12.05 Appendix-A, OrganAssistant™

OrganAssistant™ is a software program created by Classic Organ Works™ as a convenient tool to handle MIDI systems on our organs. It runs on a Windows™ type of personal computer (PC) that can be connected to the MIDI Sequencer Input and Output connectors of the organ.

The basic method of adjusting a MIDI stop in the organ is to alter one parameter at a time by entering the organ’s Set-Up mode and using various pistons, such as Up and Down, to select and modify the value of the parameter. See Section 4.11 of this manual. It is a tedious process and all too easy to make mistakes, especially if you are not versed in the peculiarities of MIDI.

OrganAssistant was designed as a means to overcome all this by using a computer to display on the screen as many as ten MIDI stops at once, with all their parameters, and provide simple ways to individually adjust all their values.

The program also allows all data in the organ’s memories to be downloaded and uploaded as well as providing a simple means to check on all the soft-switch settings.

In addition, OrganAssistant can handle various operations associated with the MIDI sequencer built into later organs (using software version 6.10 or later and the CCC-6B control board).

Four kinds of functions are provided for:
1. Uploading and downloading organ memories.
2. Editing MIDI stops (also Traps and Effects).
4. Editing Built-in Sequencer files.

Organ memories include the contents of the Combination Action system, Crescendo settings, the Registration Sequencer, and MIDI stop parameters.

System requirements are:
1. Organ Firmware to be 4.41 or greater, (6.13 for Built-in Sequencer, requiring a CCC-6B).
2. Windows PC™ 32-bit operating system.
3. MIDI Interface.
Opening Screens

The four basic types of operation are selected from the opening screen shown:

Select one of the four functions and then configure the MIDI Interface device.

The Exit button provides the only way to shut down the program at this juncture.

Similarly, Help accesses the Help files where you can select a subject. Help screens are available from the Menu bar once you pick one of the four main functions.

Setting Up the MIDI Interface

The type of interconnection between the organ and the PC needs to be established. The following screen will appear in every function unless the devices are already chosen. You can access this screen from the Menu under Options if you need to change the settings.

The MIDI I/O dialog box configures the Input and Output ports of your PC. Choose which devices you want to use for your MIDI Input and MIDI Output and then click on the “OK” button.
The Input Devices available are:

MPU-401

**MPU401** is a standard developed by Roland ED in the early 80’s, and later adopted for Creative SoundBlaster cards, for MIDI (Musical Instrument Digital Interface) input (piano-like keyboards, etc.). MPU = MIDI Processing Unit. The DB15 Jack on the back of most soundcards is the MIDI port. Look for the driver on a floppy disk or CD that came with the soundcard.

The Output Devices available are:

Microsoft MIDI Mapper
Microsoft GS Wavetable SW Synth
MPU-401

If the MIDI Mapper device is chosen as the MIDI Out device, you can configure the MIDI Mapper device through “Start> Settings > Control Panel > Multimedia > MIDI”.

The **Microsoft MIDI Mapper** remaps patches, notes, and channels, and adjusts velocities. It uses the Patch Map, Key Map and Setup to determine how to do this.

Until recently, there wasn’t any standard for patch or note numbers. Now there is the General MIDI specification, an official specification published by the International MIDI Association. This standard does identify which instrument is to be used for each patch number. However, there are many MIDI sound files in circulation which do not follow the General MIDI specification. Playing these through a General MIDI device can make them sound pretty bad.

Microsoft’s Specification

Microsoft Corporation has produced their own version of the General MIDI specification, complicating things somewhat. The Microsoft standards require less of the equipment than the General MIDI standard. General MIDI supports 32 notes sounding at the same time on all 16 MIDI channels. Microsoft has defined two less capable devices – a “basic” device and an “extended” one.

**Basic Device**

A Basic device must be capable of playing 6 notes, in at least 3 different instruments, as well as 5 percussion notes. All sound cards, including the original 8-bit sound cards, can do this. Basic devices play the melodic instruments on channels 13 through 15, with the drums on channel 16.

**Extended Device**

Extended devices must be capable of 16 melodic notes, using 9 instruments, plus 16 notes on 8 percussive instruments. Extended devices use channels 1 through 9 for melodic sounds, with the drum track on channel 10.

Microsoft’s Authoring Guidelines

These guidelines provide for producing MIDI files that can play on any system by putting 2 copies of the song in each file – both a basic and an extended version. Each must meet the rules for its particular type, including placing the higher priority sounds on lower numbered channels.

Alternatively, a MIDI-to-USB interface may be in use, in which case this type of screen will appear. Select the appropriate device.
When valid MIDI Input and Output devices have been chosen, the program will automatically try to Connect to the Organ.

The Organ MUST already be ON at this point.

