



VisualAge Pacbase



Help to upgrade VisualAge Pacbase 2.0 and DSMS 2.0 to 2.5 version

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To take advantage of the enhancements carried out or to insure the compatibility of the produced applications and the administration procedures developed by the users, once the database retrieved in 2.5 release, users eventually have to modify their programs and their tools, before giving the repository back to the developers.

This document is a complement of the document 'Help to upgrade Pacbase 1.6 and DSMS 1.5 to 2.0 release'. And the purpose of this document is to give the changes lists since the 2.0 release of VisualAge Pacbase and DSMS and to show the impacts :

Regarding Pacbase :

- the generated cobol, coming from the different generators (On-line, batch, DATA, SQL, DBD, CSSD),
- the dictionary, PAFprograms, batch procedures, the documentation.

Regarding DSMS :

- general modifications, batch procedures,
- tables
- queries and layouts.

Each change is stamped as follow :

- | | |
|--------------|--|
| - Evolution | no ascending compatibility problem |
| - Correction | no ascending compatibility problem |
| - Impact | problem of processing compatibility could possibly be faced, or administration problem |

Preambles

RETRIEVAL OF VISUALAGE PACBASE 2.0

For VisualAge Pacbase 2.0 sites which want to simplify the upgrade to 2.5 version, it is possible to install the 2.5 version in their 2.0 environment. This installation consists of a standard re-installation with some complementary operations (see below). It allows to avoid the exhaustive installation of all the product components as well as the retrieval of Pacbase 2.0 databases.

IBM MVS/CICS Simplified Installation

There is only one retrieval process to be performed: on the generation-print command file. This file must be backed up by the SVAG 2.0 procedure.

The following steps must be performed:

- . Deparameterization of the JCL, according to the installation parameters of the existing release.
- . CICS CSD update:
 - All maps can be deleted from tables.
 - The xxR980 program must be defined.
- . Parameter loading:
 - D02CPAR: new members DFSYIANA and DLSYIANA.
 - D02DICVG and D02DICMT: for Dictionary update.
- . Load-module loading:
 - D04MBR - Batch programs.
 - D04MTR - On-line programs.
 - D04VS - Cobol VS programs (if necessary).
- . Batch procedure cataloging:
 - Two new procedures: IGRA and RPPG.
 - Three procedures have been modified: REOR, IANA, and VUP1.(Refer to Subchapter 'JCL differences'.)
- . Generation skeleton loading: D06SKEL
- . Error message loading: D07AE0, followed by D07PARM (NRCHAR command).
- . Database parameter loading: I02SY
Integration of member DFxxyyVP.
- . Retrieval of generation-print commands (RPPG) producing a PG file in the new release format.
- . Restoration of generation-print commands from the previous backup (REAG procedure of the new release).
- . For users of the WorkStation:
 - UPDT - Update of the methodology's entities.
 - PARM - Update of the methodology's choices.
- . For users of the VA Pac/VA Smalltalk Interface:
 - I11VGE - Update of user entities.
- . For users of the VA Pac/TeamConnection Interface:
 - I41TEAM - Update of user entities.

JCL DIFFERENCES IN VISUALAGE PACBASE

IBM MVS/CICS Platform

List of procedures modified for 2.5 release

REOR :

