CIMS LAB, INC.

Enhancements / Updates to
CIMS Mainframe V11.6
(April 2004 - February 2005)
(2005/02/25 Genlevel)

Programs:

CIMSACCT
- An abnormal termination (0C7) has been corrected when processing records with a dictionary definition containing User Defined Fields (abend occurred in CSECT CIMSDCTN).

- Jobs were not counted correctly when using a poly-JES system (alternate JES).

- Added support for the 'ON EMPTY OUTPUT FILE' control statement when executing in a mode other than 'PROCESS CIMS MAINTENANCE'.

CIMSCMFP
- The CICS Local Time of Day adjustment was added to the output for use in CIMSCMF2. The Local Time of Day Adjustment is found in the product section of the CICS SMF record.

- A new control statement has been added to override the default return code of 16 when no input records are processed:
  ON EMPTY INPUT FILE SET RC TO nnnn
  Where nnnn = a numeric value

CIMSCMF2
- The CICS Attach Date and Time in conjunction with the Local Time of Day Adjustment from the SMF record is used to determine the shift code.

- A new control statement has been added to override the Local Time of Day Adjustment in the SMF record. If this control card is not present, the CIMSCMF2 default is to use the Local Time of Day Adjustment.
  SET GMT OFFSET TO {nnn | SYSTEM}
  Where nnn = a numeric value between -23 and +23
  SYSTEM = CIMS will query the operating system to obtain the Local Time of Day Adjustment

CIMSDB2
- Only the first NON-PRIME DAY control statement was being processed.

CIMSDISK, CIMSTAPE, CIMSUNIV, CIMSUN02
- The SHIFT control statements were not parsed correctly, which caused the default shifts to always be in effect.

CIMSEXTR
- Corrected generation of error message 'EXTR007E CIMSEX09-Bad length' and RC=16 when the start or end date is suppressed using the dictionary process flag. The dictionary process flag can be set to 'Y' for identifiers that are not needed in the output file. This update allows fields specified in the AGGREGATE DATE control statement to be suppressed. Example: The process flag for CIMSSDT and CIMSEDT in the CIMSHDR dictionary definition can be set to 'Y'. The CSR output will still be aggregated using these fields, but the Start_Date and Stop_Date identifiers will not be included in the CSR output.

CIMSEXTR (Continued)

- The end date and time in the header of the CSR record can be written as spaces or as a null value. This update will use the start date or time whenever the end date or time is not available.

CIMSIMS1
- Added support for IMS 8.1.

CIMSLEVC
- Updated to handle the new output from the IBM system call to determine the LE release level.

CIMSUNIV
- Corrected invalid date generated for ROSCOE data processed at the end of the year.

- Corrected missing User Define Fields in the last record processed.

Report Library (Reptlib):

CIMRCSPC
- Added record layout to support the SPWTR093, SPWRP093, and SPWTR094 reports.

SPWTR094
- This is a new report that lists the top 10 CPU usage jobs.

SPWRP093, SPWTR093
- Updated to create the input for the SPWTR094 report.

SPWRP945
- Minor updates were made to the WebSphere processing report.

SMFRC101
- Updated DB2 SMF 101 record description to include new segments and fields.

Control Library (Datafile):

ZROSCNTL
- Data Field 02 was updated to be in Timer Unit (26 microseconds).

Enhancements / Updates to
CIMS Mainframe V11.6
(July 2003 - March 2004)
(2004/03/26 Genlevel)

Programs:

CIMSACCT
- When using the NON-PRIME DAYS * control statement, the default weekend shift code was also set to '4'. The weekend shift code can be independently set using NON-PRIME SHIFT CODE and WEEKENDS ARE NON-PRIME control statements.
- Sort messages were removed from the CIMSPRNT DDNAME and will appear in SYSOUT.
- Support updated format of 994 records that use 6 decimal digits for DB2 transaction time.

CIMSBILL
- An invalid 'Missing Rate Code' message can be issued when processing a 999 record that contains a rate code that is also contained in another 99x record.

