

JPL EXPORT ADMINISTRATION DOCUMENT REVIEW RECORD
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Log #: 22819-23185

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

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

**Date Received:** Aug-27-2018

**Document Title/Description:** ISSM changes from revision 22819 to revision 23185

**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:** Aug-27-2018



**Disposition:**

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**Change #1** with diff file ISSM-22821-22822.diff:

Function name:

M /issm/trunk-jpl A /issm/trunk-jpl/externalpackages/gdal/install-1.10-linux64-nopython.sh (from /issm/trunk/externalpackages/gdal/install-1.10-linux64-nopython.sh:22820) D /issm/trunk-jpl/externalpackages/gdal/install-1.6-linux64-murdo.sh D /issm/trunk-jpl/externalpackages/gdal/install-1.6-macosx64.sh A /issm/trunk-jpl/externalpackages/gmsh/install-static.sh (from /issm/trunk/externalpackages/gmsh/install-static.sh:22820) A /issm/trunk-jpl/externalpackages/gmt/configs/ConfigUser.cmake-static (from /issm/trunk/externalpackages/gmt/install-static.sh:22820) A /issm/trunk-jpl/externalpackages/gmt/install-static.sh (from /issm/trunk/externalpackages/gmt/install-static.sh:22820) M /issm/trunk-jpl/externalpackages/mpich/install-3.2-macosx64-static.sh M /issm/trunk-jpl/jenkins/linux64\_ross\_static M /issm/trunk-jpl/jenkins/macosx\_pine-island\_static M /issm/trunk-jpl/packageagers/macosx/package.sh M /issm/trunk-jpl/packageagers/ubuntu/package.sh M /issm/trunk-jpl/src M /issm/trunk-jpl/src/m/coordsystems/gmtmask.m M /issm/trunk-jpl/src/m/coordsystems/gmtmaskparallel.m M /issm/trunk-jpl/src/m/mesh/planet/gmsh/gmsh M /issm/trunk-jpl/test D /issm/trunk-jpl/test/ggg2

Export determination: 6.

Rationale: merged trunk and trunk-jpl

**Change #2** with diff file ISSM-22823-22824.diff:

Function name:

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

Export determination: 6.

Rationale: Block revision 22822 from being merged into trunk-jpl

**Change #3** with diff file ISSM-22824-22825.diff:

Function name:

M /issm/trunk-jpl/src/m/solve/solve.js  
Export determination: 6.  
Rationale: CHG: Modified solve.js to accept Callout object argument and reporting to said object

**Change #4** with diff file ISSM-22825-22826.diff:  
Function name:  
M /issm/trunk-jpl/src/c/cores/transient\_core.cpp  
Export determination: 6.  
Rationale: CHG: finished exchange of ice base in the initializatio

**Change #5** with diff file ISSM-22826-22827.diff:  
Function name:  
M /issm/trunk-jpl/test/Archives/Archive4002.arch  
Export determination: 6.  
Rationale: NEW: updated archive test4002

**Change #6** with diff file ISSM-22827-22828.diff:  
Function name:  
M /issm/trunk-jpl/src/c/cores/controlm1qn3\_core.cpp  
Export determination: 6.  
Rationale: FIX: change to fix gradient indexing problems

**Change #7** with diff file ISSM-22828-22829.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/cores/controlm1qn3\_core.cpp M /issm/trunk-jpl/src/c/modules/GetVectorFromCont  
M /issm/trunk-jpl/src/c/modules/GetVectorFromControlInputsx/GetVectorFromControlInputsx.h  
Export determination: 6.  
Rationale: BUG: fixing ID problem when we have multiple controls

**Change #8** with diff file ISSM-22829-22830.diff:

Function name:

M /issm/trunk-jpl/src/c/cores/controladm1qn3\_core.cpp

Export determination: 6.

Rationale: CHG: allowing AD M1QN3 to remember the 'best' paramters

**Change #9** with diff file ISSM-22830-22831.diff:

Function name:

M /issm/trunk-jpl/src/c/cores/balancethickness2\_core.cpp

Export determination: 6.

Rationale: CHG: minor

**Change #10** with diff file ISSM-22831-22832.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: Modified JS version of solve() to allow for progress bar.

**Change #11** with diff file ISSM-22832-22833.diff:

Function name:

A /issm/trunk-jpl/src/m/boundaryconditions/SetIceSheetBC.js

Export determination: 6.

Rationale: CHG: diverse

**Change #12** with diff file ISSM-22833-22834.diff:

Function name:

M /issm/trunk-jpl/src/m/Makefile.am

Export determination: 6.

Rationale: CHG: Modified MATLAB Makefile.am to incorporate needed .js files

**Change #13** with diff file ISSM-22834-22835.diff:

Function name:

M /issm/trunk-jpl/src/m/Makefile.am

Export determination: 6.  
Rationale: CHG: Minor correction to MATLAB Makefile.am for JS build

**Change #14** with diff file ISSM-22835-22836.diff:  
Function name:  
M /issm/trunk-jpl/test/NightlyRun/test404.m M /issm/trunk-jpl/test/NightlyRun/test404.py  
Export determination: 6.  
Rationale: CHG: Easing tolerances

**Change #15** with diff file ISSM-22836-22837.diff:  
Function name:  
M /issm/trunk-jpl/src/c/cores/controladm1qn3\_core.cpp M /issm/trunk-jpl/src/m/classes/autodiff.m  
Export determination: 6.  
Rationale: CHG: record best controls during optimization and allow for different sized controls

**Change #16** with diff file ISSM-22837-22838.diff:  
Function name:  
M /issm/trunk-jpl/src/m/classes/autodiff.m  
Export determination: 6.  
Rationale: FIX: make default control\_size = 1

**Change #17** with diff file ISSM-22838-22839.diff:  
Function name:  
M /issm/trunk-jpl/src/m/classes/autodiff.m M /issm/trunk-jpl/src/m/classes/independent.m  
Export determination: 6.  
Rationale: FIX: take 2 on nightly tests to not fail for control\_size

**Change #18** with diff file ISSM-22839-22840.diff:  
Function name:  
M /issm/trunk-jpl/src/m/classes/autodiff.m M /issm/trunk-jpl/src/m/classes/independent.m  
Export determination: 6.  
Rationale: FIX: add control\_size default and clean up print statements

**Change #19** with diff file ISSM-22840-22841.diff:

Function name:

M /issm/trunk-jpl/src/c/modules/SurfaceMassBalance/Gembx.cpp M /issm/trunk-jpl/src/m/classes/SMBgemb.m M /issm/trunk-jpl/src/m/classes/SMBgemb.py  
M /issm/trunk-jpl/src/m/classes/qmu.m M /issm/trunk-jpl/src/m/classes/qmu.py

Export determination: 6.

Rationale: CHG: add RACMO versions to GEMB and allow dakota to run without waitonlock

**Change #20** with diff file ISSM-22841-22842.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/HydrologyDCInefficientAnalysis.cpp M /issm/trunk-jpl/src/c/classes/Loads/Friction.cpp M /issm/trunk-jpl/src/c/cores/hydrology\_core.cpp

Export determination: 6.

Rationale: NEW: Minor Hydro bug and fixing coupling with friction

**Change #21** with diff file ISSM-22842-22843.diff:

Function name:

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

Export determination: 6.

Rationale: NEW: removing not implemented error in coupling after result check

**Change #22** with diff file ISSM-22843-22844.diff:

Function name:

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

Export determination: 6.

Rationale: BUG: fixing toolkits to be able to run from nc models

**Change #23** with diff file ISSM-22844-22845.diff:

Function name:

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

Export determination: 6.

Rationale: BUG: fixing toolkits to be able to run from nc models

**Change #24** with diff file ISSM-22845-22846.diff:

Function name:

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

Export determination: 6.

Rationale: NEW:Testing transmitivity limiting based on frozen ground

**Change #25** with diff file ISSM-22846-22847.diff:

Function name:

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

Export determination: 6.

Rationale: BUG:fixing copy paste error

**Change #26** with diff file ISSM-22847-22848.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: added EffectivePressure function to simplify switch

**Change #27** with diff file ISSM-22848-22849.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: options for default base in ice/ocean coupling

**Change #28** with diff file ISSM-22849-22850.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Loads/Friction.cpp M /issm/trunk-jpl/src/m/classes/friction.m

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

Export determination: 6.

Rationale: NEW: added support for different effective pressure, only works for friction right now, to be extended later



**Change #29** with diff file ISSM-22850-22851.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Loads/Friction.cpp

Export determination: 6.

Rationale: BUG: fixed ordering

**Change #30** with diff file ISSM-22851-22852.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: fix bug on min and max for adolc m1qn3

**Change #31** with diff file ISSM-22852-22853.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

M /issm/trunk-jpl/src/m/classes/SMBd18opdd.m

Export determination: 6.

Rationale: CHG: add options for del018 pdd to take in reconstructed climate

**Change #32** with diff file ISSM-22853-22854.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: make sure reconstructed climate can be of longer length

**Change #33** with diff file ISSM-22854-22855.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/SMBd18opdd.m

Export determination: 6.

Rationale: CHG: add smb pdd check that present day climate is 12 long in time

**Change #34** with diff file ISSM-22855-22856.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/SMBd18opdd.py

Export determination: 6.

Rationale: CHG: update python class to reflect addition of reconstructed pdd climatologies

**Change #35** with diff file ISSM-22856-22857.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/analyses/L2ProjectionEPLA

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/Pengrid.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/c/shared/Enum/EnumToSt

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

Export determination: 6.

Rationale: CHG: modifying naming related to hydrology sub-step

**Change #36** with diff file ISSM-22857-22858.diff:

Function name:

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

M /issm/trunk-jpl/test/NightlyRun/test3300.py 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 M /issm/trunk-jpl/test/NightlyRun/test703.py

Export determination: 6.

Rationale: CHG: modifying naming related to hydrology sub-step

**Change #37** with diff file ISSM-22858-22859.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive333.arch

Export determination: 6.

Rationale: BUG: fix of the test on sub time step hydro

**Change #38** with diff file ISSM-22859-22860.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: modifying naming related to hydrology sub-step

**Change #39** with diff file ISSM-22860-22861.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: Testing Transmisivity based on basal meltingrates

**Change #40** with diff file ISSM-22861-22862.diff:

Function name:

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

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

Export determination: 6.

Rationale: CHG: Updated new coupling flags

**Change #41** with diff file ISSM-22862-22863.diff:

Function name:

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

Export determination: 6.

Rationale: BUG:fixing

**Change #42** with diff file ISSM-22863-22864.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: grab the reconstructed climate Enums for the temp and precip

**Change #43** with diff file ISSM-22864-22865.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test236.py M /issm/trunk-jpl/test/NightlyRun/test237.py  
M /issm/trunk-jpl/test/NightlyRun/test292.py M /issm/trunk-jpl/test/NightlyRun/test501.py  
M /issm/trunk-jpl/test/NightlyRun/test514.py M /issm/trunk-jpl/test/NightlyRun/test515.py  
M /issm/trunk-jpl/test/NightlyRun/test601.py M /issm/trunk-jpl/test/NightlyRun/test611.py  
M /issm/trunk-jpl/test/NightlyRun/test701.py M /issm/trunk-jpl/test/NightlyRun/test703.py  
M /issm/trunk-jpl/test/NightlyRun/test808.py

Export determination: 6.

Rationale: BUG: random fixes in nightlies

**Change #44** with diff file ISSM-22865-22866.diff:

Function name:

M /issm/trunk-jpl/src/m/consistency/checkfield.py M /issm/trunk-jpl/src/m/mesh/ComputeHessian.py  
M /issm/trunk-jpl/src/m/miscellaneous/MatlabFuncs.py

Export determination: 6.

Rationale: BUG: random fixes in nightlies

**Change #45** with diff file ISSM-22866-22867.diff:

Function name:

M /issm/trunk-jpl/test/Par/79North.py M /issm/trunk-jpl/test/Par/Pig.py

Export determination: 6.

Rationale: BUG: random fixes in nightlies

**Change #46** with diff file ISSM-22867-22868.diff:

Function name:

M /issm/trunk-jpl/jenkins/linux64\_caladan M /issm/trunk-jpl/jenkins/linux64\_ross  
M /issm/trunk-jpl/jenkins/linux64\_ross\_dakota M /issm/trunk-jpl/jenkins/linux64\_ross\_python  
M /issm/trunk-jpl/jenkins/linux64\_ross\_test

Export determination: 6.

Rationale: CHG:uniformising matlab python exclude rules

**Change #47** with diff file ISSM-22868-22869.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test1104.py M /issm/trunk-jpl/test/NightlyRun/test243.py

M /issm/trunk-jpl/test/NightlyRun/test701.py M /issm/trunk-jpl/test/NightlyRun/test703.py  
Export determination: 6.  
Rationale: BUG:trying to get scipy to load properly

**Change #48** with diff file ISSM-22869-22870.diff:

Function name:

A /issm/trunk-jpl/test/Data/gemb.input.npy M /issm/trunk-jpl/test/NightlyRun/test243.py  
M /issm/trunk-jpl/test/NightlyRun/test701.py M /issm/trunk-jpl/test/NightlyRun/test703.py  
Export determination: 6.  
Rationale: BUG: replacing scipy calls by numpy

**Change #49** with diff file ISSM-22870-22871.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test703.py  
Export determination: 6.  
Rationale: BUG.hopefully fixing test703

**Change #50** with diff file ISSM-22871-22872.diff:

Function name:

M /issm/trunk-jpl/src/m/consistency/checkfield.py  
Export determination: 6.  
Rationale: CHG:modification in greater smaller of checkfield

**Change #51** with diff file ISSM-22873-22874.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp  
Export determination: 6.  
Rationale: CHG: minor update to make sure monthly pdd forcing for delo18  
can take various timestep configurations

**Change #52** with diff file ISSM-22874-22875.diff:

Function name:

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

jpl/src/c/analyses/ThermalAnalysis.cpp

Export determination: 6.

Rationale: initializing effective pressure on frictioneffectivepressure for coupling

**Change #53** with diff file ISSM-22875-22876.diff:

Function name:

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

Export determination: 6.

