INDUSTRIAL NETWORKING

www.industrialnetworking.net

I/O Modules

February 2014
Market Intelligence Report

Wireless

February 2014 Market Intelligence Report

Executive Summary

An electronic survey of *Industrial Networking* readers was conducted in February, 2014, in order to identify usage and application trends of **I/O modules** among the magazine's readership. Detailed survey results are presented on the pages that follow, with key findings summarized below:

- Survey respondents indicated their I/O systems are remote/distributed, but have some centralized (42%); centralized, but have some remote (31%); mostly or entirely centralized/rack-mounted (16%); and mostly or entirely remote/distributed (12%).

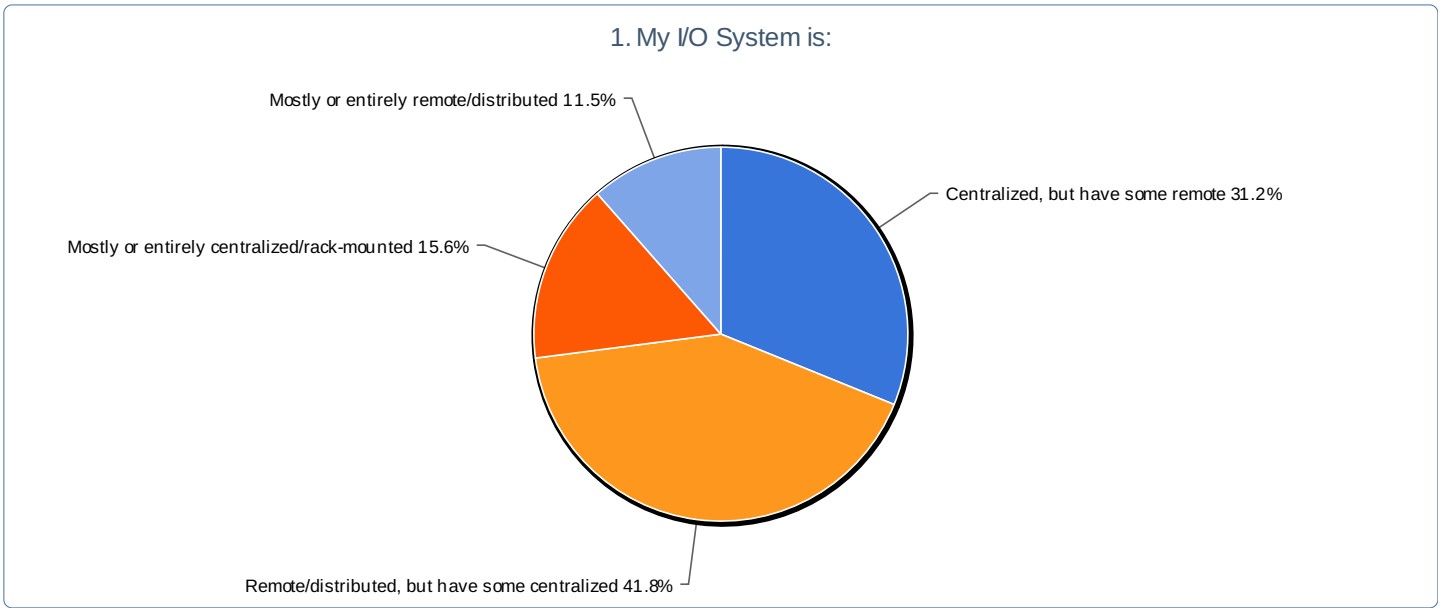
- The majority of respondent's I/O is DIN-rail mounted in enclosures (72%); followed by IP67 machine or open mount (7%) and intrinsically safe (a further 7%); housed in explosion-proof enclosures (6%); and IP20 machine or open mount (2%).

- Nearly 57% of respondents require digital signals; 43% require analog.

- When asked about their connectivity the majority of respondents connect with 4-20 mA (70%) and hard wiring (68%). Ethernet flavor (53%), Serial (40%), HART (38%) and Process Fieldbus (32%) rounded out the top 6 most used.