CIMSDB2
- The alternate account code table can be formatted into the standard CIMS account code table format. This support was added so that the alternate account code table can be used in CIMSACCT.
- Negative CPU times may be reported for DB2 Release 6.1 and higher. The negative CPU time is being calculated when the DB2 data supplies an SRB time. The SRB time should no longer appear in the DB2 data for releases 6.1 and higher (the field should contain hex zeroes). An update has been made to ignore any data in the SRB fields for DB2 releases 6.1 and higher.
- Invalid elapsed times calculated when processing 'roll up ' records. This situation may also appear as DB2 791 or CSR records containing stop dates for the year 1900. The detach time for these 'roll up' records is not a STCKTIME but an accumulated Elapsed time.
- The CPU times in the 791/994 records were updated to contain 6 decimal digits.
- Added support for additional Connection Type (QWHCATYP), 11 through 15.

CIMSDISK, CIMSTAPE, CIMSUNIV, CIMSUN02
- Corrected the number of 'No Match' conditions reported during Account code conversion.

CIMSEXTR
- Error message IEC020I 001-4 and an abnormal termination (S001) when the file in the SORTAGR DDNAME is empty.

CIMSIMS2
- New control cards were added to turn off the wildcard matching in account code conversion or to change the default wildcard characters used in account code conversion:

To turn off wildcard matching use:	TURN OFF ACC WILDCARDS
To change the ? wildcard character use:	CHANGE ACC ? WILDCARD TO x
Where x = the new wildcard character	
To change the * wildcard character use:	CHANGE ACC * WILDCARD TO x
Where x = the new wildcard character.	

CIMSTBLE
- The DEFINE MOVEFLDX control statement allows the use of a 'LITERAL'. Any embedded blanks in the 'LITERAL' would terminate the literal.

CIMSUN01
- The input file was truncated because it was using the shorter V11.5 record length. Changed to use the new V11.6 version of the 001 record.

Report Library (Reptlib):

AALEGEND
- Removed obsolete report SPWTR903.

CIMRC791
- Added NOACCUM to CIMRC791-DB2CATYP.
- Added CIMRC791-CICSUOWID to redefine the Unit of Work ID field.

CIMRC994
- Changed DB2 resources to contain 6 digits of precision.
- Added NOACCUM to CIMRC994-DB2-CATYP.
- Added record version to end of record.

SPWRP143
- Use CIMRC791-CICSUOWID from record definition instead of UOWID from FIELD statement.

SPWRP144
- New Unit of Work ID table that can be used by CIMSDB2 for CICS unit of work matching and by CIMSACCT as an Account Code Conversion table.

SPWRP820
- Create CICS 791 records from CIMSCMF2 exceptions.
- The Account code contains the CICS Unit of Work ID.
- Can be used as input to CIMSACCT to match the Unit of Work ID against the table produced in SPWRP144.

SPWRP140, SPWTR140, SPWTR141, SPWTR142, SPWTR144
- Report 6 decimal places of precision.

SPWTR757, SPWTR758, SPWTR759, SPWTR763
- The CIMSTAPE detail reports need to select 791 records using the subsystem ID. The Subsystem ID was added to the INCLUDEIF statement.

Control Library (Datafile):

CIMSDISK
- Removed comment the referenced an old APAR, UY80418.

CIMSFTP, CIMSFTPG, FTP#READ, FTPBASE, FTPBASEG, FTPDATE, FTPDATEG, FTPID
- New sample JCLs and control members to FTP mainframe files to CIMS Server.
- FTP#READ contains detailed description of how to use these members.

CIMSEXTR
- Removed IDCAMS VERIFY step for the CIMSDTVS file. This step is not needed.

CIMSJOB3, CIMSMERG
- Added the Record number to the list of fields to sort.

CIMSUSER
- Updated DB2 record for 6 decimal digits of precision on CPU time fields.

CMFPTABD
- Added CICS 5.3 default dictionary offsets.

DCTNFSMU
- The FSYSUSRN field was defined twice. The two FSYSUSRN identifiers were renamed to FSYSMTPT (FS Mount Point) and FSYSDEVN (FS Device Name). DCTNFSMU is used to define the UNIX File System metrics record to the dictionary. This is an optional definition that is only needed if the UNIX File System records are being processed on the mainframe.

