

JPL EXPORT ADMINISTRATION DOCUMENT REVIEW RECORD

Log #: 11821-11840

(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: Apr-16-2012

Document Title/Description: ISSM changes from revision 11821 to revision 11840

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:** Apr-16-2012



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-11821-11822.diff:

Function name:

M /issm/trunk-jpl/externalpackages/metis/configs/4.0/win7/Makefile.in.patch

Export determination: 6.

Rationale: Trying to fix patch for win7 M /issm/trunk-jpl/src/c/solutions/solutions.h

M /issm/trunk-jpl/src/c/solutions/thermal_core.cpp M /issm/trunk-jpl/src/m/solutions/thermal_core.m
removed loop in thermal_core -i only steady state in thermal

Change #2 with diff file ISSM-11822-11823.diff:

Function name:

M /issm/trunk-jpl/src/c/solutions/solutions.h M /issm/trunk-jpl/src/c/solutions/thermal_core.cpp

M /issm/trunk-jpl/src/m/solutions/thermal_core.m

Export determination: 6.

Rationale: removed loop in thermal_core -i only steady state in thermal M

/issm/trunk-jpl/src/c/solutions/enthalpy_core.cpp M /issm/trunk-jpl/src/c/solutions/solutions.h

M /issm/trunk-jpl/src/m/solutions/enthalpy_core.m M /issm/trunk-jpl/src/m/solutions/thermal_core.m
removed loop in enthalpy -i use transient for transient enthalpy models

Change #3 with diff file ISSM-11823-11824.diff:

Function name:

M /issm/trunk-jpl/src/c/solutions/enthalpy_core.cpp M /issm/trunk-jpl/src/c/solutions/solutions.h

M /issm/trunk-jpl/src/m/solutions/enthalpy_core.m M /issm/trunk-jpl/src/m/solutions/thermal_core.m

Export determination: 6.

Rationale: removed loop in enthalpy -i use transient for transient enthalpy

models M /issm/trunk-jpl/externalpackages/metis/install-4.0-win7.sh remove -
R option in patch

Change #4 with diff file ISSM-11824-11825.diff:

Function name:

M /issm/trunk-jpl/externalpackages/metis/install-4.0-win7.sh

Export determination: 6.

Rationale: remove -R option in patch M /issm/trunk-jpl/externalpackages/petsc/install-
3.1-win7.sh petsc tries to use gcc

Change #5 with diff file ISSM-11825-11826.diff:

Function name:

M /issm/trunk-jpl/externalpackages/petsc/install-3.1-win7.sh

Export determination: 6.

Rationale: petsc tries to use gcc M /issm/trunk-jpl/externalpackages/android-sdk/install.sh Modifications to Android-Sdk install script.

Change #6 with diff file ISSM-11826-11827.diff:

Function name:

M /issm/trunk-jpl/externalpackages/android-sdk/install.sh

Export determination: 6.

