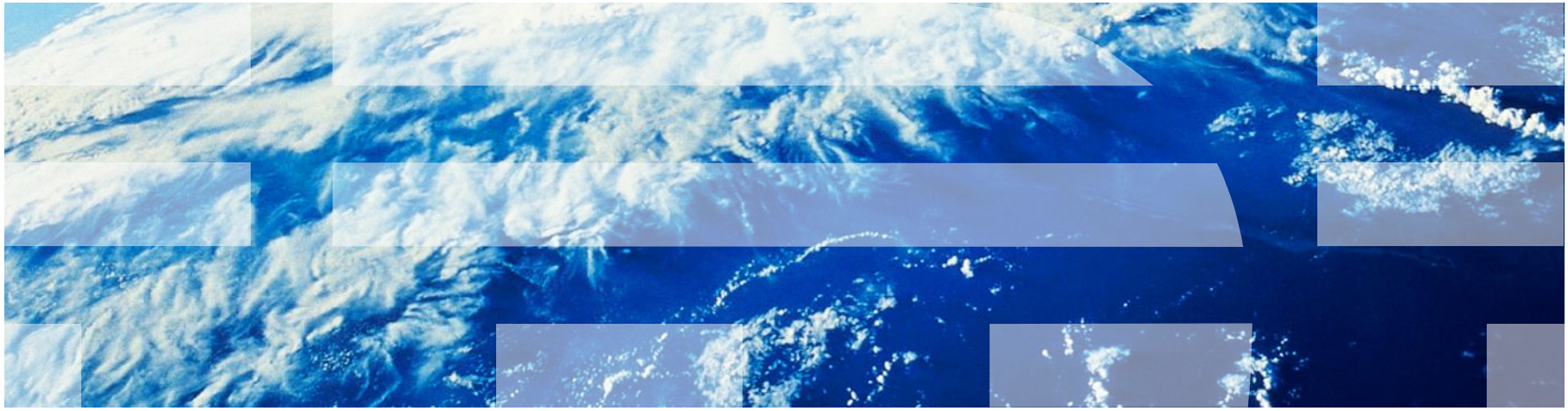
Tim Rabbitt – Advisory Software Engineer

06 November 2014

WebSphere Transformation Extender logs - What are they and how to enable them



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Agenda

- Types of WebSphere Transformation Extender logs
  - What is the log used for?
  - How to enable the log
  - Where the log is saved to?
  - What information is contained in the log?

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Types of Logs

- Logs
  - Map Audit
  - Launcher/Compound System
  - Resource Registry
  - Sterling B2B Integrator
  - Standards Processing Engine (SPE)

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Map Audit Log – What is it used for?

- A configurable log file that displays individual map execution statistics
- Confirm map settings
- Determine execution time
- In the event of map failure or warning allows you to determine which input or output card failed and the associated error
- Confirm the size of input and output data
- Confirm input and output file names and/or adapters utilized

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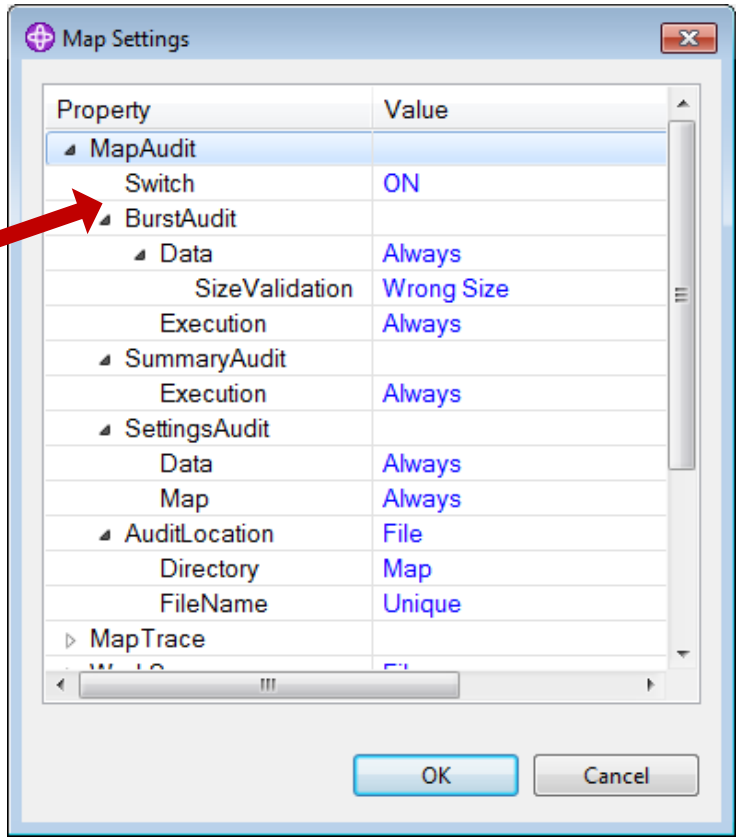
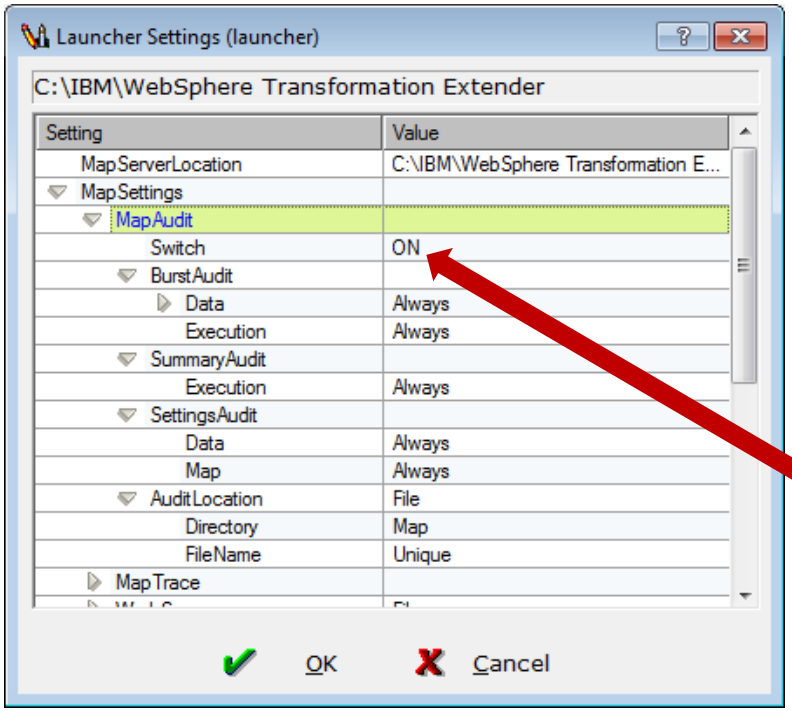
Map Audit Log – How to Enable

- **Design Studio**
  - Open the map source (mms) file select the map to audit, then select map from the menu bar, right click - Map Settings – left click on MapAudit - Switch = ON





- **Integration Flow Designer (Event Source maps only):**
  - Open the msd, right click the map, select Edit Launcher Settings – Map Settings – MapAudit – Switch = ON
  - Overrides Design Studio settings for event based maps

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Map Audit Log – How to Enable

- **Command Line (Command Server):**
  - dtxcmdsv <compiled map name> -AEU=C:\temp [other command line options]
  - Available Map Audit options: http://pic.dhe.ibm.com/infocenter/wtxdoc/v8r4m1/index.jsp?topic=%2Fcom.ibm.websphere.dtx.execcmd.doc%2Freferences%2Fr_execution_commands_MapAudit_A.htm

- **Run Map call:**
  - Message = VALID (RUN ("mymap.mmc" , "-AEU=C:\temp -OF1 myoutputdata.txt"), FAIL ("mymap RUN Failed with error code: " + TEXT(LASTERRORCODE ( )) + ", Reason: " + LASTERRORMSG ( )))

- **API (Java example):**
  - After initializing the API and creating an instance named map:
    - map.setIntegerProperty(MConstants.MPIP_MAP_AUDIT_SWITCH,0,MConstants.MPI_SWITCH_ON);
  - Set associated MapAudit switches to accommodate auditing needs: http://pic.dhe.ibm.com/infocenter/wtxdoc/v8r4m1/index.jsp?topic=%2Fcom.ibm.websphere.dtx.txpi.doc%2Fmap_audit_properties.htm

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Map Audit Log – Where is it saved

- Saved in:
  - **Design Studio**: Directory/File Name specified in Map Settings – MapAudit – AuditLocation – Directory and Filename
  - **Integration Flow Designer**: Directory/File Name specified in Edit Launcher settings - in Map Settings – MapAudit – AuditLocation – Directory and Filename(Event based maps only)
  - **Run Map Rule or Command Line**: Directory/File Name specified by the option -A[options]={Directory}{/Filename}
  - **API (Java example)**:
    - map.setIntegerProperty(MConstants.MPIP_MAP_AUDIT_DIRECTORY,0, MConstants.MPI_DIRECTORY_CUSTOM);
    - map.setTextProperty(MConstants.MPIP_MAP_AUDIT_DIRECTORY_CUSTOM_VALUE,0,"/mydir");
    - map.setIntegerProperty(MConstants.MPIP_MAP_AUDIT_FILENAME,0, MConstants.MPI_FILENAME_CUSTOM);
    - map.setTextProperty(MConstants.MPIP_MAP_AUDIT_FILENAME_CUSTOM_VALUE,0, “myaudit.log");