Enhancements / Updates to
CIMS Mainframe V11.6
(April 2003 – July 2003)
(2003/07/18 Genlevel)

Programs:

CIMOREJ
- An abnormal termination (S0C7) would occur when processing CIMS record types 999 and 26.

CIMSACCT
- An update was made to correct a possible abnormal termination (S0C7) in CIMSEXTR when processing 792/793 records that have been generated by CIMSACCT when re-processing CIMS records (PROCESS CIMS MAINTENANCE).
- Job Priority was being calculated incorrectly.

CIMSCMS
- Shift processing was updated to correctly slice times for jobs that ran over multiple shifts.
- A new control card was added to assign all jobs to the prime shift (no slicing of times):
    - ASSIGN ALL RECORDS PRIME
- A new control card was added to assign jobs that run over 24 hours to the prime shift (the default is to assign them to the non-prime shift).
    - TRANSACTION OVER 24 HOURS ARE PRIME

CIMSDB2
- Negative CPU messages were being produced for DB2 records that did not contain negative CPU times. For "rollup records" the QWACEJST and QWACEST (Elapsed and TCB time fields) contain an accumulated time from all the child tasks in the rollup record, not an actual end time. CIMSDB2 was processing these times as an end time, causing the negative CPU message.
- Triplet validation was added to ensure the triplet information in the SMF product section is correct. If invalid information is present within the triplet section, it could cause a storage overlay within CIMSDB2 leading to abnormal termination (S0C4).

CIMSEXTR
- An abnormal termination (S0C1) would occur when processing INCLUDE statements for packed fields.

CIMSIMS2
- When using IMS Shared Queues, false messages (IMS Log 7 and 8 records) can appear in the IMS log. An update was made to CIMSIMS2 to identify these false messages and discard them.

CIMSTAPE
- New control cards were added for enhanced CA-TMS Virtual Tape (VTAPE) support.

   TMS VTAPE RATEID = nn
   > Where nn = a numeric value 1–10 or 01–10. This specifies the rate code used for VTAPE storage. The rate code specifies the data field in which the rate value will be stored. For example, if nn = 03, then the rate code used by CIMSTAPE will be ZTPE@@03 and the number of megabytes used for storage will be placed in DATA FIELD03.

   VTAPE VOLSER RANGE llllll TO hhhhhh
   > Where llllll is the low volser and hhhhhh is the high volser. This is used to identify the CA-TMS Virtual Tapes to CIMSTAPE.

   Notes:
   - The megabytes are returned with 2 decimal places (i.e., 9999999.99 MB). Therefore, you must specify 2 as the number of decimal places on the DATA FIELD statement for the rate ID.

      For example:
      > If you specify TMS VTAPE RATEID =06
      > Then you must specify DATA FIELD06,ZTPE,2,1

   - Up to 10 of the VTAPE VOLSER RANGE statements can be specified.

- A new control card was added for a different type of tape selection in the RMM processing.

   RMM SELECT MASTER TAPES
   > This control card will bypass all of the current volser selection checking and only select RMM tapes that have an RVSTATUS equal to MASTER and an RVPENDRS equal to N.

Report Library (Reptlib):

AALEGEND
- An entry was added for CIMDB2E5.

CIMDB2EV
- This member was updated to contain the exception file layout for CIMSDB2 for release 11.6.

CIMDB2E5
- This is a new member that contains the exception file layout for CIMSDB2 for release 11.5.

RC791V00
- Changed the file name from CIMRC791-RECORD to RC791V00-RECORD.

RC792V00
- Changed the file name from CIMRC792-RECORD to RC792V00-RECORD.

RC793V00
- Changed the file name from CIMRC793-RECORD to RC793V00-RECORD.

SPWTR141
- This member was updated to reflect the "rollup" record processing for CPU times. Refer to the CIMSDB2 update in the Programs section for more information on the "rollup" record.