Rationale: Modifications to Android-Sdk install script. M /issm/trunk-jpl/src/c/EnumDefinitions/EnumDefinitions.h M /issm/trunk-jpl/src/c/io/Matlab/FetchMatlabData.cpp M /issm/trunk-jpl/src/c/modules/EnumToStringx/EnumToStringx.cpp M /issm/trunk-jpl/src/c/modules/InputToResultx/InputToResultx.cpp M /issm/trunk-jpl/src/c/modules/InputToResultx/InputToResultx.h M /issm/trunk-jpl/src/c/modules/ModelProcessorx/ModelProcessorx.cpp M /issm/trunk-jpl/src/c/modules/OutputResultsx/OutputResultsx.cpp M /issm/trunk-jpl/src/c/modules/OutputResultsx/OutputResultsx.h M /issm/trunk-jpl/src/c/modules/RequestedOutputsx/RequestedOutputsx.cpp M /issm/trunk-jpl/src/c/modules/RequestedOutputsx/RequestedOutputsx.h M /issm/trunk-jpl/src/c/modules/StringToEnumx/StringToEnumx.cpp M /issm/trunk-jpl/src/c/solutions/adjointbalancethickness_core.cpp M /issm/trunk-jpl/src/c/solutions/adjointdiagnostic_core.cpp M /issm/trunk-jpl/src/c/solutions/balancethickness_core.cpp M /issm/trunk-jpl/src/c/solutions/bedslope_core.cpp M /issm/trunk-jpl/src/c/solutions/control_core.cpp M /issm/trunk-jpl/src/c/solutions/controlrestart.cpp M /issm/trunk-jpl/src/c/solutions/controltao_core.cpp M /issm/trunk-jpl/src/c/solutions/diagnostic_core.cpp M /issm/trunk-jpl/src/c/solutions/enthalpy_core.cpp M /issm/trunk-jpl/src/c/solutions/hydrology_core.cpp M /issm/trunk-jpl/src/c/solutions/issm.cpp M /issm/trunk-jpl/src/c/solutions/prognostic_core.cpp M /issm/trunk-jpl/src/c/solutions/steadystate_core.cpp M /issm/trunk-jpl/src/c/solutions/surfaceslope_core.cpp M /issm/trunk-jpl/src/c/solutions/thermal_core.cpp M /issm/trunk-jpl/src/c/solutions/transient_core.cpp A /issm/trunk-jpl/src/m/enum/SaveResultsEnum.m A /issm/trunk-jpl/src/m/enum/StepEnum.m M /issm/trunk-jpl/src/m/model/plot/plotmodel.m M /issm/trunk-jpl/src/m/solutions/adjointbalancethickness_core.m M /issm/trunk-jpl/src/m/solutions/adjointdiagnostic_core.m M /issm/trunk-jpl/src/m/solutions/balancethickness_core.m M /issm/trunk-jpl/src/m/solutions/bedslope_core.m M /issm/trunk-jpl/src/m/solutions/control_core.m M /issm/trunk-jpl/src/m/solutions/diagnostic_core.m M /issm/trunk-jpl/src/m/solutions/enthalpy_core.m M /issm/trunk-jpl/src/m/solutions/prognostic_core.m M /issm/trunk-jpl/src/m/solutions/steadystate_core.m M /issm/trunk-jpl/src/m/solutions/surfaceslope_core.m M /issm/trunk-jpl/src/m/solutions/thermal_core.m M /issm/trunk-jpl/src/m/solutions/transient_core.m M /issm/trunk-jpl/src/mex/InputToResult/InputToResult.cpp M /issm/trunk-jpl/src/mex/OutputResults/OutputResults.cpp Now each core saves its results depending on SaveResults parameter Added support for Boolean in parameters In outputResults: do not take Results** as argument

Change #7 with diff file ISSM-11827-11828.diff:

Function name:

M /issm/trunk-jpl/src/c/EnumDefinitions/EnumDefinitions.h M /issm/trunk-jpl/src/c/io/Matlab/FetchMatlabData.cpp M /issm/trunk-jpl/src/c/modules/EnumToStringx/EnumToStringx.cpp M /issm/trunk-jpl/src/c/modules/InputToResultx/InputToResultx.cpp M /issm/trunk-jpl/src/c/modules/InputToResultx/InputToResultx.h M /issm/trunk-jpl/src/c/modules/ModelProcessorx/ModelProcessorx.cpp