Addition of step PTU2CL

```
I - //PTU200 EXEC PGM=PTU200,COND=(0,NE,PTU2CL)
D - //PTU200 EXEC PGM=PTU200
I - //PAC7MB DD DSN=&&REORBM,DISP=(OLD,PASS)
D - //PAC7MB DD DSN=&&REORMB,DISP=(OLD,PASS)

I - //SORTQS EXEC PGM=SORT,COND=(0,NE,PTU2CL),(0,NE,PTU200)
D - //SORTQS EXEC PGM=SORT,COND=(0,NE,PTU200)

I - //PTU208 EXEC PGM=PTU208,
I - //      COND=((0,NE,PTU2CL),(0,NE,PTU200),(0,NE,SORTQS))
D - //PTU208 EXEC PGM=PTU208,COND=((0,NE,PTU200),(0,NE,SORTQ
I - //PAC7MB DD DSN=&&REORBM,DISP=(OLD,PASS)
D - //PAC7MB DD DSN=&&REORMB,DISP=(OLD,PASS)

I - //PTU210 EXEC PGM=PTU210,
I - //      COND=((0,NE,PTU2CL),(0,NE,PTU200),(0,NE,SORTQS))
D - //PTU210 EXEC PGM=PTU210,COND=((0,NE,PTU200),(0,NE,SORTQ
I - //PAC7MB DD DSN=&&REORBM,DISP=(OLD,PASS)
D - //PAC7MB DD DSN=&&REORMB,DISP=(OLD,PASS)

step PTU220
I - // COND=((0,NE,PTU2CL),(0,NE,PTU200),(0,NE,SORTQS),
      (0,NE,PTU210))
D - // COND=((0,NE,PTU200),(0,NE,SORTQS),(0,NE,PTU210))

step SORTAN
I - // COND=((0,NE,PTU2CL),(0,NE,PTU200),(0,NE,SORTQS),
      (0,NE,PTU210))
D - // COND=((0,NE,PTU200),(0,NE,SORTQS),(0,NE,PTU210))

I - //PTU240 EXEC PGM=PTU240,COND=((0,NE,PTU2CL),(0,NE,PTU20
I - //      (0,NE,SORTQS),(0,NE,PTU210),(0,NE,SORTAN))
D - //PTU240 EXEC PGM=PTU240,COND=((0,NE,PTU200),
D - //      (0,NE,SORTQS),(0,NE,PTU210),(0,NE,SORTAN))
I - //PAC7MB DD DSN=&&REORBM,DISP=(OLD,DELETE)
D - //PAC7MB DD DSN=&&REORMB,DISP=(OLD,DELETE)
```

IANA :

For sites where SMS is not installed, the FQ file is no longer a temporary file.

VDWN, VPUR, VUP1, and VUP2:

Use of BLSR for optimization.
Addition of a VERIFY on the database files.
The VC file is replaced by the VP file.

Liste of new procedures

```

+-----+
! Proc.! Comments                               ! Rel.!
+-----+-----+-----+-----+-----+
! GET0 ! Compatibility with Pactables 1.2 ! 2.0 !
! GET1 ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
! GET2 ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
+-----+-----+-----+-----+-----+
! IANA ! Module Pac/Impact for VA Pac ! 2.0 !
! IGRA ! '' '' '' '' '' '' '' '' '' '' ! 2.5 !
! INFP ! '' '' '' '' '' '' '' '' '' '' ! 2.0 !
! INFQ ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
! IPEP ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
! IPFQ ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
! IPIA ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
! ISEP ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
! ISOS ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
+-----+-----+-----+-----+-----+
! PACX ! Deep extractors ! 2.0 !
+-----+-----+-----+-----+-----+
! PJ16 ! Retrieval of 1.6 Journal ! 2.0 !
! PP16 ! Retrieval of 1.6 PEI files ! ' ' !
! RPPG ! Retrieval of 2.0 PG file ! 2.5 !
+-----+-----+-----+-----+-----+
! PRGS ! Printout of master-path file ! 2.0 !
+-----+-----+-----+-----+-----+
! TCCI ! VA Pac-TeamConnection Bridge ! 2.0 !
! TCGP ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
! TCLS ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
! TCME ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
+-----+-----+-----+-----+-----+
! TRDU ! Pac/Transfer ! 2.0 !
! TRJC ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
! TRPF ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
! TRRP ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
! TRRT ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
! TRUP ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
+-----+-----+-----+-----+-----+
! UXSR ! Sub-network extraction ! 2.0 !
+-----+-----+-----+-----+-----+
! VDWN ! VA Pac-VA Smalltalk Bridge ! 2.0 !
! VPUR ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
! VUP1 ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
! VUP2 ! '' '' '' '' '' '' '' '' '' '' ! ' ' !
+-----+-----+-----+-----+-----+

