

IBIS Quality Task Group Report

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What Does the Task Group Do?

- Formed in 2002 to produce an IBIS model quality checklist that could be incorporated in procurement specifications
- Specification written to explain checklist items and provide a scoring system
- IBISCHK parser issues addressed (ongoing)
- Ideas developed but not completed:
 - IBIS Measurement and Correlation Handbook
 - [External Test Load] considered
- IBISCHK User Guide (in progress)

IBISCHK Development

- Bob Ross leads most IBISCHK activities
 - Code development coordination
 - Source code delivery to purchasers
 - Executable releases to public
 - Bug tracking
- The IBIS Quality group helps
 - Bug review
 - Enhancement proposals
 - User guide development

IBISCHK6 User Guide

- First release will be for IBISCHK6
- 123 pages so far
 - How to use:

- Message descriptions:

2.1 INPUT FILE FLAGS

The following option flags are required for files other than those in the .ibs format.

- pkg** Use this option if the file is in Define Package Model format, described in section 7 of the IBIS 6.0 Specification.
- ebd** Use this option if the file is in Electrical Board Description format, described in section 8 of the IBIS 6.0 Specification.
- ami** Use this option if the file is in Algorithmic Model Interface format, described in section 10.3 of the IBIS 6.0 Specification.

Note: if a top-level file calls other IBIS (IBS, PKG, EBD, and AMI) files, then all referenced files are checked with one call. For example, an EBD file can contain other EBD references and also IBS file references that reference both PKG files and also AMI files. The top-level EBD file check will initiate checking for that EBD file plus checking for all referenced files. These referenced files could also be checked individually by using the appropriate input file flags.

Code	Symbol	Message/Comments
B0134	MDL_ERR_34	Unable to Parse {errorString}: {sourceFile} {sourceLineNum} <i>A generic error message which indicates that a parsing error related to</i>
E0135	MDL_ERR_35	{ line {lineNum} } - Duplicate External Language Line <i>The Language subparameter is already defined for an [External Model] section</i>
E0136	MDL_ERR_36	"{ line {lineNum} } - Invalid {subparam/keyword} ("'{badValue}'") (try ""{options}""") <i>A generic error message which indicates that a wrong value was specified for a particular . The user must specify from one of the</i>

IBISCHK Message Cleanup

- 1,258 unique messages
- 303 have no explanatory comments at all
 - Message strings were extracted from source code beginning with IBISCHK5
 - Comments were added for new messages and only some existing messages
- About 50 explanatory comments added so far
 - Progress is slow, requires source code analysis
- Other comments just need more detail
- Work-in-progress document included with ibischk6
 - <http://www.eda.org/ibis/ibischk6/>

Example: Message Detail Needed

- Message W1503 ACDC_ERR_3 has no comment:

```
Model {model}: The [{Rise|Fall} Waveform] with  
[R_fixture]={Rfixture} Ohms and  
[{V_fixture}]=[{Typ|Min|Max}V has {VacLow} column DC  
endpoints of {VacHigh}V and {percTol}v, but an equivalent  
load applied to the model's I-V tables yields different  
voltages ({VdcLow}V and {VdcHigh}V), a difference of  
{diffLow}% and {diffHigh}%, respectively.
```

- The variable terms should be explained
- The percent thresholds for Warning (W1503, 2%) and Error (E1503, 10%) should be documented in the comments per BUG47

Join IBIS Quality

- Meetings are held Tuesdays at 08:00 PT
- Web: http://www.eda.org/ibis/quality_wip
- Email: ibis-quality@freelists.org
<http://www.freelists.org/list/ibis-quality>