SWALIAS
- An entry was added for CIMDB2E5

Control Library (Datafile):

ACNVJCL2, ACNVJCL3, ACNVJCL4, CICSDT02, CICSDT03, CICSDT04, CICSDT10, CICSVSAM, CIMSDTC, CIMSRTLD, CLNTJCL1, SUBRATE2, SUBCLNT2
- VOL(??????) references in VSAM allocations were removed in the last genlevel (2003/04/09) update because IDCAMS can build VSAM files without the VOL(??????) reference if SMS controls are in place. But if SMS controls are not in place, then the job will end with a JCL error. Therefore the VOL(??????) were added back.

CIMSJOB2
- The CIMSEXCP file name was too long. The name was shortened.

DCTNR999
- Version default comment was changed to say the default is 00.

Programs:

CIMSACCT, CIMSCMF2, CIMSDB2, CIMSDISK, CIMSIMS2, CIMSTAPE, CIMSUNIV, CIMSUN02
- New control cards were added to turn off the wildcard matching in account code conversion or to change the default wildcard characters used in account code conversion:
  - To turn off wildcard matching use: TURN OFF ACC WILDCARDS
  - To change the ? wildcard character use: CHANGE ACC ? WILDCARD TO x
    - Where x = the new wildcard character
  - To change the * wildcard character use: CHANGE ACC * WILDCARD TO x
    - Where x = the new wildcard character
- Shift determination was updated to handle seconds correctly.

CIMSACCT
- A new control card has been added to allow the user to specify the shift code to be used for the Non-Prime shift:
  - NON-PRIME SHIFT CODE = n
    - Where n = the shift code
- A new control card has been added that will cause CIMSACCT to parse the text units field of the Enhanced Sysout Section of the SMF type 6 record and format it into a fixed offset format in the CIMS Record Type 6. The default processing is to leave the text units field as it appears in the SMF 6 record.
  - SMF6 ESS FIXED FORMAT
- The field CIMRC792-CPU-INIT was being calculated incorrectly. The field should be the sum of only the ISRB and ITCB CPU times.
- The conversion of the CIMS record types 79x from version 00 to version 01 was updated to prevent an abnormal termination (S0C7) when executing CIMSEXTR or during a re-process of the output through CIMSACCT.
- Conversion of the CIMS record type 791 version 00 was updated to prevent an abnormal termination (S0C7) when the RecordID does not start with CIMS.
- Processing was updated to correctly determine the length of CIMS 79x records that were produced by processing CIMS Server Resource Records.
- Properly set length of 792 so User Defined fields can be built from the SMF 30 information. The length was set to include only the 792 portion of the CIMRC792 record definition. Any fields referenced by User Defined entries beyond the base 792 resulted in DCTN004W messages.

CIMSBILL
- When exactly 52 accounting periods existed within the calendar file, the message MORE THAN 52 ACCOUNTING PERIODS, FIRST 52 USED was displayed. The message is no longer displayed.
- Processing was added to show rate codes in the RATE CODE NOT FOUND message that had rate totals of 0 (there were positive and negative entries for the rate code) and were not defined in the rate file
- The CIMSBILL module that was included in the 2003/03/05 build contains an update that can cause a storage overlay, which eventually causes an abnormal termination (S0C4).

CIMSDATA
- The Enhanced Sysout Section of the CIMS type 6 records was truncating the last byte.
- The CIMS record type 26 is now always written with a length of 457.

CIMSDB2
- The number of invalid CPU time messages is now limited to 100.
- Processing was updated to prevent an abnormal termination (S0C7) when the input is exception records only and the NO SORT option is specified.
- The 791 records were truncated to a length of 380 bytes. The length was changed to the full 460 bytes.

CIMSCMF2
- Supports the new format of the 791 records along with the new stop date/time in the common header.
- A new control card has been added to override the default return code of 16 when no input records are processed:
        ON EMPTY INPUT FILE SET RC TO nnnn
            Where nnnn = a numeric value

CIMSDTLD
- Allows for blank lines in the CIMSCNTL member.

