

IEEE 1451.4 Standard Working Group
 Telephone Meeting, Nov. 16, 2000
 Meeting Minutes, issued 11-16-00, Approved 08-23-01

Chair: Steven Chen (P. Hufnagel, acting)
 Secretary: Paul Hufnagel

Attendance:

Robert Broadbent, Teradyne, Robert.Broadbent@notes.teradyne.com
 Mark Buckner, ORNL, bucknerma@ornl.gov
 Brett Gidge, Wilcoxon, brett@wilcoxon.com
 Paul Hufnagel, Kistler Instrument Corp, phufnagel@kistler.com
 Charles Jones, Edwards AFB, Charles.Jones@edwards.af.mil
 Carlos Lopez-Reyna, Scitefair, clopez@ee.upenn.edu
 John Mark, Kistler Instrument Corporation, jmark@kistler.com
 Joe Que, Endevco, jque@endevco.com
 Stan Woods, Agilent, Stan_Woods@agilent.com

1) T-Block: C. Lopez-Reyna

a) Communication from CLR:

Today's agenda will cover:

1. IEEE1451_dot4TransducerBlock Behavioral model
2. Use of TDL to define T-Block properties and configuration
3. 1451_Dot4Transducerinteface Digital Mode detailed behavioral model

1. IEEE1451_dot4TransducerBlock Behavioral model

- Transducer block defines states to initialize and configure the transducer interface (In reference to Figure 1 and Figure 4 on Transducer Block chapter)

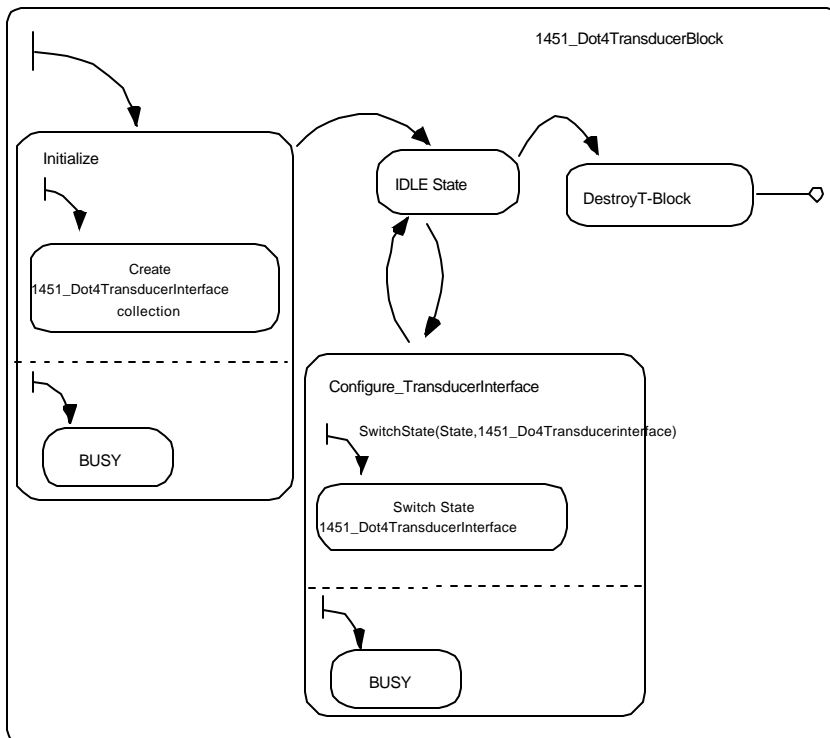


Figure 1: IEEE1451_dot4TransducerBlock behavioral diagram

2. Use of TDL to define T-Block properties and configuration

- Use TDL file to configure **IEEE1451_dot4TransducerBlock** and other T-block objects (specific support for behavior and properties like hot swap and its methodology {time, signal, etc}.)
- TDL definition section for T-block located at the end of Template file under heading T-Block.
- Advantages: Systems with no support for T-Block can still use the Template file. T-Block savvy system can take advantage of the extra features.
- Solves pin/wire configuration problems
- Committee input on pin names for configuration purposes. Doesn't limit the connectors and wiring configurations.

Example:

```

TDL standard template
.....
!TBLOCK_properties
{
    Transducer_Interface(0,HotSwap=True,HotSwapType=Hardware,.....)
}

```

3. 1451_Dot4Transducerinterface Digital Mode detailed behavioral model

- 1451_Dot4Transducerinterface Digital Mode Core Commands (In reference to Figure 5 on T-Block chapter).
- More commands?

