CoveragePkg Release Notes

1 Revision 2014.01   January 2014

Revised ReadCovDb to support merging of coverage models (from different test runs).

Revised RandCovPoint and RandCovBinVal to log the bin index in the LastIndex variable. Revised ICover to look in bin referenced by LastIndex first. Added method GetLastIndex to get the variable value. Added GetLastBinVal to get the BinVal of LastIndex.

Revised AddBins and AddCross bin merging to allow arbitrary CountBin overlap. With the addition of LastIndex, the overlap is not an issue.

Split SetName into SetMessage (headers) and SetName (printing illegal bins)

Added method GetItemCount to return the count of the number of randomizations and method GetTotalCovGoal to return the sum of the individual coverage goals in the coverage model.

2 Revision 2013.05   May 2013

No substantial changes. Removed extra variable declaration in functions GetHoleBinval, RandCovBinVal, RandCovHole, GetHoleBinVal. Now referencing NULL_RANGE type from RandomPkg to remove NULL range warnings.

3 Revision 2013.04   April 2013

Revised AddBins and AddCross such that bin merging is off by default. Added SetMerging to enable/disable merging. Note: Merging is an experimental feature and still evolving.

Revised AddBins and AddCross to check for changes in BinVal size (different size bin).

Added RandCovPoint for integer.

Added SetThresholding and SetCovThreshold (Percent) to enable/disable(default) thresholding. Revised RandCovPoint and RandCovBinVal to use the new mechanism.

Added SetCovTarget to increase/decrease coverage goals for longer/shorter simulation runs. Made CovTarget the default percentage goal (via overloading) for methods

RandCovPoint, RandCovBinVal, IsCovered, CountCovHoles, GetHoleBinVal, and WriteCovHoles.

Revised SetIllegalMode and ICover to support ILLEGAL_FAILURE (severity FAILURE on illegal bin).

Added manual bin iteration support. Added the following methods that return a bin index value: GetNumBins, GetMinIndex, and GetMaxIndex. Added the following methods that return bin values: GetBinVal(BinIndex), GetMinBinVal, and GetMaxBinVal. Added the following methods that return point values: GetPoint(BinIndex), GetMinPoint, and GetMaxPoint.

Added GetCov to return the current percent done of the entire coverage model.

Added FileOpenWriteBin and FileCloseWriteBin to specify default file for WriteBin, WriteCovHoles, and DumpBin.

Added CompareBins to facilitate comparing two coverage models. Added CompareBins to facilitate comparing two coverage models.

Revised WriteBin, WriteCovHoles, and WriteCovDb to check for uninitialized model.

Revised WriteBins and WriteCovHoles to only print weight if the selected WeightMode uses the weight.

Added IsInitialized to check if a coverage model is initialized.

Added GetBinInfo and GetBinValLength to get bin information

Changed WriteCovDb default for File_Open_Kind to WRITE_MODE. Generally only one WriteCovDb is needed per coverage model.

Revised WriteCovDb and ReadCovDb for new internal control/state variables, in the order of ThresholdingEnable, CovTarget, and MergingEnable. To manually edit old file, add FALSE, 100.0, FALSE to end of first line.

Removed IgnoreBin with AtLeast and Weight parameters. These are zero for ignore bins.

Revised method naming for consistency. The following have changed:

New Name	Old Name	Why
GetErrorCount	CovBinErrCnt	Consistency between packages

GetMinCount	GetMinCov[return integer]	Naming clarity
GetMaxCount	GetMaxCov[return integer]	Naming clarity
SetName	SetItemName	SetName now does multi-line messages
RandCovBinVal	RandCovHole	Naming consistency (2.4)
GetHoleBinVal	GetCovHole	Naming consistency (2.4)

Deprecated usage of the AtLeast parameter (integer) with the following methods: RandCovPoint, RandCovBinVal, IsCovered, CountCovHoles, GetHoleBinVal, and WriteCovHoles.

4   Revision 2.4   January 2012

Added bin merging and deletion for overlapping bins.

Working on consistency of naming.   Renamed RandCovHole to RandCovBinVal. Renamed GetCovHole to GetCovBinVal.   Old names maintained for backward compatibility.

New Name	Old Name	Why
RandCovBinVal	RandCovHole	Naming consistency
GetCovBinVal	GetCovHole	Naming consistency

5   Revision 2.3   January 2012

Revision 2.3 adds the function GetBin. GetBin is an accessor function that returns a bin in the form of a record. It is only intended for debugging. In particular, the return value of this function may change as the internal data types evolve.

6   Revision 2.2   July 2011

Revision 2.2 adds AtLeast and Weights to the coverage database. The AtLeast value allows individual bins to have a specific coverage goal. A conjunction of the AtLeast and Weight (depending on the WeightMode) are used to weight the random selection of coverage holes. These features are at the heart of intelligent coverage.

7   Revision 2.1   June 2011

Removed signal based coverage support.

8   Revision 2.0   April 2011

Coverage modeled in a protected type.

9   Revision 1.X   June 2010

Coverage modeled in signals of type integer_vector. The signal based coverage methodology is available in the package, CoverageSigPkg, however, it is recommended that you use CoveragePkg instead.