to import the selected CAD file based on your settings in the Import window. The Results area will show the Sequences as they are created into the Workstation database.

When the import is complete, click **Close** to return to the Huntron Workstation software.

## Board Set Up

Once the HAT Import is closed, you are returned to the Huntron Workstation software. Notice that Sequence(s) have been created in the Sequences tab of the Tree pane. There should be a sequence for the sides (Top and/or Bottom) you designated in the Import Options earlier.



## Completing the Test

Finish building the test following the steps contained in other Huntron Workstation tutorials.

## Appendix 1: HAT File Format

The format of the HAT file is a Tab delimited text file. The fields of the file match fields of the component in Huntron Workstation. The fields are separated by Tab characters and lines are ended with carriage return and line feed. The first row is a header row with column names.

Fields [additional information]:

Component Name	[typically the component reference designator i.e. U1]
Number Of Pins	[Access DH users – two pin devices (i.e.resistors) may be only 1 pin]
Order Number	[leave blank in most cases]
Part Number	
Test (default TRUE)	
Package (default Multi)	[Probers user will use DIP, MULTI, SIP or Probe]
Pin Spacing	[Use the Units of Measure (i.e. microns) set at the Board level]]
Type	[typically the component part number used for cross referencing]
Part Package	
Positive Part Tolerance	
Negative Part Tolerance	
Part Value	[Typically expressed in units such as uF, ohms or uH]
Replacement	
Supplier	
Rotation	[In degrees]
Side	[TOP or BOTTOM; Needed for Prober users]
Height	