STANDARDS DECISIONS FOR THE SNS CONTROL SYSTEM

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The Spallation Neutron Source (SNS) is being developed collaboratively at five National Laboratories. Likewise, the control system is being developed at all the participating laboratories acting together as peers, with coordination by a working group. In this distributed environment, the usual control system task of system integration is made even more important (and difficult) than usual. An important part of the integration strategy is the imposition of hardware and software standards to be applied by all participants on all applicable subsystems. Such standards could include I/O crates and modules, PLCs, fieldbuses, specific device controllers, processors, operating systems, real-time kernels, languages, software tools, software development methodologies, communication media, grounding and isolation strategies, connectors, and much more. For the past year, members of the SNS controls working group have reviewed a number of possible standards in several areas. This paper reviews the approach taken, the decisions reached thus far, the reasons for those decisions, and reasons why it may not always be appropriate or necessary to impose firm standards too early.