Classic OrganAssistant will then automatically read the configuration from the organ appropriate to whichever of the four function buttons was selected and present that function’s opening screen.
1. Uploading and Downloading Memories

This screen allows the user to backup organ information to a file on the computer’s hard drive and to restore organ information back to the organ at a later time. One of the primary uses of this software is to provide a computer backup of the organ’s information – if information is lost or is unintentionally modified, the user can restore a known configuration.

The first thing to be done is to establish contact with the organ. The following screen will be displayed upon selecting Organ Memory Manager:

Three organ parameters are displayed here:
1. Organ Software Version: This is the organ’s major and minor version, and should be noted when requesting technical support (it should also be in the Organist’s Reference Manual).
2. Combo Memory Banks: This is the quantity of Combination Action Memory banks (MEMory levels) configured in the organ (254 Max.).
3. Crescendo Banks: This is the quantity of Crescendo Memory banks configured in the organ (4 Max.).

**Choose a type of memory to handle (one memory level at a time).**
1. Combination memories (up to 254)
2. Crescendo memories (up to 4)
3. Registration Sequencer memory
4. Configuration Data (Soft-Switches, etc.)
5. Full Backup (all of the above)
How to Perform a Backup

1. Select the Memory Type you wish to backup. If Combo Memory, Registration Sequencer Memory or Crescendo Pedal Setup are chosen, you also need to select a Bank Number from the box that will show up to the right side of the Memory Type box.
2. Select the Action button labelled “Backup”.
3. Next, to the “To File:” label, click the Browse button. A standard File Save dialog box will pop up. By default the “coadata” subdirectory (in your Classic OrganAssistant install directory) is chosen. You can choose any other location if you wish. You should use a filename that includes a suitable reference as to the type of memory it contains.
4. Click on the OK button. The Backup download will be performed.

How to Perform a Restore

1. Select the Memory Type you wish to restore. If Combo Memory, Registration Sequencer Memory or Crescendo Pedal Setup are chosen, you also need to select a Bank Number from the box that will show up to the right side of the Memory Type box.
2. Select the Action button labelled “Restore”.
3. Next, to the “From File:” label, click the Browse button. A standard File Load dialog box will pop up. By default the “coadata” subdirectory (in your Classic OrganAssistant install directory) is chosen. Navigate to where your backup file is located and select it by either double-clicking on the file or by selecting the file and clicking on Open.
4. Click on the OK button. The Restore upload will be performed.

Both these operations may take several minutes if there is a lot of data.

It is recommended that the organ memories be downloaded for back-up purposes on a regular basis – say, once every three months – just in case there is ever any trouble or prior to any upgrade.
2. Editing MIDI Stops

Configuring MIDI stops is a tedious task. Organ Assistant makes it considerably easier by presenting up to ten stops with all their parameters on a computer screen where they may be easily adjusted by using a mouse to select values.

Sounds (voices) available on a MIDI Expander are selected by MIDI-stops on the organ console, and these MIDI-stops may be controlled in the same manner as pipe ranks, or electronic stops. The MIDI-stops will respond to the couplers, transposer, and expression pedals, in exactly the same way as other organ stops in the same division, i.e., they are fully integrated into the organ so that the organist need not be aware that they are generated by a MIDI source. A MIDI-stop will send an “initialization” message to the Expander when the stop is turned ON, to select the desired voice (Program), adjust volume, etc. The contents of the “initialization” message are fully programmable for each MIDI-stop.

Using OrganAssistant, each MIDI-stop may be configured (differently on each memory level, if the organ’s Multi-MIDI function is On) by using the mouse to select parameter values.

Most Expanders available today will respond to all sixteen (16) MIDI channels, and so may allow up to sixteen different stop sounds to be generated at once. However, this may not be practical due to the limited polyphony (quantity of simultaneous notes) of the Expander. Most GS-MIDI type expanders are capable of at least 24 notes, and some may produce 64 notes or more.

A different MIDI channel should be assigned to each MIDI-stop. Then a synthesizer may produce sounds for several different stops, distinguishing between the stops by the channel number that each is sending on. (Channel-10 should be avoided as it produces a different percussive sound for each key if a GM or GS-compatible MIDI device is being used).

There can be up to 64 MIDI channels if all four MIDI expanders are connected. Each will handle sixteen consecutive channels (as programmed above) and these channels are translated automatically to 1-16 for each expander. Thus, Port-A handles 1-16, B has 17-32, C has 33-48 while D uses 49-64.

