

## **Hall C EPICS Project Status Report**

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### **1. EPICS Backup & Restore Programs**

1.1. Investigated using PVTable tool in CSS for backup/restore operations.

1.1.1. PVTable tool is built-in to CSS and displays PV values, alarm status, and previously saved values in a table format.

1.1.2. Backup would be performed by using included snapshot tool

### **2. WEDM (Remote EPICS Monitoring)**

2.1. Added EDM calculations for maximum, minimum, and average sensor values to cryogenic WEDM screens using local CALC PVs.

2.1.1. Since WEDM has no built-in max/min calculation ability, derived a formula for max/min of a list of N values using the arithmetic function that returns the max/min of two numbers in Mathematica.

2.1.1.1. Arithmetic function for maximum:  $\max(A,B) = \frac{1}{2} (A+B+|A-B|)$

2.1.1.2. Arithmetic function for minimum:  $\min(A,B) = \frac{1}{2} (A+B-|A-B|)$

2.1.2. Mathematica program recursively looped N times comparing the next number in the list to the max/min of the previous set of two.