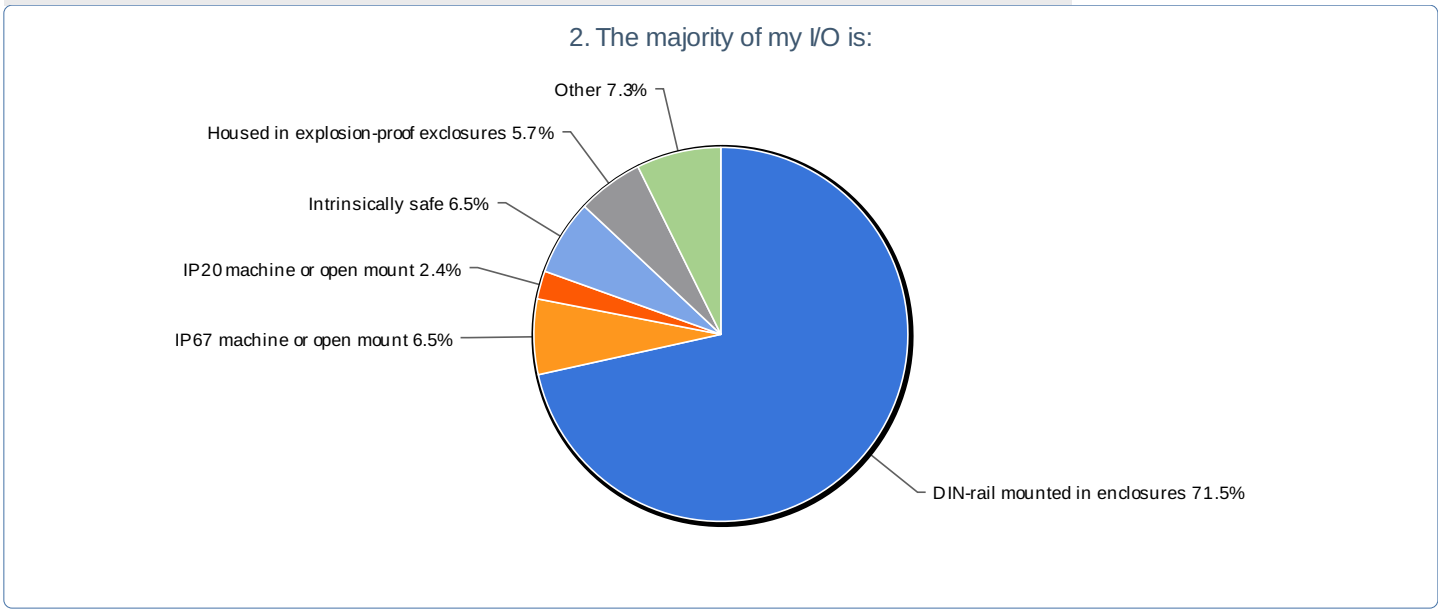
- When asked to evaluate the importance of I/O features, respondent's top 5 criteria that were ranked as "Extremely Important" or "Important" were ease of setup/installation, reliability, and diagnostic features, compatibility with existing systems and scalability. (see chart for full details)

- The majority of respondents indicated their controller platform was PLC (47%) and DCS (34%). The platforms that respondents are using the least are PC (7%), PAC (a further 7%), and Embedded (6%).