```

List of procedures deleted since 2.0 release

```

+-----+-----+-----+
! Proc.! Program(s)      ! Comments      !
+-----+-----+-----+
! EXLI ! PTU800          ! Replaced with procedure PACX !
+-----+-----+-----+
! EXTR ! PACS10         !      "      "      !
+-----+-----+-----+
! EXPJ ! PTU600 PTU610 !      "      "      !
+-----+-----+-----+
! EXPU ! PTU880 PTU885 !      "      "      !
+-----+-----+-----+
! RMEN ! PTU860 PTU865 !      "      "      !
! "   ! PTU866         !      "      "      !
+-----+-----+-----+
! EXUE ! PTUUSE         !      "      "      !
+-----+-----+-----+
! EXSN ! PTU840         !      "      "      !
+-----+-----+-----+
! UPAE ! PTUMAE         ! Integrated in procedure PARM !
+-----+-----+-----+
! CSEP !                ! Integrated in procedure CSES !
+-----+-----+-----+
! TRDQ ! PTUDQ2         ! Not maintained              !
+-----+-----+-----+
! ECSP ! PTUCSP         ! Not maintained              !
+-----+-----+-----+
! DCOB ! PTUCR1 PTUCR2 ! Not maintained              !
! "   ! PTUD10 PTUD20 !                               !
! "   ! PTUD30         !                               !
+-----+-----+-----+
! Retrieval procedures (If necessary,contact Va PAC Support)!
! RP6A ! PTU930         ! Retrieval PAC700           !
! RP6B !                !      "      "              !
! EX62 ! PTU830         !      "      "              !
! PC73 ! PTURPC         ! Retrieval 7.3              !
! PE73 ! PTU902         !      "      "              !
! PJ73 ! PTU916         !      "      "              !
! PP73 ! PACR02         !      "      "              !
! PC80 ! REPGDP         ! Retrieval 8.0              !
! PE80 !                !      "      "              !
! PJ80 ! PTU917         !      "      "              !
! PCYS ! REPYSM         ! Retrieval YSM methodology  !
! PJYS ! REJYSM         !      "      "              !
! RTYS ! REPAFL         !      "      "              !
! TRUV ! PTU890         ! Retrieval U manuals into V manuals !
+-----+-----+-----+

```


VisualAge Pacbase 2.5

Installation and Procedures

- Impact* **IBM MVS/CICS JCL modifications (C 16119).**
- Installation :
 - CICS: 3 parameters are required to define different 'GROUPs' for files, transactions and programs.
 - Maps no longer exist.
 - Procedures: the 'VERIFY' of the AE file have been suppressed when they were not required.
 - PARM: AE and AP files with exclusive access (DISP=OLD)
 - REOR: controls are grouped in a new program (PTU2CL). The procedure has been modified consequently.
- Impact* **Modification of the 2.5 JCL - IANA temporary file (C 16699 for MVS/CICS and IMS).**
- In the IANA procedure, the KSDS FQ file is not temporary anymore.
A new member of the SY library is created to execute the delete/define in the file.

Connection

- Impact* **Check of number of users connected (C 15987).**
- The number of users connected to VisualAge Pacbase is now checked; if the maximum is reached, the connection of a new user is denied and the following message is displayed: 'CONNECTION DENIED: MAXIMUM NBR OF USERS IS REACHED'.
The same check is performed when creating a new user via the PARM transaction. This creation is rejected if the maximum number of users specified in the key has been reached.