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Map Audit Log

- Suggestions:
  - Set AuditLocation – Filename to Unique to enable multi-threading and not overwrite previous map runs log
  - Once maps are put into production, set BurstAudit, SummaryAudit and SettingsAudit to OnError so that a Map Audit log is only generated when an error occurs
  - When a return code 30 is encountered, enable Map Audit Logs for run maps in an effort to determine what run map failed and why

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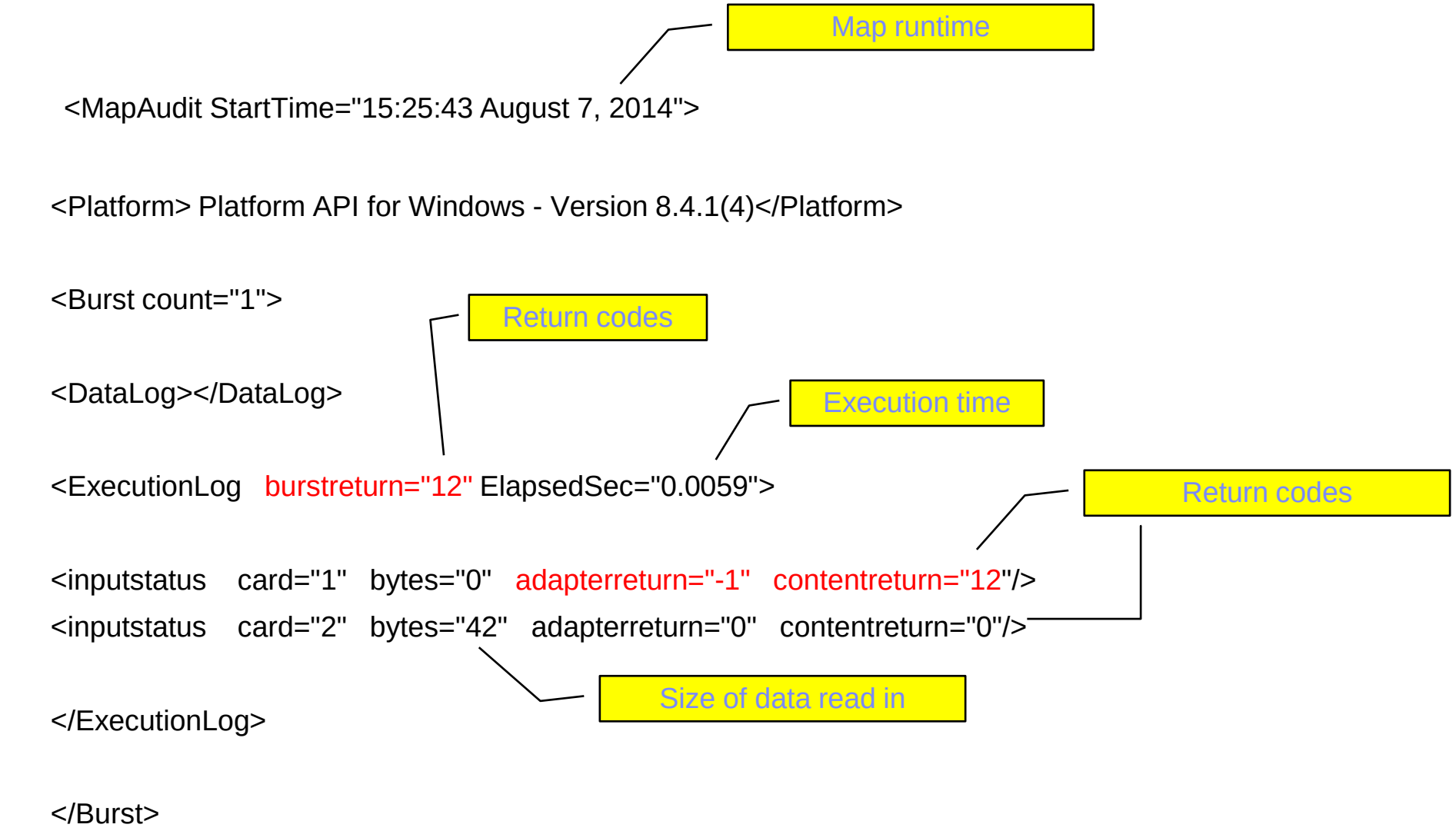
Map Audit log - Content



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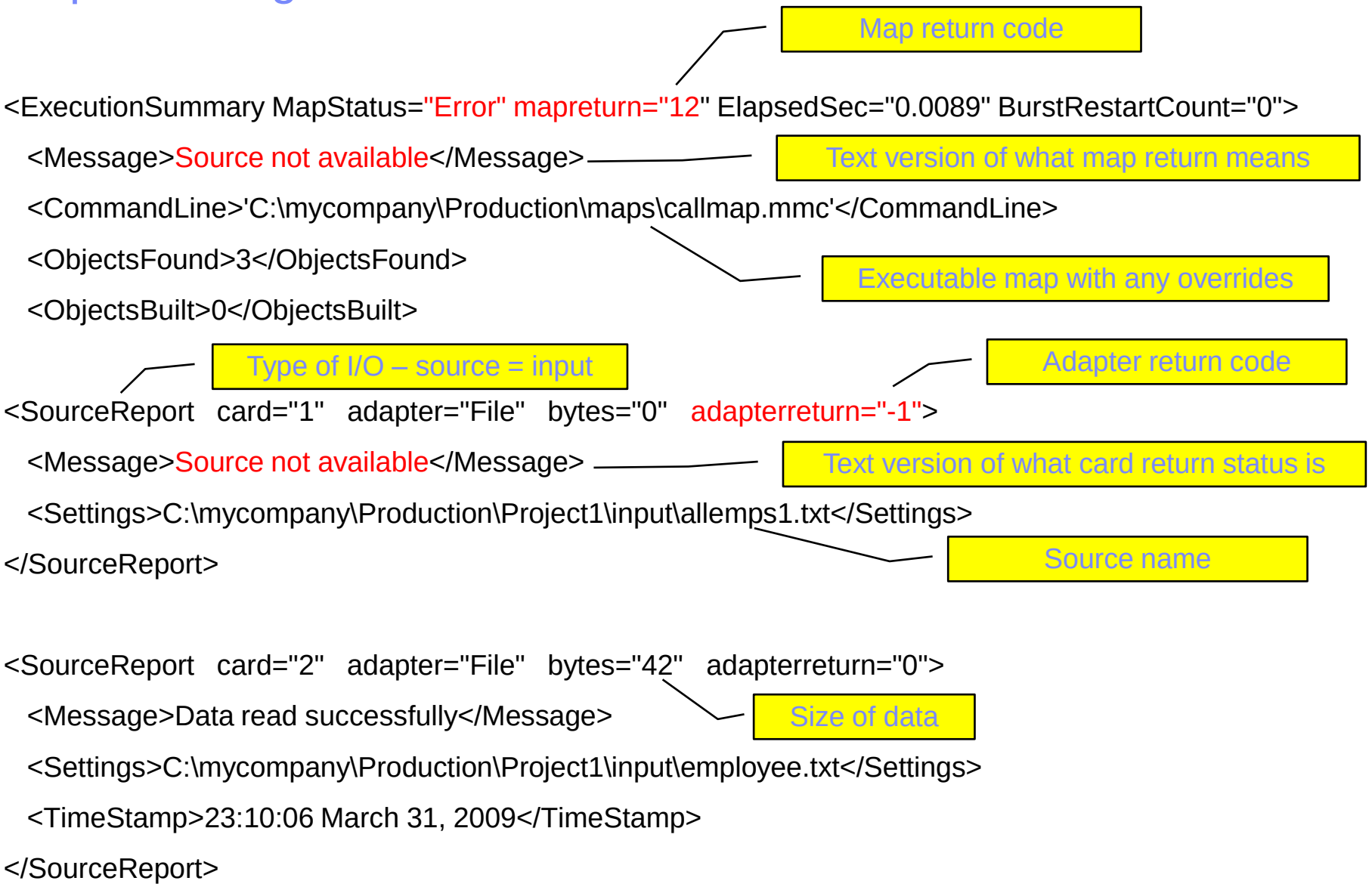
Map Audit log



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Launcher Logs - What are they used for?

- Series of log files to monitor and troubleshoot launcher execution
  - General session and startup information
  - Provide detailed map/connection/resource status and events
  - Types of Launcher logs
    - Launcher log
    - Compound System text
    - Compound System log
    - Management Console Snapshot
    - Launcher Monitor Snapshot

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Launcher Logs - What are they used for?

