MIDI Yoke Junction

Version 1.63

DRAFT: 01-20-01

Description

MIDI YOKE is a MIDI Patch Cable driver. It is a Windows (versions 3.1 through 95) multimedia driver. **MIDI YOKE** is used to connect any Windows MIDI Application outputs to any other Applications inputs. The MIDI data stream is passed directly from output to input -- Example:

[Sequencer *Out* **]==>[** *Out* **MIDI Yoke** *In* **]==>[** *In* **MIDI-OX** 32 **]**

Another:

[MIDI Keyboard *In*]**==>[***In* **MIDI-OX** *Out*]**==>[***Out* **MIDI Yoke** *In*]**==>[***In* **Sequencer]**

This allows you to connect the MIDI output from one program to the MIDI input of a different program. MIDI Yoke can be configured to provide a varying number of MIDI Ports (from 1 to 8). In addition, each port allows multiple opens of both input and outputs: up to 3 openings per port. This flexibility provides for almost any configuration imaginable.

MIDI Feedback

The powerful nature of MIDI Yoke requires that a bit of care be exercised in it's use: do not connect the outputs of one port to the same number inputs within a single application. If you do, it will cause MIDI feedback -- this phenomena will bring a computer to it's knees, and likely crash the system.

Version 1.50+ of MIDI Yoke attempts to detect MIDI feedback by any of 3 configurable methods. The first method was supported in previous versions: it simply sends an undefined controller number out the input port every so often (once every 50 messages). It looks at the output port to see if the controller shows up: if it does it assumes MIDI feedback and disables the driver. The second (new) method analyzes the rate of messages traveling through the driver. If they exceed a certain threshold (2048 messages per second by default), the driver assumes MIDI feedback and disables the driver. The third (new) method combines the previous two: it analyzes the data rate. If the rate exceeds the threshold, the driver sends an undefined controller out the input. If the controller shows up at the output, MIDI feedback is detected, and the driver is disabled.

To recover from any of these conditions, simply close all connections attached to both ends of the particular MIDI Yoke port. After that the port may be reopened (but common sense would dictate that you should configure the routing differently).

Re-installation

If you are re-installing MIDI Yoke, you need to first de-install and remove the existing driver via the Multimedia applet, Devices tab (Under Windows ME, the Multimedia applet is named "Sounds and Multimedia"): Select MIDI Yoke 1, and press **[Remove]**. After you have removed MIDI Yoke, you need to reboot the system – if you don't the existing driver will still be in memory and won't let you increase your ports. After reboot, follow the installation directions, and then reboot again.

Installation

Windows ME

Under Windows ME, install the MIDI Yoke Junction via the Control Panel '**Add New Hardware**' applet. After Windows forces an initial search, answer '**No, the device isn't in the list**' and press **[Next]**. On the next screen, press '**No, I want to select the hardware from a list**'. Press **[Next]**. Choose Sound, video and game controllers. Press **[Next]**. On the next screen press **[Have Disk...]**. Browse to the directory containing the installation files (MIDIYOKE.DRV and OEMSETUP.INF). Press OK...

During installation a configuration dialog is presented. The dialog allows you to specify the number of MIDI Yoke ports that should be enabled, and the Feedback detection desired. You can also change the controller number used to detect feedback. You can access this dialog later on too, once the driver is installed, and the machine restarted. To do so, open the Control Panel **Sounds and Multimedia** applet, choose the **Devices** tab, expand 'MIDI devices and Instruments', double-click on any of the MIDI Yoke port connections, and press Settings... You can also **Remove** the driver using this applet if need be.

Windows 95/98

Under Windows 95, install the MIDI Yoke Junction via the Control Panel '**Add New Hardware**' applet. Answer '**No**' to searching for hardware. Choose **Sound, video and game controllers**. Choose '**Have Disk**'. Browse to the directory containing the installation files (MIDIYOKE.DRV and OEMSETUP.INF). Press **OK**...

