

Re: major electronics analysis project help needed TIA

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- *From:* "Don Baker" <n2mcg@xxxxxxxxxxx>
 - *Date:* Sat, 4 Jun 2005 09:37:51 -0400
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I did a similar data acquisition system for the 757 about 3 years ago. If you email directly with a good email return address then I will gladly share my experiences and the approach we used.

Don

"JB2" <none@xxxxxxxx> wrote in message
<news:le93a1p01c4r25epbepqtgba3ipln94uvc@xxxxxxxx>
> On Sat, 04 Jun 2005 05:33:19 GMT, in alt.engineering.electrical you
> wrote:
>
>>JB2 <none@xxxxxxxx> wrote:
>>>I have to log 150 discrete inputs, some AC and others DC, voltages and
>>>currents. I plan on using simple inductive pickups and voltage probe
>>>points.
>>
>>How often do you need to log each input?
> Still to be determined, but preliminary data acquisition will need to
> be during major changes in flight profiles, such that sample rates may
> only be required when user selects the need and not a continuous
> sampling.
>
>> Do some inputs need to be logged more often than others?
> No, in fact would rather have all samples at the same time for
> comparative analysis.
>
>>What kind of voltage and current ranges do you need?
> Gen output is 40kVA three total & One 1kVA
> 115v 1 phase 400Hz 650 amps
> 115v 3phase 400 Hz
> 220v 2Phase 400Hz
> 28 vDC 200 amps max. There are two TRs tied together in parallel, EA
> max 100 amps. Loss of various equipment will be executed and data
> sampled for future capabilities and emergency procedures. The main
> concern is the capability of the TRs to handle various loading
> configurations but data for all sources is required.
>

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- >> Do you need analog measurements for everything, or is
- >> digital OK for some of the inputs?
- > Data will be used for reporting purposes, future calculations and
- > modeling. I will probably end up building a more accurate model than
- > currently exists (current model is solely analytical, no hard data
- > available) All the sources are analog, but how those samples are
- > obtained, I don't think will make a difference. I thought simple
- > inductive pickups that feed analog to dig conv for recording.
- >
- >
- >> How accurate does each analog reading need to be?
- > Big question! I would want at most $\pm 2\%$. I suspect any more
- > deviation may make modeling too inaccurate.
- >
- >>
- >>&