Rationale: initializing effective pressure on frictioneffectivepressure for coupling

**Change #54** with diff file ISSM-22876-22877.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: fix clicktoflowline

**Change #55** with diff file ISSM-22877-22878.diff:

Function name:

M /issm/trunk-jpl/src/m/Makefile.am M /issm/trunk-jpl/src/m/array/arrayoperations.js

A /issm/trunk-jpl/src/m/classes/bamggeom.js A /issm/trunk-jpl/src/m/classes/bamgmesh.js

A /issm/trunk-jpl/src/m/mesh/bamg.js M /issm/trunk-jpl/src/wrappers/BamgMesher/BamgMesher.h

A /issm/trunk-jpl/src/wrappers/BamgMesher/BamgMesher.js M /issm/trunk-

jpl/src/wrappers/javascript/io/FetchJavascriptData.cpp M /issm/trunk-jpl/src/wrappers/javascript/io/javasc

Export determination: 6.

Rationale: ADD (JS): BAMG integration for JS, including bamggeom, bamgmesh,

and bamg functions, as well as BamgMesher.js wrapper. CHG: BamgMesh.h JS

wrapper declaration. FetchData overrides for BamgMesh/BamgGeom/BamgOpts.

Additional array operations to emulate Matlab matrix operations.

**Change #56** with diff file ISSM-22878-22879.diff:

Function name:

M /issm/trunk-jpl/src/m/array/arrayoperations.js M /issm/trunk-jpl/src/m/mesh/bamg.js

M /issm/trunk-jpl/src/wrappers/BamgMesher/BamgMesher.h M /issm/trunk-

jpl/src/wrappers/BamgMesher/BamgMesher.js M /issm/trunk-jpl/src/wrappers/javascript/Makefile.am

M /issm/trunk-jpl/src/wrappers/javascript/io/FetchJavascriptData.cpp M /issm/trunk-

jpl/src/wrappers/javascript/io/javascriptio.h

Export determination: 6.

Rationale: BUG (JS): Compilation error fixes for BAMG js integration. Resolving semantic translation issues from Matlab to JS. Adding BamgMesher.js to JS Makefile.

**Change #57** with diff file ISSM-22879-22880.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/mesh2d.js M /issm/trunk-jpl/src/m/classes/mesh2d.m

M /issm/trunk-jpl/src/m/classes/mesh2d.py M /issm/trunk-jpl/src/m/classes/mesh2dvertical.m

M /issm/trunk-jpl/src/m/classes/mesh2dvertical.py M /issm/trunk-jpl/src/m/classes/mesh3dprisms.js

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

M /issm/trunk-jpl/src/m/classes/mesh3dsurface.js M /issm/trunk-jpl/src/m/classes/mesh3dsurface.m

M /issm/trunk-jpl/src/m/classes/mesh3dsurface.py M /issm/trunk-jpl/src/m/classes/mesh3dtetras.m

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

Export determination: 6.

Rationale: CHG: Change vertex-connectivity and element-connectivity descriptions

**Change #58** with diff file ISSM-22880-22881.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: Cleanup (in particular, no need to call string.toLowerCase() repeatedly)

**Change #59** with diff file ISSM-22881-22882.diff:

Function name:

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

Export determination: 6.

Rationale: CHG:change in the default value of EPL colapse thickness

**Change #60** with diff file ISSM-22882-22883.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test421.m M /issm/trunk-jpl/test/NightlyRun/test421.py

Export determination: 6.  
Rationale: CHG: Adjusted tolerances

**Change #61** with diff file ISSM-22883-22884.diff:  
Function name:  
M /issm/trunk-jpl/test/NightlyRun/test436.m M /issm/trunk-jpl/test/NightlyRun/test436.py  
Export determination: 6.  
Rationale: CHG: Adjusted tolerances

**Change #62** with diff file ISSM-22884-22885.diff:  
Function name:  
A /issm/trunk-jpl/test/NightlyRun/yellowstone.lsf A /issm/trunk-jpl/test/NightlyRun/yellowstone.m  
Export determination: 6.  
Rationale: NEW: yellowstone cluster

**Change #63** with diff file ISSM-22885-22886.diff:  
Function name:  
M /issm/trunk-jpl/src/m/classes/amr.m  
Export determination: 6.  
Rationale: CHG: missing javascript routine

**Change #64** with diff file ISSM-22886-22887.diff:  
Function name:  
M /issm/trunk-jpl/src/c/cores/steadystate\_core.cpp  
Export determination: 6.  
Rationale: CHG: minor folding

**Change #65** with diff file ISSM-22887-22888.diff:  
Function name:  
M /issm/trunk-jpl/scripts/ol.m  
Export determination: 6.  
Rationale: CHG: minor tweak.



**Change #66** with diff file ISSM-22894-22895.diff:

Function name:

M /issm/trunk-jpl/src/c/bamg/BamgGeom.h M /issm/trunk-jpl/src/m/array/arrayoperations.js  
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\_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\_transient\_movie.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/plotmodel.js M /issm/trunk-jpl/src/m/plot/webgl.js  
M /issm/trunk-jpl/src/m/plot/webgl\_node.js

Export determination: 6.

Rationale: CHG (JS): Updating js processing scripts.

**Change #67** with diff file ISSM-22895-22896.diff:

Function name:

M /issm/trunk-jpl/scripts/ol.m

Export determination: 6.

Rationale: CHG: improved ol

**Change #68** with diff file ISSM-22896-22897.diff:

Function name:

M /issm/trunk-jpl/src/c/bamg/Geometry.cpp M /issm/trunk-jpl/src/m/array/arrayoperations.js  
M /issm/trunk-jpl/src/m/mesh/bamg.js M /issm/trunk-jpl/src/m/solve/solve.js  
M /issm/trunk-jpl/src/wrappers/BamgMesher/BamgMesher.h M /issm/trunk-jpl/src/wrappers/BamgMesher/BamgMesher.js M /issm/trunk-jpl/src/wrappers/javascript/Makefile.am  
M /issm/trunk-jpl/src/wrappers/javascript/io/FetchJavascriptData.cpp M /issm/trunk-jpl/src/wrappers/javascript/io/WriteJavascriptData.cpp M /issm/trunk-jpl/src/wrappers/javascript/io/javascript

Export determination: 6.

Rationale: CHG (JS): Working JS BAMG wrapper.

**Change #69** with diff file ISSM-22897-22898.diff:

Function name:

M /issm/trunk-jpl/src/c/bamg/Geometry.cpp

Export determination: 6.

Rationale: CHG: Working JS BAMG wrapper. Reverting unintended insertion into c/bamg/Geometry.cpp

**Change #70** with diff file ISSM-22898-22899.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/HydrologyDCInefficientAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/HydrologyDCInefficientAnalysis.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 M /issm/trunk-jpl/src/c/cores/hydrology\_core.cpp 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/EnumToSt M /issm/trunk-jpl/src/c/shared/Enum/StringToEnumx.cpp M /issm/trunk-jpl/src/c/solutionsequences/soluti

Export determination: 6.

Rationale: NEW:deactivation of hydrologydc for frozen elements

**Change #71** with diff file ISSM-22899-22900.diff:

Function name:

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

Export determination: 6.

Rationale: NEW:deactivation of hydrologydc for frozen elements

**Change #72** with diff file ISSM-22900-22901.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test330.m M /issm/trunk-jpl/test/NightlyRun/test330.py M /issm/trunk-jpl/test/NightlyRun/test3300.py 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

Export determination: 6.

Rationale: NEW:deactivation of hydrologydc for frozen elements

**Change #73** with diff file ISSM-22901-22902.diff:

Function name:

M /issm/trunk-jpl/src/m/array/arrayoperations.js M /issm/trunk-jpl/src/m/classes/bamggeom.js M /issm/trunk-jpl/src/m/classes/bamgmesh.js M /issm/trunk-jpl/src/m/mesh/bamg.js M /issm/trunk-jpl/src/wrappers/BamgMesher/BamgMesher.js

Export determination: 6.

Rationale: CHG (JS): Finalizing BAMG JS Integration. Adding additional js implementations of Matlab functionality (elementwise arithmetic, col indexing).

**Change #74** with diff file ISSM-22902-22903.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/HydrologyDCInefficientAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/HydrologyDCInefficientAnalysis.h M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/solutionsequences/solutionsequence\_hydro\_nonlinear.cpp

Export determination: 6.

Rationale: BUG:fixing the freezing deactivation in IDS

**Change #75** with diff file ISSM-22903-22904.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test104.js M /issm/trunk-jpl/test/NightlyRun/test104.m M /issm/trunk-jpl/test/NightlyRun/test104.py M /issm/trunk-jpl/test/NightlyRun/test322.m M /issm/trunk-jpl/test/NightlyRun/test322.py

Export determination: 6.

Rationale: CHG: Adjusted tolerances

**Change #76** with diff file ISSM-22905-22906.diff:

Function name:

M /issm/trunk-jpl/src/c/cores/controladm1qn3\_core.cpp

Export determination: 6.

Rationale: CHG: adding time mechanism

**Change #77** with diff file ISSM-22906-22907.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/bamggeom.js M /issm/trunk-jpl/src/m/classes/bamgmesh.js M /issm/trunk-jpl/src/m/mesh/bamg.js M /issm/trunk-jpl/src/wrappers/BamgMesher/BamgMesher.js M /issm/trunk-jpl/src/wrappers/javascript/io/FetchJavascriptData.cpp

Export determination: 6.

Rationale: BUG (JS): Now setting NULL pointer correctly for empty BAMG array arguments. Fixing bamggeom/bamgmesh copy constructor for js.

**Change #78** with diff file ISSM-22907-22908.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: better computation of nrows and ncols if only one is provided

**Change #79** with diff file ISSM-22908-22909.diff:

Function name:

M /issm/trunk-jpl/src/c/Makefile.am M /issm/trunk-jpl/src/c/analyses/L2ProjectionBaseAnalysis.cpp

A /issm/trunk-jpl/src/c/cores/bmb\_core.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/FloatingIceMeltingRateX

Export determination: 6.

Rationale: CHG: preparing bmb\_core for computation of basal melt that requires to run a core (so cannot be a module anymore)

**Change #80** with diff file ISSM-22909-22910.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/L2ProjectionBaseAnalysis.cpp

Export determination: 6.

Rationale: CHG: minor

**Change #81** with diff file ISSM-22910-22911.diff:

Function name:

M /issm/trunk-jpl/externalpackages/vim/addons/vim/syntax/c.vim

Export determination: 6.

Rationale: CHG: Add Basal fring PICO Enums

**Change #82** with diff file ISSM-22911-22912.diff:

Function name:

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

jpl/src/c/analyses/EnumToAnalysis.cpp A /issm/trunk-jpl/src/c/analyses/GLheightadvectionAnalysis.cpp

A /issm/trunk-jpl/src/c/analyses/GLheightadvectionAnalysis.h M /issm/trunk-

jpl/src/c/analyses/analyses.h 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/StringTo

M /issm/trunk-jpl/src/c/shared/Enum/Synchronize.sh

Export determination: 6.

Rationale: NEW: Added new core to perform extrapolation of GL height using advection

**Change #83** with diff file ISSM-22912-22913.diff:

Function name:

D /issm/trunk-jpl/src/m/plot/gauge.js D /issm/trunk-jpl/src/m/plot/webgl.js

D /issm/trunk-jpl/src/m/plot/webgl\_node.js

Export determination: 6.

Rationale: CHG: Pulling certain scripts back out of binaries

**Change #84** with diff file ISSM-22913-22914.diff:

Function name:

A /issm/trunk-jpl/src/m/exp/expread.js A /issm/trunk-jpl/src/m/shp/shpread.js

Export determination: 6.

Rationale: ADD (JS): Adding expread/shpread.js.

**Change #85** with diff file ISSM-22914-22915.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: minor change while Tyler is debugging

**Change #86** with diff file ISSM-22915-22916.diff:

Function name:

M /issm/trunk-jpl/src/m/mesh/bamg.m

Export determination: 6.

Rationale: CHG: minor typo

**Change #87** with diff file ISSM-22916-22917.diff:

Function name:

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

Export determination: 6.

Rationale: CHG (JS): Moving condition compilation directive to not delete results in javascript builds.

**Change #88** with diff file ISSM-22917-22918.diff:

Function name:

M /issm/trunk-jpl/jenkins/linux64\_ross.javascript M /issm/trunk-jpl/src/m/solve/loadresultsfrombuffer.js

M /issm/trunk-jpl/test/NightlyRun/test101.html

Export determination: 6.

Rationale: CHG (JS): Updating js build/test scripts.

**Change #89** with diff file ISSM-22918-22919.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/L2ProjectionBaseAnalysis.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/cores/bmb\_core.cpp M /issm/trunk-jpl/src/c/modules/FloatingIceMeltingRatePicox/

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

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/m/classes/basalforcingspic

M /issm/trunk-jpl/test/NightlyRun/test470.m

Export determination: 6.

Rationale: CHG: Adding buoyant plume basal melt-rate parameterization to  
ISSM, adapted from Lazeroms et al. (2018)

**Change #90** with diff file ISSM-22919-22920.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/L2ProjectionBaseAnalysis.cpp

Export determination: 6.

Rationale: CHG: L2 Projection to use base instead of bed

**Change #91** with diff file ISSM-22920-22921.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: added polygon

**Change #92** with diff file ISSM-22921-22922.diff:

Function name:  
M /issm/trunk-jpl/src/m/shp/shpread.m  
Export determination: 6.  
Rationale: CHG: option to reverse a shapefile

**Change #93** with diff file ISSM-22922-22923.diff:

Function name:  
A /issm/trunk-jpl/src/m/shp/isshp.m A /issm/trunk-jpl/src/m/shp/shpcoarsen.m  
A /issm/trunk-jpl/src/m/shp/shpfromxy.m A /issm/trunk-jpl/src/m/shp/shpinput.m  
Export determination: 6.  
Rationale: CHG: added new shp routines.

