

JPL EXPORT ADMINISTRATION DOCUMENT REVIEW RECORD

Log #: 11300-11318

(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 11300 to revision 11318

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)
- 2: Qualifies for ITAR Exemption
- 3: Covered by Department of State License/Agreement Number
- 4: Covered by Department of Commerce validated license or exception
- 5: New License Required
- 6: Does not contain export-controlled information. May be released/disclosed as requested subject to Company guidelines on protection of proprietary information (if applicable).
- 7: Other (specify)

Change #1 with diff file ISSM-11300-11301.diff:

Function name:

M /issm/trunk-jpl/cron/cronfiles/linux_cronfile

Export determination: 6.

Rationale: added Nicole, Feras and Chris on the list to receive the cron file M /issm/trunk-jpl/src/c/objects/Materials/Matpar.cpp minor

Change #2 with diff file ISSM-11301-11302.diff:

Function name:

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

Export determination: 6.

Rationale: minor M /issm/trunk-jpl/src/c/solutions/control_core.cpp M /issm/trunk-jpl/src/c/solutions/gradient_core.cpp M /issm/trunk-jpl/src/m/solutions/control_core.m M /issm/trunk-jpl/src/m/solutions/gradient_core.m minor

Change #3 with diff file ISSM-11302-11303.diff:

Function name:

M /issm/trunk-jpl/src/c/solutions/control_core.cpp M /issm/trunk-jpl/src/c/solutions/gradient_core.cpp

M /issm/trunk-jpl/src/m/solutions/control_core.m M /issm/trunk-jpl/src/m/solutions/gradient_core.m

Export determination: 6.

Rationale: minor M /issm/trunk-jpl/src/c/solutions/gradient_core.cpp M /issm/trunk-jpl/src/m/solutions/gradient_core.m removed old diagnostic run in the middle of gradient module

Change #4 with diff file ISSM-11303-11304.diff:

Function name:

M /issm/trunk-jpl/src/c/solutions/gradient_core.cpp M /issm/trunk-jpl/src/m/solutions/gradient_core.m

Export determination: 6.

Rationale: removed old diagnostic run in the middle of gradient module M /issm/trunk-jpl/test/Archives/Archive429.mat M /issm/trunk-jpl/test/Archives/Archive430.mat M /issm/trunk-jpl/test/Archives/Archive431.mat M /issm/trunk-jpl/test/Archives/Archive432.mat updated CM steady archive

Change #5 with diff file ISSM-11304-11305.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive429.mat M /issm/trunk-jpl/test/Archives/Archive430.mat
M /issm/trunk-jpl/test/Archives/Archive431.mat M /issm/trunk-jpl/test/Archives/Archive432.mat
Export determination: 6.
Rationale: updated CM steady archive M /issm/trunk-jpl/test/Archives/Archive525.mat
M /issm/trunk-jpl/test/Archives/Archive526.mat M /issm/trunk-jpl/test/NightlyRun/test525.m
M /issm/trunk-jpl/test/NightlyRun/test526.m updated CM steady archives

Change #6 with diff file ISSM-11305-11306.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive525.mat M /issm/trunk-jpl/test/Archives/Archive526.mat
M /issm/trunk-jpl/test/NightlyRun/test525.m M /issm/trunk-jpl/test/NightlyRun/test526.m
Export determination: 6.
Rationale: updated CM steady archives M /issm/trunk-jpl/src/c/solutions/control_core.cpp
M /issm/trunk-jpl/src/c/solutions/gradient_core.cpp M /issm/trunk-jpl/src/c/solutions/solutions.h
M /issm/trunk-jpl/src/m/solutions/control_core.m M /issm/trunk-jpl/src/m/solutions/gradient_core.m
improving CM algorithm

Change #7 with diff file ISSM-11306-11307.diff:

Function name:

M /issm/trunk-jpl/src/c/solutions/control_core.cpp M /issm/trunk-jpl/src/c/solutions/gradient_core.cpp
M /issm/trunk-jpl/src/c/solutions/solutions.h M /issm/trunk-jpl/src/m/solutions/control_core.m
M /issm/trunk-jpl/src/m/solutions/gradient_core.m
Export determination: 6.
Rationale: improving CM algorithm A /issm/trunk-jpl/cron/configs/linux64_schlegel_daily
A /issm/trunk-jpl/cron/configs/linux64_schlegel_nightly A /issm/trunk-jpl/cron/configs/linux64_schlegel_ucitrunk
A /issm/trunk-jpl/cron/configs/linux64_schlegel_validation M /issm/trunk-jpl/cron/cronfiles/linux_cronfile
Add schlegel configs

