

JPL EXPORT ADMINISTRATION DOCUMENT REVIEW RECORD
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Log #: 21337-21723

(Note: This form and process do not replace the procedures described in JPL Policy relating to review and approval of proposals and contractual documents. This process is intended to document the review and coordination of requests to ascertain the export control ramifications relating to specific documents. Export Administration signature does not convey authority to export or release the "Exporter of Record" from any export laws or regulations.)

**Program:** ISSM: Ice Sheet System Model

**Person Requesting or Initiating Export:** Dr. Eric Larour

**Date Received:** May-19-2017

**Document Title/Description:** ISSM changes from revision 21337 to revision 21723

**Release to:** <http://issm.ess.uci.edu/svn/issm/issm/trunk> on ISSM svn repository

**JPL Intranet:** [murdo.jpl.nasa.gov/proj/ice/larour/issm-uci/trunk-jpl](http://murdo.jpl.nasa.gov/proj/ice/larour/issm-uci/trunk-jpl)

**Disposition: 6** Does not contain export-controlled information. May be released/disclosed as requested subject to Company guidelines on protection of proprietary information (if applicable).

**Comments:** see table of changes below.

**Reviewed by ISSM Export Transfer Liaison:** Dr. Eric Larour      **Date:** May-19-2017



**Disposition:**

- 1: Public Domain Information (Ref ITAR Section 120.11)
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  - 3: Covered by Department of State License/Agreement Number
  - 4: Covered by Department of Commerce validated license or exception
  - 5: New License Required
  - 6: Does not contain export-controlled information. May be released/disclosed as requested subject to Company guidelines on protection of proprietary information (if applicable).
  - 7: Other (specify)
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**Change #1** with diff file ISSM-21339-21340.diff:

Function name:

M /issm/trunk-jpl M /issm/trunk-jpl/jenkins/linux64\_ross M /issm/trunk-jpl/src  
M /issm/trunk-jpl/test

Export determination: 6.

Rationale: CHG: merge trunk to trunk-jpl

**Change #2** with diff file ISSM-21342-21343.diff:

Function name:

M /issm/trunk-jpl M /issm/trunk-jpl/src M /issm/trunk-jpl/test

Export determination: 6.

Rationale: Block revision 21341 from being merged into trunk-jpl

**Change #3** with diff file ISSM-21343-21344.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/StressbalanceSIAAnalysis.cpp

Export determination: 6.

Rationale: CHG: forgot break statement for SIA friction

**Change #4** with diff file ISSM-21344-21345.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/SealevelriseAnalysis.cpp M /issm/trunk-jpl/src/c/classes/Elements/Element

M /issm/trunk-jpl/src/c/classes/Elements/Penta.h M /issm/trunk-jpl/src/c/classes/Elements/Seg.h  
M /issm/trunk-jpl/src/c/classes/Elements/Tetra.h M /issm/trunk-jpl/src/c/classes/Elements/Tria.cpp  
M /issm/trunk-jpl/src/c/classes/Elements/Tria.h M /issm/trunk-jpl/src/c/classes/FemModel.cpp  
M /issm/trunk-jpl/src/c/classes/FemModel.h M /issm/trunk-jpl/src/c/cores/sealevelrise\_core\_noneustatic.cpp  
M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinitions.h M /issm/trunk-jpl/src/c/shared/Enum/EnumToSt  
M /issm/trunk-jpl/src/c/shared/Enum/StringToEnumx.cpp  
Export determination: 6.  
Rationale: CHG: rotational feedback works fine now

**Change #5** with diff file ISSM-21345-21346.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/slr.m

Export determination: 6.

Rationale: CHG: rotational feedback matlab parameterization

**Change #6** with diff file ISSM-21346-21347.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test2003.m M /issm/trunk-jpl/test/NightlyRun/test2110.m

Export determination: 6.

Rationale: CHG: nightly updated for rotational feedback

**Change #7** with diff file ISSM-21347-21348.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/FemModel.h

Export determination: 6.

Rationale: CHG: duplicate funtion declaration

**Change #8** with diff file ISSM-21348-21349.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive2003.arch

Export determination: 6.

Rationale: CHG: archive updated for test2003

**Change #9** with diff file ISSM-21349-21350.diff:

Function name:

M /issm/trunk-jpl/src/m/shp/shp2exp.m M /issm/trunk-jpl/src/m/shp/shp2exp.py

M /issm/trunk-jpl/src/py3/shp/shp2exp.py

Export determination: 6.

Rationale: BUG: changed so that exps from line and point shapefiles are not closed

**Change #10** with diff file ISSM-21350-21351.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Tria.cpp M /issm/trunk-jpl/src/c/classes/FemModel.cpp

Export determination: 6.

Rationale: CHG: constants appearing in SLR rotational feedback double checked

**Change #11** with diff file ISSM-21351-21352.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive2002.arch

Export determination: 6.

Rationale: CHG: archive updated as the solutions now include rotational feedback as well

**Change #12** with diff file ISSM-21352-21353.diff:

Function name:

M /issm/trunk-jpl/configure.ac

Export determination: 6.

Rationale: CHG: updated version number

**Change #13** with diff file ISSM-21353-21354.diff:

Function name:

M /issm/trunk-jpl/src/m/solve/solve.m

Export determination: 6.

Rationale: CHG: added MC soft

**Change #14** with diff file ISSM-21354-21355.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/mismipbasalforcings.py

Export determination: 6.

Rationale: CHG: added def\_initialize and removed md in def\_init to make it more python

**Change #15** with diff file ISSM-21355-21356.diff:

Function name:

A /issm/trunk-jpl/src/m/plot/plot\_elementnumbering.py M /issm/trunk-jpl/src/m/plot/plot\_manager.py

M /issm/trunk-jpl/src/m/plot/plotdoc.py

Export determination: 6.

Rationale: NEW:adding elementnumbering

**Change #16** with diff file ISSM-21356-21357.diff:

Function name:

M /issm/trunk-jpl/src/m/contrib/defleurian/netCDF/export\_netCDF.py

Export determination: 6.

Rationale: CHG:added field==bamg

**Change #17** with diff file ISSM-21357-21358.diff:

Function name:

M /issm/trunk-jpl/src/m/io/loadvars.py

Export determination: 6.

Rationale: CHG:added OrderedDict

**Change #18** with diff file ISSM-21358-21359.diff:

Function name:

M /issm/trunk-jpl/src/m/io/loadvars.py

Export determination: 6.

Rationale: CHG:Deleted print and double import of Odereddict

**Change #19** with diff file ISSM-21359-21360.diff:

Function name:  
M /issm/trunk-jpl/jenkins/macosex\_pine-island\_dakota  
Export determination: 6.  
Rationale: CHG: Dakota build was using 2015a version of Matlab. Changing to 2015b.

**Change #20** with diff file ISSM-21360-21361.diff:

Function name:  
M /issm/trunk-jpl/jenkins/macosex\_pine-island\_dakota\_static M /issm/trunk-jpl/jenkins/macosex\_pine-island\_static  
Export determination: 6.  
Rationale: BUG: changing MATLAB path

**Change #21** with diff file ISSM-21377-21378.diff:

Function name:  
M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/ThermalAnalysis.o  
M /issm/trunk-jpl/src/m/classes/matestar.m M /issm/trunk-jpl/src/m/classes/matice.m  
Export determination: 6.  
Rationale: NEW:added BuddJacka flow parameter

**Change #22** with diff file ISSM-21378-21379.diff:

Function name:  
M /issm/trunk-jpl/src/m/classes/matdamageice.m M /issm/trunk-jpl/src/m/classes/matdamageice.py  
M /issm/trunk-jpl/src/m/classes/matice.js M /issm/trunk-jpl/src/m/classes/matice.py  
Export determination: 6.  
Rationale: NEW:added BuddJacka flow parameter

**Change #23** with diff file ISSM-21379-21380.diff:

Function name:  
M /issm/trunk-jpl/src/m/classes/clusters/vilje.py  
Export determination: 6.  
Rationale: NEW: adding the test queue possibility on Vilje

**Change #24** with diff file ISSM-21380-21381.diff:

Function name:

A /issm/trunk-jpl/src/m/classes/matenhancedice.m

Export determination: 6.

Rationale: CHG: added matenhancedice.m

**Change #25** with diff file ISSM-21381-21382.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp M /issm/trunk-jpl/src/c/classes/Elements/Penta.cpp

M /issm/trunk-jpl/src/c/classes/Materials/Matestar.cpp M /issm/trunk-jpl/src/c/classes/Materials/Matestar

M /issm/trunk-jpl/src/c/modules/ModelProcessorx/CreateElementsVerticesAndMaterials.cpp

M /issm/trunk-jpl/src/c/shared/Elements/EstarComponents.cpp M /issm/trunk-jpl/src/c/shared/Elements/elements.h M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinitions.h

M /issm/trunk-jpl/src/m/classes/matestar.m

Export determination: 6.

Rationale: CHG: ESTAR in terms of epseff and B

**Change #26** with diff file ISSM-21382-21383.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/ThermalAnalysis.c

Export determination: 6.

Rationale: NEW: ESTAR thermal model capability

**Change #27** with diff file ISSM-21383-21384.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test460.m

Export determination: 6.

Rationale: CHG: ESTAR in terms of B

**Change #28** with diff file ISSM-21384-21385.diff:

Function name:

A /issm/trunk-jpl/test/Archives/Archive461.arch A /issm/trunk-jpl/test/NightlyRun/test461.m

Export determination: 6.

Rationale: NEW: added test to check ESTAR thermal



**Change #29** with diff file ISSM-21385-21386.diff:

Function name:

M /issm/trunk-jpl/src/c/shared/Enum/EnumToStringx.cpp M /issm/trunk-jpl/src/c/shared/Enum/StringToEnumx.cpp

Export determination: 6.

Rationale: CHG: fixing enums

**Change #30** with diff file ISSM-21386-21387.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive460.arch M /issm/trunk-jpl/test/Archives/Archive461.arch

Export determination: 6.

Rationale: CHG:: update archives now that ESTAR had been changed

**Change #31** with diff file ISSM-21387-21388.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test461.m

Export determination: 6.

Rationale: CHG: relaxing tolerances

**Change #32** with diff file ISSM-21388-21389.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/StressbalanceAnalysis.cpp

Export determination: 6.

Rationale: CHG: Use the right coordinate system and bed slope for shelf damp-  
ending

**Change #33** with diff file ISSM-21389-21390.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/ThermalAnalysis.cpp

M /issm/trunk-jpl/src/c/classes/Materials/Matrice.cpp M /issm/trunk-jpl/src/c/classes/Materials/Matrice.h

M /issm/trunk-jpl/src/c/classes/Materials/Matpar.cpp M /issm/trunk-jpl/src/c/modules/ModelProcessorx/ModelProcessorx.cpp

M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinitions.h M /issm/trunk-jpl/src/c/shared/Enum/EnumToStringx.cpp

M /issm/trunk-jpl/src/c/shared/Enum/StringToEnumx.cpp M /issm/trunk-jpl/src/c/shared/io/Marshalling/IO\_Marshalling.cpp

Export determination: 6.

Rationale: NEW: matenhancedice class, enhancement in Glen flow relationvis-  
cosity

**Change #34** with diff file ISSM-21390-21391.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp

Export determination: 6.

Rationale: NEW: matenhancedice class, enhancement in Glen flow relation

**Change #35** with diff file ISSM-21391-21392.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/FemModel.cpp

Export determination: 6.

Rationale: CHG: fixed rotational feedback formulatoin, which was using index i instead of sid to plug values into the rotational vector. Results should be completely changed.

**Change #36** with diff file ISSM-21393-21394.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Penta.cpp M /issm/trunk-jpl/src/c/classes/Materials/Material.h

M /issm/trunk-jpl/src/c/classes/Materials/Matestar.h M /issm/trunk-jpl/src/c/classes/Materials/Matpar.h

Export determination: 6.

Rationale: BUG: fixed matenhancedice for SSA 3d

**Change #37** with diff file ISSM-21394-21395.diff:

Function name:

A /issm/trunk-jpl/test/Archives/Archive260.arch A /issm/trunk-jpl/test/Archives/Archive261.arch

A /issm/trunk-jpl/test/NightlyRun/test260.m A /issm/trunk-jpl/test/NightlyRun/test261.m

Export determination: 6.

Rationale: NEW: added tests for matenhancedice

**Change #38** with diff file ISSM-21398-21399.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/HydrologyDCInefficientAnalysis.cpp M /issm/trunk-

jpl/src/c/analyses/HydrologyDCInefficientAnalysis.h

Export determination: 6.

Rationale: NEW:changing transmitivity and storing coeficient for confined-unconfined ability

**Change #39** with diff file ISSM-21399-21400.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive124.arch M /issm/trunk-jpl/test/Archives/Archive211.arch  
M /issm/trunk-jpl/test/Archives/Archive404.arch M /issm/trunk-jpl/test/Archives/Archive421.arch  
M /issm/trunk-jpl/test/Archives/Archive422.arch M /issm/trunk-jpl/test/Archives/Archive460.arch  
M /issm/trunk-jpl/test/Archives/Archive503.arch M /issm/trunk-jpl/test/Archives/Archive507.arch  
M /issm/trunk-jpl/test/Archives/Archive510.arch M /issm/trunk-jpl/test/Archives/Archive511.arch  
M /issm/trunk-jpl/test/Archives/Archive703.arch

Export determination: 6.

Rationale: FIX: new archives with full-stokes changes

**Change #40** with diff file ISSM-21400-21401.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive702.arch M /issm/trunk-jpl/test/NightlyRun/test702.m

Export determination: 6.

Rationale: FIX: updating archive and removing Crouzeix raviart

**Change #41** with diff file ISSM-21401-21402.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/ExtrapolationAnalysis.cpp

Export determination: 6.

Rationale: CHG: cosmetics

**Change #42** with diff file ISSM-21402-21403.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Penta.cpp M /issm/trunk-jpl/src/c/classes/Elements/Penta.h  
M /issm/trunk-jpl/src/c/classes/FemModel.cpp

Export determination: 6.

Rationale: CHG: calving 3D

**Change #43** with diff file ISSM-21403-21404.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/StressbalanceAnalysis.cpp M /issm/trunk-jpl/src/c/classes/Elements/Penta.cpp

Export determination: 6.

Rationale: CHG: fixed levermann 3d and cleaned up FS shelf dampening

**Change #44** with diff file ISSM-21404-21405.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test2003.m

Export determination: 6.

Rationale: CHG: rotational feedback works in parallel

**Change #45** with diff file ISSM-21405-21406.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/initialization.m

Export determination: 6.

Rationale: BUG: ensure that temperate base gets proper enthalpy value. Rounding errors would cause test ( $T_b = T_{bmp}$ ) to fail.

**Change #46** with diff file ISSM-21406-21407.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/initialization.m M /issm/trunk-jpl/src/m/classes/initialization.py  
M /issm/trunk-jpl/test/Archives/Archive803.arch M /issm/trunk-jpl/test/Archives/Archive805.arch

Export determination: 6.

Rationale: BUG: checking consistency of 'if waterfraction $\leq$ 0 then  $T = T_{bmp}$ ', updating archives

**Change #47** with diff file ISSM-21407-21408.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Materials/Matestar.cpp

Export determination: 6.