- Used to confirm settings/execution information as described below
  - **Launcher Log:** A log file that the Launcher generates when the Java Launcher is started. Includes the server initialization settings from the Launcher Administration, system command lines, system commands from the Management Console, system statuses and exceptions.
  - **Compound System text:** A log file that displays individual map/watch settings (input sources, output targets, workspace, audit and trace settings, source events). Lists warnings/errors as they occur indicating date/time, map and the associated warning/error.
  - **Compound System log:** A log file that provides detailed runtime information to troubleshoot Launcher systems/map execution. Displays map start/end, map return codes, source/target information, watches, initialization file settings, thread information, pending/trigger event information, connection management, resource management, file and adapter connections/errors.
  - **Management Console Snapshot:** Provides a snapshot in time of the Launcher/System execution displaying success/failures.
  - **Launcher Monitor Snapshot:** Provides a graphical display of the sequence of maps executed by the launcher indicating success/failures.

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Launcher Logs – How are then enabled?

- **Launcher Log:** Always generated.
- **Compound System text:** Edit the respective initialization file (default: dtx.ini) that has been configured in the Launcher Administration utility. Edit the initialization file and remove the semicolon (;) from the line with the LauncherLog=ewsc entry.

  Launcher must be restarted for this file to be generated.

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Launcher Logs – How are then enabled?

- **Compound System log (manual file edit):** Edit the respective initialization file (default: dtx.ini) that has been configured with the Launcher Administration utility.
  - Locate the [Launcher] section of this file and set the log values to 1 (on) or 0 (off)

```
[Launcher]
; Launcher logging categories
LogTrace=1
LogDebug=1
LogInfo=1
LogWarning=1
LogError=1
LogFatal=1
```

  - Repeat for the [Resource Manager] and [Connection Manager] sections
  - Launcher must be restarted for this file to be generated if editing the initialization file
  - Generates a 0 byte file if all the log options are set to 0
  - Default configuration is to enable LogWarning, LogError and LogFatal with 8.4.x

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Launcher Logs – How are then enabled?

- **Compound System log (Management Console - dynamic):**
  - Start the Management Console, connect to the launcher and ensure the system is started
  - Enables Compound System logging dynamically while the Launcher is running. You can dynamically enable or disable it.
  - If the rightmost window that displays a Config drop down box is not present, select System – Trace & Log from the menu bar. Make sure Trace & Log has a check mark.
    - Select Logging under the Config drop down box
    - Select All and Apply
    - Unselect All or Unselect individual options to disable
  - No Launcher or System restart is needed
  - Does not capture launcher startup information

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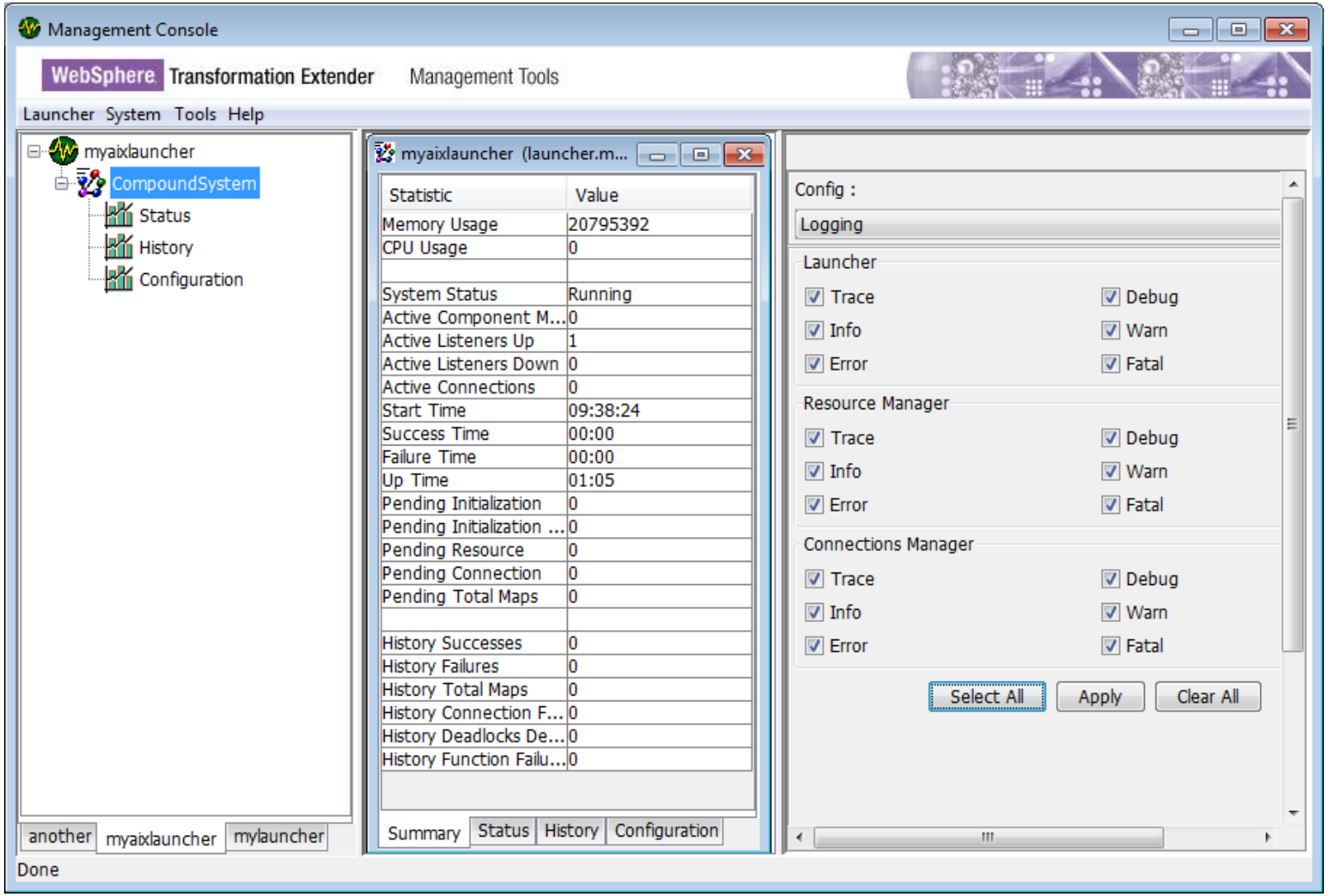
Launcher Logs – How are then enabled?



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Launcher Logs – How are then enabled?

- **Compound System log (Command Line - dynamic):**
  - {launcher.bat | launcher.sh} [-setlogging *launchername systemname* –logtype {launcher | resmgr | conmgr} –logoptions {[to | tx],[do | dx],[wo | wx],[fo | fx],[io | ix],[eo | ex]}]
  - t = LogTrace, d = LogDebug, w = LogWarning, f = LogFatal, i = LogInfo, e = Log Error
  - o options enable logging, x options disable logging
  - Example to enable launcher logging:

    launcher.bat –setlogging mylauncher my84system –logtype launcher -logoptions to,do,wo,fo,io,eo
  - Reference: http://pic.dhe.ibm.com/infocenter/wtxdoc/v8r4m1/index.jsp?topic=%2Fcom.ibm.websphere.dtx.es.doc%2Freferences%2Fr_event_server_logging-commands.htm
- **Management Console Snapshot:** With the launcher running select System – Snapshot from the Management Console menu bar and specify a directory/filename.
- **Launcher Monitor Snapshot:** Select Snapshot from the Launcher Monitor menu bar.

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Launcher Logs – Where are they saved?

- **Launcher Log:** The logs subdirectory of the WTX installation
- **Compound System text:** The logs subdirectory of the WTX installation
  - Default name of CompoundSystem<date-time>.txt for single launcher process environments (i.e, CompoundSystem07-02-13-02-24-53-PM.txt)
  - <launcher_process_name><date-time>.txt for separate launcher process environments(i.e, mylauncher07-02-13-02-24-53-PM.txt)
- **Compound System log:** The logs subdirectory of the WTX installation
  - Default name of CompoundSystem<date-time>.log for single launcher process environments (i.e, CompoundSystem07-02-13-02-24-53-PM.txt)
  - <launcher_process_name><date-time>.logfor separate launcher process environments(i.e, mylauncher07-02-13-02-24-53-PM.txt)
- **Management Console Snapshot:** In the directory/filename specified in the Save As pop-up window
- **Launcher Monitor Snapshot:** In the WTX installation directory with an extension of .mss. Format of <numeric month><day><snapshot number sequence>.mss

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Launcher Logs

- Suggestions:
  - Enable the Compound System text file (Remove the ; from the LauncherLog=ewsc entry in the initialization file)
  - Enable Compound System logs for fatal, error and warning (default as of WTX 8.4.x)
  - If a hang or crash is observed, enable info, trace and debug as well for support to review.

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Launcher log content

Sample Launcherlog<date-time>.log file

Starting a new Launcher Session

Install Directory is /opt/ibm/wtx/841_64bit_linux/.

Install location of Launcher

Loaded Launcher Administration settings from /opt/ibm/wtx/841_64bit_linux/LauncherAdmin.bin successfully.

The Launcher Service is running on port 5,055.

Port Configurations

The range of ports for running the Launcher is 7,000 - 8,000.

Process Per System option is off.

Automatic System Detection option is off.

Automatic Initial Start option is on.

List of deployment directories:

/opt/ibm//wtx/841_64bit_linux/systems

Where to look for systems to run

Jul 15, 2014 3:56:08 PM.

