

# Re: virtual com port driver

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*Source:*

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- *From:* Walter Oney <[waltoney@xxxxxxxxxxxxx](mailto:waltoney@xxxxxxxxxxxxx)>
  - *Date:* Mon, 26 Nov 2007 09:01:37 -0400
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subhash wrote:

I am creating a virtual com port driver which is doesn't have any device attached to it. The purpose of this module is message passing to user space. But the applications should see this as a com port (actually multiple com ports). So I don't want any bus driver to be attached to it. I am confused, under which class I should install this device. How I will make my device object. Is it a root enumerated device.

First of all, your design goal (multiple COM ports) is not possible without a virtual bus device to enumerate the multiple ports or multiple (user-driven) installs of a root-enumerated device.

Second, "Ports" is the right class for a single port. "Multiport Serial Adapters" is the right class for a virtual bus that has "Ports" for children. You need a separate INF file for the port and for the multiport device. I usually have the multiport parent specify an instance id of the form "Port%2.2d", where the %2.2d gets replaced by the port number on the multiport board, in response to IRP\_MN\_QUERY\_ID. The corresponding device and hardware ids are of the form "MYBOARD\Port01", where "MYBOARD" is also the name of the driver I build. The port INF file lists all possible hardware ids in the model section with separate description strings. That's the simplest way I know to have the descriptions that appear in device manager correlate with the port numbers that will be apparent to the end user.

Third, being unloaded after AddDevice returns STATUS\_SUCCESS means you aren't getting any IRP\_MJ\_PNP requests. Check to be sure you cleared the DO\_DEVICE\_INITIALIZING flag in your DEVICE\_OBJECT and that you specified a dispatch routine for the PNP requests.

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