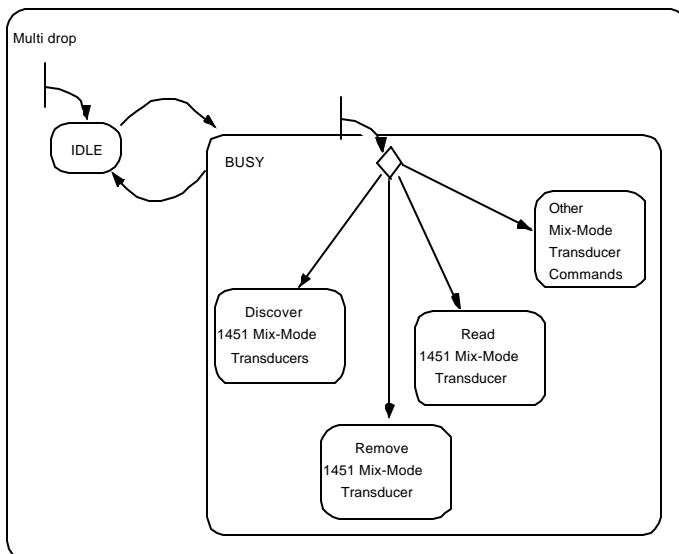


Figure2. 1451_Dot4Transducerinterface Digital Mode detailed behavioral model

- Entry into the idle state in Fig. 1 is modified.
- The TDL is used to define the T-Block.
- Because there is no one-to-one equivalence between TDL and XML, a cross compiler must be used to parse between the two. There are XML structures which cannot be expressed in TDL.
- The FTF meeting in Copenhagen seemed to lean towards developing templates in TDL, in order to support existing templates, rather than favoring template development in XML.

- f) The importance of XML is its wide acceptance and availability, and the ease and ability with which objects and fields can be defined in XML. TEDS data can be described by either TDL or XML.
 - g) Figure 2 describes the detailed 1451.4 T-Block Behavioral Model. Anyone desiring to add an operation to the Model should propose it to C. Lopez-Reyna.
 - h) Final T-Block material for discussion at the FTF, Nov 29 - Dec 1, will be forwarded by C. Lopez-Reyna, via email, to the members.
 - i) C. Lopez-Reyna asks for example node lists to assist in the definition of node list properties. J. Mark volunteers to assist with node list definitions. Question on how a node is associated with a specific transducer.
- 2) Face to face: PH
- a) **Action: S. Chen, T. Licht, and K. Lee to discuss agenda and forward to IEEE.** PH suggests that it not be much different from today's agenda, since T-Block and User Manual are subject areas of interest. Crossbow and National Instrument are expected to propose connections for different sensor types. These three discussions could be good for a week. Our meeting is 2 ½ days.
 - b) **Action: K. Lee to forward a list of hotels to Working Group.**
- 3) User's Manual: C. Jones
- a) C. Jones is presently working on the User's Manual for the 1451.3 Standard and suggests that it may be a good outline for the 1451.4 manual as well.
 - b) PH to send the 1451.3 User's Guide to the 1451.4 Members. Done, 11-16.
 - c) **Action: S. Chen: Request from C. Jones, that the User's Guide be made an agenda item for the FTF.**
 - d) Question on the command structure used in 1451.4. It has both software and hardware elements, defined by T-Block and microLan.
 - e) C. Lopez-Reyna and M. Buckner will dialog, to insure consistent T-Block structure between 1451.3 and 1451.4.
 - f) Applications for 1451.4 are the subject of a PPT slide presentation, the content of which is contained in the meeting minutes for the Jun 27 -29, 2000, FTF meeting in Copenhagen.
 - g) The User's Manual could be helpful during ballot, anyone wishing to help, contact C. Jones.
- 4) New Business:
- a) J. Mark suggests that a list server be established to allow interested parties to subscribe and un-subscribe to the 1451.4 proceedings. He will investigate setting up this service.
 - b) Request for 1451.4 Draft by L. Malchodi, M. Buckner and Stan Woods. PH to forward, done, 11-16.
 - c) B. Gidge will leave Wilcoxon Research for a new position, and tenders his resignation from the 1451.4 Working Group. We accept it with regret, thank him for his participation and wish him the best in his new job.
- 5) **Next meeting, 11-29-00, Face-to_Face at NIST.**
- a) **No meeting 11-23, due to Thanksgiving holiday:** Adjourn: 11:59am EST.