Adding System mylauncher.msl; to list of systems.

System(s) to start

Automatic Initial Start option is on.

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Launcher log content

Sample Launcherlog<date-time>.log file

Jul 15, 2014 3:56:08 PM
Received the request Start System for system mylauncher.msl;.

Jul 15, 2014 3:56:08 PM.
Command line for starting the system mylauncher.msl; is /opt/ibm/wtx/841_64bit_linux/bin/launcher
/opt/ibm/wtx/841_64bit_linux/systems/mylauncher.msl -s7003,7004,7005 -
d='/opt/ibm/wtx/841_64bit_linux/logs/CompoundSystem07-15-14-03-56-08-PM.log' -
L='/opt/ibm/wtx/841_64
bit_linux/logs/CompoundSystem07-15-14-03-56-08-PM.txt' -c'/opt/ibm/project1/rr/project1.mrc'.

Launcher startup command

Jul 15, 2014 3:56:10 PM
System mylauncher.msl; has started. The current status of the system is 4.

System start was successful (4) – 0 indicates stopped, 2 indicates paused, other values indicate an error

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Compound System text content

Sample Compound System text (txt) file

*** CONFIGURATION:
Time: Thu Apr 10 08:06:35 2014

Watch: 1
MSL File: C:\IBM\WebSphere Transformation Extender 8.4.1\systems\launcher.msl
System: Launcher_Sys1
Component: Launcher_Sys1
Map: C:\mycompany\Production\Maps\launcher.mmc
Priority: Normal
Map Delay: <none>
Pending Exp.: <none>
Retries: <none>
Paging: 8 X 64K
Trace: None
Validation: Ignore: <none>
Stop On First Error: Yes
Work Area: Default - Delete –

msl

System

Map

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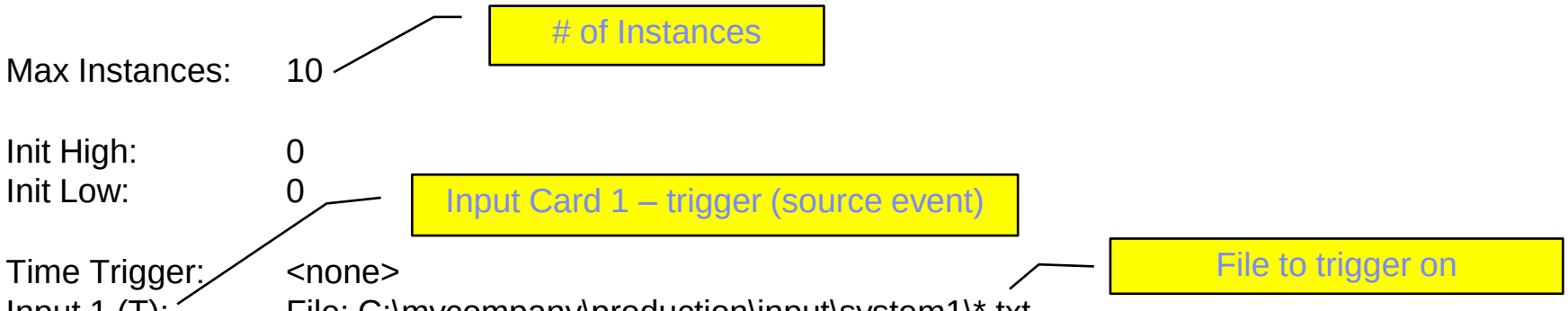
Compound System text content



Max Instances: 10

Init High: 0
Init Low: 0

Time Trigger: <none>
Input 1 (T): File: C:\mycompany\production\input\system1*.txt
Rollback: Yes, Delete: Yes, Reuse Work File: No
Retries: <none>

Input 2: File: C:\mycompany\production\input\system1\config\input_card2.txt
Rollback: Yes, Delete: No, Reuse Work File: No
Retries: <none>

Input 3: File: C:\mycompany\production\input\system1\config\parameters.dat
Rollback: Yes, Delete: No, Reuse Work File: No
Retries: <none>

Input 4: File: C:\mycompany\production\input\system1\config\input_card4.txt
Rollback: Yes, Delete: No, Reuse Work File: No
Retries: <none>

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Compound System text content

Map output location/file

Output 1: File: C:\mycompany\production\output\system1*.txt

Rollback: Yes, Delete: No, Append: Yes

Retries: <none>

Audit enabled, other wise would be <none>

Audit File:	Burst Data	Always	
	Burst Execution		On Error
	Summary Execution	Always	
	Data Settings		Always
	Map Settings		Always

<other watches follow>

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Compound System text content

```
================================================================================
*** STARTUP:

Status:          Successful
Time:             Thu  Apr 10 11:22:18 2013
*** ERROR:
System:          StampAndSort
Component:       stampandsortack
Map:              C:\mycompany\Production\mmgr\stampandsortack.mmc
Start Time:      Thu  Apr 10 19:32:33 2013
Instance:        9162
Run Time:        1.000 seconds
Return Code:     30 - FAIL function aborted map

Input 1:         File:  C:\mycompany\Production\mmgr\ack\999_edi000246520130606o1fo.edi
Input 2:         File:  C:\mycompany\Production\mmgr\share\mmgr.conf
Input 3:         Echo: %lt;data;%gt;
Output 1:        Sink: N
Output 2:        Sink:
   C:\mycompany\Production\mmgr\sortec\x12999_edi000246520130606o1fo.edi.tmp
Output 3:        Sink: N
Output 4:        Sink: N

Audit File:      <none>
```

System startup - successful

Error with stampandsortack

When stampandsortack started

Error message – 30 indicates a rule/map failed that uses the FAIL functionality

Files used by map when failure occurred

Audit disabled

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Compound System text content

*** ERROR:
System: Update
Component: db_writer
Map: C:\mycompany\Production\mmgr\db_writer.mmc
Start Time: Thu Apr 10 19:48:52 2013
Instance: 1
Run Time: 0.000 seconds
Return Code: 9 - Target not available

Error with db_writer

Output error

Input 1: File: C:\mycompany\Production\mmgr\audit\cop\mqi001689220120326o_sortx12.cop
Input 2: File: C:\mycompany\Production\mmgr\share\mmgr.conf
Output 1: Sink:
Output 2: Database: -update
Output 3: Database: -update
Output 4: Database: -update
Output 5: Database: -update
Output 6: Database: 088B
Output 7: Database: 0B66
Output 8: Database: 0D54
Output 9: Database: 0F8B
Output 10: Database: 111F
Output 11: Database: 1294
Output 12: Database: 1468
Output 13: Sink: update_rc

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Compound System text content

*** WARNING:

System:	X12 Inbound
Component:	X12 FA Inbound
Map:	C:\mycompany\Production\mmgr\x12fainb.mmc
Start Time:	Fri Apr 11 15:10:09 2012
Instance:	20057
Run Time:	0.000 seconds
Return Code:	28 - Input type contains errors

Warning with x12fainb

Input warning

Input 1:	File: C:\mycompany\Production\mmgr\audit\x12\fa_in\edi000313720120417oi.997
Input 2:	File: C:\mycompany\Production\mmgr\share\mmgr.conf
Output 1:	Sink:
Output 2:	Sink:
Output 3:	Sink:
Output 4:	Sink:

