
SDI-12 SUPPORT GROUP

SERIAL DATA INTERFACE AT 1200 BAUD

November 24, 1995

Minutes of the SDI-12 Support Group Technical Committee, held on November 6, 1995

The SDI-12 Support Group's Technical Committee met on November 6, 1995, in Houston, Texas, to discuss the upgrade from Version 1.1 to Version 1.2 of SDI-12. The following people attended the meeting:

Rick Billings, USGS
Gerald Calhoun, Sutron Corporation
Glen Conover, Sutron Corporation
Terry Dickey, Hydrolab Corporation
Terrell Fletcher, Design Analysis Associates, Inc.
Robert Fox, Coastal Environmental Systems
Jack Hardee, South Florida Water Management District
Mike Jablonski, NR Systems, Inc.
Roy Johnson, USGS
Rick Lockyer, Handar, Inc.
Joe Thurston, Campbell Scientific, Inc.
Richard Wearn, Paroscientific, Inc.

Rick Billings chaired the meeting.

The meeting started with a report from Mike Jablonski on the ballot count on the proposed upgrades from Version 1.1 to Version 1.2 of SDI-12 as follows:

24 ballots were returned

	yes	no	abstain	% in favor
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1) Change Address Command	21	2	1	87.50
2) Address Query Command	20	3	1	83.33
3) Clarifications to the Specification	22	0	2	91.67
4) Concurrent Measurements	18	5	1	75.00
5) Continuous Measurements	19	4	1	79.17
6) Strobed Measurements	13	9	2	54.17

In accordance with the Bylaws of the SDI-12 Support Group, which requires a two-thirds majority (66%), to make a change to the specification, the first 5 items will be added to the SDI-12 Specification. The strobed measurement will not be added to SDI-12. Version 1.2 of the SDI-12 Specification will be prepared with the upgrades listed above.

The Technical Committee reviewed all comments received from the membership, about the proposed changes, to determine if any comments would have any direct impact upon acceptance of the above changes. Several comments were received, but no comments provided information which would preclude the addition of the proposed changes to the SDI-12 specification.

Next the committee then reviewed, in detail, a draft of Version 1.2 of SDI-12, to review the wording for the proposed changes. Some phrases and wording were changed to make the document as clear as possible. No technical changes other than those accepted by the membership, however, were added to the specification.

Mike Jablonski said he would add the changes to a new Version 1.2 draft and send a copy to all members of the Technical Committee ASAP.

Two issues came up during the meeting:

1) Text from "Proposed Changes to the SDI-12 Specification," dated July 5, 1995, requiring a response (in Version 1.2) to all of the additional M commands, was not directly voted upon by the membership:

To comply with Version 1.2 or higher of SDI-12, sensors must respond to the additional measurement commands (aM1!...aM9!) and data recorders must be able to log data from the additional measurement commands. If a sensor has no data defined for an additional measurement command, it should return a0000<CR><LF>, saying that it has zero data values ready. Not responding to the command is not acceptable.

The Technical Committee decided that this should have been a line item on the ballot, because it adds a new requirement for Version 1.2 sensors. Currently some Version 1.1 sensors respond as stated above, others ignore additional M commands that they do not support. Therefore, the committee decided to put the above requirement out to a vote by the membership. If a two-thirds majority of those who return ballots vote in favor of it, the above paragraph will be added to Version 1.2.

2) Some potential problems were identified with the continuous measurement command, which was accepted by the group:

a) There is no way for a data recorder to know if a sensor is capable of supporting the continuous measurements.

b) Can a sensor be put into, and taken out of, a continuous measurement mode? If so, how? Extended commands?