**Change #94** with diff file ISSM-22923-22924.diff:

Function name:  
M /issm/trunk-jpl/src/m/plot/plot\_overlay.m  
Export determination: 6.  
Rationale: CHG: change backgroud color

**Change #95** with diff file ISSM-22924-22925.diff:

Function name:  
M /issm/trunk-jpl/src/m/plot/applyoptions.m  
Export determination: 6.  
Rationale: CHG: allowed shpdisp, coastlines options and text3d

**Change #96** with diff file ISSM-22925-22926.diff:

Function name:  
M /issm/trunk-jpl/src/m/plot/plot\_contour.m  
Export determination: 6.  
Rationale: CHG: added edge color option

**Change #97** with diff file ISSM-22926-22927.diff:

Function name:  
A /issm/trunk-jpl/src/m/plot/plot\_coastlines.m

Export determination: 6.  
Rationale: CHG: plot\_coastlines routine that was missing for the coastlines option in solvermodel.

**Change #98** with diff file ISSM-22927-22928.diff:  
Function name:  
M /issm/trunk-jpl/src/m/plot/plotmodel.m  
Export determination: 6.  
Rationale: CHG: allow turning off of warnings for missing options. Also allow to work out of an existing figure.

**Change #99** with diff file ISSM-22928-22929.diff:  
Function name:  
A /issm/trunk-jpl/src/m/exp/isexp.m A /issm/trunk-jpl/src/m/exp/segmentstobasin.m  
Export determination: 6.  
Rationale: CHG: new exp routine. + segmentstobasin: building block for meshing out of shapefile segments that concatenate into basin domains.

**Change #100** with diff file ISSM-22929-22930.diff:  
Function name:  
M /issm/trunk-jpl/src/m/exp/exp2shp.m  
Export determination: 6.  
Rationale: CHG: better detect presence of polygon vs open contour.

**Change #101** with diff file ISSM-22930-22931.diff:  
Function name:  
M /issm/trunk-jpl/src/m/exp/expread.m  
Export determination: 6.  
Rationale: CHG: allow option to reverse the order of segments.

**Change #102** with diff file ISSM-22931-22932.diff:  
Function name:  
M /issm/trunk-jpl/src/m/exp/contourlevelzero.m



Export determination: 6.  
Rationale: CHG: allow 3d contours

**Change #103** with diff file ISSM-22932-22933.diff:  
Function name:  
A /issm/trunk-jpl/src/m/coordsystems/gdalinfo.m  
Export determination: 6.  
Rationale: CHG: wrapped gdal\_info unix routine, delivery information about an image directly into a matlab structure.

**Change #104** with diff file ISSM-22933-22934.diff:  
Function name:  
M /issm/trunk-jpl/src/m/coordsystems/gmtmaskparallel.m  
Export determination: 6.  
Rationale: CHG: augment precision

**Change #105** with diff file ISSM-22934-22935.diff:  
Function name:  
M /issm/trunk-jpl/src/m/mesh/augment2dmesh.m  
Export determination: 6.  
Rationale: CHG: improvemnets.

**Change #106** with diff file ISSM-22935-22936.diff:  
Function name:  
M /issm/trunk-jpl/src/m/mesh/meshintersect.m  
Export determination: 6.  
Rationale: CHG: many more warnings and debug statements at runtime.

**Change #107** with diff file ISSM-22936-22937.diff:  
Function name:  
M /issm/trunk-jpl/src/m/mesh/patchglobe.m  
Export determination: 6.  
Rationale: CHG: using no boundary refinement in bamg (thanks Mathieu!)

**Change #108** with diff file ISSM-22937-22938.diff:

Function name:

A /issm/trunk-jpl/src/m/mesh/loneedges.m

Export determination: 6.

Rationale: CHG: detect lone edges in a mesh.

**Change #109** with diff file ISSM-22938-22939.diff:

Function name:

A /issm/trunk-jpl/src/m/mesh/meshband.m A /issm/trunk-jpl/src/m/mesh/meshintersect3d.m

Export determination: 6.

Rationale: CHG: new meshing routines to mesh a band around an existing mesh. + Intersection of 3D meshes

**Change #110** with diff file ISSM-22939-22940.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: some more diagnostic outputs.

**Change #111** with diff file ISSM-22940-22941.diff:

Function name:

M /issm/trunk-jpl/src/m/modules/ContourToMesh.m M /issm/trunk-jpl/src/m/modules/ContourToNodes.m

Export determination: 6.

Rationale: CHG: allow shapefiles.

**Change #112** with diff file ISSM-22941-22942.diff:

Function name:

M /issm/trunk-jpl/src/m/modules/MeshProfileIntersection.m

Export determination: 6.

Rationale: CHG: allow shapefiles.

**Change #113** with diff file ISSM-22942-22943.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: allow no-log option.

**Change #114** with diff file ISSM-22943-22944.diff:

Function name:

A /issm/trunk-jpl/src/m/solve/loadresultsfromclusterslm.m M /issm/trunk-jpl/src/m/solve/solveslm.m

Export determination: 6.

Rationale: CHG: some minor mods on solveslm + loading of results from cluster.

**Change #115** with diff file ISSM-22944-22945.diff:

Function name:

M /issm/trunk-jpl/src/c/bamg/BamgGeom.h

Export determination: 6.

Rationale: CHG: thanks Daniel for the nice comments!

**Change #116** with diff file ISSM-22945-22946.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: spatial instead of constant or time dependent basal melt.

**Change #117** with diff file ISSM-22946-22947.diff:

Function name:

M /issm/trunk-jpl/src/m/modules/ContourToMesh.m M /issm/trunk-jpl/src/m/modules/ContourToNodes.m

Export determination: 6.

Rationale: BUG: do not convert to exp if structure is an input

**Change #118** with diff file ISSM-22947-22948.diff:

Function name:

M /issm/trunk-jpl/src/m/solve/solveiceocean.m  
Export determination: 6.  
Rationale: CHG: trying to fix loadresults

**Change #119** with diff file ISSM-22948-22949.diff:  
Function name:  
M /issm/trunk-jpl/src/m/solve/solveiceocean.m  
Export determination: 6.  
Rationale: CHG: trying to fix loadresults

**Change #120** with diff file ISSM-22949-22950.diff:  
Function name:  
M /issm/trunk-jpl/src/m/solve/loadresultsfromcluster.m  
Export determination: 6.  
Rationale: CHG: fixing NR test

**Change #121** with diff file ISSM-22950-22951.diff:  
Function name:  
M /issm/trunk-jpl/src/m/mech/calcbckstress.m M /issm/trunk-jpl/src/m/plot/plot\_tensor\_components.m  
M /issm/trunk-jpl/src/m/plot/plot\_tensor\_principal.m M /issm/trunk-jpl/src/m/solve/loadresultsfromcluster.m  
Export determination: 6.  
Rationale: CHG: forgot a ;

**Change #122** with diff file ISSM-22951-22952.diff:  
Function name:  
M /issm/trunk-jpl/m4/analyses.m4 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/StringToEnum.cpp  
Export determination: 6.  
Rationale: CHG: new enums for the new slr/esa capabilities.

**Change #123** with diff file ISSM-22952-22953.diff:  
Function name:  
M /issm/trunk-jpl/src/c/modules/GetVectorFromInputsx/GetVectorFromInputsx.cpp

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

Export determination: 6.

Rationale: CHG: allow spefication of time.

**Change #124** with diff file ISSM-22953-22954.diff:

Function name:

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

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

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

Export determination: 6.

Rationale: CHG: allow spatial linear melt rates.

**Change #125** with diff file ISSM-22954-22955.diff:

Function name:

M /issm/trunk-jpl/src/c/modules/ModelProcessox/CreateParameters.cpp

Export determination: 6.

Rationale: CHG: allow spatial linear melt rates.

**Change #126** with diff file ISSM-22955-22956.diff:

Function name:

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

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

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

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

M /issm/trunk-jpl/src/c/cores/sealevelrise\_core.cpp D /issm/trunk-jpl/src/c/cores/sealevelrise\_core\_eustatic.c

D /issm/trunk-jpl/src/c/cores/sealevelrise\_core\_noneustatic.cpp M /issm/trunk-

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

M /issm/trunk-jpl/src/m/classes/mesh3dsurface.m 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/sealevelmodel.m M /issm/trunk-jpl/src/m/classes/slr.js

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

Export determination: 6.

Rationale: CHG: new reorganization of the slr capabilities.

**Change #127** with diff file ISSM-22956-22957.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: missing HydrologyIDSupdateDomainx. Reverting.

**Change #128** with diff file ISSM-22957-22958.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: fixing wrong revert on FemModel.

**Change #129** with diff file ISSM-22958-22959.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: small typo in model.m

**Change #130** with diff file ISSM-22959-22960.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: handle base update when there is no grounding line migration.

**Change #131** with diff file ISSM-22960-22961.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: should be a bool.

**Change #132** with diff file ISSM-22961-22962.diff:

Function name:

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

M /issm/trunk-jpl/src/c/modules/ModelProcessors/CreateParameters.cpp  
Export determination: 6.  
Rationale: CHG: moving some stuff to analyses

**Change #133** with diff file ISSM-22962-22963.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/GiaIvinsAnalysis.cpp M /issm/trunk-jpl/src/c/modules/ModelProcessors/

Export determination: 6.

Rationale: CHG: moving some stuff to analyses

**Change #134** with diff file ISSM-22963-22964.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/GiaIvinsAnalysis.cpp M /issm/trunk-jpl/src/c/modules/ModelProcessors/

Export determination: 6.

Rationale: CHG: moving some stuff to analyses

**Change #135** with diff file ISSM-22964-22965.diff:

Function name:

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

Export determination: 6.

Rationale: BUG: fixing NR

**Change #136** with diff file ISSM-22965-22966.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: fixing AD

**Change #137** with diff file ISSM-22966-22967.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: fixing AD

**Change #138** with diff file ISSM-22967-22968.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: fixing AD

**Change #139** with diff file ISSM-22968-22969.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: fixing AD

**Change #140** with diff file ISSM-22969-22970.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: fixing love parameters that have to be in general modules/ModelProcessorx/CreateParameters we might want to have an analysis instead

**Change #141** with diff file ISSM-22970-22971.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/slr.m M /issm/trunk-jpl/test/NightlyRun/test2002.m

M /issm/trunk-jpl/test/NightlyRun/test2003.m M /issm/trunk-jpl/test/NightlyRun/test2010.m

M /issm/trunk-jpl/test/NightlyRun/test2111.m M /issm/trunk-jpl/test/NightlyRun/test2112.m

M /issm/trunk-jpl/test/NightlyRun/test2113.m

Export determination: 6.

Rationale: CHG: fixing solid earth

**Change #142** with diff file ISSM-22971-22972.diff:

Function name:

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

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



Export determination: 6.

Rationale: CHG: switched drag cost function from being one point in time to the whole transient run

**Change #143** with diff file ISSM-22972-22973.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: gia() -> giaivins()

**Change #144** with diff file ISSM-22973-22974.diff:

Function name:

M /issm/trunk-jpl/src/m/Makefile.am

Export determination: 6.

Rationale: CHG: Include expread.js and shpread.js

**Change #145** with diff file ISSM-22974-22975.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/GLheightadvectionAnalysis.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/classes/FemModel.cpp M /issm/trunk-jpl/src/c/cores/bmb\_core.cpp  
M /issm/trunk-jpl/src/c/modules/FloatingIceMeltingRatePicox/FloatingIceMeltingRatePicox.cpp  
M /issm/trunk-jpl/src/c/modules/FloatingIceMeltingRatePicox/FloatingIceMeltingRatePicox.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: working on getting groundingline height to work

**Change #146** with diff file ISSM-22975-22976.diff:

Function name:

M /issm/trunk-jpl/src/m/Makefile.am

Export determination: 6.

Rationale: CHG: Fix annoying issue where issm-bin.js does not get overwritten

**Change #147** with diff file ISSM-22976-22977.diff:

Function name:

M /issm/trunk-jpl/src/m/Makefile.am

Export determination: 6.

Rationale: CHG: Fix annoying issue where issm-bin.js does not get overwritten

**Change #148** with diff file ISSM-22977-22978.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: advection now working

**Change #149** with diff file ISSM-22978-22979.diff:

Function name:

M /issm/trunk-jpl/src/m/exp/expread.js M /issm/trunk-jpl/src/m/shp/shpread.js

Export determination: 6.

Rationale: CHG: Missing newlines at end of files

**Change #150** with diff file ISSM-22979-22980.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test2002.m

Export determination: 6.

Rationale: CHG: new logic to account for fractional groundedness. Tends to spread the load if you don't take care of putting the grounding line in the right position. Use expcontourtolevelset to do this.

**Change #151** with diff file ISSM-22980-22981.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: updated archive to match updated test2002.

**Change #152** with diff file ISSM-22981-22982.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test2002.py

Export determination: 6.

Rationale: CHG: new changes to test2002.py (see changes to test2002.m)

**Change #153** with diff file ISSM-22982-22983.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: returning inertia tensor components for test 2010

**Change #154** with diff file ISSM-22983-22984.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: added new JacobianDeterminant3D, which does not error out if jacobian is negative. Only used for domain 3d surface.

**Change #155** with diff file ISSM-22984-22985.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: updated IsInput to include ESA x and y motion.

**Change #156** with diff file ISSM-22985-22986.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: use GetJacobianDeterminant3D for 3D Surface domains.

**Change #157** with diff file ISSM-22986-22987.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive2003.arch M /issm/trunk-jpl/test/Archives/Archive2010.arch  
M /issm/trunk-jpl/test/NightlyRun/test2003.m M /issm/trunk-jpl/test/NightlyRun/test2003.py  
M /issm/trunk-jpl/test/NightlyRun/test2010.m M /issm/trunk-jpl/test/NightlyRun/test2010.py  
Export determination: 6.  
Rationale: CHG: updating 2003 and 2010 tests. Small changes in the .m files.

**Change #158** with diff file ISSM-22987-22988.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/LevelsetAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/LevelsetAnalysis.h  
M /issm/trunk-jpl/src/c/classes/Elements/Tria.cpp M /issm/trunk-jpl/src/c/classes/FemModel.cpp  
M /issm/trunk-jpl/src/c/cores/movingfront\_core.cpp

Export determination: 6.

