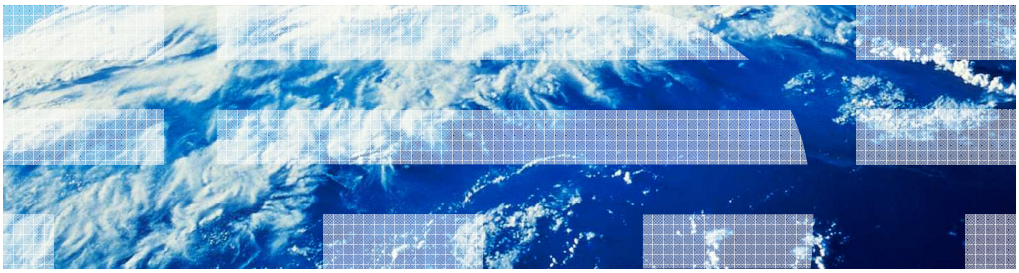
# WebSphere Commerce V7 Feature Pack 5

## Staging enhancements





Feature Pack 5 includes additions that have been made to the stagingprop utility to increase staging performance and error tolerance, and improved logging and tracing for better troubleshooting.

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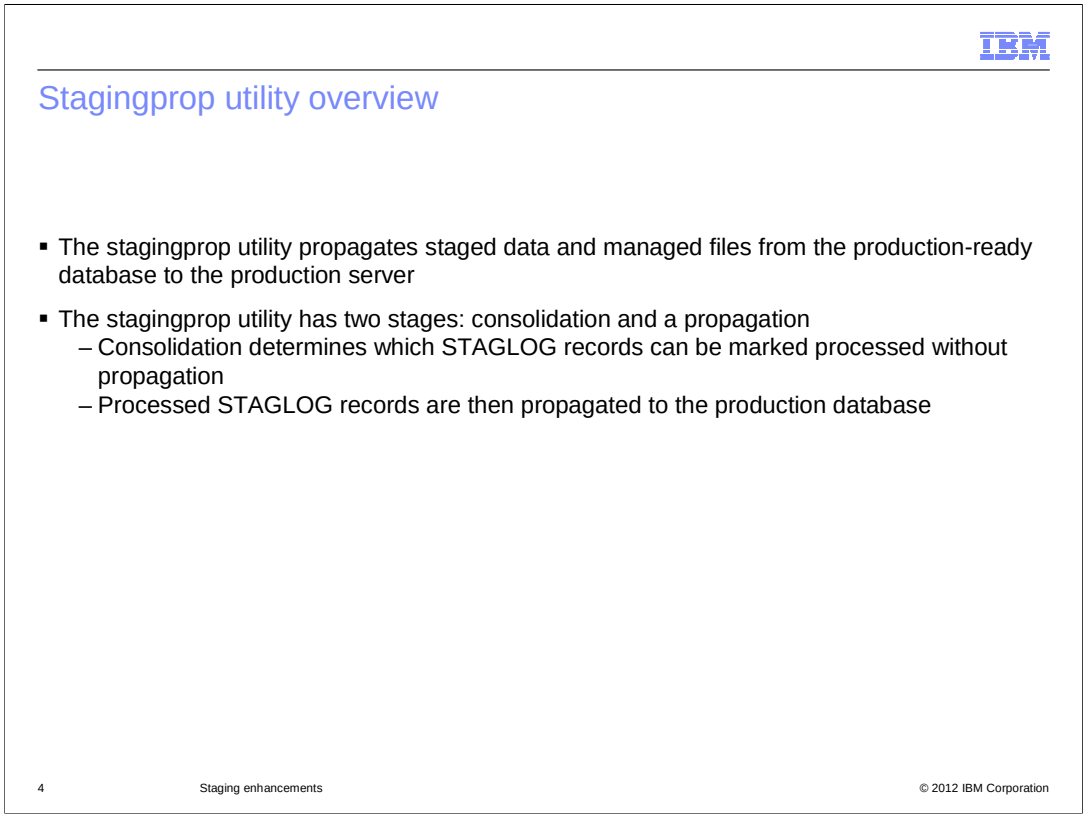
This presentation will go over the staging enhancements.

Section

# *Staging enhancements*




This section covers the staging enhancements in Feature Pack 5.




The stagingprop utility propagates staged data and managed files from the production-ready data to the production server. It consolidates the changed data from the production-ready database, and then it propagates the necessary changed data into the production database. The stagingprop utility retrieves all the unprocessed STAGLOG records and processes them. An unprocessed STAGLOG is a record in the Staging database table STAGLOG, column STGPROCESSED whose value is set to 0.
Successful stagingprop updates these STAGLOG records in the STGPROCESSED column from unprocessed (0) to processed (1). The stagingprop utility has two stages: consolidation and a propagation. During consolidation stagingprop examines STAGLOG and determines which STAGLOG records can be marked processed without propagation. Processed STAGLOG records are then propagated to the production database.

**Note:** After creating the authoring and staging servers, you must run the stagingcopy utility, before running stagingprop. To run the stagingprop utility, be sure you are on a system that can connect to both the staging server and the production server database. If your staging server contains either web activities, or content spots, you must refresh the registry before any updates display on the site.