The Technical Committee proposed to circumvent these problems by the adding a new command to the basic SDI-12 command set. This will be the R (for read) command, and will take a direct reading from sensor, without the use of an M command. The continuous measurement command will be described as follows:

Sensors that are able to continuously monitor the phenomena to be measured, such as a shaft encoder, do not require a start measurement command (M!, M1!...M9!). They can be read directly with the R commands (R0!...R9!). For example:

if (the sensor is operating in a continuous measurement mode) then

aR0! will get and return the current reading of the sensor

The R commands (R0!...R9!) work exactly like the D commands (D0!...D1!). The only difference is that the R commands do not need to be preceded with an M command, which tells the sensor to take a measurement.

If a sensor is unable to take a continuous measurement, then it must return its address followed by a carriage return/line feed (a<CR><LF>), in response to an R command.

Because this is not exactly what the membership voted on, the committee decided to put this out for a vote by the SDI-12 Support Group membership.

Both issues will go out for a vote by the membership. We decided that we will not accept ballots after 30 days and that we will not call, FAX, or write to any company that does not return a ballot within 30 days. This is so we can act upon this and finish Version 1.2 ASAP, without delay caused by companies that do not return a ballot within 30 days.

Other Items

The committee decided to announce the acceptance of the upgrades to Version 1.2 in a newsletter (ASAP), so the membership can start upgrading SDI-12 equipment to Version 1.2, with the understanding that the final Version 1.2 document will be delayed until the votes are in on the two items listed above.

The committee decided on two changes to the SDI-12 document:

1) the title page will say by the "Technical Committee, SDI-12 Support Group," rather than by "NR Systems, Inc. and Campbell Scientific, Inc." This is because all members of the SDI-12 Support Group's Technical Committee have helped to update the document over the last three years.

2) Appendix D, Pass/Fail Criteria for SDI-12 Data Recorders and SDI-12 Sensors, will be removed from the Version 1.2 document. This is because this appendix is difficult to maintain. Mike Jablonski pointed out that this appendix was originally written to help with the SDI-12 Verifier that NR Systems, Inc. was developing when the USGS contracted with NR Systems, Inc. to revise the 1988 Version 1.0 SDI-12 Specification.

These committee felt that these changes do no affect the SDI-12 standard and do not require a vote by the membership.

After a discussion on Version 1.2 of SDI-12, we discussed the composition of the Technical Committee for 1995, 96. Jack Hardee asked if Jim Betzhold, of the South Florida Water Management District could serve on the committee. Rick Billings of the USGS asked if Roy Johnson (USGS) could take over his position. The group agreed to this, pending approval by the SDI-12 membership. Jim Betzel will replace Ken Aquino (Setra Systems) and Roy Johnson will replace Rick Billings. Gerald Calhoun (Sutron) was then nominated, and agree to serve, as the chair of the Technical Committee for the upcoming year. All present voted for Jerry as chairperson for 1995, 96.

The meeting adjourned after a brief discussion on using the SDI-12 Support Group newsletter as a forum to discuss common problems with SDI-12, guidelines for connecting sensors, etc.

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SDI-12 SUPPORT GROUP

SERIAL DATA INTERFACE AT 1200 BAUD

November 24, 1995

Minutes of the General SDI-12 Support Group Meeting, held on November 7, 1995

The SDI-12 Support Group met on November 7, 1995, in Houston, Texas. A list of those in attendance is attached to these minutes.

Michael Jablonski (Chairman) chaired the meeting, which followed an agenda prepared on October 12, 1995.

As a first order of business, Mike Jablonski summarized the status of Version 1.2 of SDI-12 as discussed at the Technical Committee meeting (held on November 6, 1995). This includes the acceptance of 5 of the 6 items which the membership voted on, including the need to issue a new ballot to the membership on the two technical items related to the changes.

Mike Jablonski then reported that he has received an average of one request for the SDI-12 Specification a week since November, 1994. Mike also summarized the year's activities: two newsletters were published, the Technical Committee held a mid-year meeting to discuss proposed changes to the specification, a vote from the Membership was taken on the proposed changes to SDI-12, and the Version 1.2 document will be ready ASAP.