Audit File: <none>

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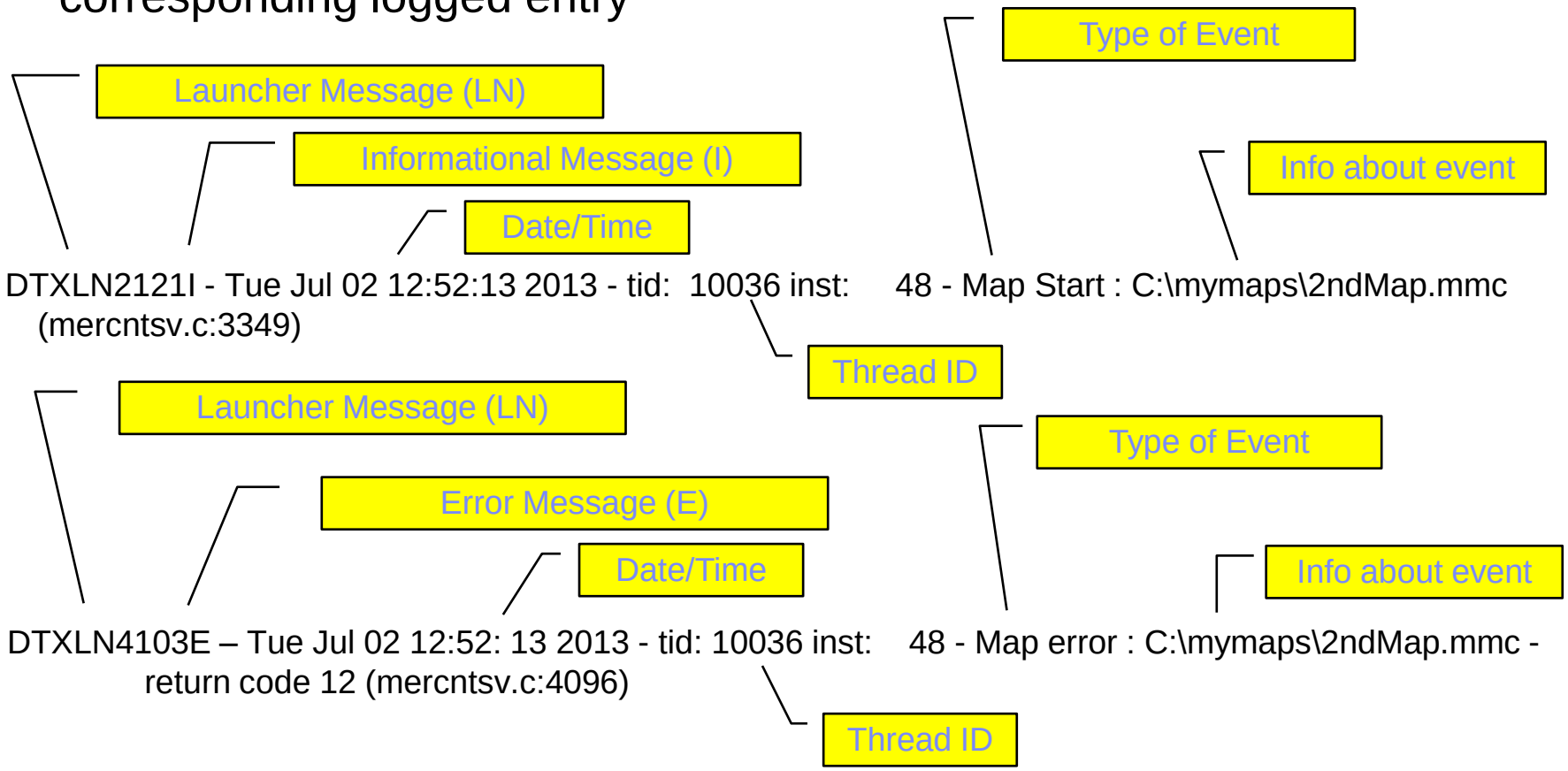
Compound System log content

- Each entry will have a date/time stamp, thread id (tid) with a corresponding logged entry



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Compound System log content

- Example map execution logged to the Compound System log

.. tid: 8668 inst: -1 - Loading MSL : C:\IBM\WTX_8.4\systems\launcher.msl (launchio.c:1499)
.. tid: 8668 inst: -1 - Loading Watch : Watch 1 (2ndMap) - 1 inputs, 2 outputs, wft=2, tt=0, 0,3,1,1 (launchio.c:1076)
.. tid: 8668 inst: -1 - MMC Sources / targets : Watch 1, input 1: type = 0, trigger = 1, delete = 1 (launchio.c:1260)
.. tid: 8668 inst: -1 - MMC Sources / targets : C:\mymaps\input\emphours_*.txt (launchio.c:1262)
...
.. tid: 9164 inst: -1 - Pending thread added : C:\mymaps\2ndMap.mmc (es_misc.c:1189)
.. tid: 9164 inst: -1 - adapter trigger called : launchadapter called with 1 trigger combos (adptstuf.c:913)
.. tid: 9164 inst: -1 - adapter trigger called : C:\mymaps\input\emphours_28.txt (adptstuf.c:958)
.. tid: 9164 inst: -1 - Adapter wildcard : wildcard len = 2 -- 28 for watch 1, card 0 (adptstuf.c:977)
.. tid: 9164 inst: -1 - New output name : C:\mymaps\output\emphours_28.txt (adptstuf.c:1452)
.. tid: 9164 inst: -1 - Pending thread added : C:\mymaps\2ndMap.mmc (es_misc.c:1189)
...
.. tid: 10036 inst: 48 - Map Starting : C:\mymaps\2ndMap.mmc (mercntsv.c:3348)
.. tid: 10036 inst: 48 - Map Start : C:\mymaps\2ndMap.mmc (mercntsv.c:3349)
...
.. tid: 10036 inst: 48 - I/O ERROR : I/O Open Map=C:\mymaps\2ndMap.mmc Failed to open C:\mymaps\input\emphours_28.txt Error=2 (mercio.c:2105)
.. tid: 10036 inst: 48 - After perform mapping : C:\mymaps\2ndMap.mmc (mercntsv.c:4003)
.. tid: 10036 inst: 48 - Map error : C:\mymaps\2ndMap.mmc - return code 12 (mercntsv.c:4096)
.. tid: 10036 inst: 48 - Before remove run resources : C:\mymaps\2ndMap.mmc (mercntsv.c:4121)
.. tid: 10036 inst: 48 - After remove run resources : C:\mymaps\2ndMap.mmc (mercntsv.c:4130)
.. tid: 10036 inst: 48 - Map Ending : C:\mymaps\2ndMap.mmc (mercntsv.c:4316)
.. tid: 10036 inst: 48 - Map End : C:\mymaps\2ndMap.mmc (mercntsv.c:4317)

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Management Console content

```
<?xml version="1.0"?>

<!DOCTYPE Launcher SYSTEM "C:\IBM\WebSphere Transformation Extender 8.4\snapshot.dtd">

<Launcher LauncherName="CompoundSystem" HostName="127.0.0.1" Port="7000"
    DateTimeStamp="8/9/14, 4:16:07 PM">

<Summary MemoryUsage="51773440" CPUUsage="2" SystemStatus="Running"
    ActiveComponentMaps="0" ActiveListenersUp="1" ActiveListenersDown="0"
    ActiveConnections="3" StartTime="15:47:06" SuccessTime="00:08" FailureTime="00:00"
    UpTime="28:47" PendingInitialization="0" PendingInitializationMaximum="2" PendingResource="0"
    PendingConnection="0" PendingTotal="0" HistorySuccesses="6" HistoryFailures="0"
    HistoryTotal="6" HistoryConnectionFailures="0" HistoryDeadlocksDetected="0"
    HistoryFunctionFailures="1" />

<StatusInfo>

  <AdapterConnections_StatusInfo Adapter="DB" Open="2" Active="0" Idle="2" Pending="0" />

      <AdapterConnections_StatusInfo Adapter="ZIP" Open="1" Active="0" Idle="1" Pending="0" />

</StatusInfo>
```

Summary tab Info

Status tab Info

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Management Console content

<History>

History tab Info

<AdapterConnections_History Adapter="DB" Requests="59" New="2" Reused="57" Successes="59" Failures="0" />

<AdapterConnections_History Adapter="ZIP" Requests="1" New="1" Reused="0" Successes="1" Failures="0" />

<FunctionFailures Component="stampandsortfile" FunctionName="Failed at Put function" Arguments="FILE" Reason="-99999" />

</History>

<Configuration>

Configuration tab Info

<System MaximumConcurrentMaps="20" MaximumConcurrentMapsPerWatch="20" PendingInitializationHigh="0" PendingInitializationLow="0" />

<AdapterConnections_Configuration Adapter="(default)" IdleTime="00:00" KeepTime="00:00" KeepMinimum="0" AdvisoryLimit="4" MandatoryLimit="0" />

</Configuration>

</Launcher>

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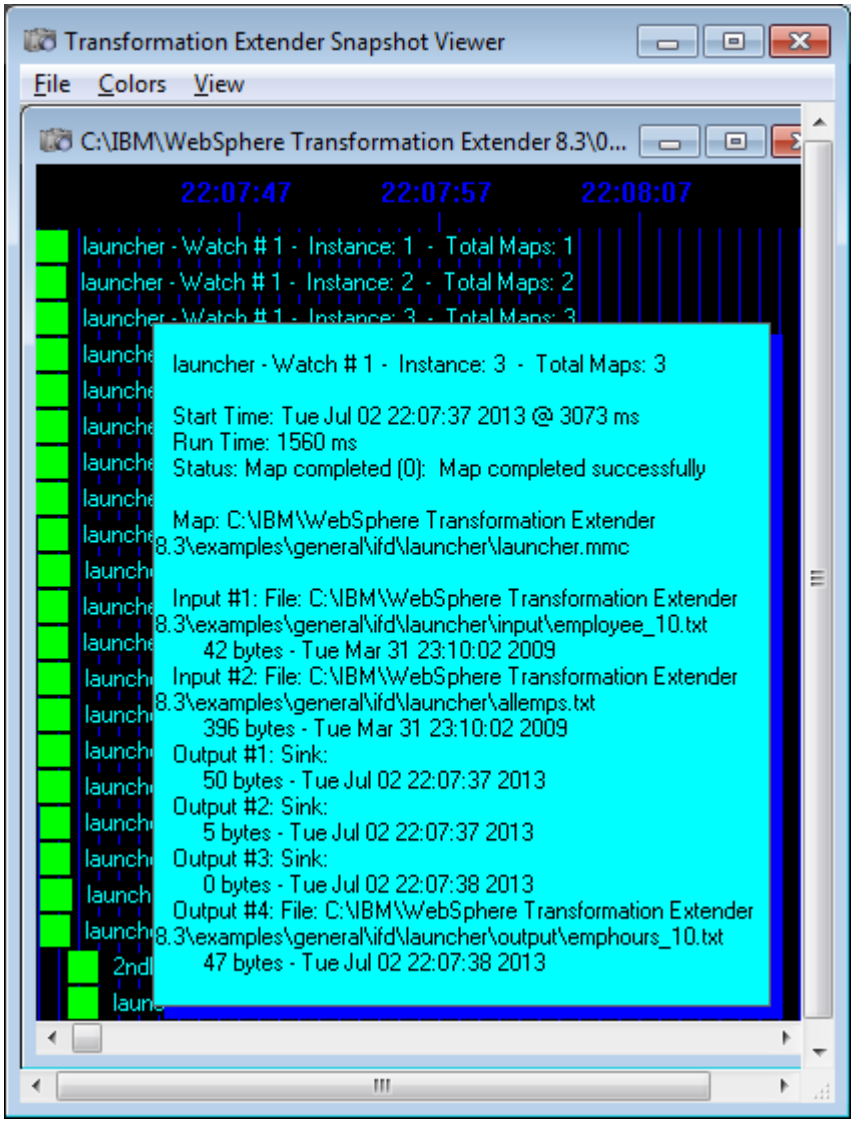
Launcher Monitor content

- Graphically displays trigger based maps
- Monitor will show in real time:
  - Success: Green
  - Warning: Yellow
  - Error: Red
- Right click an entry and it will pop-up a window showing you map success/failure, execution time, input and output information
- If errors, refer to Compound System log and/or Audit log



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Resource Registry Log – What is it used for?

