

JPL EXPORT ADMINISTRATION DOCUMENT REVIEW RECORD

Log #: 11319-11340

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

Program: ISSM: Ice Sheet System Model

Person Requesting or Initiating Export: Dr. Eric Larour

Date Received: Feb-23-2012

Document Title/Description: ISSM changes from revision 11319 to revision 11340

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

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:** Feb-23-2012



JPL Export Administration Form TBS June 29, 2011

Disposition:

- 1: Public Domain Information (Ref ITAR Section 120.11)
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- 6: Does not contain export-controlled information. May be released/disclosed as requested subject to Company guidelines on protection of proprietary information (if applicable).
- 7: Other (specify)

Change #1 with diff file ISSM-11319-11320.diff:

Function name:

M /issm/trunk-jpl/src/c/objects/KML/KMLFileReadUtils.cpp M /issm/trunk-jpl/src/c/objects/KML/KMLFileReadUtils.h M /issm/trunk-jpl/src/c/objects/KML/KML_Container.cpp M /issm/trunk-jpl/src/c/objects/KML/KML_Feature.cpp M /issm/trunk-jpl/src/c/objects/KML/KML_File.cpp M /issm/trunk-jpl/src/c/objects/KML/KML_GroundOverlay.cpp M /issm/trunk-jpl/src/c/objects/KML/KML_MultiGeometry.cpp M /issm/trunk-jpl/src/c/objects/KML/KML_Object.cpp M /issm/trunk-jpl/src/c/objects/KML/KML_Object.h M /issm/trunk-jpl/src/c/objects/KML/KML_Overlay.cpp M /issm/trunk-jpl/src/c/objects/KML/KML_Placemark.cpp M /issm/trunk-jpl/src/c/objects/KML/KML_Polygon.cpp M /issm/trunk-jpl/src/c/objects/KML/KML_Style.cpp M /issm/trunk-jpl/src/c/objects/KML/KML_Unknown.cpp

Export determination: 6.

Rationale: KML: Implemented KML_Unknown class to digest and regurgitate unknown KML elements. M /issm/trunk-jpl/test/NightlyRun/test218.m Update tolerances

Change #2 with diff file ISSM-11320-11321.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test218.m

Export determination: 6.

Rationale: Update tolerances M /issm/trunk-jpl/src/mex/MeshProfileIntersection/MeshProfileIntersection.cpp take 2d or 3d intersection

Change #3 with diff file ISSM-11321-11322.diff:

Function name:

M /issm/trunk-jpl/src/mex/MeshProfileIntersection/MeshProfileIntersection.cpp

Export determination: 6.

Rationale: take 2d or 3d intersection M /issm/trunk-jpl/src/c/EnumDefinitions/EnumDefinitions.h

M /issm/trunk-jpl/src/c/Makefile.am A /issm/trunk-jpl/src/c/modules/CreateJacobianMatrixx