## Staging enhancements

- Performance enhancements to reduce stagingprop time
  - SQL and logic optimizations
    - Created database indexes
  - Reduced database I/O
  - Option to start consolidation independently before propagation
- Improved logging
  - Now generates a summary report at the end of the log
  - Provides proper exit code
    - You can capture the exit code in your script and decide the next action

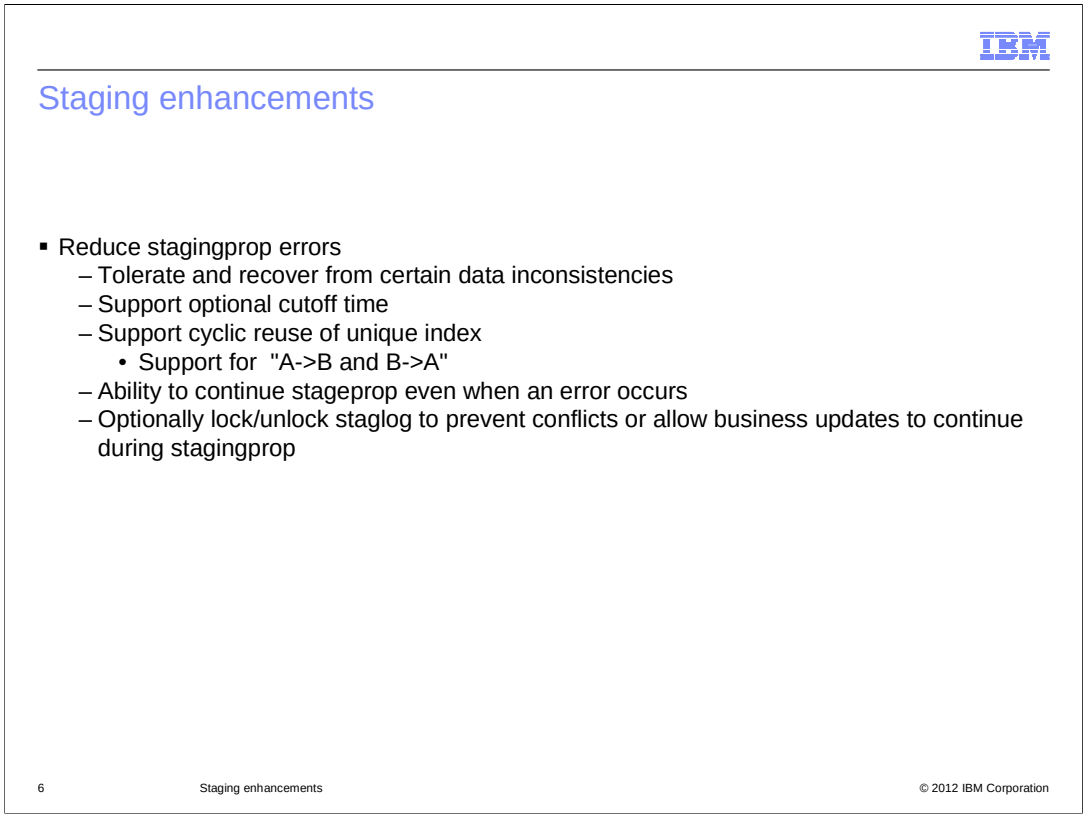



Several additions have been made to the stagingprop utility to increase staging performance and error tolerance, and improve logging and tracing for better troubleshooting. In order to reduce stagingprop time, database indexes are created and some of the SQLs and logic are rewritten to make use of these indexes. This improves performance by optimizing SQLs and logic. Next, batching result set and batching update statements allows to cut down the database I/O and StagingProp is now much faster.

You can now run stagingprop consolidation without propagation by omitting these parameters: destdb, destdb_user, and dest_passwd. However, if some but not all of these parameters are supplied, or if stagingprop cannot establish a connection to the production database with these parameters, stagingprop will not run successfully.

StagingProp now generates a summary report at the end of the log which provides a lot of helpful information. For example, the total time, total consolidated, number of records propagated for each table, their types of operations (Insert, Update, Deleted), and average time/record is now recorded. With these, you can get a much better picture of where issues can be. Issues such as you have a very large amount of updates in a single table, a very large average propagation/record time because of a slow network, or a lot of records consolidated because some records are updated 50 times before propagation. All this information can now be known because of the summary report.

Another minor point is that StagingProp now provides proper exit code, rather than 0=success and 1=fail in the past. Since StagingProp can be automated to run at night when no one is there, you can capture the exit code in your script and decide the next action.




Continuing with the enhancements is the ability to continue stageprop even when an error occurs to avoid redoing entire propagations. There is increased error tolerance and improved logging (controlled through new -trace and -actionOnError parameters). ActionOnError will support three values: 0, 1, and 2. 0=ON ERROR BAIL or 1=ON ERROR GOTO NEXT, and 2=TOLERATE CONSOLIDATION ERRORS AND ON ERROR GOTO NEXT.

When a primary key collision or unique index violation happens, the ON ERROR GOTO NEXT mode (or higher) will allow StagingProp to printout the error into the log and then continue. Upon encountering errors when ON ERROR GOTO NEXT (or higher) is turned on, StagingProp propagation will mark the corresponding STAGLOG record STGPROCESSED column with different values.

The values are -1 for deleting operation with no result or error, -2 for updating operation with no result or error, and -3 or inserting operation with no result or error.

Some robustness was also added with the support for optional cutoff time. This allows you to provide a cutoff time. Any STAGLOG record recorded after the cutoff time is not included in the StagingProp run. StagingProp now supports this scenario "A->B and B->A" so there is support for cyclic reuse of unique index. This applies only to unique indexes that are *not* the primary key of the table.

## stagingprop troubleshooting

- stagingprop utility

http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.admin.doc/refs/rssstageprop.htm

- Improving stagingprop performance

http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.admin.doc/refs/rssstagepropperformace.htm

- stagingprop exit codes

http://publib.boulder.ibm.com/infocenter/wchelp/v7r0m0/index.jsp?topic=/com.ibm.commerce.admin.doc/refs/rssexitcodes.htm




Here are some useful stagingprop troubleshooting links.

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