Rationale: CHG: ESTAR inversion for B

**Change #48** with diff file ISSM-21408-21409.diff:

[illegible]

[illegible]

M /issm/trunk-jpl/test/NightlyRun/test425.py M /issm/trunk-jpl/test/NightlyRun/test426.py  
M /issm/trunk-jpl/test/NightlyRun/test427.py M /issm/trunk-jpl/test/NightlyRun/test428.py  
M /issm/trunk-jpl/test/NightlyRun/test429.py M /issm/trunk-jpl/test/NightlyRun/test431.py  
M /issm/trunk-jpl/test/NightlyRun/test432.py M /issm/trunk-jpl/test/NightlyRun/test433.py  
M /issm/trunk-jpl/test/NightlyRun/test434.py M /issm/trunk-jpl/test/NightlyRun/test450.py  
M /issm/trunk-jpl/test/NightlyRun/test455.py M /issm/trunk-jpl/test/NightlyRun/test501.py  
M /issm/trunk-jpl/test/NightlyRun/test502.py M /issm/trunk-jpl/test/NightlyRun/test503.py  
M /issm/trunk-jpl/test/NightlyRun/test504.py M /issm/trunk-jpl/test/NightlyRun/test505.py  
M /issm/trunk-jpl/test/NightlyRun/test506.py M /issm/trunk-jpl/test/NightlyRun/test507.py  
M /issm/trunk-jpl/test/NightlyRun/test508.py M /issm/trunk-jpl/test/NightlyRun/test509.py  
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M /issm/trunk-jpl/test/NightlyRun/test512.py M /issm/trunk-jpl/test/NightlyRun/test513.py  
M /issm/trunk-jpl/test/NightlyRun/test514.py M /issm/trunk-jpl/test/NightlyRun/test515.py  
M /issm/trunk-jpl/test/NightlyRun/test516.py M /issm/trunk-jpl/test/NightlyRun/test530.py  
M /issm/trunk-jpl/test/NightlyRun/test531.py M /issm/trunk-jpl/test/NightlyRun/test601.py  
M /issm/trunk-jpl/test/NightlyRun/test602.py M /issm/trunk-jpl/test/NightlyRun/test603.py  
M /issm/trunk-jpl/test/NightlyRun/test604.py M /issm/trunk-jpl/test/NightlyRun/test605.py  
M /issm/trunk-jpl/test/NightlyRun/test606.py M /issm/trunk-jpl/test/NightlyRun/test607.py  
M /issm/trunk-jpl/test/NightlyRun/test608.py M /issm/trunk-jpl/test/NightlyRun/test611.py  
M /issm/trunk-jpl/test/NightlyRun/test613.py M /issm/trunk-jpl/test/NightlyRun/test801.py  
M /issm/trunk-jpl/test/NightlyRun/test802.py M /issm/trunk-jpl/test/NightlyRun/test803.py  
M /issm/trunk-jpl/test/NightlyRun/test804.py M /issm/trunk-jpl/test/NightlyRun/test805.py  
M /issm/trunk-jpl/test/NightlyRun/test806.py M /issm/trunk-jpl/test/NightlyRun/test807.py  
Export determination: 6.  
Rationale: CHG: uniformization fix

**Change #49** with diff file ISSM-21409-21410.diff:

Function name:

M /issm/trunk-jpl/test/Par/79North.py M /issm/trunk-jpl/test/Par/ISMIPA.py  
M /issm/trunk-jpl/test/Par/ISMIPB.py M /issm/trunk-jpl/test/Par/ISMIPC.py  
M /issm/trunk-jpl/test/Par/ISMIPD.py M /issm/trunk-jpl/test/Par/ISMIPE.py  
M /issm/trunk-jpl/test/Par/ISMIPF.py M /issm/trunk-jpl/test/Par/Pig.py M  
/issm/trunk-jpl/test/Par/RoundSheetEISMINT.py M /issm/trunk-jpl/test/Par/RoundSheetShelf.py  
M /issm/trunk-jpl/test/Par/RoundSheetStaticEISMINT.py M /issm/trunk-jpl/test/Par/SquareEISMINT.py  
M /issm/trunk-jpl/test/Par/SquareSheetConstrained.py M /issm/trunk-jpl/test/Par/SquareSheetShelf.py  
M /issm/trunk-jpl/test/Par/SquareShelf.py M /issm/trunk-jpl/test/Par/SquareShelf2.py  
M /issm/trunk-jpl/test/Par/SquareShelfConstrained.py M /issm/trunk-jpl/test/Par/SquareThermal.py  
M /issm/trunk-jpl/test/Par/ValleyGlacierShelf.py  
Export determination: 6.  
Rationale: CHG: mooving to real vector initialisation (N) in place of (N,1)

**Change #50** with diff file ISSM-21410-21411.diff:

Function name:

M /issm/trunk-jpl/scripts/BinRead.py M /issm/trunk-jpl/src/m/boundaryconditions/love\_numbers.py  
M /issm/trunk-jpl/src/m/classes/clusters/generic.py M /issm/trunk-jpl/src/m/classes/mesh3dprisms.py  
M /issm/trunk-jpl/src/m/classes/mesh3dsurface.py M /issm/trunk-jpl/src/m/consistency/checkfield.py  
M /issm/trunk-jpl/src/m/coordsystems/gmtmask.py M /issm/trunk-jpl/src/m/mesh/planet/gmsh/gmshplane  
M /issm/trunk-jpl/src/m/mesh/squaremesh.py M /issm/trunk-jpl/src/m/plot/processmesh.py

Export determination: 6.

Rationale: CHG: Python Cosmetic fixes

**Change #51** with diff file ISSM-21411-21412.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test1101.py M /issm/trunk-jpl/test/NightlyRun/test1102.py  
M /issm/trunk-jpl/test/NightlyRun/test1103.py M /issm/trunk-jpl/test/NightlyRun/test1104.py  
M /issm/trunk-jpl/test/NightlyRun/test1105.py M /issm/trunk-jpl/test/NightlyRun/test1107.py  
M /issm/trunk-jpl/test/NightlyRun/test1108.py M /issm/trunk-jpl/test/NightlyRun/test1201.py  
M /issm/trunk-jpl/test/NightlyRun/test1601.py M /issm/trunk-jpl/test/NightlyRun/test1602.py  
M /issm/trunk-jpl/test/NightlyRun/test211.py M /issm/trunk-jpl/test/NightlyRun/test212.py  
M /issm/trunk-jpl/test/NightlyRun/test213.py M /issm/trunk-jpl/test/NightlyRun/test214.py  
M /issm/trunk-jpl/test/NightlyRun/test215.py M /issm/trunk-jpl/test/NightlyRun/test217.py  
M /issm/trunk-jpl/test/NightlyRun/test270.py M /issm/trunk-jpl/test/NightlyRun/test272.py  
M /issm/trunk-jpl/test/NightlyRun/test273.py M /issm/trunk-jpl/test/NightlyRun/test274.py  
M /issm/trunk-jpl/test/NightlyRun/test275.py M /issm/trunk-jpl/test/NightlyRun/test3300.py  
M /issm/trunk-jpl/test/NightlyRun/test332.py M /issm/trunk-jpl/test/NightlyRun/test333.py  
M /issm/trunk-jpl/test/NightlyRun/test334.py M /issm/trunk-jpl/test/NightlyRun/test335.py  
M /issm/trunk-jpl/test/NightlyRun/test514.py M /issm/trunk-jpl/test/NightlyRun/test806.py  
M /issm/trunk-jpl/test/NightlyRun/test807.py

Export determination: 6.

Rationale: BUG: fixing remnant errors

**Change #52** with diff file ISSM-21412-21413.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/runme.py M /issm/trunk-jpl/test/NightlyRun/test803.py  
M /issm/trunk-jpl/test/NightlyRun/test806.py M /issm/trunk-jpl/test/NightlyRun/test807.py

Export determination: 6.

Rationale: BUG:minor typos and changing print formatting in runme.py

**Change #53** with diff file ISSM-21413-21414.diff:



Function name:

M /issm/trunk-jpl/test/Archives/Archive803.arch M /issm/trunk-jpl/test/Archives/Archive805.arch

Export determination: 6.

Rationale: CHG: updating archives

**Change #54** with diff file ISSM-21414-21415.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive803.arch M /issm/trunk-jpl/test/Archives/Archive805.arch

Export determination: 6.

Rationale: CHG: updating archives, pt2

**Change #55** with diff file ISSM-21415-21416.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/clusters/hexagon.py M /issm/trunk-jpl/src/m/classes/clusters/vilje.py

Export determination: 6.

Rationale: BUG:Fixing np initialisation

**Change #56** with diff file ISSM-21416-21417.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Inputs/ControlInput.cpp

Export determination: 6.

Rationale: CHG: minor

**Change #57** with diff file ISSM-21417-21418.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/mesh3dprisms.m M /issm/trunk-jpl/src/m/classes/model.m

Export determination: 6.

Rationale: CHG: make sure that 3d mesh follows geometry, and added collapse of some other quantities

**Change #58** with diff file ISSM-21418-21419.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/linearbasalforcings.m M /issm/trunk-jpl/src/m/classes/model.m

Export determination: 6.  
Rationale: CHG: adding extraction/collapse of some variables

**Change #59** with diff file ISSM-21419-21420.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/ExtrapolationAnalysis.cpp  
Export determination: 6.  
Rationale: CHG: fixed 3d extraction so that it works like 2d, had to change xyz\_list

**Change #60** with diff file ISSM-21420-21421.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/ExtrapolationAnalysis.cpp  
Export determination: 6.  
Rationale: CHG: added comment

**Change #61** with diff file ISSM-21423-21424.diff:  
Function name:  
M /issm/trunk-jpl/test/Archives/Archive701.arch M /issm/trunk-jpl/test/NightlyRun/test701.m  
Export determination: 6.  
Rationale: CHG: removed XTaylorHood

**Change #62** with diff file ISSM-21424-21425.diff:  
Function name:  
M /issm/trunk-jpl/test/Archives/Archive802.arch M /issm/trunk-jpl/test/Archives/Archive803.arch  
M /issm/trunk-jpl/test/Archives/Archive805.arch  
Export determination: 6.  
Rationale: FIX: updating archives

**Change #63** with diff file ISSM-21425-21426.diff:  
Function name:  
M /issm/trunk-jpl/src/m/classes/clusters/hexagon.py M /issm/trunk-jpl/src/m/classes/clusters/vilje.py  
Export determination: 6.

Rationale: hexagon.py+vilje.py: fixed issue with walltime requests greater than 24h; timestring=str(datetime.timedelta(minutes=self.time)) does not provide the right format of HH:MM:SS for requests greater than 24h

**Change #64** with diff file ISSM-21426-21427.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_unit.py M /issm/trunk-jpl/src/m/plot/plotmodel.py

Export determination: 6.

Rationale: plot\_unit.py: fixed issue with continous colorbar when setting colorlevels; now both plot and colorbar are discrete if colorlevels are set in plot-model()

**Change #65** with diff file ISSM-21427-21428.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_unit.py M /issm/trunk-jpl/src/m/plot/plotdoc.py

M /issm/trunk-jpl/src/m/plot/processmesh.py

Export determination: 6.

Rationale: NEW:adding layer capability for 3D plots

**Change #66** with diff file ISSM-21428-21429.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/model.m

Export determination: 6.

Rationale: CHG: in extract, added elseif elements+1 for GEMB inputs

**Change #67** with diff file ISSM-21429-21430.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plotgemb.m

Export determination: 6.

Rationale: CHG: flipud dz after computing levels, not before

**Change #68** with diff file ISSM-21430-21431.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/HydrologyDCInefficientAnalysis.cpp  
Export determination: 6.  
Rationale: CHG:minor clean up

**Change #69** with diff file ISSM-21431-21432.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/HydrologyDCInefficientAnalysis.cpp  
Export determination: 6.  
Rationale: BUG: syntax fix

**Change #70** with diff file ISSM-21432-21433.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/HydrologyDCInefficientAnalysis.cpp  
Export determination: 6.  
Rationale: BUG More fix

**Change #71** with diff file ISSM-21433-21434.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/HydrologyDCInefficientAnalysis.cpp  
Export determination: 6.  
Rationale: BUG: fixing cleaning bug

**Change #72** with diff file ISSM-21434-21435.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientAnalysis.cpp  
Export determination: 6.  
Rationale: BUG. Fixing the Epl initialisation which was erased for non active nodes

**Change #73** with diff file ISSM-21435-21436.diff:

Function name:  
M /issm/trunk-jpl/src/m/plot/applyoptions.py M /issm/trunk-jpl/src/m/plot/plotdoc.py  
Export determination: 6.  
Rationale: applyoptions.py+plotdoc.py: python plotmodel options 'colorbarticks'  
and 'colorbarfontsize' added

**Change #74** with diff file ISSM-21436-21437.diff:

Function name:  
M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientAnalysis.h M /issm/trunk-jpl/src/c/analyses/HydrologyDCInefficientAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/HydrologyDCInefficientAnalysis.h  
Export determination: 6.  
Rationale: NEW: extending the unconfined treatment to EPL

**Change #75** with diff file ISSM-21437-21438.diff:

Function name:  
M /issm/trunk-jpl/src/m/classes/clusters/generic.js M /issm/trunk-jpl/src/m/plot/plot\_manager.js  
M /issm/trunk-jpl/src/m/plot/plot\_quiver.js M /issm/trunk-jpl/src/m/plot/plot\_unit.js  
M /issm/trunk-jpl/src/m/plot/webgl.js  
Export determination: 6.  
Rationale: CHG (JS): Updating js plot routines for improved movie rendering  
and 2-way computational request compression in generic.js.

**Change #76** with diff file ISSM-21438-21439.diff:

Function name:  
M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientAnalysis.h  
Export determination: 6.  
Rationale: CHG:reverting to confined for EPL but with collapse if head gets  
under base elevation

**Change #77** with diff file ISSM-21439-21440.diff:

Function name:  
M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientAnalysis.cpp  
Export determination: 6.

Rationale: CHG:Last change generate stability issues, reverting

**Change #78** with diff file ISSM-21440-21441.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_manager.py M /issm/trunk-jpl/src/m/plot/plot\_mesh.py

M /issm/trunk-jpl/src/m/plot/plotmodel.py M /issm/trunk-jpl/src/m/plot/processmesh.py

Export determination: 6.

Rationale: NEW: adding 3D treatment for mesh and clean way to remove the colorbar

**Change #79** with diff file ISSM-21441-21442.diff:

Function name:

A /issm/trunk-jpl/src/m/plot/plot\_vertexnumbering.py

Export determination: 6.

Rationale: NEW added vertexnumbering

**Change #80** with diff file ISSM-21442-21443.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_manager.py

Export determination: 6.

Rationale: NEW added vertexnumbering

**Change #81** with diff file ISSM-21443-21444.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plotdoc.py

Export determination: 6.

Rationale: New added vertex and elementnumbering

**Change #82** with diff file ISSM-21444-21445.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/applyoptions.py M /issm/trunk-jpl/src/m/plot/plot\_manager.py

M /issm/trunk-jpl/src/m/plot/plot\_mesh.py M /issm/trunk-jpl/src/m/plot/plot\_unit.py

M /issm/trunk-jpl/src/m/plot/plotdoc.py M /issm/trunk-jpl/src/m/plot/plotmodel.py

Export determination: 6.  
Rationale: NEW: adding 3D ability for standard data plot (may need to shift to mayavi on a later stage)

**Change #83** with diff file ISSM-21445-21446.diff:  
Function name:  
M /issm/trunk-jpl/src/c/modules/ModelProcessox/CreateOutputDefinitions.cpp  
M /issm/trunk-jpl/src/m/classes/nodalvalue.m  
Export determination: 6.  
Rationale: CHG: update to fit new way of handling enums.

**Change #84** with diff file ISSM-21446-21447.diff:  
Function name:  
M /issm/trunk-jpl/src/m/plot/plot\_unit.py  
Export determination: 6.  
Rationale: CHG:optimizing the number of patch we plot for 3D with python (only plotting an enveloppe)

**Change #85** with diff file ISSM-21447-21448.diff:  
Function name:  
A /issm/trunk-jpl/src/m/miscellaneous/diagnostics.m  
Export determination: 6.  
Rationale: NEW: diagnostics, outputs diagnostic values of a model into qgis compatible routines.