Change #8 with diff file ISSM-11307-11308.diff:

Function name:

A /issm/trunk-jpl/cron/configs/linux64_schlegel_daily A /issm/trunk-jpl/cron/configs/linux64_schlegel_nightly
A /issm/trunk-jpl/cron/configs/linux64_schlegel_ucitrunk A /issm/trunk-jpl/cron/configs/linux64_schlegel_validation
M /issm/trunk-jpl/cron/cronfiles/linux_cronfile
Export determination: 6.
Rationale: Add schlegel configs M /issm/trunk-jpl/cron/cronfiles/linux_cronfile
revert to seroussi

Change #9 with diff file ISSM-11308-11309.diff:

Function name:

M /issm/trunk-jpl/cron/cronfiles/linux_cronfile
Export determination: 6.
Rationale: revert to seroussi M /issm/trunk-jpl/cron/cronfiles/linux_cronfile re-
vert to seroussi

Change #10 with diff file ISSM-11309-11310.diff:

Function name:

M /issm/trunk-jpl/cron/cronfiles/linux_cronfile

Export determination: 6.

Rationale: revert to seroussi M /issm/trunk-jpl/src/c/modules/Gradjx/Gradjx.cpp

M /issm/trunk-jpl/src/c/modules/Gradjx/Gradjx.h M /issm/trunk-jpl/src/c/solutions/controltao_core.cpp

M /issm/trunk-jpl/src/c/solutions/gradient_core.cpp M /issm/trunk-jpl/src/m/solutions/gradient_core.m

M /issm/trunk-jpl/src/mex/Gradj/Gradj.cpp M /issm/trunk-jpl/src/mex/Gradj/Gradj.h

Simplifying gradient call in CM

Change #11 with diff file ISSM-11310-11311.diff:

Function name:

M /issm/trunk-jpl/src/c/modules/Gradjx/Gradjx.cpp M /issm/trunk-jpl/src/c/modules/Gradjx/Gradjx.h

M /issm/trunk-jpl/src/c/solutions/controltao_core.cpp M /issm/trunk-jpl/src/c/solutions/gradient_core.cpp

M /issm/trunk-jpl/src/m/solutions/gradient_core.m M /issm/trunk-jpl/src/mex/Gradj/Gradj.cpp

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

Export determination: 6.

Rationale: Simplifying gradient call in CM M /issm/trunk-jpl/src/m/model/solveparallel.m

Better runtime name

Change #12 with diff file ISSM-11311-11312.diff:

Function name:

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

Export determination: 6.

Rationale: Better runtime name M /issm/trunk-jpl/test/NightlyRun/test223.m

M /issm/trunk-jpl/test/NightlyRun/test626.m stop verbosing

Change #13 with diff file ISSM-11312-11313.diff:

Function name:

M /issm/trunk-jpl/test/NightlyRun/test223.m M /issm/trunk-jpl/test/NightlyRun/test626.m

Export determination: 6.

Rationale: stop verbosing M /issm/trunk-jpl/src/c/modules/ControlInputGetGradientx/ControlInputGetGradientx.h

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

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

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

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

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

M /issm/trunk-jpl/src/c/modules/Gradjx/Gradjx.cpp M /issm/trunk-jpl/src/c/modules/Gradjx/Gradjx.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/solutions/controltao_core.cpp

M /issm/trunk-jpl/src/c/solutions/gradient_core.cpp M /issm/trunk-jpl/src/m/solutions/control_core.m

M /issm/trunk-jpl/src/m/solutions/gradient_core.m M /issm/trunk-jpl/src/mex/ControlInputGetGradient/ControlInputGetGradient.h

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

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

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

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

M /issm/trunk-jpl/src/mex/ControlInputSetGradient/ControlInputSetGradient.h
M /issm/trunk-jpl/src/mex/Gradj/Gradj.cpp M /issm/trunk-jpl/src/mex/Gradj/Gradj.h
Objective function gradient is now ONE unique vector

Change #14 with diff file ISSM-11313-11314.diff:

Function name:

