Testing noPCM

May 30, 2018

Table 1: testCompareFortran

Ref	Test Name	Test Purpose	Traceability	Input File	Significant Input	Expected Output	Notes
1	compareFortranTest	compares the test case outputs between Python and Fortran	-	defaultInput.txt (P05.txt)	see Input File	For the given inputs, the results between the Python and Fortran outputs are the same	Improve: instead of equality of floats (assertAlmostEqual), should use some epsilon error

Table 2: energyTest

Ref	Test Name	Test Purpose	Traceability	Input Values	Significant Input	Expected Output	Notes
1	energyWater1	checks to see if the calculated energy based on the temperature of the water is equivalent to the expected energy	-	energyData	see Input File		
2	energyWater2	"	-	"	see Input File		

Table 3: energyDataValues

Ref	Value Name	Temp	ExpE i.e Expected Energy
1	energyWater1	temp = [40,41,42,43,44]	expE = [0 , 837095.0936979372691814092126340 6, 1674190.18739587453836281842526 81, 2511285.2810938118075442276379022, 3348380.3747917490767256368505363]
2	energyWater2	temp = [44.2,44.3,44.4,44.5,44.6]	expE = [3515799.3935313365305619186930631, 3599508.90290113025748005961 43265, 3683218.4122709239843982005355899, 3766927.921640717711316341456 8533, 3850637.43101051143823448 23781167]