M /issm/trunk-jpl/src/c/modules/OutputResultsx/OutputResultsx.cpp M /issm/trunk-jpl/src/c/modules/OutputResultsx/OutputResultsx.h M /issm/trunk-jpl/src/c/modules/RequestedOutputsx/RequestedOutputsx.h M /issm/trunk-jpl/src/c/modules/RequestedOutputsx/RequestedOutputsx.h M /issm/trunk-jpl/src/c/modules/StringToEnumx/StringToEnumx.cpp M /issm/trunk-jpl/src/c/solutions/adjointbalancethickness_core.cpp M /issm/trunk-jpl/src/c/solutions/adjointdiagnostic_core.cpp M /issm/trunk-jpl/src/c/solutions/balancethickness_core.cpp M /issm/trunk-jpl/src/c/solutions/bedslope_core.cpp M /issm/trunk-jpl/src/c/solutions/control_core.cpp M /issm/trunk-jpl/src/c/solutions/controlrestart.cpp M /issm/trunk-jpl/src/c/solutions/controltao_core.cpp M /issm/trunk-jpl/src/c/solutions/diagnostic_core.cpp M /issm/trunk-jpl/src/c/solutions/enthalpy_core.cpp M /issm/trunk-jpl/src/c/solutions/hydrology_core.cpp M /issm/trunk-jpl/src/c/solutions/issm.cpp M /issm/trunk-jpl/src/c/solutions/prognostic_core.cpp M /issm/trunk-jpl/src/c/solutions/steadystate_core.cpp M /issm/trunk-jpl/src/c/solutions/surfaceslope_core.cpp M /issm/trunk-jpl/src/c/solutions/thermal_core.cpp M /issm/trunk-jpl/src/c/solutions/transient_core.cpp A /issm/trunk-jpl/src/m/enum/SaveResultsEnum.m A /issm/trunk-jpl/src/m/enum/StepEnum.m M /issm/trunk-jpl/src/m/model/plot/plotmodel.m M /issm/trunk-jpl/src/m/solutions/adjointbalancethickness_core.m M /issm/trunk-jpl/src/m/solutions/adjointdiagnostic_core.m M /issm/trunk-jpl/src/m/solutions/balancethickness_core.m M /issm/trunk-jpl/src/m/solutions/bedslope_core.m M /issm/trunk-jpl/src/m/solutions/control_core.m M /issm/trunk-jpl/src/m/solutions/diagnostic_core.m M /issm/trunk-jpl/src/m/solutions/enthalpy_core.m M /issm/trunk-jpl/src/m/solutions/prognostic_core.m M /issm/trunk-jpl/src/m/solutions/steadystate_core.m M /issm/trunk-jpl/src/m/solutions/surfaceslope_core.m M /issm/trunk-jpl/src/m/solutions/thermal_core.m M /issm/trunk-jpl/src/m/solutions/transient_core.m M /issm/trunk-jpl/src/mex/InputToResult/InputToResult.cpp M /issm/trunk-jpl/src/mex/OutputResults/OutputResults.cpp

Export determination: 6.

Rationale: Now each core saves its results depending on SaveResults parameter Added support for Boolean in parameters In outputResults: do not take Results** as argument M /issm/trunk-jpl/src/m/model/plot/plotmodel.m Do not use for now

Change #8 with diff file ISSM-11828-11829.diff:

Function name:

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

Export determination: 6.

Rationale: Do not use for now M /issm/trunk-jpl/src/c/solutions/thermal_core.cpp minor

Change #9 with diff file ISSM-11829-11830.diff:

Function name:

M /issm/trunk-jpl/src/c/solutions/thermal_core.cpp

Export determination: 6.

Rationale: minor M /issm/trunk-jpl/src/c/Makefile.am M /issm/trunk-jpl/src/c/solutions/enthalpy_core.cpp D /issm/trunk-jpl/src/c/solutions/enthalpy_core_step.cpp M /issm/trunk-jpl/src/c/solutions/solutions.h M /issm/trunk-jpl/src/c/solutions/thermal_core.cpp D /issm/trunk-jpl/src/c/solutions/thermal_core_step.cpp M /issm/trunk-jpl/src/c/solutions/transient_core.cpp M /issm/trunk-jpl/src/m/model/plot/plot_section.m M /issm/trunk-jpl/src/m/solutions/enthalpy_core.m D /issm/trunk-jpl/src/m/solutions/enthalpy_core_step.m M /issm/trunk-jpl/src/m/solutions/thermal_core.m D /issm/trunk-jpl/src/m/solutions/thermal_core_step.m M /issm/trunk-jpl/src/m/solutions/transient_core.m Getting rid of thermal_core_step

and `enthalpy_core_step`: they are not needed anymore and made it difficult to coherently save results

