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Subject: How to interface SADC to Time distribution

Posted by [Walter F.J. Müller](#) on Tue, 13 Apr 2004 17:23:15 GMT

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When I look at the presentation about  
time distribution  
general purpose SADC

I wonder what additional glue logic is needed to interface a TCS like time distribution with the SADC module. Or in other words:

Is the SADC clock input compatible with TCS or its anticipated successors fibre protocol ?

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Subject: Re: How to interface SADC to Time distribution

Posted by [Lars Schmitt](#) on Mon, 19 Apr 2004 13:54:52 GMT

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The SADC is interfaced to the TCS via the multiplexer board.  
This incorporates an optical TCS receiver decoding clock, reset  
and (depending on the application) trigger signals. The SADC  
as such is not a standalone module. It is always programmed and  
read out via the multiplexer card, to which up to 8 SADC are  
attached. The MUX can also be cascaded to multiplex 8 other  
MUXes. It distributes the clock signals etc. via optical connections  
and the Hotlink protocol like a fanout to the  
attached SADCs (or MUXes).

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Subject: Re: How to interface SADC to Time distribution

Posted by [Igor Konorov](#) on Fri, 30 Apr 2004 14:48:31 GMT

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Dear Walter,  
the SADC as any other FE module has 3 logical interfaces:  
- for time ditribution  
- for configuration , monitoring  
- for data.

We developed a special module GESICA which provides an interface between TCS , DAQ and SADC. It's kind of concentrator module which supports up to 8 SADC modules(see L.Schmitt mail).

The SADC is connected to the GESICA via duplex fibre and we run a custom protocol over this fibre which provides all 3 type of interfaces.

The SADC clock is derived from TCS clock in this way the time of each sample is well known.

Regards. Igor.

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