Rationale: DEL: removed unused function

**Change #159** with diff file ISSM-22988-22989.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: BUG: reverted change for FemModel and Tria

**Change #160** with diff file ISSM-22989-22990.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Elements/Element.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/cores/movingfront\_core.cpp

Export determination: 6.

Rationale: CHG: simplifying levelset distance

**Change #161** with diff file ISSM-22990-22991.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/Seg.h  
M /issm/trunk-jpl/src/c/classes/Elements/Tetra.cpp 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

Export determination: 6.  
Rationale: DEL: cleaning up unused functions

**Change #162** with diff file ISSM-22991-22992.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/Tria.cpp  
M /issm/trunk-jpl/src/c/classes/FemModel.cpp

Export determination: 6.

Rationale: CHG: removing unused function

**Change #163** with diff file ISSM-22992-22993.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: implementing singular segments

**Change #164** with diff file ISSM-22993-22994.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/MasstransportAnalysis.cpp 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/IOModel.cpp M /issm/trunk-jpl/src/c/cores/transient\_core.cpp  
M /issm/trunk-jpl/src/c/modules/GroundinglineMigrationx/GroundinglineMigrationx.cpp  
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/EnumToString.cpp  
M /issm/trunk-jpl/src/c/shared/Enum/StringToEnumx.cpp M /issm/trunk-jpl/src/m/classes/groundingline.j M /issm/trunk-jpl/src/m/classes/groundingline.m M /issm/trunk-jpl/src/m/classes/groundingline.py  
M /issm/trunk-jpl/test/NightlyRun/test105.m M /issm/trunk-jpl/test/NightlyRun/test423.m  
M /issm/trunk-jpl/test/NightlyRun/test423.py M /issm/trunk-jpl/test/NightlyRun/test433.m  
M /issm/trunk-jpl/test/NightlyRun/test433.py M /issm/trunk-jpl/test/NightlyRun/test441.m  
M /issm/trunk-jpl/test/NightlyRun/test441.py M /issm/trunk-jpl/test/NightlyRun/test442.m  
M /issm/trunk-jpl/test/NightlyRun/test442.py M /issm/trunk-jpl/test/NightlyRun/test701.m  
M /issm/trunk-jpl/test/NightlyRun/test701.py M /issm/trunk-jpl/test/NightlyRun/test702.m  
M /issm/trunk-jpl/test/NightlyRun/test703.m M /issm/trunk-jpl/test/NightlyRun/test703.py  
M /issm/trunk-jpl/test/Par/79North.par M /issm/trunk-jpl/test/Par/79North.py  
M /issm/trunk-jpl/test/Par/IceCube.par M /issm/trunk-jpl/test/Par/IceCube.py  
M /issm/trunk-jpl/test/Par/Pig.par M /issm/trunk-jpl/test/Par/Pig.py M /issm/trunk-jpl/test/Par/SquareSheetConstrained.par M /issm/trunk-jpl/test/Par/SquareSheetConstrained.py

M /issm/trunk-jpl/test/Par/SquareSheetShelf.par M /issm/trunk-jpl/test/Par/SquareSheetShelf.py  
M /issm/trunk-jpl/test/Par/SquareShelf.par M /issm/trunk-jpl/test/Par/SquareShelf.py  
M /issm/trunk-jpl/test/Par/SquareShelf2.par M /issm/trunk-jpl/test/Par/SquareShelf2.py  
M /issm/trunk-jpl/test/Par/SquareThermal.par M /issm/trunk-jpl/test/Par/SquareThermal.py  
Export determination: 6.  
Rationale: CHG: new grounding line class, with migration, melt\_interpolation  
and friction\_interpolation

**Change #165** with diff file ISSM-22994-22995.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test105.m

Export determination: 6.

Rationale: CHG: minor use 3 cpus

**Change #166** with diff file ISSM-22995-22996.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: working on new friction law for Henning

**Change #167** with diff file ISSM-22996-22997.diff:

Function name:

M /issm/trunk-jpl/src/m/array/allempty.m M /issm/trunk-jpl/src/m/array/allegal.m

D /issm/trunk-jpl/src/m/array/allnan.m

Export determination: 6.

Rationale: CHG: minor cleanup

**Change #168** with diff file ISSM-22997-22998.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: stress is now devatoricstress in effective value to

**Change #169** with diff file ISSM-22998-22999.diff:

Function name:

A /issm/trunk-jpl/src/m/classes/hydrologypism.m M /issm/trunk-jpl/src/m/classes/hydrologyshreve.m

Export determination: 6.

Rationale: NEW: adding ./hydrologypism.m for henning

**Change #170** with diff file ISSM-22999-23000.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test430.m M /issm/trunk-jpl/test/NightlyRun/test430.py

Export determination: 6.

Rationale: BUG: fixed nightly run 430

**Change #171** with diff file ISSM-23000-23001.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test435.m M /issm/trunk-jpl/test/NightlyRun/test435.py

Export determination: 6.

Rationale: CHG: fixed test 435

**Change #172** with diff file ISSM-23001-23002.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_transient\_movie.js

Export determination: 6.

Rationale: CHG: Modified JS transient movie plot function to reflect conversion of front end playback slider to proprietary Slider class

**Change #173** with diff file ISSM-23002-23003.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_transient\_movie.js

Export determination: 6.

Rationale: CHG: Modified JS transient movie plot function to reflect conversion of front end playback slider to proprietary Slider class

**Change #174** with diff file ISSM-23003-23004.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test441.m M /issm/trunk-jpl/test/NightlyRun/test441.py

Export determination: 6.

Rationale: CHG fixed NR test 441

**Change #175** with diff file ISSM-23004-23005.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test442.m M /issm/trunk-jpl/test/NightlyRun/test442.py

Export determination: 6.

Rationale: CHG: fixed NR test 442

**Change #176** with diff file ISSM-23005-23006.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/matenhancedice.m M /issm/trunk-jpl/src/m/classes/matenhancedice.py

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

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

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

Export determination: 6.

Rationale: CHG: fixing wrong unit for rheology\_B

**Change #177** with diff file ISSM-23006-23007.diff:

Function name:

M /issm/trunk-jpl/src/m/array/arrayoperations.js M /issm/trunk-jpl/src/m/mesh/bamg.js

Export determination: 6.

Rationale: CHG (JS): Resolving bamg.js error for reverse winded SHP domain files.

**Change #178** with diff file ISSM-23007-23008.diff:

Function name:

M /issm/trunk-jpl/src/m/plot/plot\_transient\_movie.js

Export determination: 6.

Rationale: CHG: Change of canvas playback properties retrieval



**Change #179** with diff file ISSM-23008-23009.diff:  
Function name:  
M /issm/trunk-jpl/src/m/plot/plot\_transient\_movie.js  
Export determination: 6.  
Rationale: CHG: Final changes to VESL movie plotting function

**Change #180** with diff file ISSM-23009-23010.diff:  
Function name:  
M /issm/trunk-jpl/test/NightlyRun/test470.m  
Export determination: 6.  
Rationale: CHG: fixed NR 470

**Change #181** with diff file ISSM-23010-23011.diff:  
Function name:  
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/test805.m M /issm/trunk-jpl/test/NightlyRun/test805.py  
Export determination: 6.  
Rationale: CHG: fixed test80X

**Change #182** with diff file ISSM-23011-23012.diff:  
Function name:  
M /issm/trunk-jpl/test/Archives/Archive409.arch M /issm/trunk-jpl/test/Archives/Archive426.arch  
M /issm/trunk-jpl/test/Archives/Archive427.arch M /issm/trunk-jpl/test/Archives/Archive439.arch  
M /issm/trunk-jpl/test/Archives/Archive505.arch M /issm/trunk-jpl/test/Archives/Archive506.arch  
M /issm/trunk-jpl/test/Archives/Archive507.arch M /issm/trunk-jpl/test/NightlyRun/test409.m  
M /issm/trunk-jpl/test/NightlyRun/test409.py M /issm/trunk-jpl/test/NightlyRun/test426.m  
M /issm/trunk-jpl/test/NightlyRun/test426.py M /issm/trunk-jpl/test/NightlyRun/test427.m  
M /issm/trunk-jpl/test/NightlyRun/test427.py M /issm/trunk-jpl/test/NightlyRun/test439.m  
M /issm/trunk-jpl/test/NightlyRun/test439.py  
Export determination: 6.  
Rationale: CHG: updates archives for NR (previous melt interpolation not supported anymore)

**Change #183** with diff file ISSM-23012-23013.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive507.arch M /issm/trunk-jpl/test/NightlyRun/test507.m

M /issm/trunk-jpl/test/NightlyRun/test507.py

Export determination: 6.

Rationale: CHG: need to test all melt interpolation

**Change #184** with diff file ISSM-23013-23014.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive444.arch

Export determination: 6.

Rationale: update test444.m archive

**Change #185** with diff file ISSM-23014-23015.diff:

Function name:

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

jpl/src/c/analyses/StressbalanceAnalysis.cpp

Export determination: 6.

Rationale: CHG: improved error message in order to show the problem

**Change #186** with diff file ISSM-23015-23016.diff:

Function name:

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

Export determination: 6.

Rationale: BUG: fixed string being marshalled

**Change #187** with diff file ISSM-23016-23017.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test433.py M /issm/trunk-jpl/test/NightlyRun/test435.py

M /issm/trunk-jpl/test/NightlyRun/test441.py M /issm/trunk-jpl/test/NightlyRun/test703.py

Export determination: 6.

Rationale: BUG: fixed typos in python NR

**Change #188** with diff file ISSM-23017-23018.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test2084.m M /issm/trunk-jpl/test/NightlyRun/test2084.py

M /issm/trunk-jpl/test/NightlyRun/test2085.m M /issm/trunk-jpl/test/NightlyRun/test2085.py

M /issm/trunk-jpl/test/Par/GiaIvinsBenchmarksAB.par M /issm/trunk-jpl/test/Par/GiaIvinsBenchmarksAB

M /issm/trunk-jpl/test/Par/GiaIvinsBenchmarksCD.par M /issm/trunk-jpl/test/Par/GiaIvinsBenchmarksCD

Export determination: 6.

Rationale: CHG: fixed Sea level tests for new grounding line migration

**Change #189** with diff file ISSM-23018-23019.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test4001.m M /issm/trunk-jpl/test/NightlyRun/test4002.m

Export determination: 6.

Rationale: CHG: updated ice/ocean tests for new grounding line migration

**Change #190** with diff file ISSM-23019-23020.diff:

Function name:

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

Export determination: 6.

Rationale: NEW: missing features in slr.py

**Change #191** with diff file ISSM-23020-23021.diff:

Function name:

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

A /issm/trunk-jpl/src/c/analyses/HydrologyPismAnalysis.cpp A /issm/trunk-

jpl/src/c/analyses/HydrologyPismAnalysis.h A /issm/trunk-jpl/src/c/analyses/HydrologyShaktiAnalysis.cpp

(from /issm/trunk-jpl/src/c/analyses/HydrologySommersAnalysis.cpp:23019) A

/issm/trunk-jpl/src/c/analyses/HydrologyShaktiAnalysis.h (from /issm/trunk-

jpl/src/c/analyses/HydrologySommersAnalysis.h:23019) D /issm/trunk-jpl/src/c/analyses/HydrologySommers

D /issm/trunk-jpl/src/c/analyses/HydrologySommersAnalysis.h M /issm/trunk-

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

M /issm/trunk-jpl/src/c/classes/Loads/Neumannflux.cpp M /issm/trunk-jpl/src/c/classes/Loads/Neumannflu

M /issm/trunk-jpl/src/c/classes/Materials/Matpar.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/c/shared/Enum/EnumToSt

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

M /issm/trunk-jpl/src/dox/issm.dox A /issm/trunk-jpl/src/m/classes/frictionpism.m

A /issm/trunk-jpl/src/m/classes/frictionshakti.m (from /issm/trunk-jpl/src/m/classes/frictionsommers.m:230

A /issm/trunk-jpl/src/m/classes/frictionshakti.py (from /issm/trunk-jpl/src/m/classes/frictionsommers.py:23  
D /issm/trunk-jpl/src/m/classes/frictionsommers.m D /issm/trunk-jpl/src/m/classes/frictionsommers.py  
M /issm/trunk-jpl/src/m/classes/hydrologypism.m M /issm/trunk-jpl/src/m/consistency/ismodelselfconsistent.m  
M /issm/trunk-jpl/src/m/consistency/ismodelselfconsistent.m  
Export determination: 6.  
Rationale: CHG: moving sommers to SHAKTI, and adding new hydro model  
for Henning (based on PISM non conserving scheme)

**Change #192** with diff file ISSM-23021-23022.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: added new analysis

**Change #193** with diff file ISSM-23022-23023.diff:

Function name:

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

Export determination: 6.

Rationale: fixed solid Earth tests missing grounded ice check

**Change #194** with diff file ISSM-23023-23024.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test2010.py

Export determination: 6.

Rationale: fixed solid Earth tests missing grounded ice check

**Change #195** with diff file ISSM-23024-23025.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test350.m M /issm/trunk-jpl/test/NightlyRun/test350.py

Export determination: 6.

Rationale: CHG: changed Sommers to SHATKI

**Change #196** with diff file ISSM-23025-23026.diff:

Function name:

A /issm/trunk-jpl/src/m/classes/hydrologyshakti.m (from /issm/trunk-jpl/src/m/classes/hydrologysommers.m)

A /issm/trunk-jpl/src/m/classes/hydrologyshakti.py (from /issm/trunk-jpl/src/m/classes/hydrologysommers.py)

D /issm/trunk-jpl/src/m/classes/hydrologysommers.m D /issm/trunk-jpl/src/m/classes/hydrologysommers.py

Export determination: 6.

Rationale: CHG: renamed Sommers SHAKTI

**Change #197** with diff file ISSM-23026-23027.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test4002.m

Export determination: 6.

Rationale: CHG: fixed NR problem with test4002

**Change #198** with diff file ISSM-23027-23028.diff:

Function name:

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

Export determination: 6.

Rationale: fixing missing fields in slr.py and slr.m

**Change #199** with diff file ISSM-23028-23029.diff:

Function name:

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

Export determination: 6.