Batch System Development

- Impact* **Reminder : The Cobol formatting option is no longer maintained in the 8.02 release and higher (C 5032).**
- This option is set on the Library Definition screen and/or on the screen "Dialog Complement".
The use of this option with VisualAge Pacbase releases higher than 801 may cause inconsistencies in the generated COBOL sources.
Therefore, it is strongly recommended to remove this option if still in use.
- Evolution* **Insertion of comments in the generated parts (C 14067).**
- Addition of a new value in order to ignore comments in the structured code lines, at the generation.
On the Library Definition screen, the 'Comments Insertion Option' field can have the 'S' value.
In this case, comments inserted by the user with the '*' operator do not appear in the generated sources.
Furthermore, this operator is ignored, which means that if the continuing lines do not contain any operator, they are considered as being a continuation of the last operator met.
- Evolution* **Personalized SQL accesses: No lower/uppercase conversion of values between delimiters (C 16415).**
- If option UPPER=NO in Segment's '-G' screen, values entered between two literal delimiters will not be converted (this delimiter is defined at the Library level).

Client/Server System Development

- Impact* **Reminder : The Cobol formatting option is no longer maintained in the 8.02 release and higher (C 5032).**
- This option is set on the Library Definition screen and/or on the screen "Dialog Complement".
The use of this option with VisualAge Pacbase releases higher than 801 may cause inconsistencies in the generated COBOL sources.
Therefore, it is strongly recommended to remove this option if still in use.

- Evolution* **Insertion of comments in the generated parts (C 14067).**
 Addition of a new value in order to ignore comments in the structured code lines, at the generation.
 On the Library Definition screen, the 'Comments Insertion Option' field can have the 'S' value.
 In this case, comments inserted by the user with the '*' operator do not appear in the generated sources.
 Furthermore, this operator is ignored, which means that if the continuing lines do not contain any operator, they are considered as being a continuation of the last operator met.
- Evolution* **Proxy Folder generation: Names of Logical View, User Buffer, and of their Data Elements have been added (C 15741).**
- Impact* **Unification of Logical View Proxy and Folder View Proxy (C 15970).**
 A FVP (instead of a LVP) can be generated from an elementary Business Component.
 - The GVC command on an elementary Business Component will generate a Proxy whose structure conforms to the Folder mode if this Business Component contains one LOCATION Option at least.
 - The Service Manager will be generated via the GGS command on an elementary Business Component (if this Component contains one LOCATION option at least). This program's external name is indicated in the 'Complement' field of the Definition. The Logical View called in this Component's Call of Segments (-CS) will then be the root node of this Folder.
 This command will then generate two Cobol sources. The generation of one or the other can be inhibited by indicating '\$\$' in one of the 'CIF/CIB' (Card in Front/Back of the Program) field.
- Impact* **Unification of Tuxedo Business Components (C 16069).**
 Note: for more details, see the specifications Unification of Tuxedo Business Components for the C/S Facility TUXSERV.DOC of 8/12/97).
 This specification will be conditioned by the new Tuxedo 'RC' variant.
 For the communication monitors (type 'MV'), the setting of parameters in TPCALL will use 'CARRAY' instead of 'VIEW'.
 For servers, there will no longer be TPSVCSTART neither TPRETURN for the servers will be called by CALL in a 'Function' program.
 This 'Function' program will perform the TPSVCSTART before the call of the servers and the TPRETURN after the call.
- Evolution* **Personalized SQL accesses: No lower/upercase conversion of values between delimiters (C 16415).**
 If option UPPER=NO in Segment's '-G' screen, values entered between two literal delimiters will not be converted (this delimiter is defined at the Library level).
- Evolution* **Proxy generation: QUOTE1/QUOTE2 values replaced by a simple/double quote (C 16729).**
 The QUOTE1/QUOTE2 values which can be defined for a Data Element are replaced at generation time by the corresponding characters (simple or double Quote).

