**Initial Rebinning**

**Context:**The initial rebinning is a feature which was added to the ConvertToMD algorithm. The user can enable a tick box which will then cause an initial splitting at the lowest level of 50 in the first 4 dimensions. By default this option is disabled.

**Test Data:**

A test script “boxSplit4D.py” is taken from the MDConvertToMD wiki site and modified to have the “InitialSplitting” enabled and once disabled.

**Tests:**

**Default setting:**

1. Open Mantid
2. Open the ConvertToMD algorithm
   1. Confirm that the option at the bottom “InitialSplitting” is disabled.

**Splitting 4D workspace:**

1. Open Mantid
2. Open the attached test script.
3. Run it.
   1. Confirm that it finishes without errors
   2. Confirm that the MD workspaces “md\_ws\_woIS” and “md\_ws\_wIS” are created, where the former is the workspace without the initial splitting and the later the one with an initial splitting applied to it.
   3. Confirm that the number of MdBoxes in “md\_ws\_woIS” is 625. This is because we have a 4D workspace which splits into 5 MdBoxes in each dimension (5^4 = 625). Note that there is no further splitting into level 2 or beyond, else we would see fewer MdBoxes, but the sum of MDBoxes and MDGridBoxes would nevertheless be 5 for each dimension.
   4. Confirm that the number of MdBoxes in “md\_ws\_woIS” is 6250000. This is because we have a 4D workspace which splits into 5 MdBoxes in each dimension (50^4 = 6250000). Note that there is no further splitting into level 2 or beyond. Else we would see fewer MdBoxes, but the sum of MDBoxes and MDGridBoxes would nevertheless be 50 for each dimension.