

HVAC Control Systems— Get it Right the First Time! (Part 1)

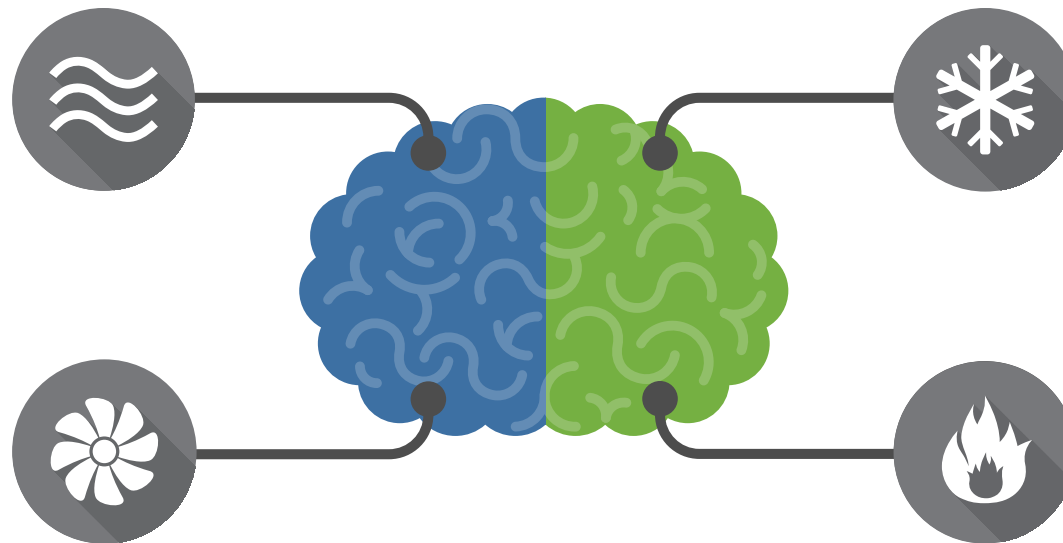
HVAC Controls Design–Build Best Practices



WHAT ARE HVAC CONTROL SYSTEMS?

HVAC control systems regulate heating, ventilation, and air conditioning equipment. Think of control systems as the brains that operate HVAC equipment. A well-designed and installed control system improves the operating efficiency of a building, while enhancing comfort and reducing costs.

HVAC control systems have transitioned from pneumatic to electronic controls and now offer a more sophisticated facility-wide, computerized platform that allows a building operator to remotely monitor and adjust HVAC equipment to improve a building's performance.



WHY DO HVAC CONTROL SYSTEMS MATTER?

Heating, ventilation, and air-conditioning (HVAC) account for 40–80% of the energy used in commercial buildings, depending on system performance. Therefore, the performance of HVAC equipment is critical to controlling operational costs.

Even the most energy efficient equipment will lead to wasted energy and wasted money if it is not controlled properly. In fact, average equipment with advanced controls will outperform advanced equipment that is not controlled correctly.

The bottom line is that control systems keep your HVAC equipment working at peak performance.

BENEFITS OF CONTROL SYSTEMS

- ✓ Energy conservation
- ✓ Improved air quality
- ✓ Enhanced comfort
- ✓ Monitor system performance
- ✓ Reduced maintenance costs
- ✓ Increased useful life of equipment

WHY IS IT IMPORTANT TO GET IT RIGHT THE FIRST TIME?