CIMSEXTR
- A new control card has been added to limit the number of DCTN004W warning messages:
        LIMIT DCTN004W MSG nnnn
            Where nnnn = a numeric value
- A new control card has been added to override the default return code of 16 when no input records are processed:
        ON EMPTY INPUT FILE SET RC TO nnnn
            Where nnnn = a numeric value
- A new control card has been added to control the validation of data:
        DATA VALIDATION X'nn' X'nn'
- For CIMS record type 999, the RecordID is set to S390R999.
- Support for BoxID processing was added where a BoxID definition may contain only one resource definition.
- The Extract report was changed to report only primary counters. Internal control counters have been removed but can still be included by using a 'TEST R' control statement.
- The conversion of the CIMS record types 79x from version 00 to version 01 was updated to prevent an abnormal termination (S0C7).
- An update was made to suppress the Start-Date identifier from appearing twice in the CSR record (CIMSOUT DD) for CIMS record type 999 records when the input contained both CIMS record type 791 and CIMS record type 999 records.
- Default Stop time values have been changed to be 23:59:59 instead of 24:00:00.
- A time validation check was added to ensure that the Start and Stop times are between 00:00:00 and 24:00:00. If a value is outside this range it will be changed to 23:59:59.

CIMSIMS1
- New processing was added to determine LTERM/LUNAME name for transactions.

CIMSIMS2
- New processing was added to support API-C (explicit APPC) IMS transactions.

CIMSUN01
- No output was being produced when processing IDMS 12.0 or 14.0 log records.

Report Library (Reptlib):

.

AAIXJCL, AHPUXJCL, APCCLJCL, APCRTJCL, APCSMJCL, ARUNJCLH, ARUNJCL1, ASUNJCL, SAM01JCL
- Changed comments in JCL to prevent exceptions during CIMSINIT install processing.

AALEGEND
- Updated Comments.

ARUNJCL4
- Added DD statements CIMSDTVS and CIMSACT2 to the JSTEP010 step.

ATMONJCL, ATMO2JCL
- Added DD statements CIMSDTVS and CIMSACT2 to the JSTEP040 step.

CIMRC006
- Added fixed formatted ESS section.

CIMRC030
- Updated Comments.

CIMSZLM3
- Added support for TMON 2.2.

SMFRC116
- This is a new member that contains the record layout for the SMF 116 record.

SMFRC222
- This is a new member that contains the record layout for the Control-D SMF record.

SPWRP001, SPWRP005, SPWRP006, SPWRP007, SPWRP095, SPWRP900, SPWRP901, SPWRP907, SPWTR792
- CIMRC792-CPU-INIT has been changed to be the sum of ITCB+ISRB. It cannot be used as the total CPU value. The following reports were updated to calculate the total CPU value and changed to mixed case.

SPWRP940
- This is a new member that contains a report that processes MQSeries SMF 116 records and produces CIMS 791 records.

SPWRP941
- This is a new member that contains a report that processes Control-T 5.1 tape records and produces CIMS 791 records.

SPWRP942
- This is a new member that contains a report that processes Control-D records and produces CIMS 791 records.

SPWRP943
- This is a new member that contains a report that processes Control-T 6.0 tape records and produces CIMS 791 records.

SPWRPCN0
- This is a new member added to find header customizations during the VSAM Dictionary upgrade process.

SPWRPCN1
- Removed WARNING message for field NAME.
- Bypass entries reported in SPWRPCN0.

SPWTR735
- Updated file access count calculation.

SPWTR736
- Updated file access count calculation.

SPWTR737
- Updated file access count calculation.

SPWTR760
- CIMS now uses the CIMSRMM-RVMEDREC field to determine the type of media.

SPWTR815
- Changed compute for: CIMRC791-CIMSOFR-OFFSET-RSRC to 214
- Changed compute for CIMRC791-CIMSOFR-OFFSET-IDNT to 304
- Removed field CIMRC791-CIMSRCDN-RECORD-NUMBER
- Fixed lengths for fields CIMRC791-UNIVUSFD-USER-FIELD and CIMRC791-UNIVFLLR
- Changed B-SECS to BINARY
- Changed compute for CIMRC791-RDW to 464

SWALIAS
- Defined SMFRC116-RECORD as an alias for SMFRC116.