**Change #86** with diff file ISSM-21448-21449.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/StressbalanceAnalysis.cpp  
Export determination: 6.  
Rationale: BUG: friction was always in 1D for SSA...

**Change #87** with diff file ISSM-21449-21450.diff:  
Function name:

M /issm/trunk-jpl/src/c/cores/controlm1qn3\_core.cpp  
Export determination: 6.  
Rationale: CHG: keep track of all cost functions

**Change #88** with diff file ISSM-21450-21451.diff:  
Function name:  
M /issm/trunk-jpl/src/c/cores/controlm1qn3\_core.cpp  
Export determination: 6.  
Rationale: CHG: make size dynamic

**Change #89** with diff file ISSM-21451-21452.diff:  
Function name:  
M /issm/trunk-jpl/src/c/solutionsequences/solutionsequence\_nonlinear.cpp  
Export determination: 6.  
Rationale: CHG: number of iterations displayed is off

**Change #90** with diff file ISSM-21452-21453.diff:  
Function name:  
M /issm/trunk-jpl/src/m/mesh/bamg.m M /issm/trunk-jpl/src/m/mesh/rifts/rifttipsonmesh.m  
Export determination: 6.  
Rationale: CHG: add shape file option to mesh calls

**Change #91** with diff file ISSM-21453-21454.diff:  
Function name:  
M /issm/trunk-jpl/src/m/mesh/bamg.m  
Export determination: 6.  
Rationale: CHG: allow shapefiles for rifts.

**Change #92** with diff file ISSM-21454-21455.diff:  
Function name:  
M /issm/trunk-jpl/src/m/mesh/rifts/rifttipsonmesh.m  
Export determination: 6.  
Rationale: CHG: allow profiles to be shape files.



**Change #93** with diff file ISSM-21455-21456.diff:

Function name:

M /issm/trunk-jpl/src/m/miscellaneous/diagnostics.m

Export determination: 6.

Rationale: CHG: more documentation and minor fixes.

**Change #94** with diff file ISSM-21456-21457.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_contour.m

Export determination: 6.

Rationale: CHG: attempt at making it compatible with mesh3dsurface types.

**Change #95** with diff file ISSM-21457-21458.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_contour.m

Export determination: 6.

Rationale: CHG: clabel revert.

**Change #96** with diff file ISSM-21458-21459.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/slr.py

Export determination: 6.

Rationale: BUG: rotational parameters are introduced for python

**Change #97** with diff file ISSM-21459-21460.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/slr.py

Export determination: 6.

Rationale: minor

**Change #98** with diff file ISSM-21460-21461.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/slr.js

Export determination: 6.

Rationale: CHG: rotational parameters introduced

**Change #99** with diff file ISSM-21461-21462.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/slr.py

Export determination: 6.

Rationale: BUG: fixing python comment

**Change #100** with diff file ISSM-21462-21463.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/slr.py

Export determination: 6.

Rationale: BUG: fixing python comment

**Change #101** with diff file ISSM-21463-21464.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/HydrologySommersAnalysis.cpp M /issm/trunk-jpl/src/c/cores/hydrology\_core.cpp M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinitions.h  
M /issm/trunk-jpl/src/m/classes/hydrologysommers.m

Export determination: 6.

Rationale: NEW: Added under-relaxation capability and added basal flux as an output

**Change #102** with diff file ISSM-21464-21465.diff:

Function name:

M /issm/trunk-jpl/src/c/shared/Enum/EnumToStringx.cpp M /issm/trunk-jpl/src/c/shared/Enum/StringToEnum.cpp

Export determination: 6.

Rationale: CHG: syncing enums

**Change #103** with diff file ISSM-21465-21466.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test513.m

Export determination: 6.

Rationale: CHG: added archive ../../Archives/Archive350.arch

**Change #104** with diff file ISSM-21466-21467.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive350.arch M /issm/trunk-jpl/test/NightlyRun/test513.m

Export determination: 6.

Rationale: CHG: added archive ../../Archives/Archive350.arch and reverted wrong change

**Change #105** with diff file ISSM-21467-21468.diff:

Function name:

M /issm/trunk-jpl/src/c/shared/Elements/BuddJacka.cpp

Export determination: 6.

Rationale: BUG: case  $T_{j-1}$  was not covered

**Change #106** with diff file ISSM-21468-21469.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientAnalysis.cpp M /issm/trunk-

jpl/src/c/analyses/HydrologyDCEfficientAnalysis.h M /issm/trunk-jpl/src/c/solutionsequences/solutionsequen

Export determination: 6.

Rationale: CHG:changes in efficient layer computations

**Change #107** with diff file ISSM-21469-21470.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/SmbAnalysis.cpp M /issm/trunk-jpl/src/c/modules/SurfaceMassBalancex/

M /issm/trunk-jpl/src/c/modules/SurfaceMassBalancex/SurfaceMassBalancex.h

M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinitions.h M /issm/trunk-jpl/src/c/shared/Enum/EnumToSt

M /issm/trunk-jpl/src/c/shared/Enum/StringToEnumx.cpp A /issm/trunk-jpl/src/m/classes/SMBgradientsel

A /issm/trunk-jpl/src/m/classes/SMBgradientsela.py A /issm/trunk-jpl/test/Archives/Archive343.arch

A /issm/trunk-jpl/test/Archives/Archive344.arch A /issm/trunk-jpl/test/NightlyRun/test343.m

A /issm/trunk-jpl/test/NightlyRun/test344.m

Export determination: 6.  
Rationale: NEW: added SMB gradients ela method

**Change #108** with diff file ISSM-21470-21471.diff:  
Function name:  
M /issm/trunk-jpl/src/m/classes/SMBgradientsela.m  
Export determination: 6.  
Rationale: CHG: very minor typo in new SMB gradients ela class

**Change #109** with diff file ISSM-21471-21472.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/DofIndexing.cpp  
Export determination: 6.  
Rationale: CHG: better deepech of indexing

**Change #110** with diff file ISSM-21472-21473.diff:  
Function name:  
M /issm/trunk-jpl/src/c/shared/io/Marshalling/IoCodeConversions.cpp  
Export determination: 6.  
Rationale: CHG: added support for SMB gradients ela

**Change #111** with diff file ISSM-21473-21474.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/Materials/Matpar.cpp  
Export determination: 6.  
Rationale: CHG: added parameters for SMB gradients ela method

**Change #112** with diff file ISSM-21474-21475.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/Materials/Matpar.cpp  
Export determination: 6.  
Rationale: CHG: corrected matlab parameters for SMB gradients and SMB gradients ela

**Change #113** with diff file ISSM-21475-21476.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_elementnumbering.py M /issm/trunk-jpl/src/m/plot/plot\_manager.py

M /issm/trunk-jpl/src/m/plot/plot\_mesh.py M /issm/trunk-jpl/src/m/plot/plot\_vertexnumbering.py

Export determination: 6.

Rationale: CHG: changing vertex numbering to the matlab standard for consistency

**Change #114** with diff file ISSM-21476-21477.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientAnalysis.cpp M /issm/trunk-

jpl/src/c/analyses/HydrologyDCInefficientAnalysis.cpp M /issm/trunk-jpl/src/c/solutionsequences/solutionse

Export determination: 6.

Rationale: CHG:Optimizing convergence

**Change #115** with diff file ISSM-21477-21478.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test102.py M /issm/trunk-jpl/test/NightlyRun/test333.py

Export determination: 6.

Rationale: BUG: comenting side computations

**Change #116** with diff file ISSM-21478-21479.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_elementnumbering.py M /issm/trunk-jpl/src/m/plot/plot\_vertexnumberin

Export determination: 6.

Rationale: CHG:prettyfying numbering plots

**Change #117** with diff file ISSM-21479-21480.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientAnalysis.cpp

Export determination: 6.

Rationale: CHG:Making Nightly run great again

**Change #118** with diff file ISSM-21480-21481.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test332.m M /issm/trunk-jpl/test/NightlyRun/test332.py

M /issm/trunk-jpl/test/NightlyRun/test333.m M /issm/trunk-jpl/test/NightlyRun/test333.py

M /issm/trunk-jpl/test/NightlyRun/test334.m M /issm/trunk-jpl/test/NightlyRun/test334.py

M /issm/trunk-jpl/test/NightlyRun/test335.m M /issm/trunk-jpl/test/NightlyRun/test335.py

A /issm/trunk-jpl/test/Par/IceCube.par A /issm/trunk-jpl/test/Par/IceCube.py

Export determination: 6.

Rationale: CHG: fixing nightlylies and adding an IceCube ParFile

**Change #119** with diff file ISSM-21481-21482.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp

Export determination: 6.

Rationale: BUG: applying enthalpy basal BCs on ice only can cause inconsistencies in fsets across partitions.

**Change #120** with diff file ISSM-21482-21483.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Node.cpp

Export determination: 6.

Rationale: BUG: assert that node is active if you change its degrees of freedom

**Change #121** with diff file ISSM-21483-21484.diff:

Function name:

M /issm/trunk-jpl/jenkins/windows

Export determination: 6.

Rationale: CHG: taking Gemb out of windows for now

**Change #122** with diff file ISSM-21484-21485.diff:

Function name:

M /issm/trunk-jpl/m4/issm\_options.m4 M /issm/trunk-jpl/src/c/Makefile.am

A /issm/trunk-jpl/src/c/classes/AdaptiveMeshRefinement.cpp A /issm/trunk-jpl/src/c/classes/AdaptiveMeshRefinement.h M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/classes/FemModel.h M /issm/trunk-jpl/src/c/classes/Materials/Matrice.cpp M /issm/trunk-jpl/src/c/classes/Materials/Matrice.h M /issm/trunk-jpl/src/c/classes/Node.cpp M /issm/trunk-jpl/src/c/classes/Node.h  
Export determination: 6.  
Rationale: NEW: adding AMR functionality, not working yet but structure in place

**Change #123** with diff file ISSM-21485-21486.diff:

Function name:

A /issm/trunk-jpl/externalpackages/neopz A /issm/trunk-jpl/externalpackages/neopz/install.sh

Export determination: 6.

Rationale: NEW: added neopz external package for AMR

**Change #124** with diff file ISSM-21486-21487.diff:

Function name:

M /issm/trunk-jpl/etc/environment.sh

Export determination: 6.

Rationale: CHG: added neopz env variable

**Change #125** with diff file ISSM-21487-21488.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/AdaptiveMeshRefinement.h

Export determination: 6.

Rationale: CHG: cosmetics

**Change #126** with diff file ISSM-21488-21489.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientAnalysis.cpp M /issm/trunk-jpl/src/c/classes/FemModel.cpp

Export determination: 6.

Rationale: CHG: putting collapse before open in EPL, fixing an index

**Change #127** with diff file ISSM-21489-21490.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientAnalysis.cpp

Export determination: 6.

Rationale: CHG:minor change in opening conditions

**Change #128** with diff file ISSM-21490-21491.diff:

Function name:

M /issm/trunk-jpl/m4/issm\_options.m4 M /issm/trunk-jpl/src/c/Makefile.am

M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/classes/FemModel.h

Export determination: 6.

Rationale: CHG: working on linking with neopz

**Change #129** with diff file ISSM-21491-21492.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/AdaptiveMeshRefinement.h

Export determination: 6.

Rationale: CHG: add neopz variables definition

**Change #130** with diff file ISSM-21492-21493.diff:

Function name:

M /issm/trunk-jpl/etc/environment.sh

Export determination: 6.

Rationale: BUG: fixed repatterns (neopz) path in etc/environment.h

**Change #131** with diff file ISSM-21493-21494.diff:

Function name:

M /issm/trunk-jpl/src/wrappers/matlab/Makefile.am

Export determination: 6.

Rationale: CHG: it was added neopz include (NEOPZINCL)

**Change #132** with diff file ISSM-21494-21495.diff:

Function name:



M /issm/trunk-jpl/src/c/classes/AdaptiveMeshRefinement.h  
Export determination: 6.  
Rationale: CHG: cosmetics.

**Change #133** with diff file ISSM-21495-21496.diff:  
Function name:  
M /issm/trunk-jpl/src/c/Makefile.am  
Export determination: 6.  
Rationale: CHG: neopz sources were added to libISSModules\_la\_SOURCES.

**Change #134** with diff file ISSM-21496-21497.diff:  
Function name:  
M /issm/trunk-jpl/src/wrappers/matlab/Makefile.am  
Export determination: 6.  
Rationale: CHG: neopz lib (NEOPZLIB) was added to Matlab libs (\*\_matlab\_la\_LIBADD)  
.

**Change #135** with diff file ISSM-21497-21498.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/classes/FemModel.h  
Export determination: 6.  
Rationale: CHG: amr object added in FemModel.h (just CPU #0 keeps it);  
initialization and delete processes added in FemModel.cpp.

**Change #136** with diff file ISSM-21499-21500.diff:  
Function name:  
M /issm/trunk-jpl/src/m/classes/model.m M /issm/trunk-jpl/src/m/classes/model.py  
Export determination: 6.  
Rationale: BUG: mesh.lat/long got overwritten during model collapse

**Change #137** with diff file ISSM-21500-21501.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientAnalysis.cpp M /issm/trunk-

jpl/src/c/analyses/HydrologyDCInefficientAnalysis.cpp  
Export determination: 6.  
Rationale: CHG:removing restrictions on N computation

**Change #138** with diff file ISSM-21501-21502.diff:  
Function name:  
M /issm/trunk-jpl/src/m/classes/mesh3dprisms.m  
Export determination: 6.  
Rationale: CHG: relaxing geometry tolerances

**Change #139** with diff file ISSM-21502-21503.diff:  
Function name:  
A /issm/trunk-jpl/src/m/solve/loadresultsslm.m  
Export determination: 6.  
Rationale: CHG: new loadresults routine for slm models.

**Change #140** with diff file ISSM-21503-21504.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/AdaptiveMeshRefinement.cpp M /issm/trunk-jpl/src/c/classes/AdaptiveMeshRefinement.h  
Export determination: 6.  
Rationale: CHG: adjusting methods in AdaptiveMeshRefinement (not working yet).

**Change #141** with diff file ISSM-21504-21505.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/classes/FemModel.h  
Export determination: 6.  
Rationale: CHG: adding methods in FemModel to generate new femmodel based on new mesh (adaptive mesh, not working yet).

**Change #142** with diff file ISSM-21505-21506.diff:  
Function name:

M /issm/trunk-jpl/test/NightlyRun/test1501.m  
Export determination: 6.  
Rationale: CHG: update sawtooth test so that plotting works correctly

**Change #143** with diff file ISSM-21506-21507.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/HydrologySommersAnalysis.cpp  
Export determination: 6.  
Rationale: CHG: changed basal water flux to be properly calculated over elements

**Change #144** with diff file ISSM-21507-21508.diff:  
Function name:  
A /issm/trunk-jpl/externalpackages/mpich/install-3.2-macosx64.sh  
Export determination: 6.  
Rationale: CHG: added new version

**Change #145** with diff file ISSM-21508-21509.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/Elements/ElementHook.cpp M /issm/trunk-jpl/src/c/classes/Elements/ElementHook.h M /issm/trunk-jpl/src/c/classes/Materials/Matrice.cpp  
M /issm/trunk-jpl/src/c/classes/Materials/Matpar.cpp M /issm/trunk-jpl/src/c/classes/Params/Param.h  
M /issm/trunk-jpl/src/c/classes/Params/Parameters.cpp  
Export determination: 6.  
Rationale: CHG: added and improved Echo and DeepEcho in Matrice, Matpar, Param, Parameters, ElementHook.