A /issm/trunk-jpl/src/c/modules/CreateJacobianMatrixx/CreateJacobianMatrixx.cpp

A /issm/trunk-jpl/src/c/modules/CreateJacobianMatrixx/CreateJacobianMatrixx.h

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

M /issm/trunk-jpl/src/c/modules/StringToEnum

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

M /issm/trunk-jpl/src/c/objects/Elements/Penta.cpp M /issm/trunk-jpl/src/c/objects/Elements/Penta.h
M /issm/trunk-jpl/src/c/objects/Elements/Tria.cpp M /issm/trunk-jpl/src/c/objects/Elements/Tria.h
M /issm/trunk-jpl/src/c/objects/Materials/Matice.cpp M /issm/trunk-jpl/src/c/objects/Materials/Matice.h
M /issm/trunk-jpl/src/c/objects/Numerics/ElementMatrix.cpp M /issm/trunk-jpl/src/c/objects/Numerics/ElementMatrix.h M /issm/trunk-jpl/src/c/solutions/controltao_core.cpp
M /issm/trunk-jpl/src/c/solutions/diagnostic_core.cpp A /issm/trunk-jpl/src/c/solvers/solver_newton.cpp
M /issm/trunk-jpl/src/c/solvers/solver_nonlinear.cpp M /issm/trunk-jpl/src/c/solvers/solvers.h
M /issm/trunk-jpl/src/m/classes/diagnostic.m A /issm/trunk-jpl/src/m/enum/DiagnosticIsnewtonEnum.m
A /issm/trunk-jpl/src/m/enum/PentaP1ElementResultEnum.m A /issm/trunk-jpl/src/m/enum/PentaP1InputEnum.m D /issm/trunk-jpl/src/m/enum/PentaVertexElementResultEnum.m
D /issm/trunk-jpl/src/m/enum/PentaVertexInputEnum.m A /issm/trunk-jpl/src/m/enum/TriaP1ElementResultEnum.m
A /issm/trunk-jpl/src/m/enum/TriaP1InputEnum.m D /issm/trunk-jpl/src/m/enum/TriaVertexElementResultEnum.m
D /issm/trunk-jpl/src/m/enum/TriaVertexInputEnum.m M /issm/trunk-jpl/src/m/model/loadresultsfromdisk.m
Added Newton's method for Pattyn, parallel only for now, to be improved

Change #4 with diff file ISSM-11322-11323.diff:

Function name:

M /issm/trunk-jpl/src/c/EnumDefinitions/EnumDefinitions.h M /issm/trunk-jpl/src/c/Makefile.am A /issm/trunk-jpl/src/c/modules/CreateJacobianMatrixx
A /issm/trunk-jpl/src/c/modules/CreateJacobianMatrixx/CreateJacobianMatrixx.cpp
A /issm/trunk-jpl/src/c/modules/CreateJacobianMatrixx/CreateJacobianMatrixx.h
M /issm/trunk-jpl/src/c/modules/EnumToStringx/EnumToStringx.cpp M /issm/trunk-jpl/src/c/modules/ModelProcessorx/CreateParameters.cpp M /issm/trunk-jpl/src/c/modules/StringToEnum
M /issm/trunk-jpl/src/c/modules/modules.h M /issm/trunk-jpl/src/c/objects/Elements/Element.h
M /issm/trunk-jpl/src/c/objects/Elements/Penta.cpp M /issm/trunk-jpl/src/c/objects/Elements/Penta.h
M /issm/trunk-jpl/src/c/objects/Elements/Tria.cpp M /issm/trunk-jpl/src/c/objects/Elements/Tria.h
M /issm/trunk-jpl/src/c/objects/Materials/Matice.cpp M /issm/trunk-jpl/src/c/objects/Materials/Matice.h
M /issm/trunk-jpl/src/c/objects/Numerics/ElementMatrix.cpp M /issm/trunk-jpl/src/c/objects/Numerics/ElementMatrix.h M /issm/trunk-jpl/src/c/solutions/controltao_core.cpp
M /issm/trunk-jpl/src/c/solutions/diagnostic_core.cpp A /issm/trunk-jpl/src/c/solvers/solver_newton.cpp
M /issm/trunk-jpl/src/c/solvers/solver_nonlinear.cpp M /issm/trunk-jpl/src/c/solvers/solvers.h
M /issm/trunk-jpl/src/m/classes/diagnostic.m A /issm/trunk-jpl/src/m/enum/DiagnosticIsnewtonEnum.m
A /issm/trunk-jpl/src/m/enum/PentaP1ElementResultEnum.m A /issm/trunk-jpl/src/m/enum/PentaP1InputEnum.m D /issm/trunk-jpl/src/m/enum/PentaVertexElementResultEnum.m
D /issm/trunk-jpl/src/m/enum/PentaVertexInputEnum.m A /issm/trunk-jpl/src/m/enum/TriaP1ElementResultEnum.m
A /issm/trunk-jpl/src/m/enum/TriaP1InputEnum.m D /issm/trunk-jpl/src/m/enum/TriaVertexElementResultEnum.m
D /issm/trunk-jpl/src/m/enum/TriaVertexInputEnum.m M /issm/trunk-jpl/src/m/model/loadresultsfromdisk.m
Export determination: 6.