Rationale: fixing missing fields in slr.py

**Change #200** with diff file ISSM-23029-23030.diff:

Function name:

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

Export determination: 6.

Rationale: fixing missing fields in slr.py

**Change #201** with diff file ISSM-23030-23031.diff:

Function name:

M /issm/trunk-jpl/src/c/cores/stressbalance\_core.cpp  
Export determination: 6.  
Rationale: Adding basal melt for FS

**Change #202** with diff file ISSM-23031-23032.diff:  
Function name:  
M /issm/trunk-jpl/src/c/cores/adjointstressbalance\_core.cpp  
Export determination: 6.  
Rationale: CHG: Not adding adjontp for HO/FS coupling

**Change #203** with diff file ISSM-23032-23033.diff:  
Function name:  
M /issm/trunk-jpl/src/m/classes/maskpsl.m  
Export determination: 6.  
Rationale: CHG: removed some old checks

**Change #204** with diff file ISSM-23033-23034.diff:  
Function name:  
M /issm/trunk-jpl/src/m/classes/slr.py  
Export determination: 6.  
Rationale: fixing consistency checks in slr.py

**Change #205** with diff file ISSM-23034-23035.diff:  
Function name:  
M /issm/trunk-jpl/src/m/classes/slr.py  
Export determination: 6.  
Rationale: fixing consistency checks in slr.py

**Change #206** with diff file ISSM-23035-23036.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/Tria.cpp M /issm/trunk-jpl/src/c/classes/Elements/Tria.h

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

Export determination: 6.

Rationale: CHG: Updating contact migration of grounding line for FS, compare water pressure and sigma.nn at vertex level rather than element level

**Change #207** with diff file ISSM-23036-23037.diff:

Function name:

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

Export determination: 6.

Rationale: fixing consistency checks in slr.py

**Change #208** with diff file ISSM-23037-23038.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: Modified GL height for basal melt plume parameterization

**Change #209** with diff file ISSM-23038-23039.diff:

Function name:

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

Export determination: 6.

Rationale: fixing consistency checks in slr.py

**Change #210** with diff file ISSM-23039-23040.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test2002.py M /issm/trunk-jpl/test/NightlyRun/test2003.py

M /issm/trunk-jpl/test/NightlyRun/test2010.py

Export determination: 6.

Rationale: mask fix and missing new variable declaration

**Change #211** with diff file ISSM-23040-23041.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test2002.py M /issm/trunk-jpl/test/NightlyRun/test2003.py

M /issm/trunk-jpl/test/NightlyRun/test2010.py  
Export determination: 6.  
Rationale: mask fix and missing new variable declaration

**Change #212** with diff file ISSM-23041-23042.diff:  
Function name:  
M /issm/trunk-jpl/src/c/shared/FSanalytics/fsanalytics.cpp  
Export determination: 6.  
Rationale: CHG: for god's sake, don't compile this file unless absolutely necessary (some files have too many characters and it takes for ever for the compiler to go through it)

**Change #213** with diff file ISSM-23042-23043.diff:  
Function name:  
M /issm/trunk-jpl/m4/issm\_options.m4  
Export determination: 6.  
Rationale: CHG: added option to provide include and libs for MUMPS

**Change #214** with diff file ISSM-23043-23044.diff:  
Function name:  
M /issm/trunk-jpl/src/c/shared/Elements/PrintArrays.cpp M /issm/trunk-jpl/src/c/shared/Elements/element...  
Export determination: 6.  
Rationale: CHG: allow for printarray of IssmDoubles

**Change #215** with diff file ISSM-23044-23045.diff:  
Function name:  
M /issm/trunk-jpl/src/c/toolkits/issm/IssmDenseMat.h M /issm/trunk-jpl/src/c/toolkits/issm/IssmMat.h  
M /issm/trunk-jpl/src/c/toolkits/mumps/MumpsSolve.cpp M /issm/trunk-jpl/src/c/toolkits/mumps/mumps...  
Export determination: 6.  
Rationale: CHG: allow for MUMPS serial

**Change #216** with diff file ISSM-23045-23046.diff:  
Function name:



M /issm/trunk-jpl/jenkins/macosx\_pine-island M /issm/trunk-jpl/jenkins/macosx\_pine-island\_static M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/modules/InterpFromGridToMeshx/InterpFromGridToMeshx.cpp M /issm/trunk-jpl/src/wrappers/InterpFromGridToMesh/InterpFromGridToMesh.js  
Export determination: 6.  
Rationale: CHG: Converted all Promises to success/warning/error callback model

**Change #217** with diff file ISSM-23046-23047.diff:

Function name:

M /issm/trunk-jpl/jenkins/macosx\_pine-island M /issm/trunk-jpl/jenkins/macosx\_pine-island\_static M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/modules/InterpFromGridToMeshx/InterpFromGridToMeshx.cpp M /issm/trunk-jpl/src/wrappers/InterpFromGridToMesh/InterpFromGridToMesh.js  
Export determination: 6.  
Rationale: CHG: Reverted mistaken commit

**Change #218** with diff file ISSM-23047-23048.diff:

Function name:

M /issm/trunk-jpl/m4/issm\_options.m4  
Export determination: 6.  
Rationale: CHG: fixing NR

**Change #219** with diff file ISSM-23048-23049.diff:

Function name:

M /issm/trunk-jpl/src/c/shared/Elements/elements.h  
Export determination: 6.  
Rationale: CHG: fixing wrapper compilation with printarray IssmPDouble

**Change #220** with diff file ISSM-23049-23050.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/src/c/modules/ModelProcessorx/Autodiff M /issm/trunk-jpl/src/c/toolkits/issm/IssmDenseMat.h  
Export determination: 6.  
Rationale: CHG: fixing ADOLC, added switch to select correct solver type when

MUMPS and GSL are available in serial

**Change #221** with diff file ISSM-23050-23051.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/ExternalResults/GenericExternalResult.h

Export determination: 6.

Rationale: BUG: fixed memory leak

**Change #222** with diff file ISSM-23051-23052.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: Initial changes to colorbar option handling

**Change #223** with diff file ISSM-23052-23053.diff:

Function name:

M /issm/trunk-jpl/src/c/cores/controladm1qn3\_core.cpp

Export determination: 6.

Rationale: CHG: cutting unnecessary lines that got best paramters

**Change #224** with diff file ISSM-23053-23054.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/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/Vertex.cpp

M /issm/trunk-jpl/src/c/classes/Vertex.h M /issm/trunk-jpl/src/c/modules/FloatingIceMeltingRatePicox/Flo

M /issm/trunk-jpl/src/c/modules/ModelProcessorx/CreateElementsVerticesAndMaterials.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: trying to speed up distance calculation

**Change #225** with diff file ISSM-23054-23055.diff:

Function name:  
M /issm/trunk-jpl/src/m/os/issmscpin.m  
Export determination: 6.  
Rationale: CHG: do not error out if one file is missing, just send a warning

**Change #226** with diff file ISSM-23055-23056.diff:

Function name:  
M /issm/trunk-jpl/src/c/shared/Enum/Enum.h 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/Enum/Synchronize.sh  
Export determination: 6.  
Rationale: CHG: moving some Enums back to inputs

**Change #227** with diff file ISSM-23056-23057.diff:

Function name:  
M /issm/trunk-jpl/jenkins/jenkins.sh  
Export determination: 6.  
Rationale: CHG: better way to handle changed files

**Change #228** with diff file ISSM-23057-23058.diff:

Function name:  
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  
Export determination: 6.  
Rationale: CHG: moving more enums to inputs

**Change #229** with diff file ISSM-23058-23059.diff:

Function name:  
M /issm/trunk-jpl/jenkins/jenkins.sh M /issm/trunk-jpl/src/c/classes/Elements/Element.cpp  
M /issm/trunk-jpl/src/c/classes/Elements/Element.h  
Export determination: 6.  
Rationale: CHG: removing IsInput function, now in EnumDefinitions

**Change #230** with diff file ISSM-23059-23060.diff:

Function name:

M /issm/trunk-jpl/jenkins/jenkins.sh 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/Elements/Tria.cpp

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

M /issm/trunk-jpl/src/c/shared/Enum/Synchronize.sh

Export determination: 6.

Rationale: CHG: reverting back to previous solution due to svn trust issues

**Change #231** with diff file ISSM-23060-23061.diff:

Function name:

M /issm/trunk-jpl/jenkins/jenkins.sh

Export determination: 6.

Rationale: CHG: changing the order

**Change #232** with diff file ISSM-23061-23062.diff:

Function name:

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: moving some enums to inputs again...

**Change #233** with diff file ISSM-23062-23063.diff:

Function name:

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: moved some enums to inputs

**Change #234** with diff file ISSM-23063-23064.diff:

Function name:

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

Export determination: 6.

Rationale: maskpsl class missing .type field when marshalling in python version

**Change #235** with diff file ISSM-23064-23065.diff:

Function name:

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

Export determination: 6.

Rationale: maskpsl class missing .type field when marshalling in python version

**Change #236** with diff file ISSM-23065-23066.diff:

Function name:

M /issm/trunk-jpl/externalpackages/neopz/install.sh M /issm/trunk-jpl/src/c/classes/AdaptiveMeshRefinement

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

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

Export determination: 6.

Rationale: CHG: only one MPI call after Remesh core

**Change #237** with diff file ISSM-23066-23067.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/AdjointHorizAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/Balancethickn

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

jpl/src/c/analyses/BalancevelocityAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/DamageEvolutionAnalysis.c

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

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

jpl/src/c/analyses/GLheightadvectionAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/HydrologyDCEfficientA

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

jpl/src/c/analyses/HydrologyShaktiAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/HydrologyShreveAnalysis.

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

M /issm/trunk-jpl/src/c/analyses/SealevelriseAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/SmbAnalysis.cp

M /issm/trunk-jpl/src/c/analyses/SmoothAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/StressbalanceAnaly

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

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

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

jpl/src/c/classes/AmrBamg.cpp M /issm/trunk-jpl/src/c/classes/Cfdragcoeffabsgrad.cpp

M /issm/trunk-jpl/src/c/classes/Cfsurfacelogvel.cpp M /issm/trunk-jpl/src/c/classes/Cfsurfacesquare.cpp

M /issm/trunk-jpl/src/c/classes/Constraints/SpcStatic.cpp M /issm/trunk-jpl/src/c/classes/Dakota/IssmPara

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

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

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

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

M /issm/trunk-jpl/src/c/classes/Loads/Moulin.cpp M /issm/trunk-jpl/src/c/classes/Loads/Neumannflux.cpp

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

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

M /issm/trunk-jpl/src/c/classes/Misfit.cpp M /issm/trunk-jpl/src/c/classes/Nodalvalue.cpp  
M /issm/trunk-jpl/src/c/classes/Node.cpp M /issm/trunk-jpl/src/c/classes/Numberedcostfunction.cpp  
M /issm/trunk-jpl/src/c/classes/Params/BoolParam.cpp M /issm/trunk-jpl/src/c/classes/Params/DataSetPa  
M /issm/trunk-jpl/src/c/classes/Params/DoubleMatArrayParam.cpp M /issm/trunk-  
jpl/src/c/classes/Params/DoubleMatParam.cpp M /issm/trunk-jpl/src/c/classes/Params/DoubleVecParam.cp  
M /issm/trunk-jpl/src/c/classes/Params/IntParam.cpp M /issm/trunk-jpl/src/c/classes/Params/StringArray  
M /issm/trunk-jpl/src/c/classes/Params/StringParam.cpp M /issm/trunk-jpl/src/c/classes/Profiler.cpp  
M /issm/trunk-jpl/src/c/classes/Regionaloutput.cpp M /issm/trunk-jpl/src/c/classes/gauss/GaussSeg.cpp  
M /issm/trunk-jpl/src/c/classes/kriging/Observations.cpp M /issm/trunk-jpl/src/c/cores/ad\_core.cpp  
M /issm/trunk-jpl/src/c/cores/adgradient\_core.cpp M /issm/trunk-jpl/src/c/cores/bmb\_core.cpp  
M /issm/trunk-jpl/src/c/cores/controlad\_core.cpp M /issm/trunk-jpl/src/c/cores/controladm1qn3\_core.cpp  
M /issm/trunk-jpl/src/c/cores/dakota\_core.cpp M /issm/trunk-jpl/src/c/cores/damage\_core.cpp  
M /issm/trunk-jpl/src/c/cores/esa\_core.cpp M /issm/trunk-jpl/src/c/cores/gia\_core.cpp  
M /issm/trunk-jpl/src/c/cores/love\_core.cpp M /issm/trunk-jpl/src/c/cores/masstransport\_core.cpp  
M /issm/trunk-jpl/src/c/cores/sealevelrise\_core.cpp M /issm/trunk-jpl/src/c/cores/smb\_core.cpp  
M /issm/trunk-jpl/src/c/cores/stressbalance\_core.cpp M /issm/trunk-jpl/src/c/datastructures/DataSet.cpp  
M /issm/trunk-jpl/src/c/main/esmfbinders.cpp M /issm/trunk-jpl/src/c/main/issm\_dakota.cpp  
M /issm/trunk-jpl/src/c/main/issm\_ocean.cpp M /issm/trunk-jpl/src/c/main/issm\_slr.cpp  
M /issm/trunk-jpl/src/c/modules/AllocateSystemMatricesx/AllocateSystemMatricesx.cpp  
M /issm/trunk-jpl/src/c/modules/DistanceToMaskBoundaryx/DistanceToMaskBoundaryxt.cpp  
M /issm/trunk-jpl/src/c/modules/ExpToLevelSetx/ExpToLevelSetxt.cpp M /issm/trunk-  
jpl/src/c/modules/FloatingiceMeltingRatePicox/FloatingiceMeltingRatePicox.cpp  
M /issm/trunk-jpl/src/c/modules/FloatingiceMeltingRatex/FloatingiceMeltingRatex.cpp  
M /issm/trunk-jpl/src/c/modules/GetVectorFromControlInputsx/GetVectorFromControlInputsx.cpp  
M /issm/trunk-jpl/src/c/modules/GetVectorFromInputsx/GetVectorFromInputsx.cpp  
M /issm/trunk-jpl/src/c/modules/GroundinglineMigrationx/GroundinglineMigrationx.cpp  
M /issm/trunk-jpl/src/c/modules/MeshProfileIntersectionx/MeshProfileIntersectionx.cpp  
M /issm/trunk-jpl/src/c/modules/ModelProcessorex/Control/CreateParametersControl.cpp  
M /issm/trunk-jpl/src/c/modules/ModelProcessorex/Control/UpdateElementsAndMaterialsControl.cpp  
M /issm/trunk-jpl/src/c/modules/ModelProcessorex/CreateElementsVerticesAndMaterials.cpp  
M /issm/trunk-jpl/src/c/modules/ModelProcessorex/CreateOutputDefinitions.cpp  
M /issm/trunk-jpl/src/c/modules/ModelProcessorex/CreateParameters.cpp M  
/issm/trunk-jpl/src/c/modules/ModelProcessorex/ModelProcessorex.cpp M /issm/trunk-  
jpl/src/c/modules/NodalValuex/NodalValuex.cpp M /issm/trunk-jpl/src/c/modules/OutputDefinitionsRespon  
M /issm/trunk-jpl/src/c/modules/SetActiveNodesLSMx/SetActiveNodesLSMx.cpp  
M /issm/trunk-jpl/src/c/modules/SetControlInputsFromVectorx/SetControlInputsFromVectorx.cpp  
M /issm/trunk-jpl/src/c/modules/SurfaceMassBalancex/Gembx.cpp M /issm/trunk-  
jpl/src/c/modules/SurfaceMassBalancex/SurfaceMassBalancex.cpp M /issm/trunk-  
jpl/src/c/shared/Elements/ComputeD18OTemperaturePrecipitationFromPD.cpp  
M /issm/trunk-jpl/src/c/shared/Elements/ComputeMungsmTemperaturePrecipitation.cpp  
M /issm/trunk-jpl/src/c/shared/Elements/DrainageFunctionWaterfraction.cpp  
M /issm/trunk-jpl/src/c/shared/Elements/EstarComponents.cpp M /issm/trunk-  
jpl/src/c/shared/Elements/Paterson.cpp M /issm/trunk-jpl/src/c/shared/Elements/PddSurfaceMassBalance.  
M /issm/trunk-jpl/src/c/shared/Matrix/MatrixUtils.cpp M /issm/trunk-jpl/src/c/shared/Numerics/BrentSea  
M /issm/trunk-jpl/src/c/shared/Numerics/legendre.cpp M /issm/trunk-jpl/src/c/solutionsequences/solutionse  
M /issm/trunk-jpl/src/c/solutionsequences/solutionsequence\_linear.cpp M /issm/trunk-