While all the parameters for up to ten MIDI stops can be observed at once, only those for one selected stop should be adjusted. The parameters as set by the organ controls are:

<table>
<thead>
<tr>
<th>Item:</th>
<th>Value:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIDI Channel number(^1) (A, B, C, D)</td>
<td>1–16, 17–32, 33–48 or 49–64</td>
</tr>
<tr>
<td>Program Number(^2) to select voice</td>
<td>1–128</td>
</tr>
<tr>
<td>Volume</td>
<td>0–127</td>
</tr>
<tr>
<td>Pan (left-right)</td>
<td>0–127</td>
</tr>
<tr>
<td>Modulation (tremolo)</td>
<td>0–127</td>
</tr>
<tr>
<td>Expression (if not via swell shoe)</td>
<td>0–127</td>
</tr>
<tr>
<td>Velocity sent with notes.</td>
<td>0–127</td>
</tr>
<tr>
<td>Expression range(^3)</td>
<td>0–127</td>
</tr>
<tr>
<td>MIDI Controller used by expression</td>
<td>0–127</td>
</tr>
<tr>
<td>Transpose (by semitones)</td>
<td>−24 to +32</td>
</tr>
<tr>
<td>Low Key</td>
<td>1–High Key</td>
</tr>
<tr>
<td>High Key</td>
<td>Low Key–85</td>
</tr>
<tr>
<td>GS-MIDI Bank Select MSB</td>
<td>0–127</td>
</tr>
<tr>
<td>GS-MIDI Bank Select LSB</td>
<td>0–127</td>
</tr>
<tr>
<td>Velocity Enable(^4)</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>
There are some differences between the parameters as above and the Organ Assistant screen:

1. MIDI Channel numbers A-D are actually Ports 1-4.
2. Program Number is a Patch Number.
3. Expression range has two settings, Minimum and Maximum, typically 50-127.
4. Velocity Enable 0 or 1 is selected via a tick-box.

MIDI Channels should be set as 1-64. Each block of 16 then comes out of a different port.

**Editing MIDI Stops with Organ Assistant™**

Select **MIDI-Stop Editor/Librarian**

Pick a MIDI-stop memory level.

To select a MIDI-Stop Level greater than 1, turn on Multi-MIDI on the organ and change “Combo Memory Level” so that the MIDI memory tracks the Combination Action Memory level.

The Editing screen will come up for that MIDI-stop level. The various menu items are:

Choose from the File Menu:

- Open Memory Bank File (Ctrl+O)
- Save Memory Bank File (Ctrl+S)
- Save Memory Bank File As
- **Load Memory Bank from Organ** (Ctrl+L)
- Write Memory Bank to Organ (Ctrl+W)
- Exit.

From the Edit Menu:

- Copy MIDI Tab (Ctrl+C)
- Paste MIDI Tab (Ctrl+V)

View Menu:

- Quick Reference (Ctrl+Q)

Options Menu:

- MIDI I/O Setup (Ctrl+M)
- MIDI Port Devices (Ctrl+D)
- Shoe Names (Ctrl+N)

Select “File, Load Memory Bank from Organ” (or use the “Keyboard” icon) and the following type of MIDI stop data will be displayed:
The various icons at the upper left duplicate those found under the File Menu:
1. Open Memory Bank File
2. Save Memory Bank File
3. Load Memory Bank from Organ
4. Save Memory Bank to Organ
5. Copy a MIDI Tab’s settings
6. Paste/Write a MIDI Tab’s settings
7. Set up MIDI Input and Output devices.
8. Choose MIDI devices attached to up to four ports
9. Configure the Names of the organ shoes.

If there are more than 10 MIDI stops, then the upper-right icons will select more screens. If fewer, there will be columns only for those present. Tab names (under Tab#) will be read from the organ.

In each of the value fields (rectangular boxes containing numbers), you can manually enter a value, or you can use the up and down arrows. The selected stop’s Tab# will become white.

The “Patch Names” value is chosen through a pull-down choice box. The patches are shown by name (as the diagram shows) rather than by number as in the organ setup system. Velocity Mode pull-down shows the expression shoe names while Expression Control offers the choice of Volume or Expression.

The “Pan” control can also be modified through the slider control at the bottom. A value of 64 is the “Middle”, while “Fully Left” is 0, and “Fully Right” is 127.
How to Make Changes to MIDI Stops

Before starting, verify the following:
1. That the MIDI device is ON and connected to the Organ.
2. Ensure that only the one MIDI stop to be adjusted is turned on!

Then:
1. Modify the on-screen settings for the one MIDI stop selected.
2. Click on the “Preview” toolbar item, use Control-P, or “File > Preview Settings”.
3. Play notes on the keyboard (within the low and high keys specified).

You should hear the modified sound. If satisfied, turn off the MIDI stop and select another.

The same kind of procedure also applies to MIDI Traps and Effects. Operate the control and adjust values while it is held on or played repeatedly.

GM-MIDI does not use any banks. Set both “gsmidi msb” and “gsmidi lsb” to zero ‘0’.

Making changes permanent

When you are satisfied with the sound settings for a particular memory level, you can make them permanent by using the “Write Settings Permanently” toolbar item (looks like a lightning bolt), the “File > Write Settings” menubar item, or the Control-W shortcut, to send their new data to the organ:

The program requests the memory level to which you wish to send data.

Any time you want to change memory levels or exit the program, you will be asked whether you want to make the changes permanent or not.

If you do not wish to hear the sounds, you can change as many parameters as you wish for any MIDI stops on-screen and upload the lot at once.