**Change #146** with diff file ISSM-21509-21510.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/Node.cpp  
Export determination: 6.  
Rationale: BUG: fixed an if verification (a double && was missing).

**Change #147** with diff file ISSM-21510-21511.diff:

Function name:

M /issm/trunk-jpl/src/c/modules/ModelProcessorx/CreateParameters.cpp M  
/issm/trunk-jpl/src/c/shared/Enum/EnumDefinitions.h M /issm/trunk-jpl/src/c/shared/Enum/EnumToStrin  
M /issm/trunk-jpl/src/c/shared/Enum/StringToEnumx.cpp M /issm/trunk-jpl/src/c/solutionsequences/soluti  
M /issm/trunk-jpl/src/m/classes/settings.js M /issm/trunk-jpl/src/m/classes/settings.m  
M /issm/trunk-jpl/src/m/classes/settings.py

Export determination: 6.

Rationale: NEW: remove solver residual hard code from solutionsequence\_linear

**Change #148** with diff file ISSM-21511-21512.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Materials/Matrice.cpp

Export determination: 6.

Rationale: BUG: Echo() and DeepEcho() from 2 attributes were commented in  
Matrice to avoid recursion.

**Change #149** with diff file ISSM-21512-21513.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/ElementHook.cpp

Export determination: 6.

Rationale: CHG: improved Echo() and DeepEcho() in ElementHook.

**Change #150** with diff file ISSM-21513-21514.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp

Export determination: 6.

Rationale: NEW: added a method to get inputs interpolation.

**Change #151** with diff file ISSM-21514-21515.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Element.h

Export determination: 6.

Rationale: NEW: added a method to get inputs interpolation.

**Change #152** with diff file ISSM-21515-21516.diff:

Function name:

M /issm/trunk-jpl/src/c/modules/InterpFromMeshToMesh2dx/InterpFromMeshToMesh2dx.cpp

Export determination: 6.

Rationale: CHG: changed the Options check.

**Change #153** with diff file ISSM-21516-21517.diff:

Function name:

M /issm/trunk-jpl/src/c/Makefile.am M /issm/trunk-jpl/src/c/classes/FemModel.cpp

M /issm/trunk-jpl/src/c/classes/FemModel.h

Export determination: 6.

Rationale: CHG: in FemModel.h and FemModel.cpp, changes and improvements in some AMR methods (adaptative mesh refinement). NOTE: not working yet. In Makefile.am, InterpFromMeshToMesh2dx.cpp was moved to issm\_cores.

**Change #154** with diff file ISSM-21517-21518.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/FemModel.cpp

Export determination: 6.

Rationale: CHG: changes in AMR methods. NOTE: not working yet.

**Change #155** with diff file ISSM-21518-21519.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp M /issm/trunk-jpl/src/c/classes/FemModel.cpp

M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinitions.h M /issm/trunk-jpl/src/c/shared/Enum/EnumToSt

M /issm/trunk-jpl/src/c/shared/Enum/StringToEnumx.cpp

Export determination: 6.

Rationale: CHG: added some changes for P1 interpolation

**Change #156** with diff file ISSM-21519-21520.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/FemModel.cpp

Export determination: 6.

Rationale: BUG: minor

**Change #157** with diff file ISSM-21520-21521.diff:

Function name:

M /issm/trunk-jpl/src/c/modules/GetVectorFromInputsx/GetVectorFromInputsx.cpp

Export determination: 6.

Rationale: CHG: minor

**Change #158** with diff file ISSM-21521-21522.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Inputs/BoolInput.cpp M /issm/trunk-jpl/src/c/classes/Inputs/BoolInput.h

M /issm/trunk-jpl/src/c/classes/Inputs/IntInput.cpp M /issm/trunk-jpl/src/c/classes/Inputs/IntInput.h

Export determination: 6.

Rationale: CHG: added average method

**Change #159** with diff file ISSM-21522-21523.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/FemModel.cpp

Export determination: 6.

Rationale: CHG: minor

**Change #160** with diff file ISSM-21523-21524.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/FemModel.cpp

Export determination: 6.

Rationale: BUG: changes in AMR methods.

**Change #161** with diff file ISSM-21524-21525.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/classes/FemModel.h

Export determination: 6.

Rationale: CHG: changes in AMR methods: added new method to get mesh by femmodel; changes in InterpolateInputs (NOTE: AMR not working yet).

**Change #162** with diff file ISSM-21525-21526.diff:

Function name:

M /issm/trunk-jpl/m4/issm\_options.m4 M /issm/trunk-jpl/src/c/Makefile.am

A /issm/trunk-jpl/src/c/main/issm\_ocean.cpp

Export determination: 6.

Rationale: NEW: starting to work on ocean coupling

**Change #163** with diff file ISSM-21526-21527.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/HydrologySommersAnalysis.cpp M /issm/trunk-

jpl/src/c/shared/Enum/EnumDefinitions.h M /issm/trunk-jpl/src/c/shared/Enum/EnumToString.cpp

M /issm/trunk-jpl/src/c/shared/Enum/StringToEnumx.cpp M /issm/trunk-jpl/src/m/classes/hydrologysomm

Export determination: 6.

Rationale: NEW: Added englacial storage term to subglacial hydrology model

**Change #164** with diff file ISSM-21527-21528.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/applyoptions.m

Export determination: 6.

Rationale: CHG: removed duplicated option

**Change #165** with diff file ISSM-21528-21529.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/AdaptiveMeshRefinement.cpp M /issm/trunk-

jpl/src/c/classes/AdaptiveMeshRefinement.h M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp

M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/classes/FemModel.h

Export determination: 6.

Rationale: CHG: changes in AMR methods (in FemModel) and in AdaptiveMeshRefinement class. Cleanup done and parallel tested (ReMesh method, simple example). AMR not working yet.

**Change #166** with diff file ISSM-21529-21530.diff:

Function name:

M /issm/trunk-jpl/src/c/Makefile.am M /issm/trunk-jpl/src/c/analyses/EnumToAnalysis.cpp

M /issm/trunk-jpl/src/c/analyses/analyses.h M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp

M /issm/trunk-jpl/src/c/classes/Elements/Element.h M /issm/trunk-jpl/src/c/classes/Elements/Penta.cpp

M /issm/trunk-jpl/src/c/classes/Elements/Penta.h M /issm/trunk-jpl/src/c/classes/Elements/Seg.h  
M /issm/trunk-jpl/src/c/classes/Elements/Tetra.h M /issm/trunk-jpl/src/c/classes/Elements/Tria.cpp  
M /issm/trunk-jpl/src/c/classes/Elements/Tria.h M /issm/trunk-jpl/src/c/classes/FemModel.cpp  
M /issm/trunk-jpl/src/c/classes/FemModel.h M /issm/trunk-jpl/src/c/classes/classes.h  
M /issm/trunk-jpl/src/c/cores/CorePointerFromSolutionEnum.cpp M /issm/trunk-jpl/src/c/cores/cores.h  
M /issm/trunk-jpl/src/c/cores/transient\_core.cpp M /issm/trunk-jpl/src/c/modules/ModelProcessorx/CreateParameters.cpp  
M /issm/trunk-jpl/src/c/modules/modules.h  
M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinitions.h M /issm/trunk-jpl/src/c/shared/Enum/EnumToSt  
M /issm/trunk-jpl/src/c/shared/Enum/StringToEnumx.cpp  
Export determination: 6.  
Rationale: CHG: Gia model is now named GiaIvins

**Change #167** with diff file ISSM-21530-21531.diff:

Function name:

M /issm/trunk-jpl/src/m/Makefile.am M /issm/trunk-jpl/src/m/classes/geometry.js  
M /issm/trunk-jpl/src/m/classes/geometry.m M /issm/trunk-jpl/src/m/classes/geometry.py  
M /issm/trunk-jpl/src/m/classes/matdamageice.m M /issm/trunk-jpl/src/m/classes/matdamageice.py  
M /issm/trunk-jpl/src/m/classes/matenhancedice.m M /issm/trunk-jpl/src/m/classes/matestar.m  
M /issm/trunk-jpl/src/m/classes/matice.js M /issm/trunk-jpl/src/m/classes/matice.m  
M /issm/trunk-jpl/src/m/classes/matice.py M /issm/trunk-jpl/src/m/classes/model.js  
M /issm/trunk-jpl/src/m/classes/model.m M /issm/trunk-jpl/src/m/classes/model.py  
M /issm/trunk-jpl/src/m/classes/slr.m M /issm/trunk-jpl/src/m/classes/trans.js  
M /issm/trunk-jpl/src/m/classes/transient.m M /issm/trunk-jpl/src/m/classes/transient.py  
M /issm/trunk-jpl/src/m/consistency/ismodelselfconsistent.js M /issm/trunk-jpl/src/m/consistency/ismodelselfconsistent.m  
M /issm/trunk-jpl/src/m/consistency/ismodelselfconsistent.py  
M /issm/trunk-jpl/src/m/contrib/defleurian/netCDF/ClassTry.py M /issm/trunk-jpl/src/m/solve/solve.js  
M /issm/trunk-jpl/src/m/solve/solve.m M /issm/trunk-jpl/src/m/solve/solve.py  
Export determination: 6.  
Rationale: CHG: Gia model is now named GiaIvins

**Change #168** with diff file ISSM-21531-21532.diff:

Function name:

D /issm/trunk-jpl/src/m/classes/gia.js D /issm/trunk-jpl/src/m/classes/gia.m  
D /issm/trunk-jpl/src/m/classes/gia.py A /issm/trunk-jpl/src/m/classes/giaivins.js  
A /issm/trunk-jpl/src/m/classes/giaivins.m A /issm/trunk-jpl/src/m/classes/giaivins.py  
Export determination: 6.  
Rationale: CHG: Gia model is now called GiaIvins



**Change #169** with diff file ISSM-21532-21533.diff:

Function name:

D /issm/trunk-jpl/src/c/analyses/GiaAnalysis.cpp D /issm/trunk-jpl/src/c/analyses/GiaAnalysis.h  
A /issm/trunk-jpl/src/c/analyses/GiaIvinsAnalysis.cpp A /issm/trunk-jpl/src/c/analyses/GiaIvinsAnalysis.h  
D /issm/trunk-jpl/src/c/classes/GiaDeflectionCoreArgs.h A /issm/trunk-jpl/src/c/classes/GiaIvinsDeflectionCoreArgs.h  
D /issm/trunk-jpl/src/c/cores/gia\_core.cpp A /issm/trunk-jpl/src/c/cores/giaivins\_core.cpp  
D /issm/trunk-jpl/src/c/modules/GiaDeflectionCorex A /issm/trunk-jpl/src/c/modules/GiaIvinsDeflectionCorex  
A /issm/trunk-jpl/src/c/modules/GiaIvinsDeflectionCorex/.deps A /issm/trunk-jpl/src/c/modules/GiaIvinsDeflectionCorex/.deps/.dirstamp A /issm/trunk-jpl/src/c/modules/GiaIvinsDeflectionCorex/.dirstamp  
A /issm/trunk-jpl/src/c/modules/GiaIvinsDeflectionCorex/GiaIvinsDeflectionCorex.cpp  
A /issm/trunk-jpl/src/c/modules/GiaIvinsDeflectionCorex/GiaIvinsDeflectionCorex.h  
A /issm/trunk-jpl/src/c/modules/GiaIvinsDeflectionCorex/distme.f A /issm/trunk-jpl/src/c/modules/GiaIvinsDeflectionCorex/freed.f A /issm/trunk-jpl/src/c/modules/GiaIvinsDeflectionCorex/pwise.f A /issm/trunk-jpl/src/c/modules/GiaIvinsDeflectionCorex/qwise.f A /issm/trunk-jpl/src/c/modules/GiaIvinsDeflectionCorex/what0.f  
Export determination: 6.

Rationale: CHG: Gia model is now called GiaIvins

**Change #170** with diff file ISSM-21533-21534.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test2001.m M /issm/trunk-jpl/test/NightlyRun/test2001.py  
M /issm/trunk-jpl/test/NightlyRun/test2051.m M /issm/trunk-jpl/test/NightlyRun/test2052.m  
M /issm/trunk-jpl/test/NightlyRun/test2053.m M /issm/trunk-jpl/test/NightlyRun/test2071.m  
M /issm/trunk-jpl/test/NightlyRun/test2072.m M /issm/trunk-jpl/test/NightlyRun/test2073.m  
M /issm/trunk-jpl/test/NightlyRun/test2081.m M /issm/trunk-jpl/test/NightlyRun/test2082.m  
M /issm/trunk-jpl/test/NightlyRun/test2083.m D /issm/trunk-jpl/test/Par/GiaBenchmarksAB.par  
D /issm/trunk-jpl/test/Par/GiaBenchmarksCD.par A /issm/trunk-jpl/test/Par/GiaIvinsBenchmarksAB.par  
A /issm/trunk-jpl/test/Par/GiaIvinsBenchmarksCD.par M /issm/trunk-jpl/test/Par/SquareSheetConstrained  
M /issm/trunk-jpl/test/Par/SquareSheetConstrained.py  
Export determination: 6.

Rationale: CHG: Nightly updated for GiaIvins model

**Change #171** with diff file ISSM-21534-21535.diff:

Function name:

M /issm/trunk-jpl/m4/analyses.m4

Export determination: 6.

Rationale: CHG: sync update

**Change #172** with diff file ISSM-21535-21536.diff:

Function name:

D /issm/trunk-jpl/src/c/modules/GiaIvinsDeflectionCorex/.deps D /issm/trunk-jpl/src/c/modules/GiaIvinsDeflectionCorex/.dirstamp

Export determination: 6.

Rationale: minor

**Change #173** with diff file ISSM-21536-21537.diff:

Function name:

M /issm/trunk-jpl/test/Par/ValleyGlacierShelf.par M /issm/trunk-jpl/test/Par/ValleyGlacierShelf.py

Export determination: 6.

Rationale: FIX: name changed from gia to giaivins

**Change #174** with diff file ISSM-21537-21538.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test801.m M /issm/trunk-jpl/test/NightlyRun/test801.py

M /issm/trunk-jpl/test/NightlyRun/test802.m M /issm/trunk-jpl/test/NightlyRun/test802.py

M /issm/trunk-jpl/test/NightlyRun/test803.m M /issm/trunk-jpl/test/NightlyRun/test803.py

M /issm/trunk-jpl/test/NightlyRun/test804.m M /issm/trunk-jpl/test/NightlyRun/test804.py

M /issm/trunk-jpl/test/NightlyRun/test805.m M /issm/trunk-jpl/test/NightlyRun/test805.py

M /issm/trunk-jpl/test/NightlyRun/test806.m M /issm/trunk-jpl/test/NightlyRun/test806.py

M /issm/trunk-jpl/test/NightlyRun/test807.m M /issm/trunk-jpl/test/NightlyRun/test807.py

M /issm/trunk-jpl/test/NightlyRun/test808.m

Export determination: 6.

Rationale: FIX: name changed from gia to giavins

**Change #175** with diff file ISSM-21538-21539.diff:

Function name:

M /issm/trunk-jpl/externalpackages/chaco/chaco\_njs\_notes.txt A /issm/trunk-

jpl/externalpackages/chaco/install-macosx64-sierra.sh A /issm/trunk-jpl/externalpackages/chaco/patches/Mal sierra.patch

Export determination: 6.

Rationale: CHG: add a sierra install option because malloc.h does not exist

**Change #176** with diff file ISSM-21539-21540.diff:

Function name:

A /issm/trunk-jpl/externalpackages/git/install-macosx64-sierra.sh

Export determination: 6.