Mike Jablonski reported that the SDI-12 Support Group has lost its corporate charter in the state of Utah, because a corporation report was not filed in 1993. Mike said he has reviewed all steps that must be undertaken to reinstate it. He reported that the Utah State Tax Commission has said that we have until April of 1995 to resolve this issue. Mike discussed how the SDI-12 Support Group must apply for tax exempt (501-c-3) status with the IRS, and that if this is awarded, no taxes will be due and the State of Utah will reinstate the corporation.

Katie Lockyer (Secretary) reported that the SDI-12 Support Group has \$6,391 in cash. One reason the Group has so much, Katie reported, is because Handar has not yet been reimbursed for expenses such as FAX costs, stationary, envelopes, newsletter production, etc., because she has not billed the group for all costs incurred during 1994-95. Mike Jablonski reported that NR Systems, Inc., has also incurred expenses on behalf of the SDI-12 Support Group. Katie and Mike both said that, in some cases, they have not documented frequent and minor expenses, such as mailing a copy of the SDI-12 Specification (copy costs, the envelope, postage, etc.), sending a FAX, or making a long distance phone call.

It was agreed not to change the membership dues (\$120.00/year), and that the Group may issue an invoice to the USGS and other government agencies to make it easier for them to pay their dues.

After a discussion on the above topics, three motions were made and passed by the group:

- 1) Mike Jablonski will commission an accountant to help file the correct paperwork to apply for tax exempt status with the IRS. The accountant's fee will be paid by the SDI-12 Support Group.
- 2) Mike Jablonski and Katie Lockyer will estimate the undocumented expenses incurred by their respective companies, during the past year, in support of the SDI-12 Support Group, and will be reimbursed upon submission of a written invoice (with receipts as appropriate) to the SDI-12 Support Group. An assistant to Katie Lockyer who helped prepare the newsletters on her own time, without compensation, will be paid for her help.
- 3) The group voted to reinstate the Technical Committee, with Roy Johnson (USGS) replacing Rick Billings (USGS), and Jim Betzel (South Florida Water Management District) replacing Ken Aquino (Setra Systems).

Rusty Munn (Campbell Scientific) expressed concern that meetings of the SDI-12 Support Group at the AWRA conference have been held at the same time when the exhibits are open. This, he said, caused him to leave his booth unstaffed to attend the SDI-12 meetings. In response to this, the group agreed to start the general meeting of the SDI-12 Support Group at 7:30 A.M., and to ask AWRA to not open the exhibits until 10:00 A.M. on Tuesday, during the week of the AWRA meeting. This way, if the meeting is over by 10:00, there would be no conflict.

As a final point of business, the Group selected a chairperson and secretary for 1995, 96. Mike Jablonski expressed a desire to continue as chairperson, Katie Lockyer agreed to serve another term as secretary. Mike and Katie were both reelected. No other person at the meeting expressed an interest in serving as an officer. It was agreed, however, that next year a written job description will be prepared for the Chairperson and Secretary positions, so that potential new officers will understand what is required to serve as an officer.

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11-7-95 SOI-12 Support Group Meeting

<u>Name</u>	<u>Company</u>	<u>Phone #</u>
Mike Jablonski	URS Systems, Inc.	801-752-4200
Katie Lockyer	Handar, Inc.	408-734-9640
Robert Hammar	Climatronics, Inc.	512-869-1488
Terry Dickey	Hydrolab Corp.	512-255-8841
RUSTY MUNN	CAMPBELL SCI.	801-750-9522
GLENN CANOAK	SUTRON CORP	703-406-2800
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Good Hellen	Stevens	503-526-5191
ROGER REYNOLDS	STEVENS	503 526-1413
Jerry Calhoun	Sutron Corp.	703-406-2800
Roy Johnson	USGS	601-688-1541
RICK Lockyer	Handar	(408) 734-9640
Timell Fletcher	DAA	801-753-2212
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