Note that Multi-MIDI should be On (linked) otherwise there will be only one level of MIDI stops as found on organ Memory Level #1. If this box is deselected, the Combo Memory Level will become active and the MIDI-Stop values can be different on each Combo memory level.

The settings are saved to the organ EEPROM and will be remembered even though the organ power may be removed.

The following two tables show the standard GS-MIDI sounds generally available on any normal MIDI sound generator. Most custom generators also include these sounds but will probably have their own sounds available in different banks which must be set using “gsmidi msb” and “gsmidi lsb”. Refer to the appropriate generator manuals for further details.
General MIDI Standard Presets

The following are Program numbers (Patches) for standard sounds available in any GS-MIDI Expander * on Channels 1-9, 11-16, of Bank-0, which may be connected to the organ.

<table>
<thead>
<tr>
<th></th>
<th>Acoustic Piano</th>
<th>33</th>
<th>Acoustic Bass</th>
<th>65</th>
<th>Soprano Sax</th>
<th>97</th>
<th>Synth FX 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Bright Piano</td>
<td>34</td>
<td>Electric bass (finger)</td>
<td>66</td>
<td>Alto Sax</td>
<td>98</td>
<td>Synth FX 2</td>
</tr>
<tr>
<td>3</td>
<td>Electric Piano</td>
<td>35</td>
<td>Electric bass (pick)</td>
<td>67</td>
<td>Tenor Sax</td>
<td>99</td>
<td>Synth FX 3</td>
</tr>
<tr>
<td>4</td>
<td>Honky tonk piano</td>
<td>36</td>
<td>Fretless bass</td>
<td>68</td>
<td>Baritone Sax</td>
<td>100</td>
<td>Synth FX 4</td>
</tr>
<tr>
<td>5</td>
<td>Rhodes piano</td>
<td>37</td>
<td>Slap bass 1</td>
<td>69</td>
<td>Oboe</td>
<td>101</td>
<td>Synth FX 5</td>
</tr>
<tr>
<td>6</td>
<td>Chorus piano</td>
<td>38</td>
<td>Slap bass 2</td>
<td>70</td>
<td>English Horn</td>
<td>102</td>
<td>Synth FX 6</td>
</tr>
<tr>
<td>7</td>
<td>Harpsichord</td>
<td>39</td>
<td>Synth bass 1</td>
<td>71</td>
<td>Bassoon</td>
<td>103</td>
<td>Synth FX 7</td>
</tr>
<tr>
<td>8</td>
<td>Clavinet</td>
<td>40</td>
<td>Synth bass 2</td>
<td>72</td>
<td>Clarinet</td>
<td>104</td>
<td>Synth FX 8</td>
</tr>
<tr>
<td>9</td>
<td>Celesta</td>
<td>41</td>
<td>Violin</td>
<td>73</td>
<td>Piccolo</td>
<td>105</td>
<td>Sitar</td>
</tr>
<tr>
<td>10</td>
<td>Glockenspiel</td>
<td>42</td>
<td>Viola</td>
<td>74</td>
<td>Flute</td>
<td>106</td>
<td>Banjo</td>
</tr>
<tr>
<td>11</td>
<td>Music Box</td>
<td>43</td>
<td>Cello</td>
<td>75</td>
<td>Recorder</td>
<td>107</td>
<td>Shamisen</td>
</tr>
<tr>
<td>12</td>
<td>Vibraphone</td>
<td>44</td>
<td>Contra Bass</td>
<td>76</td>
<td>Pan Flute</td>
<td>108</td>
<td>Koto</td>
</tr>
<tr>
<td>13</td>
<td>Marimba</td>
<td>45</td>
<td>Tremolo Strings</td>
<td>77</td>
<td>Blown Bottle</td>
<td>109</td>
<td>Kalimba</td>
</tr>
<tr>
<td>14</td>