M /issm/trunk-jpl/src/c/modules/ControlInputGetGradientx/ControlInputGetGradientx.cpp
M /issm/trunk-jpl/src/c/modules/ControlInputGetGradientx/ControlInputGetGradientx.h
M /issm/trunk-jpl/src/c/modules/ControlInputScaleGradientx/ControlInputScaleGradientx.cpp
M /issm/trunk-jpl/src/c/modules/ControlInputScaleGradientx/ControlInputScaleGradientx.h
M /issm/trunk-jpl/src/c/modules/ControlInputSetGradientx/ControlInputSetGradientx.cpp
M /issm/trunk-jpl/src/c/modules/ControlInputSetGradientx/ControlInputSetGradientx.h
M /issm/trunk-jpl/src/c/modules/Gradjx/Gradjx.cpp M /issm/trunk-jpl/src/c/modules/Gradjx/Gradjx.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/solutions/controltao_core.cpp
M /issm/trunk-jpl/src/c/solutions/gradient_core.cpp M /issm/trunk-jpl/src/m/solutions/control_core.m
M /issm/trunk-jpl/src/m/solutions/gradient_core.m M /issm/trunk-jpl/src/mex/ControlInputGetGradient/C
M /issm/trunk-jpl/src/mex/ControlInputGetGradient/ControlInputGetGradient.h
M /issm/trunk-jpl/src/mex/ControlInputScaleGradient/ControlInputScaleGradient.cpp
M /issm/trunk-jpl/src/mex/ControlInputScaleGradient/ControlInputScaleGradient.h
M /issm/trunk-jpl/src/mex/ControlInputSetGradient/ControlInputSetGradient.cpp
M /issm/trunk-jpl/src/mex/ControlInputSetGradient/ControlInputSetGradient.h
M /issm/trunk-jpl/src/mex/Gradj/Gradj.cpp M /issm/trunk-jpl/src/mex/Gradj/Gradj.h

Export determination: 6.

Rationale: Objective function gradient is now ONE unique vector M /issm/trunk-jpl/src/c/objects/Elements/Penta.cpp added error message if unphysical water friction value

Change #15 with diff file ISSM-11314-11315.diff:

Function name:

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

Export determination: 6.

Rationale: added error message if unphysical water friction value M /issm/trunk-jpl/src/m/model/extrude.m M /issm/trunk-jpl/src/m/model/partition/partitioner.m
Additions for 3d dakota

Change #16 with diff file ISSM-11315-11316.diff:

Function name:

M /issm/trunk-jpl/src/m/model/extrude.m M /issm/trunk-jpl/src/m/model/partition/partitioner.m

Export determination: 6.

Rationale: Additions for 3d dakota M /issm/trunk-jpl/test/Archives/Archive224.mat
M /issm/trunk-jpl/test/Archives/Archive226.mat M /issm/trunk-jpl/test/Archives/Archive228.mat
M /issm/trunk-jpl/test/Archives/Archive344.mat New archive when ortho-
nalization required during Control runs

Change #17 with diff file ISSM-11316-11317.diff:

Function name:

M /issm/trunk-jpl/test/Archives/Archive224.mat M /issm/trunk-jpl/test/Archives/Archive226.mat
M /issm/trunk-jpl/test/Archives/Archive228.mat M /issm/trunk-jpl/test/Archives/Archive344.mat

Export determination: 6.

Rationale: New archive when orthogonalization required during Control runs M

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

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

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

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

M /issm/trunk-jpl/src/c/modules/GradJx/GradJx.cpp A /issm/trunk-jpl/src/c/modules/SetControlInputsFrom

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

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

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

M /issm/trunk-jpl/src/c/solutions/control_core.cpp M /issm/trunk-jpl/src/c/solutions/controltao_core.cpp

Added 2 modules to make TAO work

Change #18 with diff file ISSM-11317-11318.diff:

Function name:

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

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

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

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

M /issm/trunk-jpl/src/c/modules/GradJx/GradJx.cpp A /issm/trunk-jpl/src/c/modules/SetControlInputsFrom

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

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

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

M /issm/trunk-jpl/src/c/solutions/control_core.cpp M /issm/trunk-jpl/src/c/solutions/controltao_core.cpp

Export determination: 6.

Rationale: Added 2 modules to make TAO work M /issm/trunk-jpl/src/c/modules/GetVectorFromControlInpu

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

M /issm/trunk-jpl/src/c/objects/Inputs/ControlInput.h M /issm/trunk-jpl/src/c/solutions/controltao_core.cp

Added support for bounds on control parameters for TAO