Control Library (Datafile):

ACCTINPC, ACCTINPT, ACCTINP3, ACCTINP4, ACCTINP5
- Updated Comments.

ACCTINPT, CMF2INPT, DATACIN1, DATACIN2, DB2INPT, DCTNCICS, DCTNDASD, DCTNDB2, DCTNHDR, DCTNIMS, DCTNRMM, DCTNR792, DCTNR793, DCTNR794, DCTNR999, DCTNTAPE, DCTNTLMS, DCTNTMS, DCTNTSO, DCTNUNIV, DCTNZARA, DISKCNTL, DISKINPT, IDMSCNT2, IDMSCNT4, IDMSCNT6, M204CNT2, RMMINPT, TAPEINPT, TL50INPT, TL54INPT, TMSINPT, UNIVINPT, ZADACNTL, ZARAINPT, ZDCBCNTL, ZDCCCNTL, ZFALCNTL, ZRJECNTL, ZROSCNTL, ZWYLCNTL
- Removed reference of 11.5.

ACNVJCL2, ACNVJCL3, ACNVJCL4, CICSDT02, CICSDT03, CICSDT04, CICSDT10, CICSMERG, CICSVSAM, CIMSADSM, CIMSDTC, CIMSDTD, CIMSRTLD, CLNTJCL1, SUBCLNT2, SUBRATE2
- Updated JCL, added FILE (VSAMC1) and deleted the VOL (???????) for IDCAMS processing.

ATMONJCL, ATMO2JCL
- Added DD statements CIMSDTVS and CIMSACT2 to the JSTEP040 step.

ATMONJCL, ATMO2JCL, CIMSADA1, CIMSCICS, CIMSDB2, CIMSDISK, CIMSEOM, CIMSFALC, CIMSJOB2, CIMSJB2A, CIMSJB2B, CIMSRJE, CIMSRMM, CIMSROSC, CIMSTAPE, CIMSTL50, CIMSTL54, CIMSTMS, CIMSUNIV, CIMSWYLB, CIMSZARA, IDMSJCL1, IDMSJCL2, IDMSJCL3, M204JCL1, SUBAS401, SUBAS402, SUBCICS2, SUBDATC1, SUBDATC2

- These members were updated to change the DCB information because Computer Associates' JCLCHECK does not recognize a DCB wrapped in ().

BUDJCL1, CIMSDTLD, CIMSDUTL, CIMSEXTR, CIMSJOB3

- Changed VERIFY DATASET to VERIFY FILE

CIMSCMPL

- Added the NODYNAM compile option and deleted the NONRESIDENT compile option.

CIMSDB2

- DB2RECS DCB error, RECFM=FB

CIMSDUTL

- Missing sequence number, RENUM

CIMSIMS

- Added a summarization step to the end of the job.

CIMSJOB1

- Removed un-needed VOL parameter.

CIMSJOB1, CIMSJOB2, CIMSGDG

- Shortened SUSPENSE file name.

CIMSJOB2, CIMSJOB4, CIMSLEVL, CIMSMERG, CIMSMULT, CIMSRSCA, CIMSRSCB, SMFMERGE, CIMSADSM, CIMSIMS, CIMSJOB1, CIMSJOB3, CIMSVTOC, CONVERTB

- These members were updated to prevent exception conditions when executing CIMSINIT during the install process. Comment lines in the JCLs contained DSN references that caused a line overflow during processing.

CIMSLOAD

- Changed reference from 11.5 to 11.6.

CIMRCT54, CIMRECTL

- These are new members that contain the CA-DYNAM/TLMS record layouts.

CIMSDUTL

- Added a new step to find header customizations.

DCTNCTLD

- This is a new member that contains the Control-D record definition.

DCTNCTLT

- This is a new member that contains the Control-T record definition.

DCTNMQSR

- This is a new member that contains the MQSeries record definition.

FILELIST
- Removed LINKJCL members from list.

SUBCICS
- Added DD statements CIMSDTVS and CIMSACT2 to the JSTEP020 step.