jpl/src/c/solutionsequences/solutionsequence\_thermal\_nonlinear.cpp M /issm/trunk-jpl/src/c/toolkits/mumps/MumpsSolve.cpp  
Export determination: 6.  
Rationale: CHG: removing double white lines

**Change #238** with diff file ISSM-23067-23068.diff:  
Function name:  
M /issm/trunk-jpl/src/c/cores/transient\_core.cpp  
Export determination: 6.  
Rationale: FIX: fixed coupling for multiple ice cpus

**Change #239** with diff file ISSM-23068-23069.diff:  
Function name:  
M /issm/trunk-jpl/test/NightlyRun/test4002.m  
Export determination: 6.  
Rationale: NEW: test4002 with 2 cpus now

**Change #240** with diff file ISSM-23069-23070.diff:  
Function name:  
M /issm/trunk-jpl/src/c/modules/FloatingIceMeltingRatePicox  
Export determination: 6.  
Rationale: adding some directories to ignore, for cleaner "svn status"

**Change #241** with diff file ISSM-23070-23071.diff:  
Function name:  
M /issm/trunk-jpl/test/MITgcm/code/cpl\_issm.F  
Export determination: 6.  
Rationale: MITgcm uses "base" sent by ISSM code includes some diagnostics write statements, which will eventually be commented out, and a manual check and removal of 1-m ice shelf thickness, which will eventually be replaced to check for NaN value. Verification output changes because there are truncation differences at the  $1e-5$  level.

**Change #242** with diff file ISSM-23071-23072.diff:

Function name:

M /issm/trunk-jpl/test/MITgcm/get\_mitgcm.sh

Export determination: 6.

Rationale: no need to download fresh MITgcm copy if it is already there

**Change #243** with diff file ISSM-23072-23073.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive4002.arch

Export determination: 6.

Rationale: CHG: new archive for ocean test

**Change #244** with diff file ISSM-23073-23074.diff:

Function name:

M /issm/trunk-jpl/src/wrappers/ContourToNodes/ContourToNodes.cpp

Export determination: 6.

Rationale: CHG: allow to pass matrices instead of vectors

**Change #245** with diff file ISSM-23074-23075.diff:

Function name:

M /issm/trunk-jpl/test/MITgcm/build.sh D /issm/trunk-jpl/test/MITgcm/code/SIZE.h

M /issm/trunk-jpl/test/NightlyRun/test4001.m M /issm/trunk-jpl/test/NightlyRun/test4002.m

Export determination: 6.

Rationale: speeding up test by downloading and building MITgcm only if needed

**Change #246** with diff file ISSM-23075-23076.diff:

Function name:

M /issm/trunk-jpl/test/MITgcm/code M /issm/trunk-jpl/test/NightlyRun/test4002.m

Export determination: 6.

Rationale: fixing steps in test4002.m

**Change #247** with diff file ISSM-23076-23077.diff:

Function name:



M /issm/trunk-jpl/test/MITgcm/build.sh  
Export determination: 6.  
Rationale: removing some comments that were meant to be temporary

**Change #248** with diff file ISSM-23077-23078.diff:  
Function name:  
M /issm/trunk-jpl/src/c/cores/transient\_core.cpp  
Export determination: 6.  
Rationale: CHG: make sure base is +9999. in places where there is no more ice

**Change #249** with diff file ISSM-23078-23079.diff:  
Function name:  
M /issm/trunk-jpl/src/c/cores/transient\_core.cpp  
Export determination: 6.  
Rationale: CHG: wrong enum for ice mask

**Change #250** with diff file ISSM-23079-23080.diff:  
Function name:  
M /issm/trunk-jpl/src/c/cores/transient\_core.cpp  
Export determination: 6.  
Rationale: BUG: fixed AD compilation by moving curly bracket

**Change #251** with diff file ISSM-23080-23081.diff:  
Function name:  
M /issm/trunk-jpl/src/c/cores/transient\_core.cpp  
Export determination: 6.  
Rationale: CHG: added default value for ice base when no ice is present

**Change #252** with diff file ISSM-23081-23082.diff:  
Function name:  
M /issm/trunk-jpl/src/c/cores/transient\_core.cpp  
Export determination: 6.  
Rationale: BUG: fixed AD compilation by moving curly bracket

**Change #253** with diff file ISSM-23082-23083.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive4002.arch M /issm/trunk-jpl/test/MITgcm/code/cpl\_issm.F

Export determination: 6.

Rationale: cpl\_issm now checks for issm mask (9999's) and sets R\_shelfIce=0; this change does not modify Archive4002.arch cpl\_issm now updates R\_shelfIce at every coupling time step instead of just during statTime; this change modifies Archive4002.arch

**Change #254** with diff file ISSM-23083-23084.diff:

Function name:

M /issm/trunk-jpl/test/MITgcm/code/EEP\_OPTIONS.h D /issm/trunk-jpl/test/MITgcm/code/EESUPP

M /issm/trunk-jpl/test/MITgcm/code/SIZE.h.bak M /issm/trunk-jpl/test/MITgcm/code/do\_oceanic\_phys.F

M /issm/trunk-jpl/test/MITgcm/code/eeboot\_minimal.F M /issm/trunk-jpl/test/MITgcm/code/eedie.F

M /issm/trunk-jpl/test/MITgcm/get\_mitgcm.sh M /issm/trunk-jpl/test/MITgcm/install.sh

M /issm/trunk-jpl/test/NightlyRun/test4002.m

Export determination: 6.

Rationale: switching MITgcm installation to github and updating to latest MIT-gcm version Archive4002.arch remains unchanged!

**Change #255** with diff file ISSM-23084-23085.diff:

Function name:

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

Export determination: 6.

Rationale: BUG: gauss point has to be at the base to pick up drag since drag is 0 on all layers except base

**Change #256** with diff file ISSM-23085-23086.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: fixing an indexing problem and sped up distance test

**Change #257** with diff file ISSM-23086-23087.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/FemModel.cpp  
Export determination: 6.  
Rationale: CHG: for some reasons, this breaks some tests

**Change #258** with diff file ISSM-23087-23088.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/FemModel.cpp  
Export determination: 6.  
Rationale: CHG: fixed problem: needed to take SQUARE

**Change #259** with diff file ISSM-23088-23089.diff:  
Function name:  
M /issm/trunk-jpl/src/m/classes/slr.py M /issm/trunk-jpl/src/m/classes/stressbalance.py  
M /issm/trunk-jpl/test/NightlyRun/test2002.py M /issm/trunk-jpl/test/NightlyRun/test2003.py  
M /issm/trunk-jpl/test/NightlyRun/test2010.py  
Export determination: 6.  
Rationale: BUG: fixed various differences in the python Solid Earth (slr) tests  
and resulting bins

**Change #260** with diff file ISSM-23089-23090.diff:  
Function name:  
M /issm/trunk-jpl/src/m/plot/applyoptions.m  
Export determination: 6.  
Rationale: BUG: linewidth was not being applied

**Change #261** with diff file ISSM-23090-23091.diff:  
Function name:  
M /issm/trunk-jpl/examples/shakti/moulin.par M /issm/trunk-jpl/examples/shakti/runme.m  
Export determination: 6.  
Rationale: BUG: old friction model in examples/shakti

**Change #262** with diff file ISSM-23092-23093.diff:

Function name:

M /issm/trunk-jpl/m4/issm\_options.m4

Export determination: 6.

Rationale: CHG: removing extraneous verbose

**Change #263** with diff file ISSM-23093-23094.diff:

Function name:

M /issm/trunk-jpl/src/c/analyses/HydrologyPismAnalysis.cpp 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/cores/hydrology\_core.cpp M /issm/trunk-jpl/src/c/shared/io/Marshalling/IoCodeCo

M /issm/trunk-jpl/src/c/toolkits/petsc/objects/PetscSolver.cpp M /issm/trunk-

jpl/src/m/classes/hydrologypism.m M /issm/trunk-jpl/src/m/classes/hydrologyshreve.m

M /issm/trunk-jpl/test/Archives/Archive610.arch A /issm/trunk-jpl/test/NightlyRun/test610.m

Export determination: 6.

Rationale: CHG: fixing PISM hydro model

**Change #264** with diff file ISSM-23094-23095.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/FemModel.cpp M /issm/trunk-jpl/test/NightlyRun/test808.m

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

Export determination: 6.

Rationale: BUG:: fixing distance calculation

**Change #265** with diff file ISSM-23095-23096.diff:

Function name:

A /issm/trunk-jpl/src/m/array/MatlabArray.py M /issm/trunk-jpl/src/m/classes/balancethickness.py

M /issm/trunk-jpl/src/m/classes/clusters/generic.py M /issm/trunk-jpl/src/m/classes/fourierlove.py

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

A /issm/trunk-jpl/src/m/classes/qmu/@dakota\_method/dakota\_method.py A

/issm/trunk-jpl/src/m/classes/qmu/@dakota\_method/dmeth\_params\_set.py A

/issm/trunk-jpl/src/m/classes/qmu/@dakota\_method/dmeth\_params\_write.py A

/issm/trunk-jpl/src/m/classes/qmu/calibration\_function.py A /issm/trunk-jpl/src/m/classes/qmu/continuous

A /issm/trunk-jpl/src/m/classes/qmu/continuous\_state.py A /issm/trunk-jpl/src/m/classes/qmu/least\_square

A /issm/trunk-jpl/src/m/classes/qmu/linear\_equality\_constraint.py A /issm/trunk-

jpl/src/m/classes/qmu/linear\_inequality\_constraint.py A /issm/trunk-jpl/src/m/classes/qmu/nonlinear\_equali

A /issm/trunk-jpl/src/m/classes/qmu/nonlinear\_inequality\_constraint.py A /issm/trunk-

jpl/src/m/classes/qmu/normal\_uncertain.py A /issm/trunk-jpl/src/m/classes/qmu/objective\_function.py

A /issm/trunk-jpl/src/m/classes/qmu/qmu\_classes.py A /issm/trunk-jpl/src/m/classes/qmu/response\_function  
 A /issm/trunk-jpl/src/m/classes/qmu/uniform\_uncertain.py M /issm/trunk-jpl/src/m/classes/qmu.py  
 A /issm/trunk-jpl/src/m/dev/ISSM.py M /issm/trunk-jpl/src/m/dev/devpath.py  
 M /issm/trunk-jpl/src/m/miscellaneous/normfit\_issm.m A /issm/trunk-jpl/src/m/miscellaneous/normfit\_issm.py  
 M /issm/trunk-jpl/src/m/miscellaneous/prctile\_issm.m A /issm/trunk-jpl/src/m/miscellaneous/prctile\_issm.py  
 A /issm/trunk-jpl/src/m/modules/Chaco.py A /issm/trunk-jpl/src/m/modules/MeshPartition.py  
 A /issm/trunk-jpl/src/m/modules/Scotch.py A /issm/trunk-jpl/src/m/partition/adjacency.py  
 A /issm/trunk-jpl/src/m/partition/partitioner.py A /issm/trunk-jpl/src/m/qmu/dakota\_in\_data.py  
 A /issm/trunk-jpl/src/m/qmu/dakota\_in\_params.py M /issm/trunk-jpl/src/m/qmu/dakota\_in\_write.m  
 A /issm/trunk-jpl/src/m/qmu/dakota\_in\_write.py A /issm/trunk-jpl/src/m/qmu/dakota\_out\_parse.py  
 A /issm/trunk-jpl/src/m/qmu/expandresponses.py A /issm/trunk-jpl/src/m/qmu/expandvariables.py  
 A /issm/trunk-jpl/src/m/qmu/helpers.py A /issm/trunk-jpl/src/m/qmu/importancefactors.py  
 A /issm/trunk-jpl/src/m/qmu/lclist\_write.py A /issm/trunk-jpl/src/m/qmu/param\_write.py  
 A /issm/trunk-jpl/src/m/qmu/postqmu.py A /issm/trunk-jpl/src/m/qmu/preqmu.py  
 M /issm/trunk-jpl/src/m/qmu/process\_qmu\_response\_data.m A /issm/trunk-jpl/src/m/qmu/process\_qmu\_response\_data.py  
 A /issm/trunk-jpl/src/m/qmu/rlev\_write.py  
 A /issm/trunk-jpl/src/m/qmu/rlist\_write.py A /issm/trunk-jpl/src/m/qmu/setupdesign/QmuSetupResponses.py  
 A /issm/trunk-jpl/src/m/qmu/setupdesign/QmuSetupVariables.py M /issm/trunk-jpl/src/m/qmu/vector\_write.m  
 A /issm/trunk-jpl/src/m/qmu/vector\_write.py  
 A /issm/trunk-jpl/src/m/qmu/vlist\_write.py M /issm/trunk-jpl/src/m/solve/WriteData.py  
 M /issm/trunk-jpl/src/m/solve/loadresultsfromcluster.py M /issm/trunk-jpl/src/m/solve/loadresultsfromdisk.py  
 M /issm/trunk-jpl/src/m/solve/marshall.py M /issm/trunk-jpl/src/m/solve/solve.py  
 Export determination: 6.  
 Rationale: NEW: added initial qmu/dakota functionality in Python, made minor adjustments to other, related files

**Change #266** with diff file ISSM-23096-23097.diff:

Function name:

A /issm/trunk-jpl/examples/AMR A /issm/trunk-jpl/examples/AMR/domain.exp  
 A /issm/trunk-jpl/examples/AMR/front.exp A /issm/trunk-jpl/examples/AMR/mismip.par  
 A /issm/trunk-jpl/examples/AMR/runme.m

Export determination: 6.