<td>Xylophone</td>
<td>46</td>
<td>Pizzicato Strings</td>
<td>78</td>
<td>Shakuhachi</td>
<td>110</td>
<td>Bag Pipe</td>
</tr>
<tr>
<td>15</td>
<td>Tubular bells</td>
<td>47</td>
<td>Orchestral Harp</td>
<td>79</td>
<td>Whistle</td>
<td>111</td>
<td>Fiddle</td>
</tr>
<tr>
<td>16</td>
<td>Dulcimer</td>
<td>48</td>
<td>Tympani</td>
<td>80</td>
<td>Ocarina</td>
<td>112</td>
<td>Shanai</td>
</tr>
<tr>
<td>17</td>
<td>Hammond Organ</td>
<td>49</td>
<td>String Ensemble 1</td>
<td>81</td>
<td>Synth Lead 1</td>
<td>113</td>
<td>Tinkle Bell</td>
</tr>
<tr>
<td>18</td>
<td>Percussive Organ</td>
<td>50</td>
<td>String Ensemble 2</td>
<td>82</td>
<td>Synth Lead 2</td>
<td>114</td>
<td>Agogo Bells</td>
</tr>
<tr>
<td>19</td>
<td>Rock Organ</td>
<td>51</td>
<td>Synth Strings 1</td>
<td>83</td>
<td>Synth Lead 3</td>
<td>115</td>
<td>Steel Drum</td>
</tr>
<tr>
<td>20</td>
<td>Church Organ</td>
<td>52</td>
<td>Synth Strings 2</td>
<td>84</td>
<td>Synth Lead 4</td>
<td>116</td>
<td>Woodblock</td>
</tr>
<tr>
<td>21</td>
<td>Reed organ</td>
<td>53</td>
<td>Choir Aahs</td>
<td>85</td>
<td>Synth Lead 5</td>
<td>117</td>
<td>Taiko Drum</td>
</tr>
<tr>
<td>22</td>
<td>Accordion</td>
<td>54</td>
<td>Voice Ooohs</td>
<td>86</td>
<td>Synth Lead 6</td>
<td>118</td>
<td>Melodic Drum</td>
</tr>
<tr>
<td>23</td>
<td>Harmonica</td>
<td>55</td>
<td>Synth voice</td>
<td>87</td>
<td>Synth Lead 7</td>
<td>119</td>
<td>Synth Drum</td>
</tr>
<tr>
<td>24</td>
<td>Tango Accordion</td>
<td>56</td>
<td>Orchestra Hit</td>
<td>88</td>
<td>Synth Lead 8</td>
<td>120</td>
<td>Reverse Cymbal</td>
</tr>
<tr>
<td>25</td>
<td>Nylon string guitar</td>
<td>57</td>
<td>Trumpet</td>
<td>89</td>
<td>Synth Pad 1</td>
<td>121</td>
<td>Guitar Fret Noise</td>
</tr>
<tr>
<td>26</td>
<td>Steel string guitar</td>
<td>58</td>
<td>Trombone</td>
<td>90</td>
<td>Synth Pad 2</td>
<td>122</td>
<td>Breath Noise</td>
</tr>
<tr>
<td>27</td>
<td>Electric Guitar (jazz)</td>
<td>59</td>
<td>Tuba</td>
<td>91</td>
<td>Synth Pad 3</td>
<td>123</td>
<td>Seashore</td>
</tr>
<tr>
<td>28</td>
<td>Electric Guitar (clean)</td>
<td>60</td>
<td>Muted Trumpet</td>
<td>92</td>
<td>Synth Pad 4</td>
<td>124</td>
<td>Bird Tweet</td>
</tr>
<tr>
<td>29</td>
<td>Electric Guitar (mute)</td>
<td>61</td>
<td>French Horn</td>
<td>93</td>
<td>Synth Pad 5</td>
<td>125</td>
<td>Telephone Ring</td>
</tr>
<tr>
<td>30</td>
<td>Overdriven Guitar</td>
<td>62</td>
<td>Brass Section</td>
<td>94</td>
<td>Synth Pad 6</td>
<td>126</td>
<td>Helicopter</td>
</tr>
<tr>
<td>31</td>
<td>Distorted Guitar</td>
<td>63</td>
<td>Synthbrass 1</td>
<td>95</td>
<td>Synth Pad 7</td>
<td>127</td>
<td>Applause</td>
</tr>
<tr>
<td>32</td>
<td>Guitar Harmonics</td>
<td>64</td>
<td>Synthbrass 2</td>
<td>96</td>
<td>Synth Pad 8</td>
<td>128</td>
<td>Gunshot</td>
</tr>
</tbody>
</table>