On-Line System Development

- Impact* **Reminder : The Cobol formatting option is no longer maintained in the 8.02 release and higher (C 5032).**
 This option is set on the Library Definition screen and/or on the screen "Dialog Complement".
 The use of this option with VisualAge Pacbase releases higher than 801 may cause inconsistencies in the generated COBOL sources.
 Therefore, it is strongly recommended to remove this option if still in use.
- Evolution* **Insertion of comments in the generated parts (C 14067).**
 Addition of a new value in order to ignore comments in the structured code lines, at the generation.
 On the Library Definition screen, the 'Comments Insertion Option' field can have the 'S' value.
 In this case, comments inserted by the user with the '*' operator do not appear in the generated sources.
 Furthermore, this operator is ignored, which means that if the continuing lines do not contain any operator, they are considered as being a continuation of the last operator met.
- Evolution* **WEB message: adaptation of the IMS variant to the reception of WEB messages (C 15656).**
- Evolution* **Personalized SQL accesses: No lower/upercase conversion of values between delimiters (C 16415).**
 If option UPPER=NO in Segment's '-G' screen, values entered between two literal delimiters will not be converted (this delimiter is defined at the Library level).

Metamodel

- Evolution** **Properties can be changes into data elements and vice-versa if the format is present (C 3618).**
It is now possible to change a property into a data element and a data element as a property.
If the property is used in the meta-dictionary or if the data element is used in the dictionary, a message is displayed. It is necessary to validate again to make the update.

Pacbase Access Facility

- Evolution** **Now, several line codes '*' are possible in PAF user extractors (C 15047).**

Personalized Documentation Manager

- Evolution** **Creation of the print options in order to be able to print the format of Data Elements of a segment or a screen (C 11619).**

Printing the format of Data Elements O.....CE:
OR yes
-OR (*) no
Printing the format of Data Elements S....CE:
ST printing the internal format of the Data Element
-ST (*) printing without internal format
SU printing the input format of the Data Element
-SU (*) printing without input format
SV printing the print format of the Data Element
-SV (*) printing without print format.

- Impact** **New choices possible for PDM: LNOtt LTVt (C 12967).**
- LNOtt List of screens by tt type,
- LTVt List of reports by t type.
To obtain these choices, the REOR procedure must be executed during upgrade to 2.5.

- Evolution** **Parameterizing the VA Pac documentation frame (C 15049).**
On the Library Definition screen, addition of an option allowing the modification of the characters used to build the frame of the documentation provided by the system.
The user can enter any character for horizontal separators.

Batch Procedures

- Evolution** **Journalize LOGON/LOGOFF by user/lterm/time (C 1035).**
The connections to and disconnections from VisualAge Pacbase are now stored in the journal. The transaction includes the terminal code in addition to the user code and the time.
A connection transaction is created with each connection via the VisualAge Pacbase sign on screen.
A disconnection transaction is created at input of the 'FT' operation code, or using PF6 or PF12 function keys ("SignOff" and "Conversation Exit With Save" in standard).
On the 'JO' screen, these transactions can be identified by their line code: 'LN' for connections, 'LF' for disconnections.

- Evolution** **PACX (EXTR) : it is now possible to extract thesaurus keywords by using the K..... Choice (C 15058).**

- Evolution** **REOR : Purge of generic entities (C 15077).**
It is now possible to purge all the occurrences of an entity type in a library and its dependent libraries.
The user only has to enter '*****' in the entity code on 'E'-type user input.
The purged entities are printed in a report.

- Impact* **REOR : group the checks on input in the first program (C 15084).**
 To avoid a very long execution time before input is checked, the checks on input are grouped in the first program of the sequence.
 To get this specification, the REOR procedure must be modified or re-install it from the 2.5.
- Impact* **The return code is set to 4 in the archives if the journal date or the session are wrong (C 15853).**
- Evolution* **PAC7EP-EXPJ report : the length of the selected records counter changes from 5 to 7 (C 16662).**

Relational DBD

- Evolution* **Personalized SQL accesses: No lower/uppercase conversion of values between delimiters (C 16415).**
 If option UPPER=NO in Segment's '-G' screen, values entered between two literal delimiters will not be converted (this delimiter is defined at the Library level).
- Evolution* **Parameters of Commands in front / in back: the values of these parameters have been harmonized between generators (C 16214).**
 - X = User code; it is taken into account in the Batch Program generation stream.
 - Numeric parameters (1 to 5); in SQL stream, retrieval of the values entered on the Stream command (FLS and GSQ).