- Displays Resource Registry definitions and runtime substitutions as maps execute
- Useful for confirming resource registry substitutions are set as designed.

Resource Registry Log – How is it enabled

- Enabled by setting the environment variable, DTX_LOG_RES_ALIAS
- Examples:
  - UNIX: export DTX_LOG_RES_ALIAS=/myhome/resalias.txt
  - Windows: Use the Control Panel – System and Security – System – Advanced system settings – Advanced tab – Environment variables
- A fully qualified path and file name must be specified.

Resource Registry Log – Where is it saved?

- To the directory/filename specified when enabling this functionality

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Resource Registry Log content

Wed Apr 16 09:56:59 2014: Initializing: C:\IBM\WebSphere Transformation Extender 8.4.1\examples\general\rsrcreg\testmaps.mrc

Number of aliases: 9

Type : Global
Alias : "trace"
Meaning : "_trace"
Encrypted: NO

Definition of trace = _trace

Type : Global
Alias : "work"
Meaning : "c:\temp\"
Encrypted: NO

Definition of work = c:\temp\

……
Wed Apr 16 09:56:59 2014: Resolving alias:
Original: %work%
Resolved: c:\temp

Runtime substitution of work

……
Wed Apr 16 09:56:59 2014: Resolving alias:
Original: TestMaps%trace%.mtr
Resolved: TestMaps_trace.mtr

Runtime substitution of trace

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Sterling B2B Integrator Log - What is it used for?

- Provides execution information about a particular WTX map execution invoked from a Business Process including map name, input/output data size and map return codes.

Sterling B2B Integrator Log - How is it enabled?

- Edit the log.properties_wtx_ext or customer_overrides.properties file located in the install/properties subdirectory of the Sterling installation and set the appropriate wtxlogger parameters
  - wtxlogger.logfilename = &LOG_DIR;/wtxlogger.log
  - wtxlogger.logkey = wtxlogger
  - wtxlogger.rotatelogs = true
  - wtxlogger.maxlogsize = 100000
  - wtxlogger.maxnumlogs = 10
  - wtxlogger.loglevel = DEBUG
  - wtxlogger.displayname = Log.WTXLogger
  - wtxlogger.showsource = false

  - Pertinent values to set:
    - wtxlogger.filename - location of where the log file will be saved
    - wtxlogger.loglevel - level of logging: NONE, ERROR, DEBUG, FATAL, INFO, ALL

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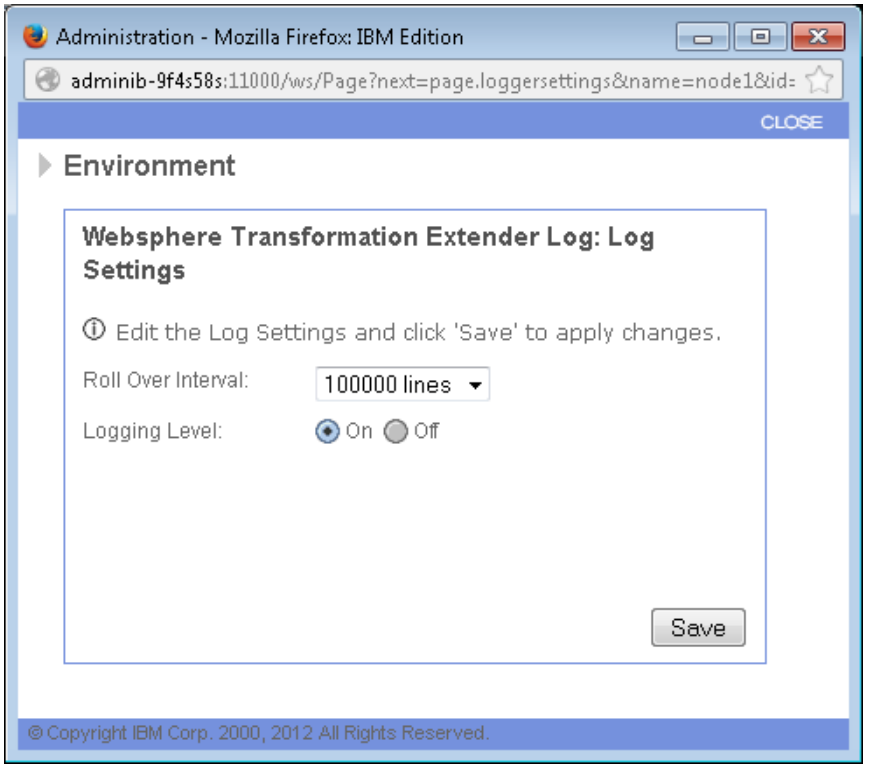
Sterling B2B Integrator Log - How is it enabled?

- In the Sterling B2B Integrator dashboard, select Operations – System – Logs and select the notepad/pencil icon for the WebSphere Transformation Extender Log entry.
  - Set the Logging Level to On
  - Optionally modify the number of roll over interval lines
  - Click on Save
- Stop Sterling B2B Integrator
- If the WTX properties file has been modified, run the setupfiles.[cmd | sh] command
- Restart Sterling B2B Integrator



Sterling B2B Integrator Log - Where is it saved?

- To the directory specified in the wtxlogger.logfilename entry in the properties file

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Sterling B2B Integrator Log content

SI invokes WTX map service

Map being run

[2014-08-05 14:33:26.962] DEBUG WTX Adapter Service Name : WTXMapService
…
[2014-08-05 14:33:27.223] DEBUG 264012 : WTX_TRANSLATION_SERVICE MapName = myWTXmap
...
[2014-08-05 14:33:27.223] ALL 264012 : accessing input override in1 = /ProcessData/PrimaryDocument

Use primary doc for input/output

[2014-08-05 14:33:27.224] ALL 264012 : accessing output override out1 = /ProcessData/PrimaryDocument
...
[2014-08-05 14:33:27.238] DEBUG 264012 : WTX_TRANSLATION_SERVICE harness document id = 302031147a76fbbf4node1

Doc id

[2014-08-05 14:33:27.238] DEBUG 264012 : WTX_TRANSLATION_RMI_SERVICE Processing WTXSIMapInputCard input card : 0

[2014-08-05 14:33:27.238] DEBUG 264012 : WTX_TRANSLATION_RMI_SERVICE Processing input card override : 1

[2014-08-05 14:33:27.238] DEBUG 264012 : WTX_TRANSLATION_RMI_SERVICE Accessed MCard object for input card : 1

Input size

[2014-08-05 14:33:27.238] DEBUG 264012 : WTX_TRANSLATION_RMI_SERVICE input stream length : 58

[2014-08-05 14:33:27.239] DEBUG 264012 : WTX_TRANSLATION_RMI_SERVICE write ... : 58
...
[2014-08-05 14:33:27.24] DEBUG 264012 : before map run....

[2014-08-05 14:33:27.298] DEBUG 264012 : after map run....

[2014-08-05 14:33:27.298] DEBUG 000000000000 264012 : TRANSLATION.WTX_TRANSLATION_RMI_SERVICE .Processing output card override for accessing stream data: 0

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Sterling B2B Integrator Log content

[2014-08-05 14:33:27.298] DEBUG 264012 : WTX_TRANSLATION_RMI_SERVICE Processing output card (MCard) override for accessing stream data : 1

Output size

[2014-08-05 14:33:27.298] DEBUG 264012 : WTX_TRANSLATION_RMI_SERVICE output stream size : 25

[2014-08-05 14:33:27.298] DEBUG 264012 : WTX_TRANSLATION_RMI_SERVICE map instance : 1

[2014-08-05 14:33:27.298] DEBUG 264012 : WTX_TRANSLATION_RMI_SERVICE response message : Map completed successfully

[2014-08-05 14:33:27.299] DEBUG 264012 : WTX_TRANSLATION_RMI_SERVICE response code : 0

[2014-08-05 14:33:27.299] ALL 264012 : map instance...1

Map Status

[2014-08-05 14:33:27.299] ALL 264012 : response message...Map completed successfully

[2014-08-05 14:33:27.299] ALL 264012 : response code...0

[2014-08-05 14:33:27.299] DEBUG 264012 : Map Status: (0) Map completed successfully

[2014-08-05 14:33:27.299] DEBUG 264012 : Wrote document /ProcessData/PrimaryDocument 25 bytes

[2014-08-05 14:33:27.299] DEBUG 264012 : removed wtx external dataharness from object pool

[2014-08-05 14:33:27.299] DEBUG 264012 : leaving execute map...

