

UFGS

Specification Comments

Keith Beckstrom
Building Automation Team Leader
Automation and Control Solutions
Golden Valley, Minnesota

Specification Review Process

- Review team
 - Product Mgmt. - Controllers, Software, Valves, Sensors, Actuators
 - Engineering - Software, Workstations, Hardware, Systems Architecture
 - Sales
 - Marketing
- Review objective
 - Look for gaps, gray areas or problems that would lead to an unsuccessful installation of an open system
 - Identify unnecessary items that would drive up the delivered price
- Consolidation of comments

Thank you for allowing us to comment

System integration is a reality but...

- Multi vendor sub-system integration is easier than integrating multiple mfgrs. in the same system.
 - HVAC & Energy monitoring vs. Brand X w/AHU and Brand Y on VAV Boxes
- Open Systems architecture requirements can be difficult to interpret and can reduce competition
 - No mfgr. can meet all specs.
 - Specifics of end user gains/losses often aren't known until after the installation
 - Contractors can be very creative in meeting spec requirements
 - “It meets the spec” is used too often when it isn't really what the customer wants

Utilize openly adopted and tested standards

Architecture Clarifications Needed

- Network bandwidth calculations and testing
 - Definition of how measurements are to be made
 - Tester qualifications and acceptable variance levels need to be defined
- Clarification of LAN and field network requirements
- LNS network configuration and management
 - Definition of acceptable use of LonWorks, LNS, LNS tools, and an understanding of cost implications of open tools is important
- Are dedicated nodes for scheduling and alarming needed?
- Will there be an integration manager for the site?
 - Database mgmt., conflict resolution, & network security should be considered & addressed

Eliminate risk and minimize installed cost

Reality Check

- Open Systems standardization has made good progress but full implementation isn't there yet
 - Some Network mgmt. profiles were only recently finalized
 - Mfgs. need time to design standards into their systems
 - Legacy migration issues
 - Additional network mgmt. issues need to be addressed
 - e.g., Trending and database management, reports
 - Standardization has been a moving target
 - Difficult to finalize product definition/design until stds. are accepted
 - UUKL is not supported
 - Few, if any, mfgs. could fully meet the spec. today
 - Must allow for competition

Flexibility must be allowed in the interim

Areas to Improve Competitiveness

- Minimize bells and whistles - not everyone has them
 - Specify only what you need and what you'll really use
- If its generally accepted and in practical use -- allow it
 - 0-10 VDC outputs are widely used, etc.
 - Remember -- contractors can be very creative
- Utilize new and openly accepted technology
 - Direct Coupled Actuators vs. foot mounted
- Avoid old technology -- pneumatics

Too many features and over specifying = less competition

Summary

- Use defacto standards where ever possible
- Maximize your overall benefits & ease of use
- Maintain vendor independence
 - Eliminate “specmanship”
- Minimize your installed cost
- Minimize your overall risk

Know what you're getting and get what you want