Pac/Impact

- Evolution* **IGRA: new analysis procedure for group fields defined as input points (C 15201).**
 A new procedure analyses all the group fields defined as input points or impact search criteria, and restores in a new IPIA procedure report, the elementary fields for each of these group fields (an elementary field can be a group field).
 This new procedure, taking the criteria as input (FH and FR files), applies to the issue of any IANA iteration.
 If the FH file contains elementary fields as input they will not be processed. Therefore it is necessary to inhibit them on the TR file.
 The restoration of this information in IPIA is done when "1" is in column 24 of the P-type request.
 The processed field groups are outputted:
 . the segment's -CE,
 . the MSP's -W, from the screen or the program.
- Impact* **Internal formats of more than 10 characters are taken into account when declared in -W (C 15839).**
 To widen the impact analysis to money amounts, whose formats are larger than date formats, the storage of the processed format can be more than 10 characters.
 Actually, if on the element definition, the format is automatically limited to 10 characters for internal and input formats, that is not the case for the fields that have been directly defined in a Program or Screen -W .
 Note:
 Any analysis started with a previous version must be completed before the change of version. The FQ file is no more compatible as regards the formatting of a criterion key that comes from -W.
 The location of the internal format storage is also modified in the FO file.
- Correction* **IANA/IPIA: 2 entry points with the same code defined in the -CE lines of a Report and a Segment stay distinct (C 15883).**
 If ISEP procedure splits two entry points, one defined in the -CE line of a Report, the other one in the -CE line of a Segment, the IANA procedure gathered each usage of these two entry points under the same entry point (in this case, under the -CE line of a Report).
 The usage of each of these two entry points are now linked to the right entry point.

Pac/Transfer

- Evolution* **Compressing transactions : the TRJC procedure ignores archived 'Logon'/'Logoff' transactions (C 15789).**

Documentation

- Evolution* **Edition of PAF columns related to a methodology and association between method. choice and Pacbase (C 15263).**
Edition of methodology entities with PCM command of the GPRT procedure; the methodology code being in the entity.

CD-ROM Documentation

- Impact* **VisualAge Pacbase 2.5 Documentation on CD-ROM (C 16709).**
The VisualAge Pacbase 2.5 documentation is available on CD-ROM, in both English and French versions. Its PDF format (Portable Document Format) requires Adobe Acrobat Reader, included in the CD-ROM.

Miscellaneous

- Evolution* **Length of a Generation-Print command (C 11775).**
Up to 5 lines are now allowed in a GPRT command: the actual command line and four continuation lines (valid in both batch and on-line modes).
In batch mode, if more than 4 continuation lines are entered a WARNING message is printed: TOO MANY CONTINUATION LINES. In on-line mode, input of more than 4 lines is not possible.
- Please note that GPRT commands files need be submitted to a retrieval procedure.
- Evolution* **New X-Refs for Data Structures and Segments on macro-structures calls (C 14129).**
Identically to Data Elements, for which the X-Ref is /E=corub/ in macro-structures call lines, Data Structures' and Segments' X-Refs now appear as /D=--/ and /S=----/, respectively.

DSMS 2.5

Site

Evolution **New comments screen for sites (C 15546).**

A new "COMMENTS" screen for sites can now be accessed via the choice S * ... G ____ (or S -G).

It is a full-page input screen with a line number on 3 characters and a text line on 60 characters (this is repeated 18 times).

In automatic screen branching, it is displayed between the -U (supplier contacts) screen and the definition screen.

There are neither controls nor cross-references (except on the site's code) on this screen.

These lines can be extracted via queries (they are present on the reports of sites and events) and via DAF (new SITCOM table).

DSMS Access Facility

Evolution **DSMS update facility batch version (C 13591).**

Creation of a new DSMS procedure: DUPD DSMS update facility batch version.

This updates the DSMS Database from the DAF extractions.

Miscellaneous

Evolution **It is now possible to copy the DSMS control cards from a source user to a target user (C 11060).**

The content of the LJQ screen can be copied from a user to an other one.