Change #10 with diff file `ISSM-11830-11831.diff`:

Function name:

M /issm/trunk-jpl/src/c/Makefile.am M /issm/trunk-jpl/src/c/solutions/enthalpy_core.cpp
D /issm/trunk-jpl/src/c/solutions/enthalpy_core_step.cpp M /issm/trunk-jpl/src/c/solutions/solutions.h
M /issm/trunk-jpl/src/c/solutions/thermal_core.cpp D /issm/trunk-jpl/src/c/solutions/thermal_core_step.cpp
M /issm/trunk-jpl/src/c/solutions/transient_core.cpp M /issm/trunk-jpl/src/m/model/plot/plot_section.m
M /issm/trunk-jpl/src/m/solutions/enthalpy_core.m D /issm/trunk-jpl/src/m/solutions/enthalpy_core_step.m
M /issm/trunk-jpl/src/m/solutions/thermal_core.m D /issm/trunk-jpl/src/m/solutions/thermal_core_step.m
M /issm/trunk-jpl/src/m/solutions/transient_core.m

Export determination: 6.

Rationale: Getting rid of `thermal_core_step` and `enthalpy_core_step`: they are not needed anymore and made it difficult to coherently save results M /issm/trunk-jpl/externalpackages/windows/InstallInstructions.txt Added some extra details

Change #11 with diff file `ISSM-11831-11832.diff`:

Function name:

M /issm/trunk-jpl/externalpackages/windows/InstallInstructions.txt

Export determination: 6.

Rationale: Added some extra details M /issm/trunk-jpl/src/c/solutions/adjointbalancethickness_core.cpp
M /issm/trunk-jpl/src/c/solutions/adjointdiagnostic_core.cpp M /issm/trunk-jpl/src/c/solutions/balancethickness_core.cpp M /issm/trunk-jpl/src/c/solutions/bedslope_core.cpp
M /issm/trunk-jpl/src/c/solutions/hydrology_core.cpp M /issm/trunk-jpl/src/c/solutions/prognostic_core.cpp
M /issm/trunk-jpl/src/c/solutions/steadystate_core.cpp M /issm/trunk-jpl/src/c/solutions/surfaceslope_core.cpp
M /issm/trunk-jpl/src/c/solutions/transient_core.cpp M /issm/trunk-jpl/src/m/solutions/adjointbalancethickness_core.m M /issm/trunk-jpl/src/m/solutions/adjointdiagnostic_core.m M /issm/trunk-jpl/src/m/solutions/balancethickness_core.m M /issm/trunk-jpl/src/m/solutions/bedslope_core.m
M /issm/trunk-jpl/src/m/solutions/control_core.m M /issm/trunk-jpl/src/m/solutions/diagnostic_core.m
M /issm/trunk-jpl/src/m/solutions/enthalpy_core.m M /issm/trunk-jpl/src/m/solutions/prognostic_core.m
M /issm/trunk-jpl/src/m/solutions/steadystate_core.m M /issm/trunk-jpl/src/m/solutions/surfaceslope_core.m
M /issm/trunk-jpl/src/m/solutions/thermal_core.m M /issm/trunk-jpl/src/m/solutions/transient_core.m
Fixing steadystate and cleaning up

Change #12 with diff file `ISSM-11832-11833.diff`:

Function name:

