1450.4 meeting minutes – 09/19/12

Attendees: Ernie Wahl, Jim O'Reilly
Not present: Julia DiChiaro, Oleg Erlich, Markus Seuring, Ajay Khoche, Paul Reuter

Summary:
Line numbers are with regard to syntax document dated September 18, 2012

- Line 766, 767: ACCEPT syntax that allows SIG_NAME to be a SignalGroup
- Line 964 - 1014: ACCEPT examples with additional signal-to-channel mappings, also add Signals and SignalGroups blocks to aid comprehension
- Line 1050: Replace Wafer block syntax definition in section "7.4.2 Wafer", with an explanation of non-standard requirement for completing multi-project wafer support. For the record, the following text has been eliminated:

```
(Wafer (BLOCK_NAME) {
   (Diameter diameter;)
   (MinPadPitch METERS;)
   (MinPadSize METERS;)
   (PadShape shape;)
   (NrOfRows INTEGER;)
   (NrOfCols INTEGER;)
   (StepX METERS;)
   (StepY METERS;)
   (FirstRow INTEGER;)
   (FirstCol INTEGER;)
   (OriginX METERS;)
   (OriginY METERS;)
   (Orientation < FlatOnTop | FlatOnLft | FlatOnRgt | FlatOnBot >;)
   (Legend {
      (character DEVICE_NAME;)*
   }
   Map {
      (character)*
   })
})*
```

BLOCK_NAME: an arbitrary name, preferably unique among Wafer block names.
METERS, INTEGER: literal values with or without units as appropriate, e.g., 200um or 6.
DEVICE_NAME: a reference to a previously named Device block. The same device name may be used in one or more Wafer blocks, e.g., the same device may be found on an 8" and a 12" wafer.

- diameter = integer followed by units, e.g., 12" or 300mm.
- character = a single printing character or space.
- Diameter: wafer diameter, e.g., 12" or 300mm.
- FirstCol: index to first column, e.g., 1.
- FirstRow: index to first row, e.g., 1.
- Legend: explains which character represents which device in the map to follow.
- Map: a NrOfRows by NrOfCols rectangle of characters representing the layout of device sites on the wafer. Each device site is represented by a printing character. Different characters represent different devices. The space character is used to denote a vacant, possibly off-wafer site.
- MinPadPitch: distance between pad centers, e.g., 200um.
- MinPadSize: measure of the smallest cross-section of a pad
- NrOfCols: the number of columns in the following wafer Map.
- NrOfRows: the number of rows in the following wafer Map.
- OriginX: integer index to the origin?

- OriginY: integer index to the origin?
- PadShape: accept any standard identifier but suggest standard terminology, e.g., Square, Oval, Rectangle, Bump, Hex, Oct, etc.?
- StepX: horizontal step size in meters, e.g., 10.780mm, accounts for die size and street width.
- StepY: vertical step size in meters, e.g., 15.960mm, accounts for die size and street width.

A wafer block example follows:

```
 1 Wafer {
 2     Diameter 8”;
 3     MinPadPitch 400um;
 4     MinPadSize 90um;
 5     PadShape Bump;
 6     NrOfRows 10;
 7     NrOfCols 6;
 8     StepX 20.780mm;
 9     StepY 30.960mm;
10     FirstRow 1;
11     FirstCol 1;
12     OriginX -390um;
13     OriginY 3480um;
14     Legend {
15         A MPWDev1;
16         B MPWDev2;
17     }
18     Map {
19           ABABAB
20          ABABABAB
21         ABABABABAB
22         ABABABABAB
23         ABABABABAB
24          ABABABAB
25     }
26 }
```

NOTE: Discussions about multi-site issues are ongoing with SCSWG

Reference documents (If logged into your google account, can edit. If not, can only view.)

- Current Draft Syntax Document
- Issues List
- Namespace resolution examples document
- Communications spread sheet (scratchpad spreadsheet)
- Communications word doc (scratchpad word document)

Next meeting: 09/26/12

For reference STIL .4 information can be found at the IEEE STIL website: http://grouper.ieee.org/groups/1450/ (select the P1450.4 link from the table) or use the direct link http://grouper.ieee.org/groups/1450/dot4/index.html