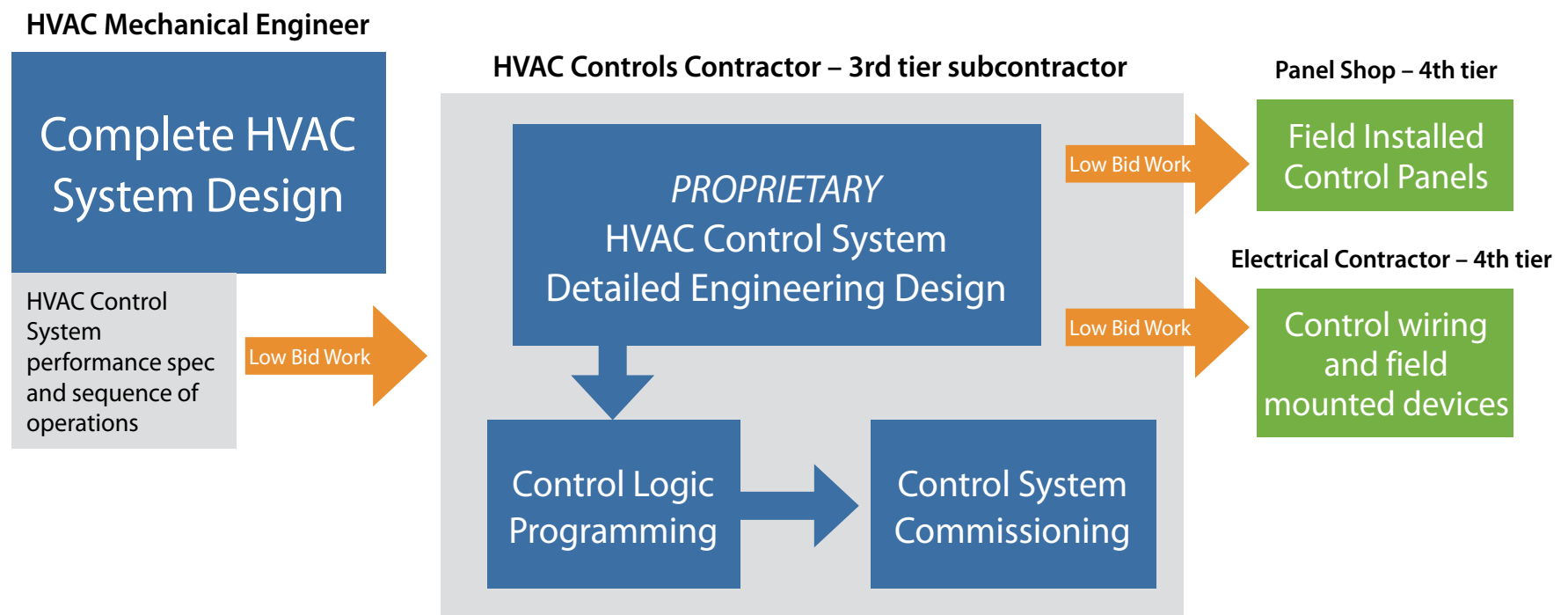
Building owners may not initially catch faulty HVAC control systems because mistakes are sometimes not as obvious as a hole in the wall or crack in the floor. An oversight of improper logic during programming or installation can lead to unhappy occupants and thousands of dollars in wasted energy.

In addition, it is not uncommon for owners of a brand new building to assume their building will perform at peak efficiency because they have new HVAC equipment. At times, the reality is just the opposite...some of the most inefficient and problematic buildings are those that have been recently constructed, simply because of erroneous HVAC control systems.



HOW ARE HVAC CONTROL SYSTEMS TYPICALLY DESIGNED & BUILT?

