

SmartProduction[®]

Release 4.7.0 – Enhancements

Major Enhancements

The following **major enhancements** are implemented in **SmartProduction** Release 4.7.0 Level 2009/08, extending product performance analysis coverage:

- **CA-XCOM® Support**

The new support provides information and analysis for file transfers performed via CA-XCOM.

Global report L7 has been enhanced to support CA-XCOM. The report answers questions such as:

- Which CA-XCOM file transfers were running for the longest time?
- Which CA-XCOM file transfers processed the largest amounts of data?
- Which CA-XCOM file transfers were unsuccessful?

Panel D has been enhanced to display (in the Data Set References section) details of CA-XCOM file transfers that have taken place. In addition, three cases have been added to Panel D to identify unnecessary CA-XCOM file transfers, inefficient CA-XCOM file transfers and CA-XCOM file transfer failures.

Report D3 has been enhanced to identify unnecessary CA-XCOM file transfers.

- **Extended Knowledgebase**

Over 20 new cases have been added, detecting new inefficiencies and tuning opportunities in the following areas: WLM-related inefficiencies; Sort-related inefficiencies; DB2 utility-related inefficiencies; unnecessary passes over data; DFSMSHsm-related inefficiencies; CA-XCOM file transfers; extended-format data set block size inefficiencies.

The logic of several cases has been enhanced; as a result, more observations will be reported.

- **New/Enhanced Reports**

New Global report D10 lists unnecessary passes over data sets, performed by single or multiple jobs.

New Global report L8 lists USS file access information.

Several reports (primarily: J3, J1, W1, A4, D1, J7, GJC, GDC) have been enhanced, and will provide additional observations.

Several reports (for example: L1, J5) now provide additional selection or display options.

- **Extended Performance Documentation**

Panel I provides online information on the following new topics: GLOSSARY-H (DFSMSHsm terms and abbreviations); GLOSSARY-U (USS terms and abbreviations).

Complete List of Enhancements

This section provides a complete list of enhancements implemented in **SmartProduction** Release 4.7.0.

Reporting Facility

- **General**

Enhanced report description and more comprehensive usage notes are displayed in some reports.

- **Good Data Set Candidates Report**

This report now identifies additional inefficiency cases.

- **Good Job Candidates Report**

This report now identifies additional inefficiency cases.

- **Global Report A4**

This report now identifies additional cases of Sort-related inefficiencies.

- **Global Report D1**

The following enhancements have been implemented:

- The report has been enhanced to analyze extended-format sequential data sets.
- The report enables you to select observations when data set access was performed via the FTP program. **Note:** Optimal block sizes can significantly reduce FTP-related CPU and elapsed times.

- **Global Report D3**

The report has been enhanced to identify unnecessary CA-XCOM file transfers.

- **Global Report D7**

The report now supports a 5-digit number as the minimum disk track savings (previously: a 4 digit-number).

- **Global Report D10**

This new report lists unnecessary passes over data sets, performed by single or multiple jobs.

- **Global Report J1**

The report now identifies additional executions of slow copy utilities.

- **Global Report J3**

The following enhancement has been implemented:

- The report now identifies additional cases of unnecessary passes over data.
- The report now runs faster.

- **Global Report J5**

The report supports up to three abend codes of failures that should not be reported. The abend codes specified can be masked (for example: S*22, C10*).

- **Global Report J7**

The report now identifies additional inefficient executions of DB2 utilities.

- **Global Report L1**

The report can be ordered to list the jobs by ascending job execution start date/time.

- **Global Report L3**

The following enhancements have been implemented:

- The report now displays the total program execution times (when a non-detailed report is generated).
- The report now displays the total numbers of program tape mounts (when a non-detailed report is generated).
- The list of programs can be displayed by descending total program execution time or by descending total number of program tape mounts.
- The program now supports a program name mask.

- **Global Report L4**

The following enhancements have been implemented:

- The report allows you to select all sort execution types (that is: sort, merge and copy executions) instead of selecting a specific sort execution type.
- The report lists additional sort execution details.

- **Global Report L7**

This report has been enhanced to process and display CA-XCOM information.

- **Global Report L8**

This new report lists USS file access activities.

- **Global Report LA**

This report has been enhanced to display additional information (CA-XCOM SMF record count; USS SMF 92 record count; number of USS files used).