Rationale: CHG: force include directory for openssl

**Change #177** with diff file ISSM-21540-21541.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/AdaptiveMeshRefinement.cpp M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/classes/FemModel.h

Export determination: 6.

Rationale: CHG: changes in AMR methods, minor. (NOTE: AMR not working yet)

**Change #178** with diff file ISSM-21541-21542.diff:

Function name:

M /issm/trunk-jpl/src/c/cores/transient\_core.cpp

Export determination: 6.

Rationale: CHG: minor

**Change #179** with diff file ISSM-21542-21543.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/ThermalAnalysis.c

M /issm/trunk-jpl/src/c/classes/IoModel.cpp M /issm/trunk-jpl/src/m/classes/thermal.m

M /issm/trunk-jpl/src/m/classes/thermal.py

Export determination: 6.

Rationale: NEW: added Higher order finite elements for enthalpy

**Change #180** with diff file ISSM-21543-21544.diff:

Function name:

A /issm/trunk-jpl/src/m/classes/frictionjosh.m

Export determination: 6.

Rationale: NEW: added friction class for josh

**Change #181** with diff file ISSM-21544-21545.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/model.m A /issm/trunk-jpl/src/m/classes/oldclasses/gia.m

Export determination: 6.

Rationale: BUG: keep old gia class

**Change #182** with diff file ISSM-21545-21546.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/model.m

Export determination: 6.

Rationale: CHG: need to add new solver residue that's non zero

**Change #183** with diff file ISSM-21546-21547.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp

Export determination: 6.

Rationale: CHG: use IoModelToConstrain to create spcs

**Change #184** with diff file ISSM-21547-21548.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp

Export determination: 6.

Rationale: BUG: enthalpy is dof 0

**Change #185** with diff file ISSM-21548-21549.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp

Export determination: 6.

Rationale: NEW: enable dynamic spcs for enthalpy model (required for PDD scheme)

**Change #186** with diff file ISSM-21549-21550.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp M /issm/trunk-jpl/src/c/cores/transient\_core.cpp  
Export determination: 6.  
Rationale: BUG: fixing enthalpy spc bug

**Change #187** with diff file ISSM-21550-21551.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp  
Export determination: 6.  
Rationale: CHG: added enthalpy update in PDD scheme

**Change #188** with diff file ISSM-21551-21552.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/StressbalanceAnalysis.cpp M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp M /issm/trunk-jpl/src/c/classes/Loads/Friction.cpp  
M /issm/trunk-jpl/src/c/classes/Loads/Friction.h M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinitions.h  
M /issm/trunk-jpl/src/c/shared/Enum/EnumToString.cpp M /issm/trunk-jpl/src/c/shared/Enum/StringToEnum.cpp  
M /issm/trunk-jpl/src/m/classes/frictionjosh.m  
Export determination: 6.  
Rationale: CHG: implementing friction josh

**Change #189** with diff file ISSM-21552-21553.diff:  
Function name:  
M /issm/trunk-jpl/src/m/dev/issmversion.m M /issm/trunk-jpl/src/m/dev/issmversion.py  
Export determination: 6.  
Rationale: CHG: minor

**Change #190** with diff file ISSM-21553-21554.diff:  
Function name:  
M /issm/trunk-jpl/src/c/modules/IoModelToConstraintsx/IoModelToConstraintsx.cpp  
Export determination: 6.  
Rationale: CHG: added support for P1xP2 dynamic constraints

**Change #191** with diff file ISSM-21554-21555.diff:

Function name:  
M /issm/trunk-jpl/src/c/modules/IoModelToConstraintsx/IoModelToConstraintsx.cpp  
Export determination: 6.  
Rationale: BUG: could not compile

**Change #192** with diff file ISSM-21555-21556.diff:  
Function name:  
M /issm/trunk-jpl/src/c/modules/IoModelToConstraintsx/IoModelToConstraintsx.cpp  
Export determination: 6.  
Rationale: CHG: minor

**Change #193** with diff file ISSM-21556-21557.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp  
Export determination: 6.  
Rationale: CHG: added friction law to enthalpy

**Change #194** with diff file ISSM-21557-21558.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/Elements/PentaRef.cpp  
Export determination: 6.  
Rationale: BUG: break, do not return

**Change #195** with diff file ISSM-21558-21559.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/StressbalanceAnalysis.cpp  
Export determination: 6.  
Rationale: CHG: minor

**Change #196** with diff file ISSM-21559-21560.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp  
Export determination: 6.

Rationale: CHG: minor

**Change #197** with diff file ISSM-21560-21561.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp

Export determination: 6.

Rationale: BUG: wrong type of spc

**Change #198** with diff file ISSM-21561-21562.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp

Export determination: 6.

Rationale: CHG: cleanup

**Change #199** with diff file ISSM-21562-21563.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/AdaptiveMeshRefinement.cpp M /issm/trunk-jpl/src/c/classes/AdaptiveMeshRefinement.h M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp

M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/cores/transient\_core.cpp

Export determination: 6.

Rationale: CHG: changes in AMR methods. Inserting refinement process in transiente\_core. (NOTE: AMR not working yet)

**Change #200** with diff file ISSM-21563-21564.diff:

Function name:

M /issm/trunk-jpl/src/c/modules/IoModelToConstraintsx/IoModelToConstraintsx.cpp

Export determination: 6.

Rationale: CHG: fixed memory leak

**Change #201** with diff file ISSM-21564-21565.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Inputs/PentaInput.cpp

Export determination: 6.

Rationale: CHG: minor

**Change #202** with diff file ISSM-21565-21566.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp

Export determination: 6.

Rationale: CHG: minor

**Change #203** with diff file ISSM-21566-21567.diff:

Function name:

M /issm/trunk-jpl/jenkins/windows

Export determination: 6.

Rationale: FIX: Changed without Gia to GiaIvins.

**Change #204** with diff file ISSM-21568-21569.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/clusters/vilje.py M /issm/trunk-jpl/src/m/contrib/defleurian/paraview/expo

M /issm/trunk-jpl/src/m/io/loadvars.py

Export determination: 6.

Rationale: CHG:minor typo fix

**Change #205** with diff file ISSM-21569-21570.diff:

Function name:

M /issm/trunk-jpl/externalpackages/adjoinablempi/install.sh M /issm/trunk-jpl/src/c/solutionsequences/solutionsequence\_linear.cpp

Export determination: 6.

Rationale: FIX: Fixing 'isnan' issue in AD and Getting a Specific Version of Adjoinable MPI

**Change #206** with diff file ISSM-21570-21571.diff:

Function name:

M /issm/trunk-jpl/src/c/solutionsequences/solutionsequence\_linear.cpp

Export determination: 6.



Rationale: CHG: Using xIsNan instead!

**Change #207** with diff file ISSM-21571-21572.diff:

Function name:

M /issm/trunk-jpl/jenkins/linux64\_ross.ad M /issm/trunk-jpl/jenkins/linux64\_ross\_ampi

Export determination: 6.

Rationale: CHG: Changing options from Gia to GiaIvins

**Change #208** with diff file ISSM-21572-21573.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/HydrologyDCInefficientAnalysis.cpp

Export determination: 6.

Rationale: CHG: changing the if condition for a Heavyside approximation for the shift from confined to unconfined storage

**Change #209** with diff file ISSM-21573-21574.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/AdaptiveMeshRefinement.cpp M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/classes/FemModel.h

M /issm/trunk-jpl/src/c/cores/transient\_core.cpp

Export determination: 6.

Rationale: CHG: changes in FemModel-¿ReMesh (now it just sets elements, vertices, nodes, constrains and materials). Changes in reftpattern file names.

NOTE: AMR not working yet.

**Change #210** with diff file ISSM-21574-21575.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/FemModel.cpp

Export determination: 6.

Rationale: BUG: fixed a bug in CreateConstraints (adaptive mesh refinement method): bad use of Vector¿IssmDouble¿. NOTE: AMR not working yet

**Change #211** with diff file ISSM-21575-21576.diff:

Function name:  
M /issm/trunk-jpl/src/m/classes/mesh2d.py  
Export determination: 6.  
Rationale: BUG:effectively marshaling segments

**Change #212** with diff file ISSM-21576-21577.diff:

Function name:  
M /issm/trunk-jpl/src/m/classes/clusters/acenet.m M /issm/trunk-jpl/src/m/classes/clusters/camhpc.m  
M /issm/trunk-jpl/src/m/classes/clusters/castor.m M /issm/trunk-jpl/src/m/classes/clusters/cloud.m  
M /issm/trunk-jpl/src/m/classes/clusters/cosmos.m M /issm/trunk-jpl/src/m/classes/clusters/cyclone.py  
M /issm/trunk-jpl/src/m/classes/clusters/discover.m M /issm/trunk-jpl/src/m/classes/clusters/gemini.m  
M /issm/trunk-jpl/src/m/classes/clusters/generic.m M /issm/trunk-jpl/src/m/classes/clusters/generic.py  
M /issm/trunk-jpl/src/m/classes/clusters/generic\_static.m M /issm/trunk-jpl/src/m/classes/clusters/greenpla  
M /issm/trunk-jpl/src/m/classes/clusters/hexagon.py M /issm/trunk-jpl/src/m/classes/clusters/hpc.m  
M /issm/trunk-jpl/src/m/classes/clusters/lonestar.m M /issm/trunk-jpl/src/m/classes/clusters/pfe.m  
M /issm/trunk-jpl/src/m/classes/clusters/pfe.py M /issm/trunk-jpl/src/m/classes/clusters/pollux.m  
M /issm/trunk-jpl/src/m/classes/clusters/raijin.m M /issm/trunk-jpl/src/m/classes/clusters/vilje.m  
M /issm/trunk-jpl/src/m/classes/clusters/vilje.py M /issm/trunk-jpl/src/m/classes/transient.m  
M /issm/trunk-jpl/src/m/classes/transient.py M /issm/trunk-jpl/src/m/solve/solve.m  
M /issm/trunk-jpl/src/m/solve/solve.py  
Export determination: 6.  
Rationale: NEW: adding issm\_ocean in solve

**Change #213** with diff file ISSM-21577-21578.diff:

Function name:  
A /issm/trunk-jpl/src/c/modules/GiaDeflectionCorex A /issm/trunk-jpl/src/c/modules/GiaDeflectionCorex/  
A /issm/trunk-jpl/src/c/modules/GiaDeflectionCorex/GiaDeflectionCorex.h A  
/issm/trunk-jpl/src/c/modules/GiaDeflectionCorex/distme.f A /issm/trunk-jpl/src/c/modules/GiaDeflectionC  
A /issm/trunk-jpl/src/c/modules/GiaDeflectionCorex/ojrule.f A /issm/trunk-  
jpl/src/c/modules/GiaDeflectionCorex/pwise.f A /issm/trunk-jpl/src/c/modules/GiaDeflectionCorex/qwise.f  
A /issm/trunk-jpl/src/c/modules/GiaDeflectionCorex/stot.f A /issm/trunk-jpl/src/c/modules/GiaDeflectionC  
D /issm/trunk-jpl/src/c/modules/GiaIvinsDeflectionCorex M /issm/trunk-jpl/src/c/modules/ModelProcessor  
M /issm/trunk-jpl/src/c/modules/modules.h  
Export determination: 6.  
Rationale: CHG: GiaIvins switched back to Gia

**Change #214** with diff file ISSM-21578-21579.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp M /issm/trunk-jpl/src/c/classes/Elements/Element.h  
M /issm/trunk-jpl/src/c/classes/Elements/Penta.cpp M /issm/trunk-jpl/src/c/classes/Elements/Penta.h  
M /issm/trunk-jpl/src/c/classes/Elements/Seg.h M /issm/trunk-jpl/src/c/classes/Elements/Tetra.h  
M /issm/trunk-jpl/src/c/classes/Elements/Tria.cpp M /issm/trunk-jpl/src/c/classes/Elements/Tria.h  
M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/classes/FemModel.h  
A /issm/trunk-jpl/src/c/classes/GiaDeflectionCoreArgs.h D /issm/trunk-jpl/src/c/classes/GiaIvinsDeflectionC  
M /issm/trunk-jpl/src/c/classes/classes.h  
Export determination: 6.  
Rationale: CHG: GiaIvins is switched back to Gia

**Change #215** with diff file ISSM-21579-21580.diff:

Function name:

M /issm/trunk-jpl/src/c/cores/CorePointerFromSolutionEnum.cpp M /issm/trunk-jpl/src/c/cores/cores.h A /issm/trunk-jpl/src/c/cores/gia\_core.cpp D /issm/trunk-jpl/src/c/cores/giaivins\_core.cpp M /issm/trunk-jpl/src/c/cores/transient\_core.cpp  
Export determination: 6.  
Rationale: CHG: switched back to Gia from GiaIvins

**Change #216** with diff file ISSM-21580-21581.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test2001.m M /issm/trunk-jpl/test/NightlyRun/test2001.py  
M /issm/trunk-jpl/test/NightlyRun/test2002.m M /issm/trunk-jpl/test/NightlyRun/test2051.m  
M /issm/trunk-jpl/test/NightlyRun/test2052.m M /issm/trunk-jpl/test/NightlyRun/test2053.m  
M /issm/trunk-jpl/test/NightlyRun/test2071.m M /issm/trunk-jpl/test/NightlyRun/test2072.m  
M /issm/trunk-jpl/test/NightlyRun/test2073.m M /issm/trunk-jpl/test/NightlyRun/test2081.m  
M /issm/trunk-jpl/test/NightlyRun/test2082.m M /issm/trunk-jpl/test/NightlyRun/test2083.m  
Export determination: 6.  
Rationale: CHG: GiaIvins switched back to Gia

**Change #217** with diff file ISSM-21581-21582.diff:

Function name:

M /issm/trunk-jpl/test/Par/GiaIvinsBenchmarksAB.par M /issm/trunk-jpl/test/Par/GiaIvinsBenchmarksCD  
Export determination: 6.  
Rationale: CHG: GiaIvins switched back to Gia

**Change #218** with diff file ISSM-21582-21583.diff:

Function name:

M /issm/trunk-jpl/src/m/solve/solve.py

Export determination: 6.

Rationale: FIX: looks like typd isdakotai should be is isdakota

**Change #219** with diff file ISSM-21583-21584.diff:

Function name:

M /issm/trunk-jpl/src/c/Makefile.am M /issm/trunk-jpl/src/c/analyses/GiaIvinsAnalysis.cpp

M /issm/trunk-jpl/src/c/classes/Elements/Element.h M /issm/trunk-jpl/src/c/classes/Elements/Penta.cpp

M /issm/trunk-jpl/src/c/classes/Elements/Penta.h M /issm/trunk-jpl/src/c/classes/Elements/Seg.h

M /issm/trunk-jpl/src/c/classes/Elements/Tetra.h M /issm/trunk-jpl/src/c/classes/Elements/Tria.cpp

M /issm/trunk-jpl/src/c/classes/Elements/Tria.h M /issm/trunk-jpl/src/c/classes/FemModel.cpp

M /issm/trunk-jpl/src/c/classes/FemModel.h M /issm/trunk-jpl/src/c/cores/CorePointerFromSolutionEnum.c

M /issm/trunk-jpl/src/c/cores/transient\_core.cpp M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinitions.h

M /issm/trunk-jpl/src/c/shared/Enum/EnumToString.cpp M /issm/trunk-jpl/src/c/shared/Enum/StringToEnum.c

Export determination: 6.