Rationale: Added Newton's method for Pattyn, parallel only for now, to be improved
M /issm/trunk-jpl/test/NightlyRun/test1104.m M /issm/trunk-jpl/test/NightlyRun/test1106.m
M /issm/trunk-jpl/test/NightlyRun/test1107.m minor tolerances validation tests

Change #5 with diff file ISSM-11323-11324.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test1104.m M /issm/trunk-jpl/test/NightlyRun/test1106.m
M /issm/trunk-jpl/test/NightlyRun/test1107.m

Export determination: 6.

Rationale: minor tolerances validation tests M /issm/trunk-jpl/src/c/modules/SystemMatricesx/SystemMatricesx.cpp M /issm/trunk-jpl/src/c/solvers/solver_newton.cpp Fixed many memory leaks

Change #6 with diff file ISSM-11324-11325.diff:

Function name:

M /issm/trunk-jpl/src/c/modules/SystemMatricesx/SystemMatricesx.cpp M /issm/trunk-jpl/src/c/solvers/solver_newton.cpp

Export determination: 6.

Rationale: Fixed many memory leaks M /issm/trunk-jpl/test/Archives/Archive101.mat

M /issm/trunk-jpl/test/Archives/Archive1109.mat M /issm/trunk-jpl/test/NightlyRun/test1109.m resolved validation test errors

Change #7 with diff file ISSM-11325-11326.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive101.mat M /issm/trunk-jpl/test/Archives/Archive1109.mat M /issm/trunk-jpl/test/NightlyRun/test1109.m

Export determination: 6.

Rationale: resolved validation test errors M /issm/trunk-jpl/externalpackages/vim/addons/vim/syntax/c.vim updated syntax highlighting

Change #8 with diff file ISSM-11326-11327.diff:

Function name:

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

Export determination: 6.

Rationale: updated syntax highlighting M /issm/trunk-jpl/src/c/modules/CreateJacobianMatrixx/CreateJacobianMatrixx.h

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

M /issm/trunk-jpl/src/c/objects/Loads/Icefront.h M /issm/trunk-jpl/src/c/objects/Loads/Load.h

M /issm/trunk-jpl/src/c/objects/Loads/Numericalflux.h M /issm/trunk-jpl/src/c/objects/Loads/Pengrid.h

M /issm/trunk-jpl/src/c/objects/Loads/Penpair.cpp M /issm/trunk-jpl/src/c/objects/Loads/Penpair.h

M /issm/trunk-jpl/src/c/objects/Loads/Riftfront.h M /issm/trunk-jpl/src/c/objects/Numerics/ElementMatrixx.h

M /issm/trunk-jpl/src/c/solvers/solver_newton.cpp Added penalties in Newton's method

Change #9 with diff file ISSM-11327-11328.diff:

Function name:

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

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

M /issm/trunk-jpl/src/c/objects/Loads/Icefront.h M /issm/trunk-jpl/src/c/objects/Loads/Load.h

M /issm/trunk-jpl/src/c/objects/Loads/Numericalflux.h M /issm/trunk-jpl/src/c/objects/Loads/Pengrid.h

M /issm/trunk-jpl/src/c/objects/Loads/Penpair.cpp M /issm/trunk-jpl/src/c/objects/Loads/Penpair.h

M /issm/trunk-jpl/src/c/objects/Loads/Riftfront.h M /issm/trunk-jpl/src/c/objects/Numerics/ElementMatrixx.h

M /issm/trunk-jpl/src/c/solvers/solver_newton.cpp

Export determination: 6.

Rationale: Added penalties in Newton's method M /issm/trunk-jpl/test/Archives/Archive1208.mat minor archives

Change #10 with diff file ISSM-11328-11329.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive1208.mat

Export determination: 6.

Rationale: minor archives

Change #11 with diff file ISSM-11331-11332.diff:

Function name:

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

M /issm/trunk-jpl/src/c/objects/Elements/Tria.h M /issm/trunk-jpl/src/c/objects/Loads/Icefront.cpp

M /issm/trunk-jpl/src/c/objects/Loads/Icefront.h M /issm/trunk-jpl/src/c/objects/Loads/Penpair.cpp

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

M /issm/trunk-jpl/src/c/solvers/solver_newton.cpp

Export determination: 6.

