

Subject: Reagan National ALCS Modifications

The Airfield Lighting Control System (ALCS) installed at Reagan National Airport utilizes commercial-off-the-shelf technology from GE and WonderWare as its basis.

The bulk of the system (90%+) utilizes standard software functions assembled in standard configurations in a configuration that any properly-trained & experienced Controls Engineer could understand. However, the GE Fanuc Series 90-30 PLC redundancy scheme that is used as part of this system was designed, configured, commissioned and verified specifically for the MWAA ALCS application at Reagan airport.

The Reagan ALCS is the only installation of this GE Fanuc Series 90-30 PLC redundancy scheme that remains in operation.

MWAA Reagan National ALCS PLC & HMI Upgrade

SCOPE OF WORK / SERVICES

Major Equipment

i) Maintenance office:

- 1) (2) GEFIC695CHS012 12-slot racks
- 2) (4) GEFIC695PSA140 power supplies
- 3) (2) GEFIC695CPK330 redundant RX3i CPU
- 4) (4) GEFIC695RMX128 CMX 128Meg Memory
- 5) (2) GEFIC695ETM001 Ethernet module
- 6) (2) GEFIC695PNC001 Profinet module
- 7) (1) GEFME95MBP001 Machine Edition v9.5 pro development software
- 8) (1) NTRON 308FX2-SC 8-port, 2 fiber, unmanaged switch

ii) TV-150:

- 1) (3) GEFIC695CHS012 12-slot racks
- 2) (3) GEFIC695PSA140 power supplies
- 3) (3) GEFIC695PNS001 Profinet Scanner module
- 4) (1) NTRON 308FX2-SC 8-port, 2 fiber, unmanaged switch

iii) TV-800:

- 1) (1) GEFIC695CHS012 12-slot racks
- 2) (1) GEFIC695PSA140 power supplies
- 3) (1) GEFIC695PNS001 Profinet Scanner module
- 4) (1) NTRON 308FX2-SC 8-port, 2 fiber, unmanaged switch

iv) TV-900:

- 1) (3) GEFIC695CHS012 12-slot racks
- 2) (3) GEFIC695PSA140 power supplies
- 3) (3) GEFIC695PNS001 Profinet Scanner module
- 4) (1) NTRON 308FX2-SC 8-port, 2 fiber, unmanaged switch

v) EE Room:

- 1) (1) GEFIC695CHS012 12-slot racks
- 2) (1) GEFIC695PSA140 power supplies
- 3) (1) GEFIC695PNS001 Profinet Scanner module
- 4) (1) NTRON 308FX2-SC 8-port, 2 fiber, unmanaged switch

vi) HMI Upgrade – 3 locations.:

- 1) (3) W10, 64-bit multi-core computers
- 2) (3) Intouch Wonderware V17 HMI software upgrade