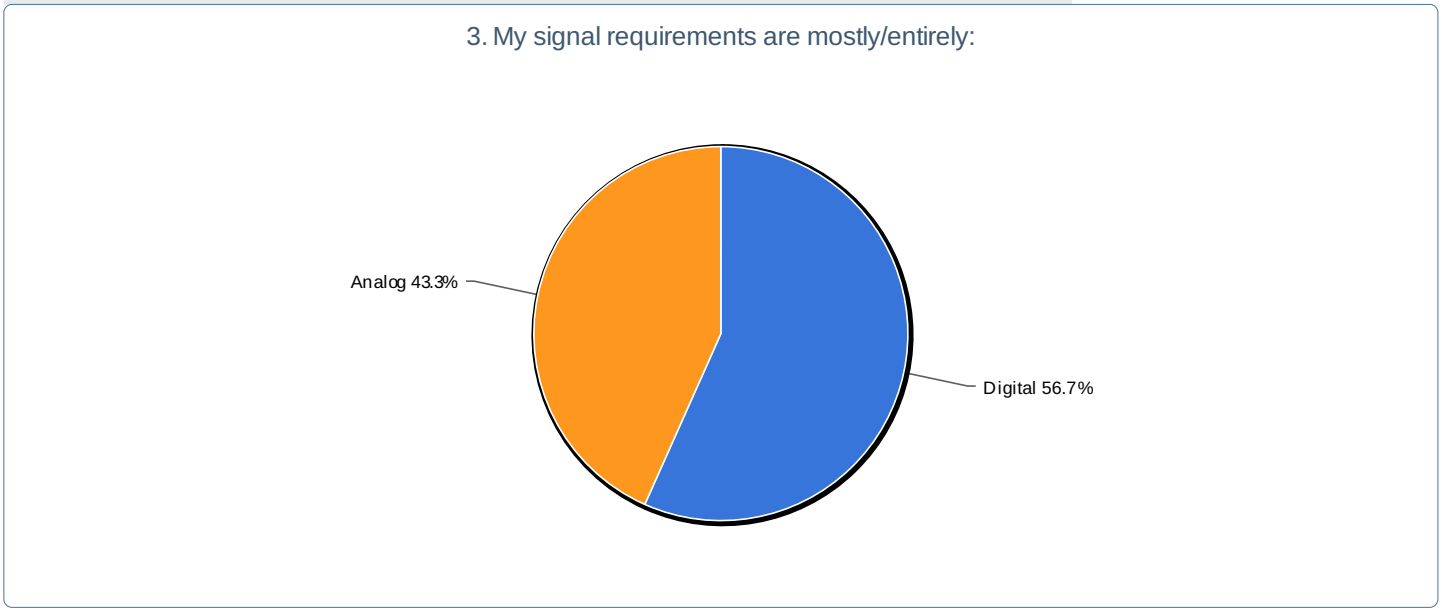
1. My I/O System is:

Value	Percent %
Centralized, but have some remote	31.2%
Remote/distributed, but have some centralized	41.8%
Mostly or entirely centralized/rack-mounted	15.6%
Mostly or entirely remote/distributed	11.5%



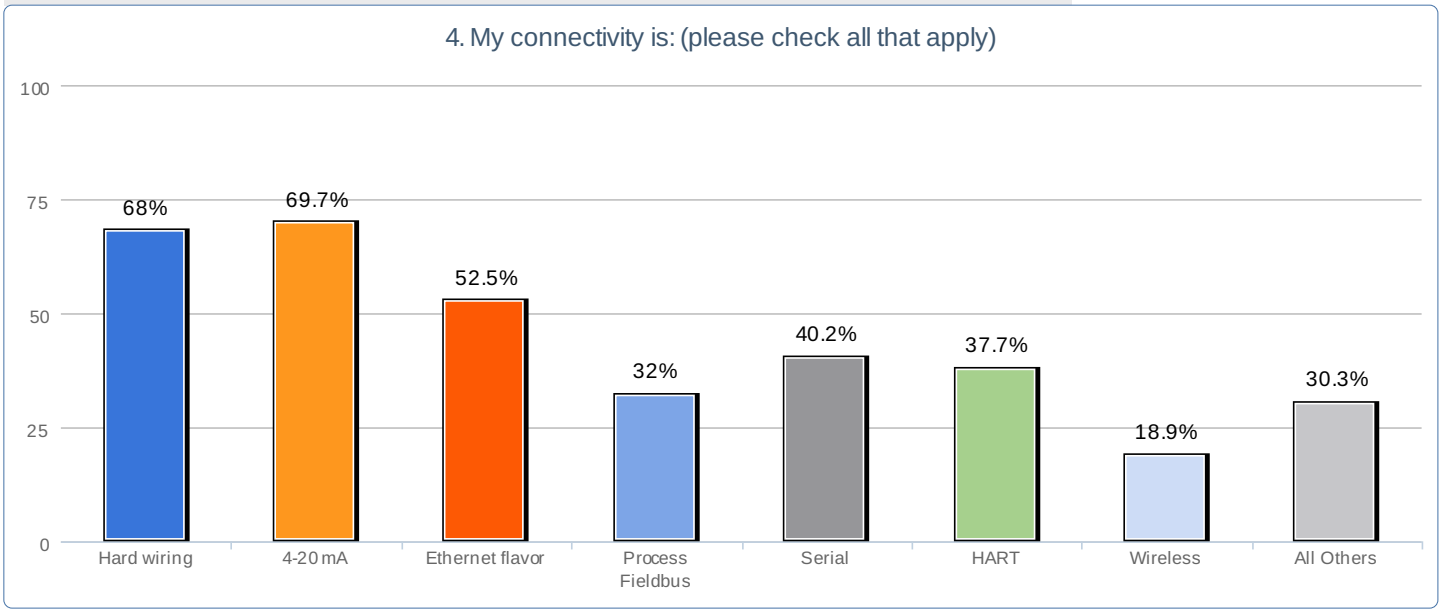
2. The majority of my I/O is:

