



Product Family: DL-205

Number: AN-D2-019

Subject: 205 Base I/O Addressing

Date Issued: 8-14-03

Revision: Original

This application note is to better help you understand how to properly address the I/O in any local 205 base where a CPU (230, 240, 250-1, 260) is the master. This will also include examples for the expansion bases that the 250-1 and 260 support.

D2-04TD1 DC Output

Outputs per module	4 (current sinking)
Output Points Consumed	8 points (only 1st 4 pts. used)
Commons per module	1 (4 I/O terminal points)
Operating voltage	10.2-26.4 VDC
Output type	NMOS FET (open drain)
Peak voltage	40 VDC
AC frequency	n/a
ON voltage drop	0.72 VDC maximum
Max load current (resistive)	4A / point 8A / common
Max leakage current	0.1mA @ 40 VDC
Max inrush current	6A for 100ms, 15A for 10 ms
Minimum load	50mA
Base power required 5v	60mA Max
OFF to ON response	1 ms
ON to OFF response	1 ms
Terminal type	Removable
Status indicators	Logic Side
Weight	2.8 oz. (80 g)
Fuses	4 (1 per point) (6.3A slow blow, replaceable) Order D2-FUSE-3, 5/pack

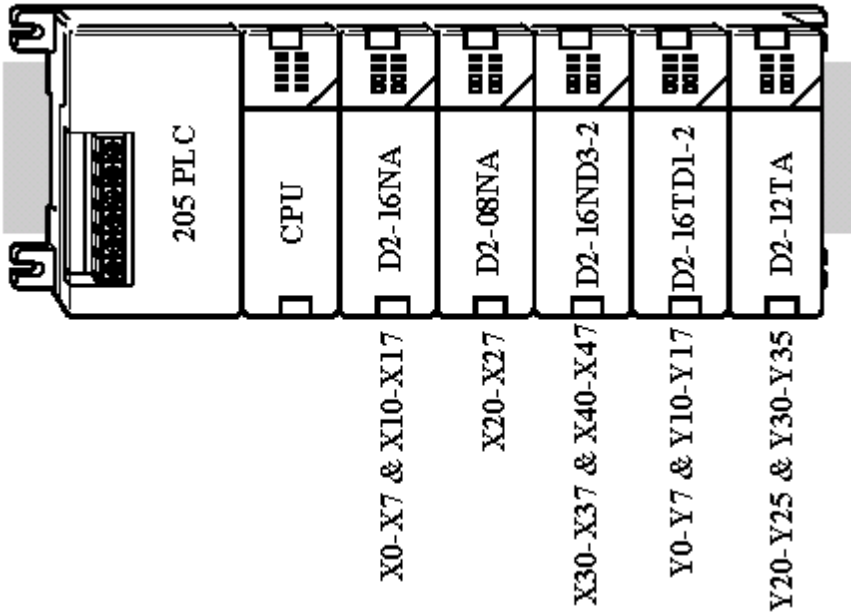
← You should acquire a D2-USER-M manual and/or D2-ANLG-M manual and check all specs and I/O consumption for all modules you plan to use. Here is an example of a spec for an I/O card.

You may choose to manually address your I/O, in the event that you do, please read all relevant documentation on restrictions. All cards under 16pt I/O will still consume 16pts, not 4, 8 or 12.

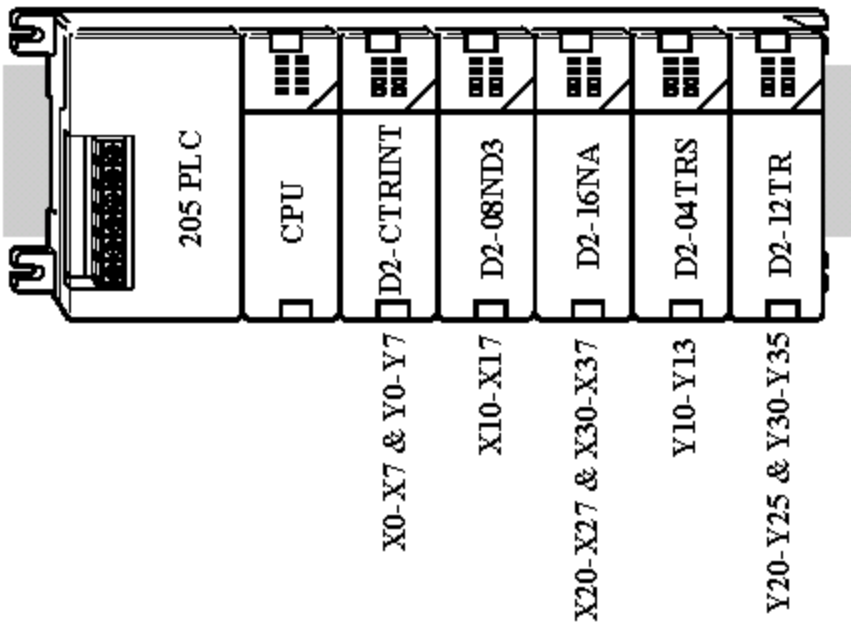


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In this example, note the first card is a D2-CTRINT card. This counter card MUST go in the first slot, and it does consume inputs and outputs.