Rationale: NEW: AMR example using MISMIP3d setup

**Change #267** with diff file ISSM-23097-23098.diff:

Function name:

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

Export determination: 6.

Rationale: BUG: fixed bug where scipy not being installed crashed most/all of the python tests

**Change #268** with diff file ISSM-23098-23099.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: undid previous change after scipy was installed on the appropriate python build

**Change #269** with diff file ISSM-23099-23100.diff:

Function name:

M /issm/trunk-jpl/jenkins/linux64\_ross M /issm/trunk-jpl/jenkins/linux64\_ross.python

M /issm/trunk-jpl/jenkins/linux64\_ross.se

Export determination: 6.

Rationale: CHG: Modified Python builds to use usr copy of Python (adjusting Jenkins configurations and installing libs on nodes as needed)

**Change #270** with diff file ISSM-23100-23101.diff:

Function name:

M /issm/trunk-jpl/src/m/qmu/helpers.py

Export determination: 6.

Rationale: BUG: fixed a bug/crash in src/m/qmu/helpers.OrderedStruct related to deepcopy

**Change #271** with diff file ISSM-23101-23102.diff:

Function name:

M /issm/trunk-jpl/jenkins/linux64\_ross M /issm/trunk-jpl/jenkins/linux64\_ross.python

M /issm/trunk-jpl/jenkins/linux64\_ross.se

Export determination: 6.

Rationale: CHG: Modified Python builds to use usr copy of Python; added path to usr copy of numpy back in

**Change #272** with diff file ISSM-23102-23103.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test421.m M /issm/trunk-jpl/test/NightlyRun/test421.py  
Export determination: 6.  
Rationale: CHG: Eased tolerances

**Change #273** with diff file ISSM-23103-23104.diff:  
Function name:  
M /issm/trunk-jpl/src/c/shared/Enum/EnumDefinitions.h  
Export determination: 6.  
Rationale: CHG: added new Enum

**Change #274** with diff file ISSM-23104-23105.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: added new Enum

**Change #275** with diff file ISSM-23105-23106.diff:  
Function name:  
M /issm/trunk-jpl/src/m/classes/frictionpism.m  
Export determination: 6.  
Rationale: CHG: added md.friction.watercolumn\_max to PISM friction law

**Change #276** with diff file ISSM-23106-23107.diff:  
Function name:  
M /issm/trunk-jpl/jenkins/linux64\_ross M /issm/trunk-jpl/jenkins/linux64\_ross\_python  
M /issm/trunk-jpl/jenkins/linux64\_ross\_se  
Export determination: 6.  
Rationale: CHG: Added netCDF back into build config scripts

**Change #277** with diff file ISSM-23107-23108.diff:  
Function name:  
M /issm/trunk-jpl/configure.ac M /issm/trunk-jpl/etc/environment.sh M /issm/trunk-jpl/examples/Inversion/runme.m M /issm/trunk-jpl/externalpackages/dem/dem.m

M /issm/trunk-jpl/m4/analyses.m4 M /issm/trunk-jpl/scripts/cppcheck.sh M  
 /issm/trunk-jpl/src/m/classes/clusters/generic.m M /issm/trunk-jpl/src/m/classes/clusters/pfe.m  
 M /issm/trunk-jpl/src/m/consistency/ismodelselfconsistent.m M /issm/trunk-  
 jpl/src/m/exp/expread.m M /issm/trunk-jpl/src/m/exp/exptool.m M /issm/trunk-  
 jpl/src/m/inversions/marshallcostfunctions.m M /issm/trunk-jpl/src/m/inversions/supportedcontrols.m  
 M /issm/trunk-jpl/src/m/plot/manualcb.m M /issm/trunk-jpl/src/m/plot/scaleruler.m  
 M /issm/trunk-jpl/src/m/plot/subplotmodel.m M /issm/trunk-jpl/src/m/solvers/mumpsoptions.m  
 M /issm/trunk-jpl/test/NightlyRun/test201.m M /issm/trunk-jpl/test/NightlyRun/test308.m  
 M /issm/trunk-jpl/test/NightlyRun/test401.m  
 Export determination: 6.  
 Rationale: CHG: minor

**Change #278** with diff file ISSM-23108-23109.diff:

Function name:

M /issm/trunk-jpl/configure.ac M /issm/trunk-jpl/etc/environment.sh M /issm/trunk-  
 jpl/examples/Inversion/runme.m M /issm/trunk-jpl/externalpackages/dem/dem.m  
 M /issm/trunk-jpl/m4/analyses.m4 M /issm/trunk-jpl/scripts/cppcheck.sh M  
 /issm/trunk-jpl/src/m/classes/clusters/generic.m M /issm/trunk-jpl/src/m/classes/clusters/pfe.m  
 M /issm/trunk-jpl/src/m/consistency/ismodelselfconsistent.m M /issm/trunk-  
 jpl/src/m/exp/expread.m M /issm/trunk-jpl/src/m/exp/exptool.m M /issm/trunk-  
 jpl/src/m/inversions/marshallcostfunctions.m M /issm/trunk-jpl/src/m/inversions/supportedcontrols.m  
 M /issm/trunk-jpl/src/m/plot/manualcb.m M /issm/trunk-jpl/src/m/plot/scaleruler.m  
 M /issm/trunk-jpl/src/m/plot/subplotmodel.m M /issm/trunk-jpl/src/m/solvers/mumpsoptions.m  
 M /issm/trunk-jpl/test/NightlyRun/test201.m M /issm/trunk-jpl/test/NightlyRun/test308.m  
 M /issm/trunk-jpl/test/NightlyRun/test401.m  
 Export determination: 6.  
 Rationale: CHG: reverting commit

**Change #279** with diff file ISSM-23109-23110.diff:

Function name:

M /issm/trunk-jpl/src/m/classes/clusters/pfe.m  
 Export determination: 6.  
 Rationale: CHG: do not hard code modules

**Change #280** with diff file ISSM-23110-23111.diff:

Function name:

M /issm/trunk-jpl/src/m/exp/expread.m  
 Export determination: 6.



Rationale: CHG: initialize struct

**Change #281** with diff file ISSM-23111-23112.diff:

Function name:

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

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

Export determination: 6.

Rationale: CHG: Corrected path to pip installation of NumPy

**Change #282** with diff file ISSM-23112-23113.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: Corrected path to pip installation of NumPy

**Change #283** with diff file ISSM-23113-23114.diff:

Function name:

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

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

Export determination: 6.

Rationale: CHG: Corrected path to pip installation of NumPy

**Change #284** with diff file ISSM-23114-23115.diff:

Function name:

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

jpl/src/c/classes/Loads/Friction.cpp

Export determination: 6.

Rationale: CHG: working on PISM friction law

**Change #285** with diff file ISSM-23115-23116.diff:

Function name:

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

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

Export determination: 6.  
Rationale: CHG: Corrected path to pip installation of NumPy after ensuring it is installed on Wallach.IX

**Change #286** with diff file ISSM-23116-23117.diff:  
Function name:  
M /issm/trunk-jpl/jenkins/linux64\_ross  
Export determination: 6.  
Rationale: CHG: Trying without path to NumPy

**Change #287** with diff file ISSM-23117-23118.diff:  
Function name:  
M /issm/trunk-jpl/jenkins/linux64\_ross  
Export determination: 6.  
Rationale: CHG: Reverting change to path to NumPy

**Change #288** with diff file ISSM-23118-23119.diff:  
Function name:  
M /issm/trunk-jpl/jenkins/linux64\_ross  
Export determination: 6.  
Rationale: CHG: Trying user home path expansion with single quotes

**Change #289** with diff file ISSM-23119-23120.diff:  
Function name:  
M /issm/trunk-jpl/jenkins/linux64\_ross M /issm/trunk-jpl/jenkins/linux64\_ross.python  
M /issm/trunk-jpl/jenkins/linux64\_ross.se  
Export determination: 6.  
Rationale: CHG: \$ISSM\_DIR is user jenkins home dir!

**Change #290** with diff file ISSM-23120-23121.diff:  
Function name:  
M /issm/trunk-jpl/jenkins/linux64\_ross M /issm/trunk-jpl/jenkins/linux64\_ross.python  
M /issm/trunk-jpl/jenkins/linux64\_ross.se

Export determination: 6.  
Rationale: CHG: /var/lib/jenkins is user jenkins home dir!

**Change #291** with diff file ISSM-23121-23122.diff:  
Function name:  
M /issm/trunk-jpl/jenkins/linux64\_ross\_ad  
Export determination: 6.  
Rationale: CHG: Needed to make similar changes to Linux\_Ubuntu\_AD

**Change #292** with diff file ISSM-23122-23123.diff:  
Function name:  
M /issm/trunk-jpl/jenkins/linux64\_ross\_ampi  
Export determination: 6.  
Rationale: CHG: Needed to make similar changes to Linux\_Ubuntu\_AD

**Change #293** with diff file ISSM-23123-23124.diff:  
Function name:  
M /issm/trunk-jpl/externalpackages/gdal/install-1.10-linux64.sh  
Export determination: 6.  
Rationale: CHG: find python if not in externalpackages

**Change #294** with diff file ISSM-23124-23125.diff:  
Function name:  
M /issm/trunk-jpl/jenkins/linux64\_ross\_python  
Export determination: 6.  
Rationale: CHG: Fixing path to NumPy on Wallach\_IX builds

**Change #295** with diff file ISSM-23125-23126.diff:  
Function name:  
M /issm/trunk-jpl/jenkins/linux64\_ross\_python  
Export determination: 6.  
Rationale: CHG: Fixing path to NumPy on Wallach\_IX builds

**Change #296** with diff file ISSM-23126-23127.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: Removing gdal as external library and adding it manually to master node.

**Change #297** with diff file ISSM-23127-23128.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test435.m

Export determination: 6.

Rationale: CHG: relaxing tolerance

**Change #298** with diff file ISSM-23128-23129.diff:

Function name:

M /issm/trunk-jpl/test/Par/GiaIvinsBenchmarksCD.par

Export determination: 6.

Rationale: CHG: missing ; at the end of one line

**Change #299** with diff file ISSM-23129-23130.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test439.m M /issm/trunk-jpl/test/NightlyRun/test439.py

Export determination: 6.

Rationale: CHG: Relaxed tolerances.

**Change #300** with diff file ISSM-23130-23131.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/runme.py A /issm/trunk-jpl/test/NightlyRun/test218.py

A /issm/trunk-jpl/test/NightlyRun/test244.py A /issm/trunk-jpl/test/NightlyRun/test250.py

A /issm/trunk-jpl/test/NightlyRun/test251.py A /issm/trunk-jpl/test/NightlyRun/test412.py

A /issm/trunk-jpl/test/NightlyRun/test440.py M /issm/trunk-jpl/test/NightlyRun/test511.py

M /issm/trunk-jpl/test/NightlyRun/test613.py M /issm/trunk-jpl/test/NightlyRun/test703.py

Export determination: 6.

Rationale: NEW: added python qmu linear tests (218,244,250,251,412,440) and made a minor change to runme.py to more gracefully handle misshapen test

results and handle a simple error-case. Minor edits to other tests.

**Change #301** with diff file ISSM-23131-23132.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: Trying Javascript build with Python 2.7.3 as external package.

**Change #302** with diff file ISSM-23132-23133.diff:

Function name:

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

M /issm/trunk-jpl/src/c/analyses/StressbalanceAnalysis.h A /issm/trunk-jpl/src/c/solutionsequences/solutionsequences.h

M /issm/trunk-jpl/src/c/solutionsequences/solutionsequences.h

Export determination: 6.

Rationale: NEW: adding empty shell for FS Schur CG algorithm

**Change #303** with diff file ISSM-23133-23134.diff:

Function name:

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

M /issm/trunk-jpl/src/c/analyses/StressbalanceAnalysis.h D /issm/trunk-jpl/src/c/solutionsequences/solutionsequences.h

M /issm/trunk-jpl/src/c/solutionsequences/solutionsequences.h

Export determination: 6.