Value	Percent %
DIN-rail mounted in enclosures	71.5%
IP67 machine or open mount	6.5%
IP20 machine or open mount	2.4%
Intrinsically safe	6.5%
Housed in explosion-proof exclosures	5.7%
Other	7.3%



3. My signal requirements are mostly/entirely:

Value	Percent %
Digital	56.7%
Analog	43.3%



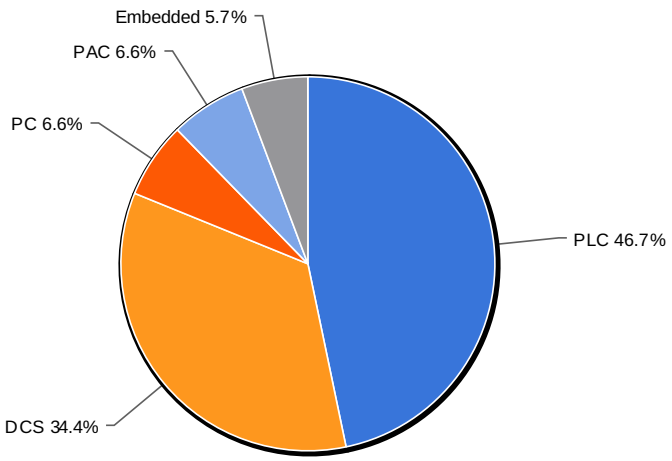
4. My connectivity is: (please check all that apply)

Value	Percent %
Hard wiring	68.0%
4-20 mA	69.7%
Ethernet flavor	52.5%
Process Fieldbus	32.0%
Serial	40.2%
HART	37.7%
Wireless	18.9%
Device-level digital networks	9.8%
WirelessHART	7.4%
ISA100.11a	4.1%
IEEE802.11a-n	4.9%
Other	4.1%

5. Rate the important of these features in your I/O choices:

	Always important	Sometimes important	Not important
Compatibility with existing systems	**78.7%**	**18.9%**	**3.3%**
Diagnostic features	**43.3%**	**55.8%**	**0.8%**
Ease of Setup/Installation	**66.1%**	**34.7%**	**0.0%**
Auto-Configuration/Automatic addressing	**38.3%**	**40.0%**	**21.7%**
Hot Swap	**36.4%**	**40.7%**	**24.6%**
Reliability	**91.7%**	**9.9%**	**0.0%**
Scalability	**53.8%**	**42.9%**	**4.2%**

6. My controller platform is:



6. My controller platform is:

Value	Percent %
PLC	46.7%
DCS	34.4%
PC	6.6%
PAC	6.6%
Embedded	5.7%