Rationale: CHG: GiaIvins switched back to Gia

**Change #220** with diff file ISSM-21584-21585.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/geometry.js M /issm/trunk-jpl/src/m/classes/geometry.m

M /issm/trunk-jpl/src/m/classes/geometry.py M /issm/trunk-jpl/src/m/classes/giaivins.js

M /issm/trunk-jpl/src/m/classes/giaivins.m M /issm/trunk-jpl/src/m/classes/giaivins.py

M /issm/trunk-jpl/src/m/classes/model.js M /issm/trunk-jpl/src/m/classes/model.m

M /issm/trunk-jpl/src/m/classes/model.py M /issm/trunk-jpl/src/m/classes/trans.js

M /issm/trunk-jpl/src/m/classes/transient.m M /issm/trunk-jpl/src/m/classes/transient.py

M /issm/trunk-jpl/src/m/consistency/ismodelselfconsistent.js M /issm/trunk-jpl/src/m/consistency/ismodelselfconsistent.m

M /issm/trunk-jpl/src/m/consistency/ismodelselfconsistent.py M /issm/trunk-jpl/src/m/consistency/ismodelselfconsistent.py

M /issm/trunk-jpl/src/m/solve/solve.js M /issm/trunk-jpl/src/m/solve/solve.m

M /issm/trunk-jpl/src/m/solve/solve.py

Export determination: 6.

Rationale: CHG:GiaIvins switched back to Gia

**Change #221** with diff file ISSM-21585-21586.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test2001.m M /issm/trunk-jpl/test/NightlyRun/test2001.py

M /issm/trunk-jpl/test/NightlyRun/test2052.m M /issm/trunk-jpl/test/NightlyRun/test2053.m

M /issm/trunk-jpl/test/NightlyRun/test2071.m M /issm/trunk-jpl/test/NightlyRun/test2072.m  
M /issm/trunk-jpl/test/NightlyRun/test2073.m M /issm/trunk-jpl/test/NightlyRun/test2081.m  
M /issm/trunk-jpl/test/NightlyRun/test2082.m M /issm/trunk-jpl/test/NightlyRun/test2083.m  
M /issm/trunk-jpl/test/NightlyRun/test801.m M /issm/trunk-jpl/test/NightlyRun/test801.py  
M /issm/trunk-jpl/test/NightlyRun/test802.m M /issm/trunk-jpl/test/NightlyRun/test802.py  
M /issm/trunk-jpl/test/NightlyRun/test803.m M /issm/trunk-jpl/test/NightlyRun/test803.py  
M /issm/trunk-jpl/test/NightlyRun/test804.m M /issm/trunk-jpl/test/NightlyRun/test804.py  
M /issm/trunk-jpl/test/NightlyRun/test805.m M /issm/trunk-jpl/test/NightlyRun/test805.py  
M /issm/trunk-jpl/test/NightlyRun/test806.m M /issm/trunk-jpl/test/NightlyRun/test806.py  
M /issm/trunk-jpl/test/NightlyRun/test807.m M /issm/trunk-jpl/test/NightlyRun/test807.py  
M /issm/trunk-jpl/test/NightlyRun/test808.m M /issm/trunk-jpl/test/Par/SquareSheetConstrained.par  
M /issm/trunk-jpl/test/Par/SquareSheetConstrained.py M /issm/trunk-jpl/test/Par/ValleyGlacierShelf.par  
M /issm/trunk-jpl/test/Par/ValleyGlacierShelf.py  
Export determination: 6.  
Rationale: CHG: GiaIvins swtiched back to Gia

**Change #222** with diff file ISSM-21586-21587.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/PentaRef.cpp M /issm/trunk-jpl/src/c/classes/Inputs/PentaInput.

Export determination: 6.

Rationale: CHG: added P1xP3 specific functions

**Change #223** with diff file ISSM-21587-21588.diff:

Function name:

M /issm/trunk-jpl/src/c/modules/IoModelToConstraintsx/IoModelToConstraintsx.cpp

Export determination: 6.

Rationale: CHG: added spc dynamic for P1xP3

**Change #224** with diff file ISSM-21588-21589.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_BC.py M /issm/trunk-jpl/src/m/plot/plot\_icefront.py

M /issm/trunk-jpl/src/m/plot/plot\_mesh.py

Export determination: 6.

Rationale: CHG:bug fix and adding Hydro BC plotting

**Change #225** with diff file ISSM-21589-21590.diff:

Function name:

A /issm/trunk-jpl/externalpackages/pcatool A /issm/trunk-jpl/externalpackages/pcatool/install  
A /issm/trunk-jpl/externalpackages/pcatool/install/Contents.m A /issm/trunk-jpl/externalpackages/pcatool/install/calCeof.m A /issm/trunk-jpl/externalpackages/pcatool/install/calEeof.m  
A /issm/trunk-jpl/externalpackages/pcatool/install/caleof.m A /issm/trunk-jpl/externalpackages/pcatool/install/calsvd2.m A /issm/trunk-jpl/externalpackages/pcatool/install/confexpvar.m  
A /issm/trunk-jpl/externalpackages/pcatool/install/dispEEOF.m A /issm/trunk-jpl/externalpackages/pcatool/install/dispEEOF\_v2.m A /issm/trunk-jpl/externalpackages/pcatool/install/dispSVD.m  
A /issm/trunk-jpl/externalpackages/pcatool/install/dispSVDlag.m A /issm/trunk-jpl/externalpackages/pcatool/install/dispSVDnbc.m A /issm/trunk-jpl/externalpackages/pcatool/install/license.txt  
A /issm/trunk-jpl/externalpackages/pcatool/install/mat2map.m A /issm/trunk-jpl/externalpackages/pcatool/install/map2mat.m A /issm/trunk-jpl/externalpackages/pcatool/install/plotm.m  
A /issm/trunk-jpl/externalpackages/pcatool/install/test\_pcatool.m A /issm/trunk-jpl/externalpackages/pcatool/install.sh A /issm/trunk-jpl/externalpackages/pcatool/pcatool.ta

Export determination: 6.

Rationale: CHG: new pcatool for EOF analysis.

**Change #226** with diff file ISSM-21590-21591.diff:

Function name:

D /issm/trunk-jpl/externalpackages/pcatool/install

Export determination: 6.

Rationale: CHG: not needed, in the tarball.

**Change #227** with diff file ISSM-21591-21592.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/frictioncoulomb.py

Export determination: 6.

Rationale: BUG: friction coulomb was marshalled as a viscous friction

**Change #228** with diff file ISSM-21592-21593.diff:

Function name:

M /issm/trunk-jpl/package/macosx/package.sh M /issm/trunk-jpl/package/macosx-dakota/package.sh M /issm/trunk-jpl/package/ubuntu/package.sh

Export determination: 6.

Rationale: CHG: need scripts as well to download data needed by examples

**Change #229** with diff file ISSM-21594-21595.diff:

Function name:

A /issm/trunk-jpl/src/m/classes/giacaron.m

Export determination: 6.

Rationale: CHG: new Caron GIA class

**Change #230** with diff file ISSM-21595-21596.diff:

Function name:

M /issm/trunk-jpl/packageagers/macosex/package.sh M /issm/trunk-jpl/packageagers/macosex-dakota/package.sh M /issm/trunk-jpl/packageagers/ubuntu/package.sh

Export determination: 6.

Rationale: CHG: we actually don't need scripts'

**Change #231** with diff file ISSM-21596-21597.diff:

Function name:

M /issm/trunk-jpl/externalpackages/adjoinablempi/install-macosx64.sh M /issm/trunk-jpl/externalpackages/adjoinablempi/install-pleiades-gcc.sh M /issm/trunk-jpl/externalpackages/adjoinablempi/pleiades.sh M /issm/trunk-jpl/externalpackages/adjoinablempi/install.sh M /issm/trunk-jpl/externalpackages/adolc/install-withamp-macosx64.sh M /issm/trunk-jpl/externalpackages/adolc/install-withamp-pleiades-gcc.sh M /issm/trunk-jpl/externalpackages/adolc/install-withamp-pleiades.sh M /issm/trunk-jpl/externalpackages/adolc/install-withamp.sh M /issm/trunk-jpl/externalpackages/adolc/install.sh

Export determination: 6.

Rationale: CHG: ADOL-C and AdjoinableMPI now using archived code

**Change #232** with diff file ISSM-21597-21598.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/StressbalanceAnalysis.cpp

Export determination: 6.

Rationale: minor

**Change #233** with diff file ISSM-21598-21599.diff:

Function name:  
M /issm/trunk-jpl/src/c/shared/Enum/StringToEnumx.cpp  
Export determination: 6.  
Rationale: CHG: catch empty strings coming in!

**Change #234** with diff file ISSM-21600-21601.diff:

Function name:  
M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/StressbalanceAnal  
M /issm/trunk-jpl/src/c/classes/Loads/Friction.cpp M /issm/trunk-jpl/src/m/classes/frictionjosh.m  
Export determination: 6.  
Rationale: CHG: added gamma as a parameter to frictionjosh

**Change #235** with diff file ISSM-21603-21604.diff:

Function name:  
M /issm/trunk-jpl/src/c/shared/Enum/StringToEnumx.cpp  
Export determination: 6.  
Rationale: BUG: do not error out if string is empty

**Change #236** with diff file ISSM-21604-21605.diff:

Function name:  
M /issm/trunk-jpl/test/Archives/Archive408.arch M /issm/trunk-jpl/test/NightlyRun/test408.m  
M /issm/trunk-jpl/test/NightlyRun/test408.py  
Export determination: 6.  
Rationale: NEW: changed NR test408 to coulomb friction law

**Change #237** with diff file ISSM-21607-21608.diff:

Function name:  
M /issm/trunk-jpl/examples/Jakobshavn/runme.m M /issm/trunk-jpl/examples/Pig/runme.m  
Export determination: 6.  
Rationale: CHG: minor

**Change #238** with diff file ISSM-21609-21610.diff:

Function name:



A /issm/trunk-jpl/src/m/os/sessionname.m

Export determination: 6.

Rationale: CHG: get screen session name in matlab, handy to key off organizer from screen session name.

**Change #239** with diff file ISSM-21610-21611.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test408.py

Export determination: 6.

Rationale: FIX: Incorrect reference to numpy when it is imported as np.

**Change #240** with diff file ISSM-21611-21612.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_icefront.py M /issm/trunk-jpl/src/m/plot/plot\_unit.py

Export determination: 6.

Rationale: BUG:fixing segmentation fault with masked NaNs

**Change #241** with diff file ISSM-21612-21613.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test408.py

Export determination: 6.

Rationale: BUG: fixed vector length in python

**Change #242** with diff file ISSM-21613-21614.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test408.py

Export determination: 6.

Rationale: BUG: need to do a hard copy

**Change #243** with diff file ISSM-21614-21615.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/runme.py M /issm/trunk-jpl/test/NightlyRun/test1601.py

M /issm/trunk-jpl/test/NightlyRun/test1602.py M /issm/trunk-jpl/test/NightlyRun/test201.py

Export determination: 6.

Rationale: BUG: fixing tests 1601, 1602 and adding referential in the python runme possibilities

**Change #244** with diff file ISSM-21615-21616.diff:

Function name:

M /issm/trunk-jpl/m4/issm\_options.m4 M /issm/trunk-jpl/src/c/classes/IoModel.cpp

M /issm/trunk-jpl/src/c/shared/MemOps/MemOps.cpp M /issm/trunk-jpl/src/c/shared/MemOps/MemOps.h

M /issm/trunk-jpl/src/c/toolkits/gsl/DenseGslSolve.cpp M /issm/trunk-jpl/src/c/toolkits/issm/IssmMpiSpar

M /issm/trunk-jpl/src/c/toolkits/issm/IssmMpiVec.h M /issm/trunk-jpl/src/c/toolkits/mumps/MumpsSolve

Export determination: 6.

Rationale: CHG: limiting use of ensurecontiguous calls in the context of AD builds. xNew has a second parameter only in AD builds that will determine whether ensurecontiguous is called or not. A default value is used so that only when ensurecontiguous is needed do we have to provide a second argument.

**Change #245** with diff file ISSM-21616-21617.diff:

Function name:

M /issm/trunk-jpl/externalpackages/tclx/install.sh

Export determination: 6.

Rationale: CHG: some minor changes to path.

**Change #246** with diff file ISSM-21617-21618.diff:

Function name:

M /issm/trunk-jpl/externalpackages/modules/install-macosx64.sh

Export determination: 6.

Rationale: CHG: minor changes to install process.

**Change #247** with diff file ISSM-21619-21620.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_contour.m

Export determination: 6.

Rationale: BUG: plot contour even if less than 5000 long

**Change #248** with diff file ISSM-21620-21621.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp M /issm/trunk-jpl/src/c/classes/Elements/Element.h  
M /issm/trunk-jpl/src/c/classes/Elements/Penta.h M /issm/trunk-jpl/src/c/classes/Elements/Seg.h  
M /issm/trunk-jpl/src/c/classes/Elements/Tetra.h M /issm/trunk-jpl/src/c/classes/Elements/Tria.cpp  
M /issm/trunk-jpl/src/c/classes/Elements/Tria.h M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinitions.h  
M /issm/trunk-jpl/src/c/shared/Enum/EnumToString.cpp M /issm/trunk-jpl/src/c/shared/Enum/StringToEnum.cpp  
M /issm/trunk-jpl/src/m/classes/esa.m

Export determination: 6.

Rationale: CHG: compute strain rate and vorticity tensor in 2D ESA model

**Change #249** with diff file ISSM-21621-21622.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test2110.m

Export determination: 6.

Rationale: CHG: Nightly updated for ESA strain rate and vorticity computations

**Change #250** with diff file ISSM-21622-21623.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive2110.arch

Export determination: 6.

Rationale: CHG: archive updated for ESA strain rate and vorticity tensor

**Change #251** with diff file ISSM-21623-21624.diff:

Function name:

M /issm/trunk-jpl/src/c/Makefile.am M /issm/trunk-jpl/src/c/bamg/BamgMesh.cpp  
M /issm/trunk-jpl/src/c/bamg/BamgMesh.h M /issm/trunk-jpl/src/c/bamg/BamgQuadtree.cpp  
M /issm/trunk-jpl/src/c/bamg/BamgQuadtree.h M /issm/trunk-jpl/src/c/bamg/BamgVertex.cpp  
M /issm/trunk-jpl/src/c/bamg/BamgVertex.h D /issm/trunk-jpl/src/c/bamg/Direction.cpp  
D /issm/trunk-jpl/src/c/bamg/Direction.h D /issm/trunk-jpl/src/c/bamg/DoubleAndInt.h  
M /issm/trunk-jpl/src/c/bamg/EigenMetric.cpp M /issm/trunk-jpl/src/c/bamg/Geometry.cpp  
M /issm/trunk-jpl/src/c/bamg/Mesh.cpp M /issm/trunk-jpl/src/c/bamg/Mesh.h  
M /issm/trunk-jpl/src/c/bamg/Metric.cpp M /issm/trunk-jpl/src/c/bamg/Metric.h  
M /issm/trunk-jpl/src/c/bamg/Triangle.cpp M /issm/trunk-jpl/src/c/bamg/Triangle.h  
M /issm/trunk-jpl/src/c/bamg/bamgobjects.h M /issm/trunk-jpl/src/c/modules/Bamgx/Bamgx.cpp

Export determination: 6.

Rationale: CHG: working on simplifying bamg

**Change #252** with diff file ISSM-21624-21625.diff:

Function name:

M /issm/trunk-jpl/src/wrappers/matlab/io/WriteMatlabData.cpp M /issm/trunk-jpl/src/wrappers/python/io/WritePythonData.cpp

Export determination: 6.

Rationale: CHG: nor more quads

**Change #253** with diff file ISSM-21625-21626.diff:

Function name:

M /issm/trunk-jpl/src/c/bamg/BamgQuadtree.cpp M /issm/trunk-jpl/src/c/bamg/BamgQuadtree.h

Export determination: 6.