If you are setting MIDI stops at the organ, then these numbers must be used. When setting via OrganAssistant, their names are used (as found in a list in the “coadata” directory. If adding these to a file, the numbers start at 0. See adding Port Devices, below).

Note: * These voices may not be exactly as described on all makes of expander.

Similar GM-MIDI voices are grouped in blocks of 8. For example, all the woodwind reeds are in 65-72.
General MIDI Effects Presets

The following are standard Drum and Percussion sounds, which are available on GM-MIDI sound generators on MIDI Channel 10. On this channel only, each key produces a unique sound effect. To access these, set a MIDI-stop to Channel 10 using Set-up Mode #20. (See Organist’s Reference Manual, Section 4.13.)

<table>
<thead>
<tr>
<th>MIDI #</th>
<th>Note #</th>
<th>Key Name</th>
<th>Sound Effect Name</th>
<th>MIDI #</th>
<th>Note #</th>
<th>Key Name</th>
<th>Sound Effect Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>0</td>
<td>B</td>
<td>Acoustic Bass Drum *</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>1</td>
<td>C</td>
<td>Bass Drum 1</td>
<td>60</td>
<td>25</td>
<td>C</td>
<td>Hi Bongo</td>
</tr>
<tr>
<td>37</td>
<td>2</td>
<td>C#</td>
<td>Side Stick</td>
<td>61</td>
<td>26</td>
<td>C#</td>
<td>Low Bongo</td>
</tr>
<tr>
<td>38</td>
<td>3</td>
<td>D</td>
<td>Acoustic Snare</td>
<td>62</td>
<td>27</td>
<td>D</td>
<td>Mute Hi Conga</td>
</tr>
<tr>
<td>39</td>
<td>4</td>
<td>D#</td>
<td>Hand Clap</td>
<td>63</td>
<td>28</td>
<td>D#</td>
<td>Open Hi Conga</td>
</tr>
<tr>
<td>40</td>
<td>5</td>
<td>E</td>
<td>Electric Snare</td>
<td>64</td>
<td>29</td>
<td>E</td>
<td>Low Conga</td>
</tr>
<tr>
<td>41</td>
<td>6</td>
<td>F</td>
<td>Low floor Tom</td>
<td>65</td>
<td>30</td>
<td>F</td>
<td>High Timbale</td>
</tr>
<tr>
<td>42</td>
<td>7</td>
<td>F#</td>
<td>Closed Hi Hat</td>
<td>66</td>
<td>31</td>
<td>F#</td>
<td>Low Timbale</td>
</tr>
<tr>
<td>43</td>
<td>8</td>
<td>G</td>
<td>High floor Tom</td>
<td>67</td>
<td>32</td>
<td>G</td>
<td>High Agogo</td>
</tr>
<tr>
<td>44</td>
<td>9</td>
<td>G#</td>
<td>Pedal Hi Hat</td>
<td>68</td>
<td>33</td>
<td>G#</td>
<td>Low Agogo</td>
</tr>
<tr>
<td>45</td>
<td>10</td>
<td>A</td>
<td>Low Tom</td>
<td>69</td>
<td>34</td>
<td>A</td>
<td>Cabasa</td>
</tr>
<tr>
<td>46</td>
<td>11</td>
<td>A#</td>
<td>Open Hi Hat</td>
<td>70</td>
<td>35</td>
<td>A#</td>
<td>Maracas</td>
</tr>
<tr>
<td>47</td>
<td>12</td>
<td>B</td>
<td>Low mid Tom</td>
<td>71</td>
<td>36</td>
<td>B</td>
<td>Short Whistle</td>
</tr>
<tr>
<td>48</td>
<td>13</td>
<td>C</td>
<td>High mid Tom</td>
<td>72</td>
<td>37</td>
<td>C</td>
<td>Long Whistle</td>
</tr>
<tr>
<td>49</td>
<td>14</td>
<td>C#</td>
<td>Crash Cymbal 1</td>
<td>73</td>
<td>38</td>
<td>C#</td>
<td>Short Guiro</td>
</tr>
<tr>
<td>50</td>
<td>15</td>
<td>D</td>
<td>High Tom</td>
<td>74</td>
<td>39</td>
<td>D</td>
<td>Long Guiro</td>
</tr>
<tr>
<td>51</td>
<td>16</td>
<td>D#</td>
<td>Ride Cymbal 1</td>
<td>75</td>
<td>40</td>
<td>D#</td>
<td>Claves</td>
</tr>
<tr>
<td>52</td>
<td>17</td>
<td>E</td>
<td>Chinese Cymbal</td>
<td>76</td>
<td>41</td>
<td>E</td>
<td>Hi Wood Block</td>
</tr>
<tr>
<td>53</td>
<td>18</td>
<td>F</td>
<td>Ride Bell</td>
<td>77</td>
<td>42</td>
<td>F</td>
<td>Low Wood Block</td>
</tr>
<tr>
<td>54</td>
<td>19</td>
<td>F#</td>
<td>Tambourine</td>
<td>78</td>
<td>43</td>
<td>F#</td>
<td>Mute Cuica</td>
</tr>
<tr>
<td>55</td>
<td>20</td>
<td>G</td>
<td>Splash Cymbal</td>
<td>79</td>
<td>44</td>
<td>G</td>
<td>Open Cuica</td>
</tr>
<tr>
<td>56</td>
<td>21</td>
<td>G#</td>
<td>Cowbell</td>
<td>80</td>
<td>45</td>
<td>G#</td>
<td>Mute Triangle</td>
</tr>
<tr>
<td>57</td>
<td>22</td>
<td>A</td>
<td>Crash Cymbal 2</td>
<td>81</td>
<td>46</td>
<td>A</td>
<td>Open Triangle</td>
</tr>
<tr>
<td>58</td>
<td>23</td>
<td>A#</td>
<td>VibraSlap</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>24</td>
<td>B</td>
<td>Ride Cymbal 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * To access MIDI #35 (which is below the bottom key on the keyboard) transpose down one octave and play low ‘B’. This voice may not be available on all expanders.

Note: Some expanders may have additional sounds above and below these note numbers.
Using Port Devices

As this system allows the MIDI stop to be pre-determined before uploading the data to the organ, it follows that the various patch names and other parameters must be stored in Organ Assistant and relate to specific sound generators only. These definitions are loaded from reference files.