Rationale: Added Newton's method for MacAyeal

Change #12 with diff file ISSM-11332-11333.diff:

Function name:

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

M /issm/trunk-jpl/src/c/objects/Elements/Tria.h M /issm/trunk-jpl/src/c/objects/Loads/Icefront.cpp

M /issm/trunk-jpl/src/c/objects/Loads/Icefront.h M /issm/trunk-jpl/src/c/objects/Loads/Penpair.cpp

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

M /issm/trunk-jpl/src/c/solvers/solver_newton.cpp

Export determination: 6.

Rationale: Added Newton's method for MacAyeal M /issm/trunk-jpl/src/m/model/loadresultsfromdisk.m

Fixed nightly run

Change #13 with diff file ISSM-11333-11334.diff:

Function name:

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

Export determination: 6.

Rationale: Fixed nightly run

Change #14 with diff file ISSM-11334-11335.diff:

Function name:

M /issm/trunk-jpl/src/m/solutions/diagnostic_core.m A /issm/trunk-jpl/src/mex/CreateJacobianMatrix

A /issm/trunk-jpl/src/mex/CreateJacobianMatrix/CreateJacobianMatrix.cpp A

/issm/trunk-jpl/src/mex/CreateJacobianMatrix/CreateJacobianMatrix.h M /issm/trunk-

jpl/src/mex/Makefile.am

Export determination: 6.

Rationale: Added mex module for Newton's method

Change #15 with diff file ISSM-11335-11336.diff:

Function name:

M /issm/trunk-jpl/src/m/solutions/diagnostic_core.m A /issm/trunk-jpl/src/mex/CreateJacobianMatrix

A /issm/trunk-jpl/src/mex/CreateJacobianMatrix/CreateJacobianMatrix.cpp A
/issm/trunk-jpl/src/mex/CreateJacobianMatrix/CreateJacobianMatrix.h M /issm/trunk-
jpl/src/mex/Makefile.am
Export determination: 6.
Rationale: Added mex module for Newton's method A /issm/trunk-jpl/src/m/solvers/solver_newton.m
Added mex module for Newton's method

Change #16 with diff file ISSM-11336-11337.diff:

Function name:
A /issm/trunk-jpl/src/m/solvers/solver_newton.m
Export determination: 6.
Rationale: Added mex module for Newton's method M /issm/trunk-jpl/src/c/solvers/solver_newton.cpp
M /issm/trunk-jpl/src/m/solvers/solver_newton.m Fixed Newton's method: do
not change ys

Change #17 with diff file ISSM-11337-11338.diff:

Function name:
M /issm/trunk-jpl/src/c/solvers/solver_newton.cpp M /issm/trunk-jpl/src/m/solvers/solver_newton.m
Export determination: 6.
Rationale: Fixed Newton's method: do not change ys M /issm/trunk-jpl/src/c/objects/Elements/Penta.cpp
M /issm/trunk-jpl/src/c/objects/Elements/Penta.h M /issm/trunk-jpl/src/c/solvers/solver_newton.cpp
Prepared Stokes Newton's iterations

Change #18 with diff file ISSM-11338-11339.diff:

Function name:
M /issm/trunk-jpl/src/c/objects/Elements/Penta.cpp M /issm/trunk-jpl/src/c/objects/Elements/Penta.h
M /issm/trunk-jpl/src/c/solvers/solver_newton.cpp
Export determination: 6.
Rationale: Prepared Stokes Newton's iterations M /issm/trunk-jpl/src/m/model/tres.m
removed all PatchToVec, not needed anymore

Change #19 with diff file ISSM-11339-11340.diff:

Function name:
M /issm/trunk-jpl/src/m/model/tres.m
Export determination: 6.
Rationale: removed all PatchToVec, not needed anymore M /issm/trunk-jpl/src/c/objects/Elements/Penta.cpp
M /issm/trunk-jpl/src/c/objects/Elements/Penta.h Added Newton for MacAyeal
3d