[2014-08-05 14:33:27.299] ALL 264012 : Map instance: 1 Return code: 0 Message: Map completed successfully

[2014-08-05 14:33:27.299] DEBUG 264012 : Attached audit log to Workflow context

[2014-08-05 14:33:27.299] DEBUG 264012 : leaving processData...

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Standards Processing Engine Log – What is it used for?

- Provides success/failure information for a map executed through the Standards Processing Engine (SPE)

Standards Processing Engine Log – How is it enabled?

- Edit the customer_overrides.properties file located in the SPE installation directory and modify the wtxlogger entires to be similar to:

 # These can be uncommented to enable WTX logging
wtxlogger.wtxlogger.loglevel=DEBUG
wtxlogger.wtxlogger.logfilename=C:/tmp/wtxlogger.log
wtxlogger.wtxlogger.target=FILE

- For the logfilename entry you must specify a fully qualified file name (path/file)
- You must remove the leading # sign and restart SPE for this change to take effect
- Optional environment variable setting of: WTX_DUMP_DATA=true
  - Generates additional logging related to WTX mapping including data passed to a map
  - Resulting log file can be large

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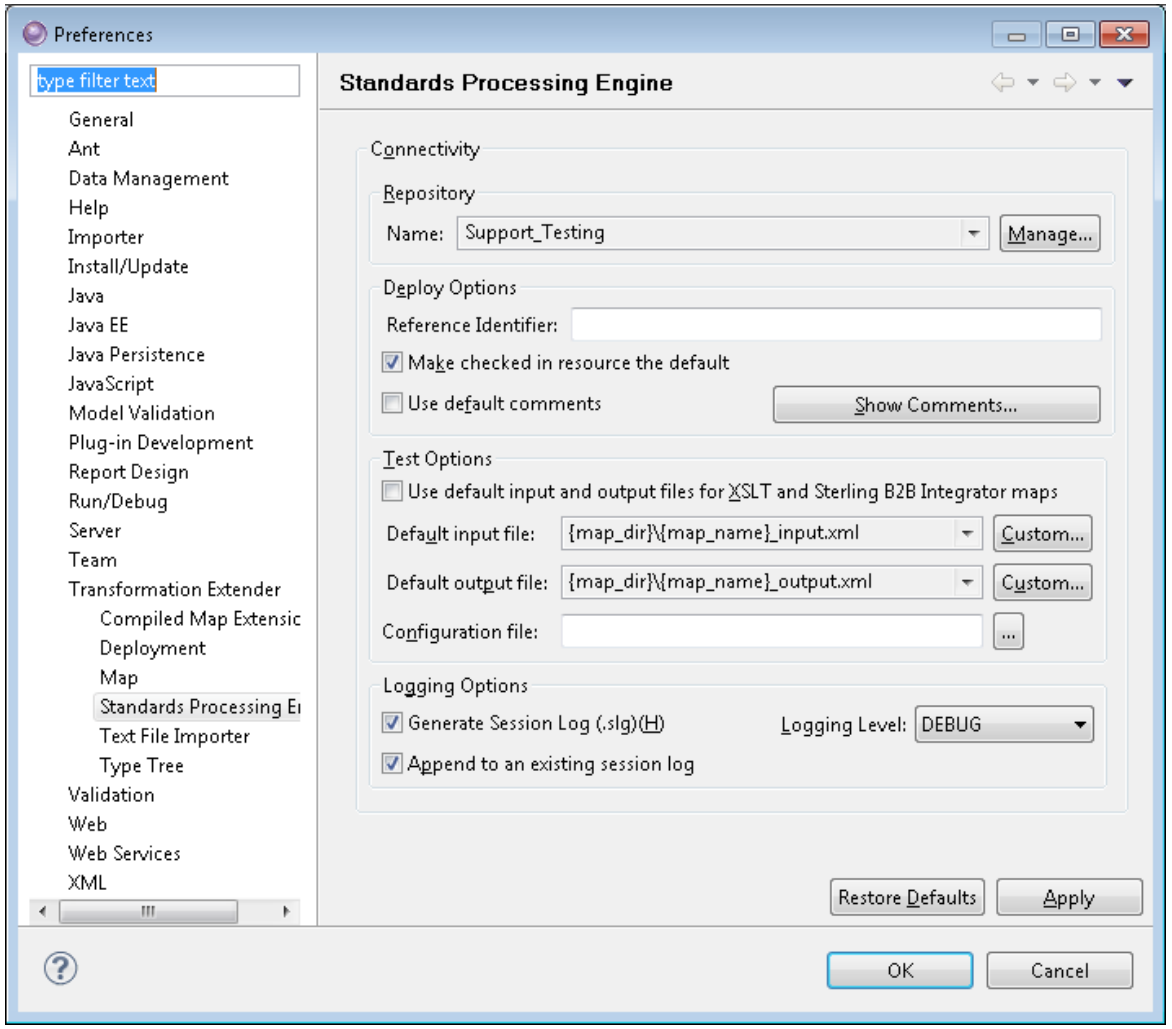
Standards Processing Engine Log – How is it enabled?

- For testing purposes you can also enable a session log to capture execution information from the Design Studio

  - From the Design Studio Menu bar, select Window – Preferences. Next, expand Transformation Extender and select Standards Processing Engine
  - In the Logging Options section, check “Generate Session Log” and “Append to an existing session log”
  - Set the Logging Level to DEBUG
  - Click on Apply



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Standards Processing Engine Log – Where is it saved?

- The SPE/WTX logging will generate a WTX log file in the directory specified by the wtxlogger.wtxlogger.logfilename setting from the customer_overrides.properties file
- The Design Studio session log will generate a mapname.slg file in the same directory as the compiled map when you select a map, right click on it and select “Run on Standards Processing Engine…”

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Standards Processing Engine Log – Content

- Session Log content (Map error)

Oct 23, 2014 3:03:39 PM com.ibm.websphere.dtx.m4spe.client.M4SpeWTXMapRun runArtifact
INFO: Resource Name: C:\Users\IBM_ADMIN\IBM\wtx\workspace\841\Outbound \MySPE_mpa.mmc
Debug Log: Yes

Map Name

Oct 23, 2014 3:03:39 PM com.ibm.websphere.dtx.m4spe.client.M4SpeArtifactTask logMessage
INFO:
ProcessData:
validate_input = YES
MapServerLocation = C:\Users\IBM_ADMIN\IBM\wtx\workspace\841\SPE_Testing\ Outbound \MySPE_mpa.mmc
exhaust_input = YES
MAP_WORKING_DIR = C:\Users\IBM_ADMIN\IBM\wtx\workspace\841\SPE_Testing
Map_Type = 6

Response documents:
Document Key = InterchangeDocuments_DesignStudio
Response status = 1
Advanced status = Resource (null): Source not available

Map Response Status (Non 0 = error)

Oct 23, 2014 3:03:39 PM com.ibm.websphere.dtx.spe.client.SPEArtifactTester$SPEArtifactServiceRunThread run
INFO: Processing response from Standards Processing Engine for WebSphere Transformation Extender map run request.
Resource (null): <mapInstances>
<mapInstance1000002>
<mapReturn>12</mapReturn>
<message>Source not available</message>
</mapInstance1000002>
</mapInstances>

Map Return Code and Message

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Standards Processing Engine Log – Content

- Session Log content (Map Success)

Oct 23, 2014 2:29:20 PM com.ibm.websphere.dtx.m4spe.client.M4SpeWTXMapRun runArtifact
INFO: Resource Name: C:\Users\IBM_ADMIN\IBM\wtx\workspace\841\SPE_Testing\Outbound\ MySPE_mpa.mmc
Debug Log: Yes

Map Name

Oct 23, 2014 2:29:20 PM com.ibm.websphere.dtx.m4spe.client.M4SpeArtifactTask logMessage
INFO:
    ## ProcessData:
    validate_input = YES
    MapServerLocation = C:\Users\IBM_ADMIN\IBM\wtx\workspace\841\SPE_Testing\ MySPE_mpa.mmc
    exhaust_input = YES
    MAP_WORKING_DIR C:\Users\IBM_ADMIN\IBM\wtx\workspace\841\SPE_Testing
    Map_Type = 6

Response documents:
    Document Key = InterchangeDocuments_DesignStudio
Response status = 0

Map Response Status (0 = success)

Oct 23, 2014 2:29:20 PM com.ibm.websphere.dtx.spe.client.SPEArtifactTester$SPEArtifactServiceRunThread run
INFO: Processing response from Standards Processing Engine for WebSphere Transformation Extender map run request.