Choosing which MIDI device is hooked up to which MIDI port is done through the “Options > MIDI Port Devices” menu bar item.

The devices specified in the “OrganAssistant.ini” file in the Classic OrganAssistant installation “coadata” directory can be chosen here. Highlight the MIDI device to be connected to each active port.

Adding Port Devices

By default, only a few types of MIDI devices are listed. This section describes how to add your own MIDI device.

Open the file “OrganAssistant.ini” with a text editor and find the section “[Device List]”. This file describes the available MIDI devices that show up in the pull-down box.

```
[Device List]
Device1=General MIDI,genmidi.txt
Device2=Korg 01/W Bank A,korga.txt
Device3=Korg 01/W Bank B,korgb.txt
Device4=Proteus 1,prot1.txt
Device5=Undefined,undefined.txt
```

You can add another device list in the following manner:

1. Add another line to the list. For example, suppose your new device is called “My New Device” and its patch name list will be stored in a file called “newdevice.txt”.

   ```
   Device6=My New Device,newdevice.txt
   ```

2. Create the file “newdevice.txt” in the Classic OrganAssistant install directory. The file will contain a list of patch names that can be found in the manual for the device. For example, in the “genmidi.txt” file used for the “General MIDI” patch list, the first few lines of the file are:

   Acoustic Piano
   Bright Piano
   Electric Piano
   Honky Tonk Piano
   ...

There should be a different patch name on each line of this file. The first patch is for program number 0. The second patch is for program number 1, and so on. Whatever is included in this file will turn up in the drop-down boxes for the Patch so you could add reference numbers if you wish. The sound you get is determined by the line position in the list. There should be a basic file full of numbers (0-127) in the directory which can be copied as a starting point. You could, if you wish, use the file with numbers instead of names. Note that the Patch numbers in the General MIDI Standard Presets reference table start at 1, not 0, as this is how they are set from the organ’s controls.

As there is no provision in the Setup screen for a choice of banks, you could have a different device and filenames for each bank and include the Bank Number in the Device Name. (an example above is Proteus 1).

You can, of course, set a different bank in the Edit Organ MIDI-Stop screen for any stop but the sound you get may differ from the name in the drop-down box.

**Expression Shoe Names**

Names of the shoes of an organ can be modified through the “Options > Shoe Names” menu bar item. By default the names of the shoes are:

Shoe 1: Swell  
Shoe 2: Choir  
Shoe 3: Shoe #3  
Shoe 4: Shoe #4  
Shoe 5: Crescendo

Modify the names by typing in the dialog boxes. Click on “OK” and then on “Write Memory Bank to the Organ” under the File Menu.

These names are kept in a file in the “coadata” directory.
3. Editing Soft-Switches

Organ Assistant provides a quick way to check on the states of all the soft-switches in the organ.

Run Organ Assistant™ and pick Organ Soft-Switch Manager. A screen like the following will appear:

![Connection Status](image1)

It will be followed by this one:

![OrganAssistant - Organ Soft Switch...](image2)

The various designations are taken directly from the organ firmware.

You can check the state of all 96 soft-switches but you cannot change any of them here. To do that you must change them from the organ. Refer to Sections 8.02 and 8.03 in the Organist’s Reference Manual.

If you make such changes, they will not show in the list until it has been refreshed (click on the Download icon shown here or on “File, Load Settings from Organ”).

You can save the settings to a text file for reference by clicking on “File, Save Settings to a Text File”.

There are 96 possible soft-switches.
4. Editing Built-in Sequencer files

This feature is only of use if the console has the vacuum-fluorescent display that can show four 20-character lines of data. Seven-segment displays cannot display this information.

The sequencer MIDI files provide only a Song number for titles. Organ Assistant lets these be renamed with up to 20 characters. It also allows MIDI files to be downloaded for editing and uploaded again.

Select Organ Sequencer Companion

The choices are:

1. **Upload MIDI File to Organ** – Organ Assistant allows you to upload the built-in sequencer’s files in MIDI format (type-0, single track) after editing by commercial software such as Cakewalk™. You have the choice of uploading the proprietary CCC-format file (.CCC) or a standard MIDI file (.MID). If the file was downloaded from the organ it will have been saved in both formats and the suffix will show either .CCC or .MID on just a single filename. Only .MID files can be edited with commercial software. Use the .CCC-format file if all you are doing is to rearrange the song list. If the file is just a MIDI file (.MID) it will be converted to a .CCC file for the sequencer during the upload. The window shows the lowest song number available but you can specify another one. If a full position is given, it will say that the slot is taken, and you will not be able to overwrite it. If OK clicked, the file will be uploaded and the list refreshed to show the current state. The organ display will show the song just uploaded as the current one.