- **Global Report W1**

The following enhancements have been implemented:

- The report now identifies additional cases of WLM-related inefficiencies.
- At the bottom of the report, additional service class-related statistics are displayed.

- **Trend Analysis Report**

The report now supports a minimum percentage for the specified change in direction. This allows, for example, reporting only job executions where the CPU consumption decreased by at least 15 percent.

Online Facility

- **Panel D**

The following enhancements have been implemented:

- The analysis now identifies additional inefficiency cases.
- In the Data Set References section: details of CA-XCOM file transfers are now displayed.
- An informational messages is now displayed at the top of the analysis if the data set is a striped data set, or if the data set is DFSMS-compressed.
- The online help of the Analysis results panel explains selected terms and abbreviations used in the analysis.

- **Panel J**

The following enhancements have been implemented:

- The analysis now identifies additional inefficiency cases.
- In the Historical Job Execution Statistics section, the following information is now displayed: USS file access information; additional Sort execution information.
- When STATISTICS = SMF has been specified in the Job Analysis Entry panel, summary job execution information is also displayed.
- The online help of the Analysis results panel explains selected terms and abbreviations used in the analysis.

- **Panel I**

The panel provides online information on the following new topics: GLOSSARY-H (DFSMSHsm terms and abbreviations), GLOSSARY-U (USS terms and abbreviations).

- **Panel W**

The following enhancements have been implemented:

- The analysis now identifies additional inefficiency cases.
- The service class name and the policy name can now be specified as a mask (rather than as a specific name or prefix).

- **Panel R.D1**

A new parameter enables you to select observations when data set access was performed via the FTP program. **Note:** Optimal block sizes can significantly reduce FTP-related CPU and elapsed times.

- **Panel R.D7**

The minimum number of disk track savings can now be specified as a 5-digit number (previously: a 4 digit-number).

- **Panel R.D10**

This new panel can be used to generate the new Global report D10.

- **Panel R.J5**

The panel allows you to specify up to three abend codes of failures that should not be reported. The abend codes specified can be masked (for example: S*22, C10*).

- **Panel R.L1**

A new display parameter allows to list the jobs by ascending job execution start date/time.

- **Panel R.L4**

The panel allows you to select all sort execution types (that is: sort, merge and copy executions) instead of selecting a specific sort execution type.

- **Panel R.L8**

This new panel can be used to generate the new Global report L8.

- **Panel T**

The panel allows you to define a minimum percentage for the specified change in direction. This allows, for example, reporting only job executions where the CPU consumption decreased by at least 15 percent.

Knowledgebase

- **New Cases**

Over 20 new cases have been added, detecting new inefficiencies and tuning opportunities in the following areas: WLM-related inefficiencies; Sort-related inefficiencies; DB2 utility-related inefficiencies; unnecessary passes over data; DFSMSHsm-related inefficiencies; CA-XCOM file transfers; extended-format data set block size inefficiencies.

- **Case Logic and Output Enhanced**

The logic and output of several cases has been enhanced.

Job Statistics Extractor

- **Extracting Additional Data**

The Extractor program has been enhanced to record additional performance data from SMF in the JOBHIST database (for example: CA-XCOM file transfer data, SMF 92 sub-type 11 data, additional sort data).

- **New INCLSMF92 Statement**

The new INCLSMF92 data selection criteria statement specifies whether information on significant USS file accesses (fetched from SMF 92 sub-type 11) should be recorded in the JOBHIST database. The statement also specifies what is to be regarded as significant file access.

- **INCLSYS Statement**

Up to 10 INCLSYS data selection criteria statements can now be specified (previously: up to 5).

Miscellaneous

- **New \$SMFXCOM Global Installation Parameter**

The new \$SMFXCOM global installation parameter defines the CA-XCOM SMF record type number (relevant for CA-XCOM sites only).

- **Enhanced SAVINGS MINTRKS Customization Parameter**

The minimum number of disk track savings can now be specified as a 5-digit number (previously: a 4 digit-number).

- **Enhanced RECALL Customization Parameter**

A new sub-parameter specifies the minimum size (in tracks) of a data set eligible for migration. **SmartProduction** will flag any recall process for a data set with a smaller size.

- **Maintenance Applied**

All existing **SmartProduction** maintenance has been applied in the new software.