Rationale: CHG: reverting Schur stuff

**Change #304** with diff file ISSM-23134-23135.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: minor

**Change #305** with diff file ISSM-23135-23136.diff:

Function name:

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

Export determination: 6.  
Rationale: CHG: better control of figure copy, preserving axis

**Change #306** with diff file ISSM-23136-23137.diff:  
Function name:  
M /issm/trunk-jpl/src/m/solvers/mumpsoptions.m  
Export determination: 6.  
Rationale: CHG: minor

**Change #307** with diff file ISSM-23137-23138.diff:  
Function name:  
M /issm/trunk-jpl/examples/IceflowModels/SquareShelf.par  
Export determination: 6.  
Rationale: CHG: viscosity overshoot does not exist anymore

**Change #308** with diff file ISSM-23138-23139.diff:  
Function name:  
M /issm/trunk-jpl/src/m/plot/manualcb.m M /issm/trunk-jpl/src/m/plot/scaleruler.m  
Export determination: 6.  
Rationale: CHG: minor

**Change #309** with diff file ISSM-23139-23140.diff:  
Function name:  
M /issm/trunk-jpl/scripts/cppcheck.sh  
Export determination: 6.  
Rationale: CHG: more options to CPPCHECK

**Change #310** with diff file ISSM-23140-23141.diff:  
Function name:  
A /issm/trunk-jpl/externalpackages/petsc/install-3.9-linux64.sh  
Export determination: 6.  
Rationale: CHG: added install-3.9-linux64.sh

**Change #311** with diff file ISSM-23141-23142.diff:  
Function name:  
M /issm/trunk-jpl/jenkins/linux64\_ross\_javascript  
Export determination: 6.  
Rationale: CHG: Reverting addition of Python 2.7.3 as external package.

**Change #312** with diff file ISSM-23142-23143.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/FemModel.cpp  
Export determination: 6.  
Rationale: BUG: do not check for AMR if solution is not transient

**Change #313** with diff file ISSM-23143-23144.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/Loads/Friction.cpp  
Export determination: 6.  
Rationale: CHG: working on PISM friction law

**Change #314** with diff file ISSM-23144-23145.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/HydrologyPismAnalysis.cpp  
Export determination: 6.  
Rationale: CHG: working on PISM hydrology-friction law

**Change #315** with diff file ISSM-23145-23146.diff:  
Function name:  
M /issm/trunk-jpl/src/m/classes/frictionpism.m  
Export determination: 6.  
Rationale: CHG: working on PISM friction law

**Change #316** with diff file ISSM-23146-23147.diff:  
Function name:  
M /issm/trunk-jpl/test/NightlyRun/test610.m

Export determination: 6.  
Rationale: CHG: edits for test of PISM hydrology

**Change #317** with diff file ISSM-23147-23148.diff:  
Function name:  
A /issm/trunk-jpl/test/Archives/Archive612.arch A /issm/trunk-jpl/test/NightlyRun/test612.m  
Export determination: 6.  
Rationale: NEW: added test for PISM coupled hydrology and friction

**Change #318** with diff file ISSM-23148-23149.diff:  
Function name:  
M /issm/trunk-jpl/test/Archives/Archive610.arch  
Export determination: 6.  
Rationale: CHG: minor edits to test of PISM hydrology

**Change #319** with diff file ISSM-23149-23150.diff:  
Function name:  
M /issm/trunk-jpl/jenkins/jenkins.sh M /issm/trunk-jpl/jenkins/linux64\_ross  
M /issm/trunk-jpl/test/NightlyRun/IdFromString.py M /issm/trunk-jpl/test/NightlyRun/IdToName.py  
M /issm/trunk-jpl/test/NightlyRun/runme.py  
Export determination: 6.  
Rationale: NEW: added python method of excluding tests in jenkins using test ids or words/sub-words from the test names. Fixed type in jenkins.sh. Testing exclusion of Dakota on linux64\_ross only for now.

**Change #320** with diff file ISSM-23150-23151.diff:  
Function name:  
M /issm/trunk-jpl/test/NightlyRun/runme.py  
Export determination: 6.  
Rationale: BUG: left debugging in runme.py on

**Change #321** with diff file ISSM-23151-23152.diff:  
Function name:



M /issm/trunk-jpl/jenkins/linux64\_ross  
Export determination: 6.  
Rationale: BUG: modified linux64\_ross by mistake

**Change #322** with diff file ISSM-23152-23153.diff:  
Function name:  
M /issm/trunk-jpl/test/NightlyRun/test440.py  
Export determination: 6.  
Rationale: BUG: fixed test440.py having the wrong name

**Change #323** with diff file ISSM-23153-23154.diff:  
Function name:  
M /issm/trunk-jpl/jenkins/linux64\_ross M /issm/trunk-jpl/test/NightlyRun/IdToName.py  
Export determination: 6.  
Rationale: BUG: modified linux64\_ross by mistake

**Change #324** with diff file ISSM-23154-23155.diff:  
Function name:  
M /issm/trunk-jpl/test/NightlyRun/test421.m M /issm/trunk-jpl/test/NightlyRun/test421.py  
Export determination: 6.  
Rationale: CHG: Relaxing tolerances.

**Change #325** with diff file ISSM-23155-23156.diff:  
Function name:  
M /issm/trunk-jpl/jenkins/linux64\_ross.javascript M /issm/trunk-jpl/jenkins/linux64\_ross.python  
M /issm/trunk-jpl/jenkins/linux64\_ross.static M /issm/trunk-jpl/jenkins/macosx\_pine-island  
M /issm/trunk-jpl/jenkins/macosx\_pine-island\_dakota.static M /issm/trunk-jpl/jenkins/macosx\_pine-island.static  
Export determination: 6.  
Rationale: NEW: added dakota exclusions to non-dakota jenkins tests

**Change #326** with diff file ISSM-23156-23157.diff:  
Function name:

M /issm/trunk-jpl/src/c/analyses/HydrologyPismAnalysis.cpp M /issm/trunk-jpl/src/c/analyses/StressbalanceAnalysis.cpp M /issm/trunk-jpl/src/c/classes/Loads/Friction.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 M /issm/trunk-jpl/src/m/classes/frictionpism.m M /issm/trunk-jpl/src/m/classes/hydrologypism.m M /issm/trunk-jpl/test/NightlyRun/test612.m  
Export determination: 6.  
Rationale: BUG: fixing friction and hydrology PISM

**Change #327** with diff file ISSM-23157-23158.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive610.arch M /issm/trunk-jpl/test/NightlyRun/test610.m

Export determination: 6.

Rationale: CHG: updating archive now that we have a max water column

**Change #328** with diff file ISSM-23158-23159.diff:

Function name:

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

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

Export determination: 6.

Rationale: CHG: simplifying function

**Change #329** with diff file ISSM-23159-23160.diff:

Function name:

M /issm/trunk-jpl/src/c/classes/Loads/Friction.cpp M /issm/trunk-jpl/test/Archives/Archive612.arch

Export determination: 6.

Rationale: BUG: pi was not initialized in friction law

**Change #330** with diff file ISSM-23160-23161.diff:

Function name:

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

Export determination: 6.

Rationale: BUG: new runme exclude feature didn't handle certain inputs and raised inappropriate error for valid arguments

**Change #331** with diff file ISSM-23161-23162.diff:

Function name:

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

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

jpl/src/c/solutionsequences/solutionsequences.h M /issm/trunk-jpl/src/c/toolkits/petsc/patches/PetscOptions.h

Export determination: 6.

Rationale: CHG: working on Stokes solver with Luca

**Change #332** with diff file ISSM-23162-23163.diff:

Function name:

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

jpl/src/c/analyses/StressbalanceAnalysis.h M /issm/trunk-jpl/src/c/solutionsequences/solutionsequence\_schurcg.cpp

Export determination: 6.

Rationale: NEW: added mass matrix

**Change #333** with diff file ISSM-23163-23164.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test421.m M /issm/trunk-jpl/test/NightlyRun/test421.py

Export determination: 6.

Rationale: CHG: Easing tolerances

**Change #334** with diff file ISSM-23164-23165.diff:

Function name:

M /issm/trunk-jpl/jenkins/linux64\_ross.javascript

Export determination: 6.

Rationale: CHG: Added path to Python and NumPy (needed during compilation of Emscripten)

**Change #335** with diff file ISSM-23165-23166.diff:

Function name:

M /issm/trunk-jpl/jenkins/linux64\_ross.javascript

Export determination: 6.

Rationale: CHG: Removed path to Python and NumPy

**Change #336** with diff file ISSM-23166-23167.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: \*Actually\* removed path to Python and NumPy

**Change #337** with diff file ISSM-23167-23168.diff:

Function name:

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

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

M /issm/trunk-jpl/src/c/modules/ModelProcessox/CreateNodes.cpp M /issm/trunk-

jpl/src/c/modules/ModelProcessox/EdgesPartitioning.cpp M /issm/trunk-jpl/src/c/modules/ModelProcessox

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

jpl/src/c/solutionsequences/convergence.cpp

Export determination: 6.

Rationale: CHG: moving my\_edges and my\_faces to iomodel to avoid recomputation

**Change #338** with diff file ISSM-23168-23169.diff:

Function name:

M /issm/trunk-jpl/src/m/modules/InterpFromMeshToMesh2d.m M /issm/trunk-

jpl/src/m/modules/InterpFromMeshToMesh2d.py M /issm/trunk-jpl/src/wrappers/InterpFromMeshToMesh2

Export determination: 6.

Rationale: CHG: improved help

**Change #339** with diff file ISSM-23169-23170.diff:

Function name:

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

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

Export determination: 6.

Rationale: BUG: preserve interpolation when calling InputUpdateOneDof

**Change #340** with diff file ISSM-23170-23171.diff:

Function name:

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

M /issm/trunk-jpl/src/m/classes/thermal.py  
Export determination: 6.  
Rationale: CHG: added finite element to levelset

**Change #341** with diff file ISSM-23171-23172.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/LevelsetAnalysis.cpp  
Export determination: 6.  
Rationale: CHG: pick up correct interpolation

**Change #342** with diff file ISSM-23172-23173.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/IoModel.cpp  
Export determination: 6.  
Rationale: CHG: pick up correct interpolation

**Change #343** with diff file ISSM-23173-23174.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/Elements/Tria.cpp M /issm/trunk-jpl/src/c/classes/FemModel.cpp  
M /issm/trunk-jpl/src/c/classes/Nodes.cpp M /issm/trunk-jpl/src/c/modules/SetActiveNodesLSMx/SetActiveNodesLSMx.h  
M /issm/trunk-jpl/src/c/modules/SetActiveNodesLSMx/SetActiveNodesLSMx.h  
Export determination: 6.  
Rationale: BUG: fixed problem when using higher order elements with levelset:  
make sure to use md.levelset.fe = 'P2'

**Change #344** with diff file ISSM-23174-23175.diff:  
Function name:  
M /issm/trunk-jpl/src/c/classes/IoModel.cpp M /issm/trunk-jpl/src/c/modules/ModelProcessorx/ModelProcessorx.cpp  
Export determination: 6.  
Rationale: CHG: forgot to add conversion in cpu =0

**Change #345** with diff file ISSM-23175-23176.diff:  
Function name:

M /issm/trunk-jpl/src/c/modules/ModelProcessorx/ModelProcessorx.cpp  
Export determination: 6.  
Rationale: CHG: reverting change

**Change #346** with diff file ISSM-23176-23177.diff:

Function name:

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

Export determination: 6.

Rationale: NEW: added explicit include and exclude options to runme including ability to use test names as well as ids. Works with Jenkins.

**Change #347** with diff file ISSM-23177-23178.diff:

Function name:

M /issm/trunk-jpl/src/m/archive/archread.m

Export determination: 6.

Rationale: CHG: do not check for file existence, just use fopen, this saves several seconds (found through profiler)

**Change #348** with diff file ISSM-23178-23179.diff:

Function name:

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

Export determination: 6.

Rationale: CHG: made name-based include/exclude for runme.py print 'No test matches xyz' message as appropriate

**Change #349** with diff file ISSM-23179-23180.diff:

Function name:

D /issm/trunk-jpl/test/Archives/Archive101.json D /issm/trunk-jpl/test/Archives/Archive102.json  
D /issm/trunk-jpl/test/Archives/Archive103.json D /issm/trunk-jpl/test/Archives/Archive104.json  
D /issm/trunk-jpl/test/Archives/Archive105.json D /issm/trunk-jpl/test/Archives/Archive106.json  
D /issm/trunk-jpl/test/Archives/Archive107.json D /issm/trunk-jpl/test/Archives/Archive108.json  
D /issm/trunk-jpl/test/Archives/Archive109.json D /issm/trunk-jpl/test/Archives/Archive110.json  
D /issm/trunk-jpl/test/Archives/Archive1101.json D /issm/trunk-jpl/test/Archives/Archive1102.json  
D /issm/trunk-jpl/test/Archives/Archive1103.json D /issm/trunk-jpl/test/Archives/Archive1104.json  
D /issm/trunk-jpl/test/Archives/Archive1105.json D /issm/trunk-jpl/test/Archives/Archive1106.json

[illegible]

[illegible]



[illegible]

Rationale: DEL: no need to have json files anymore

Function name:

Export determination: 6.  
Rationale: CHG: relaxed tolerances

**Change #351** with diff file ISSM-23181-23182.diff:  
Function name:  
M /issm/trunk-jpl/test/NightlyRun/test403.m M /issm/trunk-jpl/test/NightlyRun/test403.py  
Export determination: 6.  
Rationale: CHG: relaxed tolerance

**Change #352** with diff file ISSM-23182-23183.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/StressbalanceAnalysis.cpp  
Export determination: 6.  
Rationale: BUG: do NOT use the same interpolation for the pressure as for the velocity

**Change #353** with diff file ISSM-23183-23184.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/StressbalanceAnalysis.cpp  
Export determination: 6.  
Rationale: CHG: fixing NR: no need to add pressure spc if no vertex is NoneApproximation

**Change #354** with diff file ISSM-23184-23185.diff:  
Function name:  
M /issm/trunk-jpl/src/c/analyses/StressbalanceAnalysis.cpp M /issm/trunk-jpl/src/c/modules/IoModelToConstraintsx/IoModelToConstraintsx.cpp  
Export determination: 6.  
Rationale: CHG: fixing numbering for pressure constraint