Wow!! Our utility has purchased a new EMS, DMS,

TMS, ... SCADA system!! After the euphoria and excitement

wears off, our project implementation team must begin to tackle that

long list of actions – among those is the development of the Final

Acceptance Test scenario.

Traditionally, the SCADA vendor will request that the customer provide an RTU/ IED that communicates in each of the data communication protocols utilized by the utility. This confirms data communications, but does not consider intelligent device network loading, event emulation, and system performance under normal and critical alarm conditions.

The DSA SIM Director is capable of emulating your current network of intelligent devices and any planned expansion.

- All data input/ outputs of existing intelligent devices can be simulated to the SCADA Host.
- All data communication protocols, both current and planned can be emulated.
- > Normal and/ or alarm events can be simulated.

The SCADA host polls the SIM Director using the intended data communication protocol, realistically modeling the SCADA activity. Both direct controls and *Select Before Operate* (SBO) controls can be simulated, including the resulting changes to status and analog values.

Power system activity is simulated through a time based scripting capability which generates the status and analog values and changes them as scripted. To simplify an on-going script, a loop command is provided allowing a scenario to be repeated. The scripted activities may be monitored, time stamped and logged to measure time between the event and operator notification at the control console.

More complex operations resulting from a control or status change (i.e. load shedding, resulting equipment operation or programmed sequential functions) may be simulated by subscripts triggered by the initial status change.

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T.I. Chen Associates

1101 N. 5th Street, Tacoma, Washington 98403-1610 USA Telephone: 253.678.2661, FAX: 206.350.6482 http://www.tichenassociates.com tim@tichenassociates.com A large generation and transmission utility based in Colorado will use the SIM Director to emulate their network of 250 field installed intelligent devices. By providing the California based SCADA vendor with the SIM Director, the G&T utility will be able;

- To confirm data communication using the G&T utility's data communication protocol,
- To measure SCADA system performance under normal operating conditions,
- To measure SCADA system performance under event scenarios identified by the G&T utility.

After SCADA system installation and acceptance, the SIM Director offers an exceptionally robust SCADA system operator training tool.

In addition to the SIM Director product, DSA offers training and implementation assistance.

For more information, please do not hesitate to contact us.

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