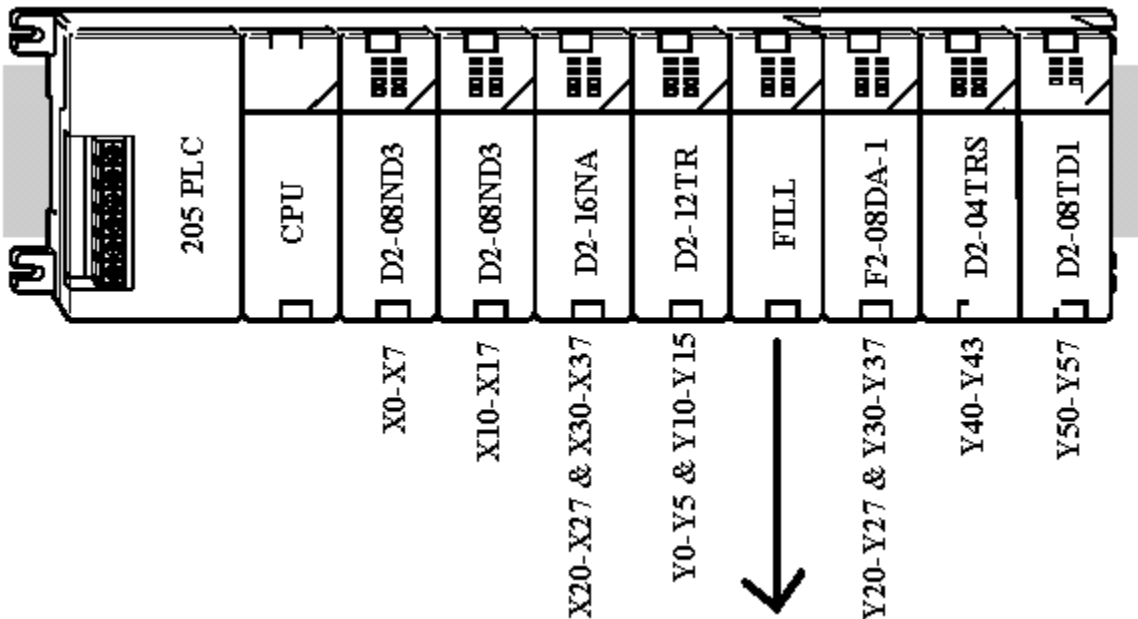




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In the example below, we used a 9 slot rack with discrete and analog. Analog cards are addressed to V memory, but they will still consume discrete IO points.



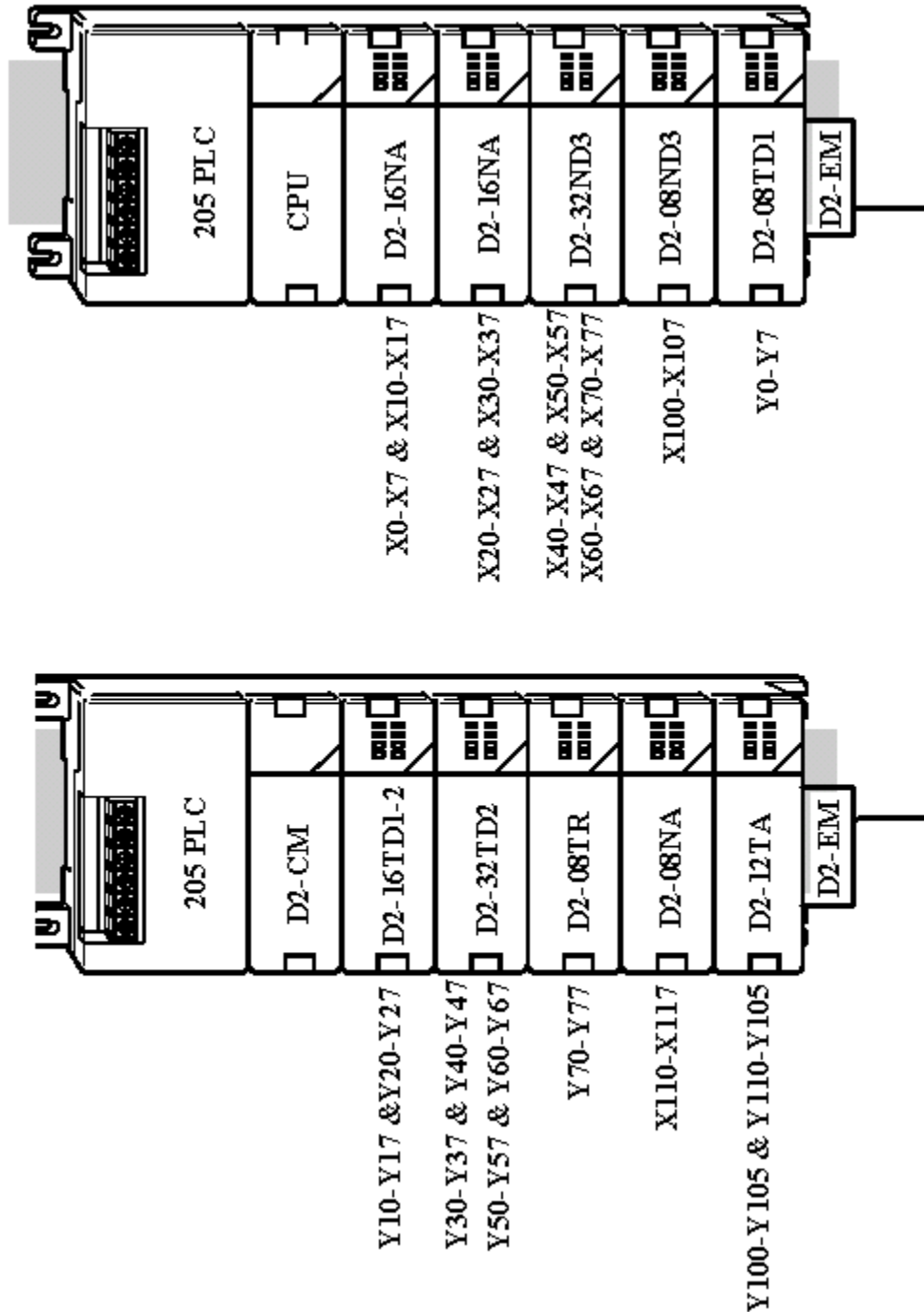
NOTE: Leaving a fill or blank in the middle of the rack can cause problems if you add a module later. It will cause your IO addressing to shift when the new module is added.