2. **Download Performance from Organ** – performance files are MIDI files. Selecting this button dumps the file to the PC and asks for a place and name to save it. The file is saved as two separate files with different suffixes (.CCC and .MID) although it appears to have only the .MID suffix. You could then edit it in the .MID format using a program such as Cakewalk that can save it as a .MID file. .CCC files are unique to OrganAssistant and would be used only if re-arranging the play list.

3. **Rename Performance** – allows you to rename any one file in the list. When OK clicked, it sends the revised list to the organ (which takes a few seconds) and the list displayed is refreshed to include the new name.

4. **Refresh List** – updates the list of songs.
Editing Sequencer MIDI Files:

**Select the Download option.** It will download the filenames from the organ. Only those with any content will be shown as numbered lines in a list. Each one should also have been named as “Song ##”, but may simply be blank (or have had names added previously). Choose one of the songs, and pick a destination and a file name. The default filename will be that shown in the list (if any). The file is saved to the PC in two forms: As a MIDI file (suffix .MID) and as a proprietary-format file (suffix .CCC). Only one such file name will be shown on the screen according to the type chosen in the window.

Note that the filename should not exceed 20 characters if you intend to later upload the same name to the song list. The standard Windows characters are accepted and any non-standard ones will be stripped out. Do not start the name with a number.

Edit the MIDI-format file with some suitable software such as Cakewalk™ and save it as a .MID file.

Note that you cannot edit a .CCC-format file with commercial programs.

**Tip:** If you intend to change channels numbers throughout the file, do each one in several steps. First change one lot to a number well away from anything existing (or even a letter combination), then the next lot to a different number, etc. Finally, change these numbers one lot at a time to what they should be. If you try to change numbers in one step you run the risk of duplicating channels because some will already be numbered with wanted numbers and you will not then be able to differentiate them from the new numbers.

**Select the Upload option** and choose a MIDI file to upload. It will be a .MID file if it has been edited. Only Type-0 MIDI files are supported (single track).

You will be presented with the number of the first empty slot in the sequencer memory to which you can save the file, but can change to another empty one. You will not be able to save to one with any content. You could erase a used one if need be (by using the built-in sequencer’s Erase commands).

Click on OK to save with the current filename (having a .MID suffix) or rename it first (with a maximum of 20 characters). The file will be written to the flash memory and given the name of the file in the song list. The organ display will change to File Mode and show this information and the Song number will become current in the display.

A proprietary .CCC file will be saved unchanged but a .MID file will be converted to the .CCC format. Any non-standard characters in the filename will be stripped out.

You can upload a .CCC file in the same manner but, as this will not have been edited, the only reason for doing so is to save it to a new location if you want to rearrange a card’s contents or as an alternative way to rename it.

You can upload a MIDI file made on a different organ – it may not play properly if stops are not in the proper places and/or there are different quantities of keyboards and/or stops. But it may be usable, particularly if you select MIDI Registration Off on the organ when you play the file.
Renaming Flash Files:

Select Organ Sequencer Companion. This requests a connection and downloads a list of stored performances (songs) from the Flash card. It takes a few moments.

The window shows a list only of song numbers having a content and their names (if any) alongside. Default names are of the form “Song nn”. As empty slots do not show, they cannot be accessed.

Only those with any content will be shown as numbered lines in a list. Each one should also have been named as “Song ##”, but may simply be blank (or have had names added previously).

Select the Rename option.

Select a song to rename. Type a new name for that song and click on OK. You can only do one song at a time.

Note that the filename should not exceed 20 characters if you intend to later upload the same name to the song list. Standard Windows characters are accepted and any non-standard ones will be stripped out. Do not start the name with a number.
Select a song and click on **Download Performance from Organ**:

When all the data has been received the following type of screen will appear:

The list contains only those song numbers that have any content.

Select a song, #50 for example, click on “Rename Performance” and type in a new name with no more than 20 characters

Example: “Renamed Performance”:

Note: If you select Cancel, the song name will be sent as a blank line.

Click OK. The revised song list will be uploaded to the organ and the screen will be refreshed:
Note: The new names are not kept in the Flash memory card but in the organ’s EEPROM so will be meaningless if you change the card or move songs around (by playing and resaving). Erasing a song from Flash will erase a renamed title. The title will also change if a new song is recorded in that location or if it is renamed (you will have to refresh the list to see such changes).

You can always print the list from the computer (go to the pull-down File Menu), or save it (and give it a name).

The list file is a normal text file so can be edited on the computer. The filenames should not exceed 20 characters. Standard Windows characters are accepted and any non-standard ones will be stripped out.

Presently there are no facilities for uploading such a list back to the organ.

**Upload back to the organ.** The current song name/number will appear in the bottom line of the console display which will have changed to the File Mode screen. If not, enter File Mode (by the PAUSE control).
Help

The Organ Assistant Help Index allows you to find topics for further information:

If you cannot find what you want, further information can be obtained from Classic Organ Works by telephoning 1-888-812-9717 during normal business hours (Eastern Standard Time) or by e-mail to info@organworks.com.