M /issm/trunk-jpl/src/c/solutions/adjointbalancethickness_core.cpp M /issm/trunk-jpl/src/c/solutions/adjointdiagnostic_core.cpp M /issm/trunk-jpl/src/c/solutions/balancethickness_core.cpp
M /issm/trunk-jpl/src/c/solutions/bedslope_core.cpp M /issm/trunk-jpl/src/c/solutions/hydrology_core.cpp
M /issm/trunk-jpl/src/c/solutions/prognostic_core.cpp M /issm/trunk-jpl/src/c/solutions/steadystate_core.cpp
M /issm/trunk-jpl/src/c/solutions/surfaceslope_core.cpp M /issm/trunk-jpl/src/c/solutions/transient_core.cpp
M /issm/trunk-jpl/src/m/solutions/adjointbalancethickness_core.m M /issm/trunk-jpl/src/m/solutions/adjointdiagnostic_core.m M /issm/trunk-jpl/src/m/solutions/balancethickness_core.m
M /issm/trunk-jpl/src/m/solutions/bedslope_core.m M /issm/trunk-jpl/src/m/solutions/control_core.m
M /issm/trunk-jpl/src/m/solutions/diagnostic_core.m M /issm/trunk-jpl/src/m/solutions/enthalpy_core.m

M /issm/trunk-jpl/src/m/solutions/prognostic_core.m M /issm/trunk-jpl/src/m/solutions/steadystate_core.m
M /issm/trunk-jpl/src/m/solutions/surfaceslope_core.m M /issm/trunk-jpl/src/m/solutions/thermal_core.m
M /issm/trunk-jpl/src/m/solutions/transient_core.m
Export determination: 6.
Rationale: Fixing steadystate and cleaning up M /issm/trunk-jpl/src/m/solutions/diagnostic_core.m
M /issm/trunk-jpl/src/m/solutions/transient_core.m Fixing NR

Change #13 with diff file ISSM-11833-11834.diff:

Function name:

M /issm/trunk-jpl/src/m/solutions/diagnostic_core.m M /issm/trunk-jpl/src/m/solutions/transient_core.m

Export determination: 6.

Rationale: Fixing NR A /issm/trunk-jpl/externalpackages/boost/boost_1_49_0.tar.gz

M /issm/trunk-jpl/externalpackages/boost/install.sh Two step install + 1.49
version of boost, which is not bugged

Change #14 with diff file ISSM-11834-11835.diff:

Function name:

A /issm/trunk-jpl/externalpackages/boost/boost_1_49_0.tar.gz M /issm/trunk-jpl/externalpackages/boost/install.sh

Export determination: 6.

Rationale: Two step install + 1.49 version of boost, which is not bugged M
/issm/trunk-jpl/startup.py Added some module imports

Change #15 with diff file ISSM-11835-11836.diff:

Function name:

M /issm/trunk-jpl/startup.py

Export determination: 6.

Rationale: Added some module imports M /issm/trunk-jpl/etc/environment.sh
M /issm/trunk-jpl/etc/environment_variables.sh Added python and modelE

Change #16 with diff file ISSM-11836-11837.diff:

Function name:

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

Export determination: 6.

Rationale: Added python and modelE M /issm/trunk-jpl/externalpackages/python
M /issm/trunk-jpl/externalpackages/python/install.sh Enable frameworks com-
piling on python

Change #17 with diff file ISSM-11837-11838.diff:

Function name:

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

Export determination: 6.

Rationale: Enable frameworks compiling on python M /issm/trunk-jpl/externalpackages/scipy/install-
macosx64.sh 3.2 python version

Change #18 with diff file ISSM-11838-11839.diff:

Function name:

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

Export determination: 6.

Rationale: 3.2 python version M /issm/trunk-jpl/externalpackages/android-sdk

Ignore sdk and ant install directories

Change #19 with diff file ISSM-11839-11840.diff:

Function name:

M /issm/trunk-jpl/externalpackages/android-sdk

Export determination: 6.

Rationale: Ignore sdk and ant install directories M /issm/trunk-jpl/externalpackages/gmake

Ignore src and install directories