Rationale: CHG: MAXDEPTH is now a macro

**Change #254** with diff file ISSM-21626-21627.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/LevelsetAnalysis.cpp M /issm/trunk-jpl/src/c/classes/Elements/Penta.cpp

M /issm/trunk-jpl/src/c/classes/Elements/Tria.cpp M /issm/trunk-jpl/src/c/cores/levelsetfunctionslope\_core.

M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinitions.h M /issm/trunk-jpl/src/c/shared/Enum/EnumToSt

M /issm/trunk-jpl/src/c/shared/Enum/StringToEnumx.cpp M /issm/trunk-jpl/src/m/classes/calvingdev.m

M /issm/trunk-jpl/src/m/classes/calvinglevermann.m M /issm/trunk-jpl/src/m/classes/calvingminthickness.m

M /issm/trunk-jpl/src/m/classes/levelset.m M /issm/trunk-jpl/src/m/classes/levelset.py

Export determination: 6.

Rationale: CHG: added calving stress thresholds and calving max parameters

**Change #255** with diff file ISSM-21627-21628.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/runme.py

Export determination: 6.

Rationale: CHG: minor

**Change #256** with diff file ISSM-21628-21629.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/levelset.py  
Export determination: 6.  
Rationale: BUG: do not use numel for some reason....

**Change #257** with diff file ISSM-21629-21630.diff:  
Function name:  
M /issm/trunk-jpl/src/c/bamg/BamgQuadtree.cpp M /issm/trunk-jpl/src/c/bamg/BamgQuadtree.h  
M /issm/trunk-jpl/src/c/bamg/Geometry.cpp M /issm/trunk-jpl/src/c/bamg/Geometry.h  
M /issm/trunk-jpl/src/c/bamg/Mesh.cpp M /issm/trunk-jpl/src/c/bamg/Mesh.h  
M /issm/trunk-jpl/src/c/bamg/macros.h  
Export determination: 6.  
Rationale: CHG: minor

**Change #258** with diff file ISSM-21630-21631.diff:  
Function name:  
M /issm/trunk-jpl/test/Archives/Archive807.arch  
Export determination: 6.  
Rationale: CHG: no melt applied if floating now

**Change #259** with diff file ISSM-21631-21632.diff:  
Function name:  
M /issm/trunk-jpl/src/m/classes/calvingdev.m  
Export determination: 6.  
Rationale: CHG: minor

**Change #260** with diff file ISSM-21632-21633.diff:  
Function name:  
M /issm/trunk-jpl/test/NightlyRun/test1601.py  
Export determination: 6.  
Rationale: CHG: Removing prints in 1601

**Change #261** with diff file ISSM-21633-21634.diff:  
Function name:

M /issm/trunk-jpl/test/Archives/Archive330.arch A /issm/trunk-jpl/test/NightlyRun/test330.m  
A /issm/trunk-jpl/test/NightlyRun/test330.m A /issm/trunk-jpl/test/NightlyRun/test330.py  
A /issm/trunk-jpl/test/NightlyRun/test330.py  
Export determination: 6.  
Rationale: NEW: adding a control test for the confined unconfined functioning  
of HydroDC (based on Wang2009)

**Change #262** with diff file ISSM-21634-21635.diff:  
Function name:  
A /issm/trunk-jpl/test/Exp/Strip.exp  
Export determination: 6.  
Rationale: NEW: adding a rectangular shaped domain

**Change #263** with diff file ISSM-21635-21636.diff:  
Function name:  
M /issm/trunk-jpl/test/NightlyRun/test330.m  
Export determination: 6.  
Rationale: CHG: fixed minor bugs

**Change #264** with diff file ISSM-21636-21637.diff:  
Function name:  
M /issm/trunk-jpl/test/NightlyRun/test330.m D /issm/trunk-jpl/test/NightlyRun/test330.m M  
/issm/trunk-jpl/test/NightlyRun/test330.py D /issm/trunk-jpl/test/NightlyRun/test330.py  
Export determination: 6.  
Rationale: BUG: minor and removing temp files

**Change #265** with diff file ISSM-21637-21638.diff:  
Function name:  
M /issm/trunk-jpl/test/NightlyRun/test330.m  
Export determination: 6.  
Rationale: BUG: fixing indexes in field check

**Change #266** with diff file ISSM-21638-21639.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test330.py M /issm/trunk-jpl/test/NightlyRun/test333.py

Export determination: 6.

Rationale: BUG:Syntax error

**Change #267** with diff file ISSM-21639-21640.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test330.m

Export determination: 6.

Rationale: BUG:minor

**Change #268** with diff file ISSM-21640-21641.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test330.m

Export determination: 6.

Rationale: BUG:minor

**Change #269** with diff file ISSM-21641-21642.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/clusters/generic.js M /issm/trunk-jpl/src/m/plot/applyoptions.js

M /issm/trunk-jpl/src/m/plot/plot\_unit.js M /issm/trunk-jpl/src/m/plot/plotdoc.js

M /issm/trunk-jpl/src/m/plot/webgl.js

Export determination: 6.

Rationale: CHG: Updating javascript plot files for mesh modification by brush.

Adding debug comment for saving buffers to files in generic.js.

**Change #270** with diff file ISSM-21642-21643.diff:

Function name:

M /issm/trunk-jpl/src/m/contrib/defleurian/netCDF/export\_netCDF.m

Export determination: 6.

Rationale: CHG: update to fix requested\_outputs

**Change #271** with diff file ISSM-21643-21644.diff:

Function name:  
M /issm/trunk-jpl/src/m/contrib/defleurian/netCDF/export\_netCDF.m  
Export determination: 6.  
Rationale: CHG: update to fix requested\_outputs

**Change #272** with diff file ISSM-21644-21645.diff:  
Function name:  
M /issm/trunk-jpl/src/m/contrib/defleurian/netCDF/export\_netCDF.py  
Export determination: 6.  
Rationale: CHG:removing useless code in python export

**Change #273** with diff file ISSM-21645-21646.diff:  
Function name:  
M /issm/trunk-jpl/src/m/contrib/defleurian/netCDF/export\_netCDF.m  
Export determination: 6.  
Rationale: CHG: add output definitions

**Change #274** with diff file ISSM-21646-21647.diff:  
Function name:  
M /issm/trunk-jpl/src/m/solve/WriteData.py  
Export determination: 6.  
Rationale: BUG: Does python even need this?

**Change #275** with diff file ISSM-21647-21648.diff:  
Function name:  
M /issm/trunk-jpl/src/m/contrib/defleurian/netCDF/export\_netCDF.m  
Export determination: 6.  
Rationale: CHG: remove results special case

**Change #276** with diff file ISSM-21648-21649.diff:  
Function name:  
M /issm/trunk-jpl/src/m/contrib/defleurian/netCDF/export\_netCDF.m  
Export determination: 6.



Rationale: CHG: Add code for transient results

**Change #277** with diff file ISSM-21649-21650.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/esa.py

Export determination: 6.

Rationale: BUG: bad import (and not needed)

**Change #278** with diff file ISSM-21650-21651.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/esa.py

Export determination: 6.

Rationale: BUG: fixing NaN in default parameters

**Change #279** with diff file ISSM-21651-21652.diff:

Function name:

M /issm/trunk-jpl/src/m/shp/shp2exp.m

Export determination: 6.

Rationale: CHG: pass shp as first argument + added check on extension

**Change #280** with diff file ISSM-21652-21653.diff:

Function name:

M /issm/trunk-jpl/src/m/exp/exp2shp.m

Export determination: 6.

Rationale: CHG: pass exp as first argument + added check on extension

**Change #281** with diff file ISSM-21653-21654.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp

Export determination: 6.

Rationale: CHG: fixing one P1-specific code

**Change #282** with diff file ISSM-21654-21655.diff:

Function name:

M /issm/trunk-jpl/src/c/shared/io/Marshalling/IoCodeConversions.cpp

Export determination: 6.

Rationale: CHG: Adding some more enums for Dakota

**Change #283** with diff file ISSM-21655-21656.diff:

Function name:

M /issm/trunk-jpl/src/m/contrib/defleurian/netCDF/read\_netCDF.m

Export determination: 6.

Rationale: CHG: matlab read works for all but requestedoutput outputdefinition and results

**Change #284** with diff file ISSM-21656-21657.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_BC.py

Export determination: 6.

Rationale: NEW: adding hydrology spc to BC plot

**Change #285** with diff file ISSM-21657-21658.diff:

Function name:

M /issm/trunk-jpl/etc/environment.sh M /issm/trunk-jpl/externalpackages/valgrind/install-linux64.sh M /issm/trunk-jpl/m4/analyses.m4 M /issm/trunk-jpl/src/m/io/loadvars.py

M /issm/trunk-jpl/test/Par/SquareSheetConstrained.py

Export determination: 6.

Rationale: CHG: adding case in load for future matlab compatibility

**Change #286** with diff file ISSM-21658-21659.diff:

Function name:

M /issm/trunk-jpl/etc/environment.sh M /issm/trunk-jpl/externalpackages/valgrind/install-linux64.sh M /issm/trunk-jpl/m4/analyses.m4

Export determination: 6.

Rationale: Rolling back after miss-comit

**Change #287** with diff file ISSM-21659-21660.diff:

Function name:

M /issm/trunk-jpl/src/m/shp/shp2exp.py

Export determination: 6.

Rationale: BUG: fixing indentation

**Change #288** with diff file ISSM-21660-21661.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive437.arch

Export determination: 6.

Rationale: BUG: updated archive

**Change #289** with diff file ISSM-21661-21662.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/linearbasalforcings.m M /issm/trunk-jpl/src/m/classes/linearbasalforcings.p

Export determination: 6.

Rationale: FIX: upperwater elevation can be equal to 0 (surface)

**Change #290** with diff file ISSM-21662-21663.diff:

Function name:

M /issm/trunk-jpl/src/m/qmu/dakota\_out\_parse.m

Export determination: 6.

Rationale: CHG: define nfeval if early return

**Change #291** with diff file ISSM-21664-21665.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/clusters/pfe.m

Export determination: 6.

Rationale: CHG: update to new compiler and generic mpi-sgi

**Change #292** with diff file ISSM-21665-21666.diff:

Function name:

M /issm/trunk-jpl/externalpackages/petsc/install-3.6-pleiades.sh M /issm/trunk-

jpl/externalpackages/petsc/install-3.7-pleiades.sh A /issm/trunk-jpl/externalpackages/petsc/install-3.7-pleiades\_dakota6.2.sh

Export determination: 6.

Rationale: CHG: upgrade pfe to Compiler/2016.2.181 and mpi to mpi-sgi/mpt

**Change #293** with diff file ISSM-21666-21667.diff:

Function name:

D /issm/trunk-jpl/configs/config-ios-armv7.sh D /issm/trunk-jpl/configs/config-ios-armv7s.sh D /issm/trunk-jpl/configs/config-ios-linux.sh D /issm/trunk-jpl/configs/config-ios-simulator.sh D /issm/trunk-jpl/configs/config-pleiades-petsc3.4.sh D /issm/trunk-jpl/configs/config-win10.sh D /issm/trunk-jpl/configs/configure.sh

Export determination: 6.

Rationale: CHG: removing some OLD configure scripts

**Change #294** with diff file ISSM-21667-21668.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/model.m

Export determination: 6.

Rationale: CHG: convert gia to giaivins automatically

**Change #295** with diff file ISSM-21668-21669.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/IoModel.cpp M /issm/trunk-jpl/src/m/classes/SMBforcing.m

M /issm/trunk-jpl/src/m/solve/WriteData.m

Export determination: 6.

Rationale: NEW: new marshall format for SMB using uint8

**Change #296** with diff file ISSM-21669-21670.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/LevelsetAnalysis.cpp

Export determination: 6.

Rationale: CHG: minor

**Change #297** with diff file ISSM-21670-21671.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/thermal.m

Export determination: 6.

Rationale: CHG: allow for P1xP3

**Change #298** with diff file ISSM-21671-21672.diff:

Function name:

M /issm/trunk-jpl/externalpackages/export\_fig/eps2pdf.m M /issm/trunk-jpl/externalpackages/export\_fig/exp

M /issm/trunk-jpl/externalpackages/export\_fig/pdftops.m M /issm/trunk-jpl/externalpackages/export\_fig/prin

M /issm/trunk-jpl/externalpackages/export\_fig/print2eps.m

Export determination: 6.

Rationale: CHG: updated export\_fig

**Change #299** with diff file ISSM-21672-21673.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/AdaptiveMeshRefinement.cpp M /issm/trunk-

jpl/src/c/classes/AdaptiveMeshRefinement.h M /issm/trunk-jpl/src/c/classes/FemModel.cpp

M /issm/trunk-jpl/src/c/classes/FemModel.h

Export determination: 6.

Rationale: CHG: AMR improved (faster), inserted methods to run the Mismip+ experiments, changes in AMR methods (FemModel and AdaptiveMeshRefinement).

**Change #300** with diff file ISSM-21673-21674.diff:

Function name:

M /issm/trunk-jpl/externalpackages/petsc/install-3.6-macosx64.sh M /issm/trunk-

jpl/externalpackages/petsc/install-3.7-greenplanet.sh M /issm/trunk-jpl/externalpackages/petsc/install-

3.7-hpc.sh M /issm/trunk-jpl/externalpackages/petsc/install-3.7-linux64.sh M

/issm/trunk-jpl/externalpackages/petsc/install-3.7-macosx64.sh M /issm/trunk-

jpl/externalpackages/petsc/install-3.7-pleiades.sh M /issm/trunk-jpl/externalpackages/petsc/install-

3.7-pleiades.dakota6.2.sh

Export determination: 6.

Rationale: CHG: upgrading to PETSc 3.7.5, since there is a conflict with XCode

**Change #301** with diff file ISSM-21674-21675.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp M /issm/trunk-jpl/src/c/classes/ExternalResults/GenerateExternalResults.cpp M /issm/trunk-jpl/src/c/cores/transient\_core.cpp M /issm/trunk-jpl/src/c/modules/ModelProcessor/CreateModelProcessor.cpp M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinitions.h M /issm/trunk-jpl/src/c/shared/Enum/EnumToStdString.cpp M /issm/trunk-jpl/src/c/shared/Enum/StringToEnumx.cpp A /issm/trunk-jpl/src/m/classes/amr.js  
A /issm/trunk-jpl/src/m/classes/amr.m A /issm/trunk-jpl/src/m/classes/amr.py  
M /issm/trunk-jpl/src/m/classes/model.js M /issm/trunk-jpl/src/m/classes/model.m  
M /issm/trunk-jpl/src/m/classes/model.py M /issm/trunk-jpl/src/m/classes/trans.js  
M /issm/trunk-jpl/src/m/classes/transient.m M /issm/trunk-jpl/src/m/classes/transient.py  
M /issm/trunk-jpl/src/m/solve/parseresultsfrombuffer.js M /issm/trunk-jpl/src/m/solve/parseresultsfromdisk.js  
M /issm/trunk-jpl/src/m/solve/parseresultsfromdisk.py

Export determination: 6.

Rationale: CHG: changes to add AMR capability; new class (amr.m) and new results (mesh). AMR capability in test.

**Change #302** with diff file ISSM-21675-21676.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/amr.py

Export determination: 6.

Rationale: BUG: fixed indentation.

**Change #303** with diff file ISSM-21676-21677.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/amr.py M /issm/trunk-jpl/src/m/classes/bamgmesh.m

M /issm/trunk-jpl/src/m/classes/bamgmesh.py

Export determination: 6.

Rationale: CHG: fixing amr indentation

**Change #304** with diff file ISSM-21677-21678.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/classes/Materials/Matpar.cpp

M /issm/trunk-jpl/src/c/classes/Materials/Matpar.h

Export determination: 6.