During installation a configuration dialog is presented. The dialog allows you to specify the number of MIDI Yoke ports that should be enabled, and the Feedback detection desired. You can also change the controller number used to detect feedback. You can access this dialog later on too, once the driver is installed, and the machine restarted. To do so, open the Control Panel **Multimedia** applet, choose the **Advanced** tab, expand 'MIDI devices and Instruments', double-click on any of the MIDI Yoke port connections, and press Settings... You can also **Remove** the driver using this applet if need be.

Windows 2000

Under Windows 2000, use the Control Panel **Add/Remove Hardware** to install MIDI Yoke NT. Click Next... Choose **(*) Add/Troubleshoot**. Click Next... Choose **Add a new Device.** Click Next... Choose **(*) No, I want to select the Hardware from a list.** Choose **Sound, Video and Game Controllers**. Click Next... Press **[Have Disk].** Browse to the directory containing the drivers (**myokent.dll** and **oemsetup.inf**). Select the **MIDI Yoke NT** driver from the list. Make sure you don't leave an expanded **MYOKENT.DLL** in your MIDI-OX directory: If Windows NT finds this file it attempts to load it instead of the system one, and anomalies result. It's perfectly okay to leave the compressed version in your MIDI-OX directory (**MYOKENT.DL_**)

Windows NT

Under Windows NT, use the Control Panel Multimedia Applet to install MIDI Yoke NT. Select the Advanced tab, highlight the **MIDI Devices and Instruments** section, and press **Add.** Choose **Unlisted or Updated driver**, and browse to the directory containing the drivers (**myokent.dll** and **oemsetup.inf**). Select the **MIDI Yoke NT** driver from the list. Make sure you don't leave an expanded **MYOKENT.DLL** in your MIDI-OX directory: If Windows NT finds this file it attempts to load it instead of the system one, and anomalies result. It's perfectly okay to leave the compressed version in your MIDI-OX directory (**MYOKENT.DL_**)

Windows 3.1

For Windows 3.1+ install the MIDI Yoke Junction via the Control Panel Drivers Applet. You can also access the settings dialog from this applet.

WARNING: There is a bug in Windows 95 that limits the total number of MIDI Ports to roughly 11. This total includes each MIDI Yoke port plus any other ports presented by other drivers, so set the number of MIDI Yoke ports such that the total number of MIDI ports is less than 11. If you exceed this amount it may prevent the driver from loading at bootup time.

Release Notes

1.63

The Windows 3.1/95/98/ME version of MIDI Yoke will now present up to 16 different input and output ports. Each port can be opened by to 4 applications at each end (input and output).

1.62

The driver has been renumbered to be different from the NT driver. In addition, the helper task (Myoke.tsk) is only loaded when at least one instance of MIDI Yoke has been opened by an application. It is removed from memory when the last instance closes.

1.55

This release of MIDI Yoke is another minor maintenance release: the driver has been altered to expand and fill in running status bytes before supplying MIDI messages to a client. The driver has been enhanced to unbuffer normal MIDI messages passed inside of a Windows long message buffer and supply them as individual short MIDI messages to a client. This is an unusual way to pass MIDI messages (as long messages in a buffer), but it is occasionally done (the MCI player under Windows NT 4.0, passes MIDI messages this way).

The MIDI Yoke NT drivers have been updated and are versioned as **1.56**, but they are still Beta drivers: there are still some known quirks associated with its use.

1.53

This release of MIDI Yoke is a minor maintenance release: a rare SyxEx bug has been fixed. This bug would only appear when the buffers supplied by the application on the input side, were smaller than the buffers on the output side of the driver.

1.52

This release of MIDI Yoke adds a MIDI Yoke Beta driver for Windows NT. Although the Interface and functionality of the NT version is very similar to the Windows 95/Windows 3.1 version, the underlying architecture is quite different. The multi-threaded nature of the NT driver seems to prevent detection of MIDI Feedback, but feedback does not lock up the machine either, as it can under Windows 95.

VENDOR INFORMATION

MIDI Yoke driver may not be re-distributed without obtaining prior written permission. Since MIDI Yoke is freeware, our only means of compensation will come from commercial distribution of it. We welcome any and all proposals from individuals or corporations that would like to commercially distribute MIDI Yoke along with their other products.

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DISCLAIMER

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