Oct 23, 2014 2:29:21 PM com.ibm.websphere.dtx.spe.client.SPEArtifactTester sendRequest
INFO: WebSphere Transformation Extender map run request has been executed successfully to Standards Processing Engine.

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Standards Processing Engine Log – Content

- WTX logger (without WTX_DUMP_DATA set)

```
[65:pool-7-thread-1] [2014-10-30 14:57:51.466] DEBUG  [WTXTranslationObject] Loading map into Translation Object...
[65:pool-7-thread-1] [2014-10-30 14:57:51.466] DEBUG  [WTXTranslationObject] Map Size: 60143
…
[65:pool-7-thread-1] [2014-10-30 14:57:51.466] DEBUG  [WTXTranslationObject] Map load complete into Translation
      Object
[65:pool-7-thread-1] [2014-10-30 14:57:51.529] DEBUG  [WTXTranslationEngine] Begin validateInput function...
[65:pool-7-thread-1] [2014-10-30 14:57:51.529] DEBUG  [WTXTranslationEngine] Validation Key: HIPAAMapLocation
[65:pool-7-thread-1] [2014-10-30 14:57:51.529] DEBUG  [WTXTranslationEngine] Validation map name: compliance_check
[65:pool-7-thread-1] [2014-10-30 14:57:51.529] DEBUG  [WTXTranslationEngine] compliance_check validation map size:
      60143
…
[65:pool-7-thread-1] [2014-10-30 14:57:51.529] DEBUG  [WTXMapExecute] instantiating wtx external dataharness
      functions...
[65:pool-7-thread-1] [2014-10-30 14:57:51.529] DEBUG  [WTXMapExecute] processInputCards - number of map input
      cards: 7
[65:pool-7-thread-1] [2014-10-30 14:57:51.529] DEBUG  [WTXMapExecute] processInputCards MCard#1
      name=Param_File
[65:pool-7-thread-1] [2014-10-30 14:57:51.529] DEBUG  [WTXMapExecute] processInputCards overriding MCard#1 with
      null
[65:pool-7-thread-1] [2014-10-30 14:57:51.529] DEBUG  [WTXMapExecute] overrideCardStream: 1 -
      InputStream.available: 847
```

Map Name

Input card information

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Standards Processing Engine Log – Content

- WTX logger (without WTX_DUMP_DATA set)

[65:pool-7-thread-1] [2014-10-30 14:57:51.56] DEBUG [WTXMapExecute] processOutputCards - number of map output cards: 13
[65:pool-7-thread-1] [2014-10-30 14:57:51.56] DEBUG [WTXMapExecute] Processing outputcard override: 0 (compliance_check_invalid)
[65:pool-7-thread-1] [2014-10-30 14:57:51.56] DEBUG [WTXMapExecute] Got MCard object for output card: 8 (Invalid_X12_Output)
[65:pool-7-thread-1] [2014-10-30 14:57:51.56] DEBUG [WTXMapExecute] override output card with stream adapter...
[65:pool-7-thread-1] [2014-10-30 14:57:51.56] DEBUG [WTXMapExecute] Processing outputcard override: 1 (compliance_check_results)
[65:pool-7-thread-1] [2014-10-30 14:57:51.56] DEBUG [WTXMapExecute] Got MCard object for output card: 1 (Compliance_Check_Results)
…
[65:pool-7-thread-1] [2014-10-30 14:57:51.56] DEBUG [WTXMapExecute] before map run....
[65:pool-7-thread-1] [2014-10-30 14:57:51.622] DEBUG [WTXMapRunLoadCallback] getMapBytes with mapPath=C:/IBM/Standards Processing Engine 2.0.0\x12initialcontrolsummary.mmc
[65:pool-7-thread-1] [2014-10-30 14:57:51.622] DEBUG [WTXMapRunLoadCallback] loadMap mapPath=C:/IBM/Standards Processing Engine 2.0.0\x12initialcontrolsummary.mmc
[65:pool-7-thread-1] [2014-10-30 14:57:51.622] DEBUG [WTXMapRunLoadCallback] getMapNameToLoadFromRepository mapPath=C:/IBM/Standards Processing Engine 2.0.0\x12initialcontrolsummary.mmc
[65:pool-7-thread-1] [2014-10-30 14:57:51.622] DEBUG [WTXMapRunLoadCallback] getBytesFromFileLocation mapPath=C:/IBM/Standards Processing Engine 2.0.0\x12initialcontrolsummary.mmc
[65:pool-7-thread-1] [2014-10-30 14:57:51.622] DEBUG [WTXMapRunLoadCallback] file not found on the location, loading from repository :x12initialcontrolsummary
[65:pool-7-thread-1] [2014-10-30 14:57:51.622] DEBUG [WTXMapRunLoadCallback] getBytesFromRepository mapName=x12initialcontrolsummary
[65:pool-7-thread-1] [2014-10-30 14:57:51.654] DEBUG [WTXMapRunLoadCallback] completed loadMap - mapBytes=397185

Output card information

Run map information

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Standards Processing Engine Log – Content

Map Return Code and Message

- WTX logger (without WTX_DUMP_DATA set)

[65:pool-7-thread-1] [2014-10-30 14:59:09.108] DEBUG [WTXMapExecute] response message: Map completed successfully

[65:pool-7-thread-1] [2014-10-30 14:59:09.108] DEBUG [WTXMapExecute] response code: 0

[65:pool-7-thread-1] [2014-10-30 14:59:09.124] DEBUG [WTXMapExecute] removed logs generated by the WTX external data harness

[65:pool-7-thread-1] [2014-10-30 14:59:09.124] DEBUG [WTXMapExecute] WTX external data harness has already been removed from the object pool

[65:pool-7-thread-1] [2014-10-30 14:59:09.124] DEBUG [WTXMapExecute] Leaving executeMap...

[65:pool-7-thread-1] [2014-10-30 14:59:09.124] DEBUG [WTXTranslationEngine] Map execution completed...

[65:pool-7-thread-1] [2014-10-30 14:59:09.124] DEBUG [WTXTranslationEngine] addOutputDocumentToWorkFlowContext: compliance_check_invalid size: 13472788

[65:pool-7-thread-1] [2014-10-30 14:59:09.124] DEBUG [WTXTranslationEngine] validation failed

[65:pool-7-thread-1] [2014-10-30 14:59:09.124] DEBUG [WTXTranslationEngine] addOutputDocumentToWorkFlowContext: compliance_check_results size: 31730474

[65:pool-7-thread-1] [2014-10-30 14:59:09.124] DEBUG [WTXTranslationEngine] addOutputDocumentToWorkFlowContext: compliance_check_summary size: 4073044

[65:pool-7-thread-1] [2014-10-30 14:59:09.124] DEBUG [WTXTranslationEngine] addOutputDocumentToWorkFlowContext: compliance_check_ta1h size: 160

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Standards Processing Engine Log – Content

- WTX logger (with WTX_DUMP_DATA set – additional logging is added)

[[65:pool-7-thread-1] [2014-10-30 15:04:44.959] DEBUG [WTXMapExecute] processInputCards - number of map input cards: 7
[65:pool-7-thread-1] [2014-10-30 15:04:44.959] DEBUG [WTXMapExecute] processInputCards MCard#1 name=Param_File
[65:pool-7-thread-1] [2014-10-30 15:04:44.959] DEBUG [WTXMapExecute] processInputCards overriding MCard#1 with null
[65:pool-7-thread-1] [2014-10-30 15:04:44.959] DEBUG [WTXMapExecute] overrideCardStream: 1 - InputStream.available: 847
[65:pool-7-thread-1] [2014-10-30 15:04:44.959] DEBUG [WTXMapExecute] write buffer.length=847
[65:pool-7-thread-1] [2014-10-30 15:04:44.959] DEBUG [WTXMapExecute] data=File="compliance_check_parameter.dat"
Rev="2.00"
Product_Name="S"
Base_Exit_Directory="C:/IBM/Standards Processing Engine 2.0.0\"
Audit_Command=" -AEWU"….

Input card information

Input data trace (added with WTX_DUMP_DATA setting

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Summary

- Various logs exist to assist in troubleshooting issues help identify map execution issues.
- Logs can be enabled/disabled as needed
- WTX Documentation (Information Center, Release Notes): http://www-01.ibm.com/software/integration/wdatastagetx/library/index.html
- WTX Support Site: http://www-947.ibm.com/support/entry/portal/overview//software/websphere/websphere_transformation_extender

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Additional References

- Learn about upcoming Support Technical Exchange webcasts, and access previously recorded presentations at: https://www-304.ibm.com/connections/communities/service/html/communityview?communityUuid=d58614c7-a87a-4bea-a0d3-572710d530db
- IBM Electronic Support Introduction http://www.ibm.com/support/electronicsupport/about.html
- Sign up to receive weekly technical My Notifications emails: http://www.ibm.com/software/support/einfo.html
- developerWorks Forums, Communities and Technical Topics http://www.ibm.com/developerworks/
- Quick Reference Guide for Using Service Request Tool http://www.ibm.com/support/docview.wss?uid=swg21207945
- IBM Support Assistant http://www.ibm.com/software/support/isa/
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