

## Timing Files

### Purpose:

Timing files are used to program the internal/external pattern generator of the Microvision SS200 series systems. The timing files contain all the necessary information required to establish a particular timing format. i.e. horizontal pixel count, front porch, back porch, etc.

### Usage:

Timing files can be selected prior to system initialization from the 'Init' menu. By selecting 'Timings', a dialog box will appear enabling the operator to choose a timing file from the list of available timings. After selection, the timing file will be loaded into the pattern generator and initialization will begin.

### Naming Conventions:

The timing files supplied with the SS200 series systems generally adhere to the following naming conventions. All of the files that follow this naming convention are 'VESA' compatible timings. Several custom files have been generated that do not follow the convention and will require that they are viewed with the 'VGM' software timing editor to determine their exact contents. (see VGM timing editor)

Typical timing file name format - VhhvvHtt

Where  
 hh - number of horizontal active pixels (first 2 digits)  
 vv - number of vertical active pixels (first 2 digits)  
 tt - vertical refresh rate

examples:

V8060H60 is a VESA 800x600 at 60Hz vertical refresh.  
 V1186h75 is a VESA 1152x864 at 75Hz vertical refresh  
 ATV1259 is an Advanced TeleVision format 1280x1024 at 59Hz

Timing files are located in the C:\mv\timings directory and have a qtt or vtt extension.(v8060h60.qtt)

Qtt extensions refer to files appropriate for Quantum pattern generators.

Vtt extensions refer to files appropriate for Unigraph pattern generators.(no longer supported)

Below is a list of the available timings at the printing of this appnote:

atv1259.qtt	v1186h75.qtt
atv1260.qtt	v1186h85.qtt
atv1925.qtt	v1210h60.qtt
atv1929.qtt	v1210h75.qtt
atv1930.qtt	v1210h85.qtt
atv1950.qtt	v1612h60.qtt
atv1959.qtt	v1612h65.qtt
atv1960.qtt	v1612h70.qtt
default.qtt	v1612h75.qtt
hdtv_1e.qtt	v1612h85.qtt
hdtv_1j.qtt	v6448h60.qtt
hdtv_4e.qtt	v6448h72.qtt
hdtv_4j.qtt	v6448h75.qtt
ntsctvu.qtt	v6448h85.qtt
v1076h60.qtt	v8060h56.qtt
v1076h70.qtt	v8060h60.qtt
v1076h75.qtt	v8060h72.qtt
v1076h85.qtt	v8060h75.qtt
v1186h70.qtt	v8060h85.qtt

### **VGM Timing Editor:**

Timing files are ascii files that can be generated manually or by using the Quantum VGM software. Microvision systems are shipped with VGM software installed and is accessed in Windows. The VGM software can also be downloaded from Quantum's web site at [www.quantumdata.com](http://www.quantumdata.com).

Microvision QTT files are identical to Quantum's CMD files and were generated using VGM software. The resulting CMD files were then renamed with the QTT extension. To view a timing file:

- Start VGM software
- Select 'Generator' from the top menu and then 'connect'.
- Select 'ISA' port 7 for an internal pattern generator or 'Com' and appropriate com port.
- After connection, choose 'File' and then 'Import old data'. Find and load the timing file of interest.
- Double click on the file shown in the editing buffer to view/edit.

For manual editing of files, consult the online manual supplied with VGM software. Look in the appendix under command summary for a description of commands listed in the timing files. A copy of the individual command listings can also be downloaded from Quantum's web site.

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## Converting QuantumData Timing Files For Microvision Use

Timing files for the SS200 series systems can be modified or created using the Quantum Data pattern generator software. The following example illustrates the creation of a "Microvision QTT" file from a built in Quantum file. Other custom files can be generated by modifying built in files before saving them. VGM software also contains an on-line manual for more information regarding timing files.

Note: The conversion of a pre-configured Quantum timing file does not guarantee that it will function properly. In General, the timing file must produce a DSS or digital separate sync pulse in order to work properly with the SS200 series system. The DSS signal (vertical sync) is used as the synchronization source for the SS200 and needs to be present. Timing files can be generated to produce multiple sync types, ACS&DCS&DSS, for example. Consult your Quantum data documentation or on line manual.

- From Windows, start the Quantum Data Software VGM. If the software is not installed on your system and/or you do not have the installation disks, the software can be downloaded from Quantum's web site at [www.quantumdata.com](http://www.quantumdata.com).
- Along the top row, click 'generator', then select 'connect'
- Port Type = ISA for internal, Com for external
- Port number for ISA cards is = 7
- Select 'O.K.' The formats and images stored in the generator will then be loaded.
- In the generator window will appear fmt img, and seq directories, double click 'fmt' to show the list of built in formats. Select DMT1075 for this example.
- Under generator, select 'recall item. Then select 'yes'
- The format DMT1075 will appear in the editing buffer window. This confirms that the format has been loaded and is ready to be saved.
- Along the top row, click 'file' and then select 'Write CMD file' . CMD files are identical to QTT files with the extension renamed. In order for Microvision software to use the new timing file, it must have the extension changed to QTT. At the prompt, change the file name to have the 'qtt' extension and change the directory to ' c:\mv\timings'. This is the default directory where timing (qtt) files are store for the SS200.
- Restart SS200 software and load the new timing file.