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In this example, we have an expansion rack (Only the new -1 bases and the 250-1 and 260 CPU can support expansion). The second rack picks up the I/O addressing where the first rack left off.

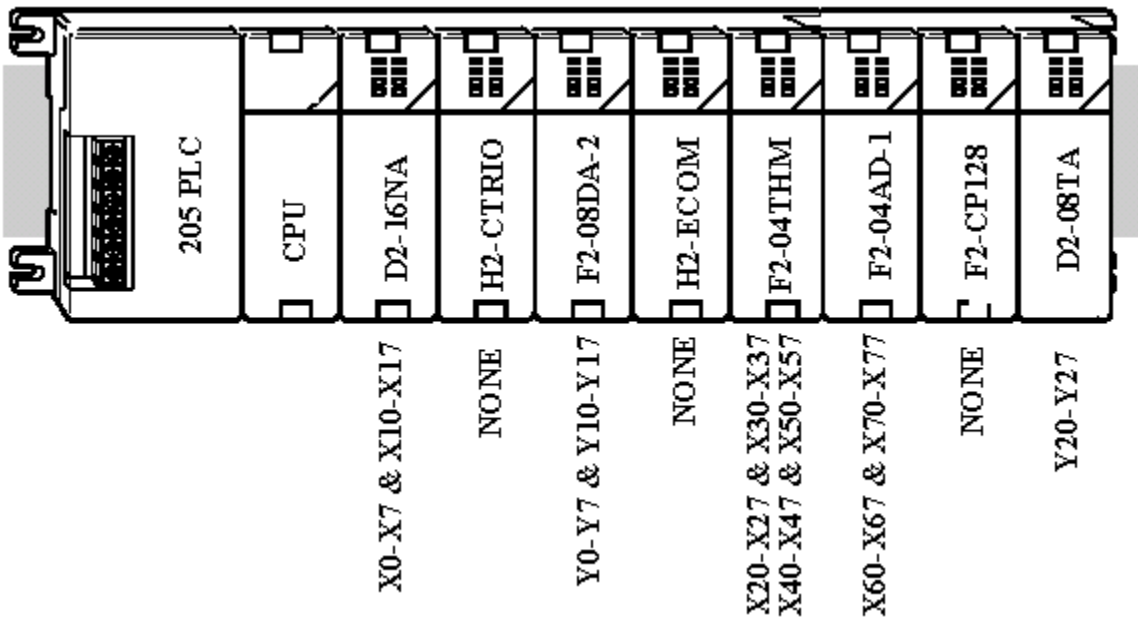




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In The example below, we used several ‘intelligent’ modules. As you can see, the intelligent modules do not consume any IO. The H2-CTRIO is a counter card, unlike the D2-CTRINT, the H2-CTRIO does NOT consume IO. Also if you notice where we put the analog output module, we could not use it after an 8pt discrete module since analog modules MUST fall on 16 point boundaries when using a D2-230 CPU. In this event, you will either need to put the analog first, or have 2 modules that add up to 16pts.



Technical

Assistance: If you have questions regarding this Application Note, please contact us at 770-844-4200 for further assistance.