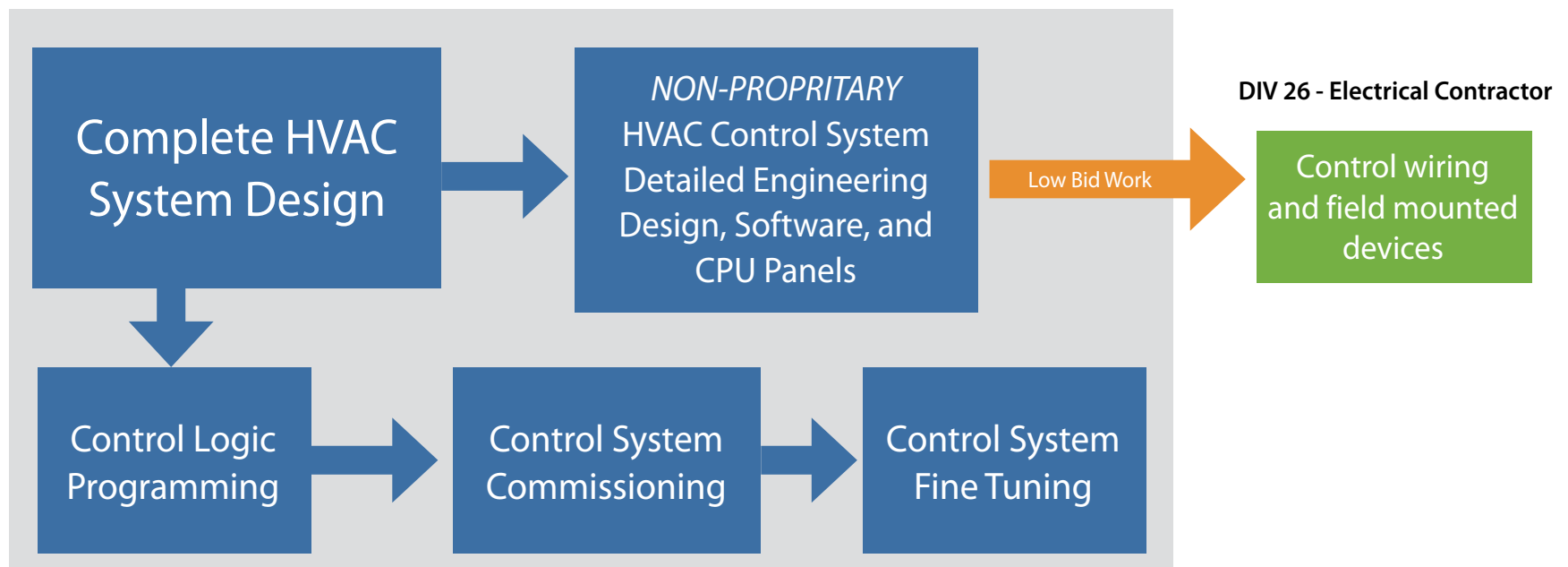
HVAC control systems have historically been designed by a mechanical engineer and then handed off to a sub-contractor with a set of instructions for programming, installing and commissioning. Fine tuning is often left to the building owner with little instruction or follow-up.



HOW SHOULD HVAC CONTROL SYSTEMS BE DESIGNED & BUILT?

A single-source design and build approach will achieve better results. The same mechanical engineer who designs the system also handles programming, commissioning, and fine tuning.

HVAC Mechanical Engineer – Controls Engineering as professional services



WHY DOES IT MATTER WHO DESIGNS & BUILDS YOUR CONTROL SYSTEM?

The “one size fits all” solution is not appropriate regarding HVAC controls. Not all buildings are exactly alike; therefore, HVAC control systems should be designed and built to meet the needs of each unique situation.

HVAC Controls Engineering as a professional service achieves the best results possible by having engineers design and build these systems, rather than splitting the build process off to a sub-contractor. A sub-contractor may not have the same level of commitment as the design engineer and could overlook critical programming and commissioning steps.

In addition, a mechanical engineer understands that HVAC technology and demands change constantly and will design and build your system to make sure it achieves maximum performance now and in the future.

A complete HVAC control system designed and built from a single source is the best way to ensure peak performance.

HOW DO YOU GET IT RIGHT THE FIRST TIME?

The key to getting HVAC control systems right the first time is to find **the right partner**. Dynamix Energy Services can provide you with single source design-build HVAC control systems to achieve greater energy efficiency, higher performing equipment and maximum savings.

Count on Dynamix to provide innovative, value-based solutions for all of your energy projects. Dynamix can help you:

- Improve your building's energy consumption
- Enhance comfort
- Reduce costs
- Resolve your ongoing facility challenges
- Optimize control systems
- Guarantee energy operating costs



OUR CLIENTS AVERAGE 50% COST SAVINGS! HAVE ONE OF OUR EXPERTS SEE HOW MUCH WE CAN SAVE YOUR ORGANIZATION WITH A FREE ANALYSIS.