Rationale: CHG: added SetMid in Matpar class to define mid parameter.

**Change #305** with diff file ISSM-21678-21679.diff:

Function name:

A /issm/trunk-jpl/src/m/contrib/tsantos A /issm/trunk-jpl/src/m/contrib/tsantos/AMRexportVTK.m

A /issm/trunk-jpl/src/m/contrib/tsantos/remesh.m

Export determination: 6.

Rationale: NEW: some methods in matlab to deal with AMR capability: remesh and AMRexportVTK.

**Change #306** with diff file ISSM-21679-21680.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/trans.js M /issm/trunk-jpl/src/m/classes/transient.m

M /issm/trunk-jpl/src/m/classes/transient.py

Export determination: 6.

Rationale: BUG: transient.amr\_frequency could not be 0 even in deactivateall and setallnullparameters

**Change #307** with diff file ISSM-21680-21681.diff:

Function name:

M /issm/trunk-jpl/src/c/cores/transient\_core.cpp M /issm/trunk-jpl/src/m/classes/trans.js

M /issm/trunk-jpl/src/m/classes/transient.m M /issm/trunk-jpl/src/m/classes/transient.py

Export determination: 6.

Rationale: CHG: set 0 to deactivate amr capability. Changes in transient\_core to verify this condition.

**Change #308** with diff file ISSM-21681-21682.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/giacaron.m

Export determination: 6.

Rationale: Updated class file with all input variables

**Change #309** with diff file ISSM-21682-21683.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/giacaron.m

Export determination: 6.

Rationale: Erased commented code about inversion

**Change #310** with diff file ISSM-21683-21684.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/clusters/generic.js D /issm/trunk-jpl/src/m/io/download.js  
D /issm/trunk-jpl/src/m/io/saveAsFile.js M /issm/trunk-jpl/src/m/plot/applyoptions.js  
M /issm/trunk-jpl/src/m/plot/plot\_mesh.js M /issm/trunk-jpl/src/m/plot/plot\_overlay.js  
M /issm/trunk-jpl/src/m/plot/plot\_quiver.js M /issm/trunk-jpl/src/m/plot/plot\_unit.js  
M /issm/trunk-jpl/src/m/plot/slider.js M /issm/trunk-jpl/src/m/plot/webgl.js

Export determination: 6.

Rationale: CHG (JS): js plots code refactoring, texture caching, and more organized webgl engine. Adding network connectivity detection to generic.js. DEL: download.js saveAsFile not needed anymore, covered by writetofile.js.

**Change #311** with diff file ISSM-21684-21685.diff:

Function name:

M /issm/trunk-jpl/externalpackages/petsc/install-3.7-greenplanet.sh M /issm/trunk-jpl/externalpackages/petsc/install-3.7-hpc.sh M /issm/trunk-jpl/externalpackages/petsc/install-3.7-linux64.sh M /issm/trunk-jpl/externalpackages/petsc/install-3.7-macosx64.sh  
M /issm/trunk-jpl/externalpackages/petsc/install-3.7-pleiades.sh M /issm/trunk-jpl/externalpackages/petsc/install-3.7-pleiades\_dakota6.2.sh

Export determination: 6.

Rationale: CHG: switch to 3.6.6 to fix MacOSX problem

**Change #312** with diff file ISSM-21685-21686.diff:

Function name:

M /issm/trunk-jpl/externalpackages/petsc/install-3.7-pleiades.sh D /issm/trunk-jpl/externalpackages/petsc/install-3.7-pleiades\_dakota6.2.sh

Export determination: 6.

Rationale: CHG: update for SLES12

**Change #313** with diff file ISSM-21686-21687.diff:

Function name:

D /issm/trunk-jpl/externalpackages/boost/configs/1.55/adl.hpp.lonestar.patch  
M /issm/trunk-jpl/externalpackages/boost/install-1.55-lonestar.sh M /issm/trunk-jpl/externalpackages/boost/install-1.55-pleiades.sh



Export determination: 6.  
Rationale: CHG: update boost for SLES12

**Change #314** with diff file ISSM-21687-21688.diff:  
Function name:  
M /issm/trunk-jpl/externalpackages/dakota/configs/6.2/CMakeLists.txt.pfe.patch  
Export determination: 6.  
Rationale: CHG: for SLES12, move dakota to intel mkl

**Change #315** with diff file ISSM-21688-21689.diff:  
Function name:  
M /issm/trunk-jpl/externalpackages/boost/install-1.55-pleiades.sh D /issm/trunk-jpl/externalpackages/boost/install-1.55-pleiades\_dakota6.2.sh  
Export determination: 6.  
Rationale: CHG: we only need 1 pfe boost install script now

**Change #316** with diff file ISSM-21689-21690.diff:  
Function name:  
D /issm/trunk-jpl/externalpackages/dakota/install-4.2-pleiades-petsc3.3.sh D /issm/trunk-jpl/externalpackages/dakota/install-4.2-pleiades.sh D /issm/trunk-jpl/externalpackages/dakota/install-5.2-pleiades-petsc3.3.sh D /issm/trunk-jpl/externalpackages/dakota/install-5.3.1-pleiades.sh  
Export determination: 6.  
Rationale: CHG: ISSM is only supporting dakota 6.2 on pfe

**Change #317** with diff file ISSM-21690-21691.diff:  
Function name:  
M /issm/trunk-jpl/src/c/modules/ModelProcessorx/CreateOutputDefinitions.cpp  
Export determination: 6.  
Rationale: CHG: fixed memory leak

**Change #318** with diff file ISSM-21691-21692.diff:  
Function name:

M /issm/trunk-jpl/externalpackages/valgrind/issm.supp

Export determination: 6.

Rationale: CHG: added more suppressions

**Change #319** with diff file ISSM-21692-21693.diff:

Function name:

A /issm/trunk-jpl/externalpackages/mpich/install-3.2-linux64-static.sh A /issm/trunk-jpl/externalpackages/mpich/install-3.2-macosx64-static.sh M /issm/trunk-jpl/externalpackages/mpich/install-3.2-macosx64.sh A /issm/trunk-jpl/externalpackages/petsc/install-3.7-linux64-static.sh A /issm/trunk-jpl/externalpackages/petsc/install-3.7-macosx64-static.sh M /issm/trunk-jpl/externalpackages/petsc/install-3.7-macosx64.sh

Export determination: 6.

Rationale: CHG: added some installation scripts

**Change #320** with diff file ISSM-21693-21694.diff:

Function name:

A /issm/trunk-jpl/externalpackages/mpich/install-3.2-linux64.sh

Export determination: 6.

Rationale: CHG: added 3.2 linux64 installation

**Change #321** with diff file ISSM-21694-21695.diff:

Function name:

M /issm/trunk-jpl/jenkins/linux64\_caladan M /issm/trunk-jpl/jenkins/linux64\_caladan\_ad M /issm/trunk-jpl/jenkins/linux64\_caladan\_ampi M /issm/trunk-jpl/jenkins/linux64\_ross M /issm/trunk-jpl/jenkins/linux64\_ross\_ad M /issm/trunk-jpl/jenkins/linux64\_ross\_ampi M /issm/trunk-jpl/jenkins/linux64\_ross\_dakota M /issm/trunk-jpl/jenkins/linux64\_ross\_gia M /issm/trunk-jpl/jenkins/linux64\_ross\_iceocean M /issm/trunk-jpl/jenkins/linux64\_ross\_python M /issm/trunk-jpl/jenkins/linux64\_ross\_se M /issm/trunk-jpl/jenkins/linux64\_ross\_static M /issm/trunk-jpl/jenkins/linux64\_ross\_test M /issm/trunk-jpl/jenkins/macosx\_pine-island M /issm/trunk-jpl/jenkins/macosx\_pine-island\_dakota M /issm/trunk-jpl/jenkins/macosx\_pine-island\_dakota\_static M /issm/trunk-jpl/jenkins/macosx\_pine-island\_examples M /issm/trunk-jpl/jenkins/macosx\_pine-island\_static

Export determination: 6.

Rationale: CHG: switching to mpich 3.2 and PETSc 3.7

**Change #322** with diff file ISSM-21695-21696.diff:

Function name:

M /issm/trunk-jpl/jenkins/linux64\_ross\_python

Export determination: 6.

Rationale: CHG: Adding extra MPI lib.

**Change #323** with diff file ISSM-21696-21697.diff:

Function name:

A /issm/trunk-jpl/src/m/classes/materials.m

Export determination: 6.

Rationale: CHG: new materials class

**Change #324** with diff file ISSM-21697-21698.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/materials.m

Export determination: 6.

Rationale: CHG: finished first prototype materials.m implementation

**Change #325** with diff file ISSM-21698-21699.diff:

Function name:

M /issm/trunk-jpl/src/m/mech/drivingstress.m

Export determination: 6.

Rationale: BUG: signum error in directional components of driving stress

**Change #326** with diff file ISSM-21699-21700.diff:

Function name:

A /issm/trunk-jpl/src/m/classes/clusters/yellowstone.m

Export determination: 6.

Rationale: NEW: yellowstone cluster class.

**Change #327** with diff file ISSM-21700-21701.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Materials/Material.h M /issm/trunk-jpl/src/c/classes/Materials/Matestar.cp

M /issm/trunk-jpl/src/c/classes/Materials/Matestar.h M /issm/trunk-jpl/src/c/classes/Materials/Matice.h  
M /issm/trunk-jpl/src/c/classes/Materials/Matpar.h  
Export determination: 6.  
Rationale: NEW: ESTAR material functions for inversion capabilities

**Change #328** with diff file ISSM-21701-21702.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp M /issm/trunk-jpl/src/c/datastructures/DataSet.cpp

Export determination: 6.

Rationale: NEW: ESTAR for inversion capabilities

**Change #329** with diff file ISSM-21702-21703.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/model.m

Export determination: 6.

Rationale: CHG: fixed amr for old models

**Change #330** with diff file ISSM-21703-21704.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/IoModel.cpp

Export determination: 6.

Rationale: CHG: add option of 10 CompressedMat for a FetchData of a Double vector

**Change #331** with diff file ISSM-21704-21705.diff:

Function name:

M /issm/trunk-jpl/src/m/solve/WriteData.m

Export determination: 6.

Rationale: CHG: add some checking in compressed mat for the case SMB is nan

**Change #332** with diff file ISSM-21705-21706.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_BC.m M /issm/trunk-jpl/src/m/plot/plot\_icefront.m

M /issm/trunk-jpl/src/m/plot/plot\_manager.m

Export determination: 6.

Rationale: CHG: allow for layer plot BC

**Change #333** with diff file ISSM-21706-21707.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/classes/FemModel.h

Export determination: 6.

Rationale: NEW: add size call to FemModel

**Change #334** with diff file ISSM-21707-21708.diff:

Function name:

A /issm/trunk-jpl/src/m/contrib/tsantos/mismip A /issm/trunk-jpl/src/m/contrib/tsantos/mismip/MismipG

A /issm/trunk-jpl/src/m/contrib/tsantos/mismip/generate\_plot.m A /issm/trunk-

jpl/src/m/contrib/tsantos/mismip/gl\_position.m A /issm/trunk-jpl/src/m/contrib/tsantos/mismip/ice\_evoluti

A /issm/trunk-jpl/src/m/contrib/tsantos/mismip/writeNetCDF.m

Export determination: 6.

Rationale: NEW: matlab methods used to MISOMIP/MISMIP+ project, May/2017

**Change #335** with diff file ISSM-21708-21709.diff:

Function name:

M /issm/trunk-jpl/src/m/solve/WriteData.py

Export determination: 6.

Rationale: CHG: add CompressedMat to python

**Change #336** with diff file ISSM-21709-21710.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/SmbAnalysis.cpp M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp

M /issm/trunk-jpl/src/c/shared/Elements/ComputeD18OTemperaturePrecipitationFromPD.cpp

M /issm/trunk-jpl/src/c/shared/Elements/elements.h M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinition

M /issm/trunk-jpl/src/c/shared/Enum/EnumToStringx.cpp M /issm/trunk-jpl/src/c/shared/Enum/StringTo

Export determination: 6.

Rationale: NEW: added f temperature precipitation scaling factor

**Change #337** with diff file ISSM-21710-21711.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/SMBd18opdd.m M /issm/trunk-jpl/src/m/classes/SMBd18opdd.py

Export determination: 6.

Rationale: NEW: f precipitation temperature scaling factor added

**Change #338** with diff file ISSM-21711-21712.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/SMBforcing.py

Export determination: 6.

Rationale: CHG: add option for CompressedMat

**Change #339** with diff file ISSM-21712-21713.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/SMBd18opdd.py

Export determination: 6.

Rationale: BUG: fixed indentation problems

**Change #340** with diff file ISSM-21713-21714.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_manager.m

Export determination: 6.

Rationale: CHG: allow subplotmodel for plotunit

**Change #341** with diff file ISSM-21714-21715.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Element.h M /issm/trunk-jpl/src/c/classes/Elements/Penta.cpp

M /issm/trunk-jpl/src/c/classes/Elements/Penta.h M /issm/trunk-jpl/src/c/classes/Elements/PentaRef.cpp

M /issm/trunk-jpl/src/c/classes/Elements/PentaRef.h M /issm/trunk-jpl/src/c/classes/Elements/Seg.h

M /issm/trunk-jpl/src/c/classes/Elements/Tetra.h M /issm/trunk-jpl/src/c/classes/Elements/Tria.h

Export determination: 6.

Rationale: CHG: added VerticalSegmentsBase

**Change #342** with diff file ISSM-21715-21716.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/Elements/PentaRef.cpp  
Export determination: 6.  
Rationale: CHG: better way of dealing with segments

**Change #343** with diff file ISSM-21716-21717.diff:  
Function name:  
M /issm/trunk-jpl/test/Archives/Archive437.arch  
Export determination: 6.  
Rationale: CHG: reverted archive now that Johannes is fixing it

**Change #344** with diff file ISSM-21717-21718.diff:  
Function name:  
M /issm/trunk-jpl/src/c/modules/IoModelToConstraintsx/IoModelToConstraintsx.cpp  
Export determination: 6.  
Rationale: CHG: added P1xP3 for spc transient

**Change #345** with diff file ISSM-21718-21719.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp  
Export determination: 6.  
Rationale: CHG: adapting computation of basal melting rate (enthalpy) to higher-order elements

**Change #346** with diff file ISSM-21719-21720.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/MasstransportAnalysis.cpp M /issm/trunk-jpl/src/c/cores/depthaverage\_core.cpp  
Export determination: 6.  
Rationale: CHG: more elegant way to depth average

**Change #347** with diff file ISSM-21720-21721.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Element.h M /issm/trunk-jpl/src/c/classes/Elements/Penta.cpp

M /issm/trunk-jpl/src/c/classes/Elements/Penta.h

Export determination: 6.

Rationale: CHG: added BasalNodeIndices

**Change #348** with diff file ISSM-21721-21722.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.h

M /issm/trunk-jpl/src/c/classes/Elements/Element.h M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinition.h

M /issm/trunk-jpl/src/c/shared/Enum/EnumToString.cpp M /issm/trunk-jpl/src/c/shared/Enum/StringToEnum.cpp

Export determination: 6.

Rationale: CHG: more consistent treatment of englacial water content drainage

**Change #349** with diff file ISSM-21722-21723.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/EnthalpyAnalysis.cpp M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinition.h

M /issm/trunk-jpl/src/c/shared/Enum/EnumToString.cpp M /issm/trunk-jpl/src/c/shared/Enum/StringToEnum.cpp

Export determination: 6.

Rationale: CHG: minor: removal of superfluous enum and function call