

PRODUCT CREATE Die Entstehung eines Softwarekits

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PCSI?

- POLYCENTER Software Installation Utility
- ab OpenVMS 6.1
- Ersatz für `SYS$UPDATE:VMSINSTAL.COM`
- Unterschiede zu `VMSINSTAL`
 - Datenbank der installierten Objekte
 - Entfernen von Produkten möglich
 - ausführliche Historie
 - Entfernen von Patches möglich (ab OpenVMS 7.3-2)
 - Secure Delivery (ab OpenVMS 8.3)
- DCL-Kommando `PRODUCT`

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PRODUCT CREATE

Dateinamen von PCSI-Kits

producer-base-product-version-kittype

producer

z.B. DEC, CPQ, HP, inoffiziell: GNU

base

VAXVMS, AXPVMS, I64VMS, VMS

product

Name des Produkts, z.B. HTDIG

version

<typ><major><minor>-[<update-level><edit-level>], z.B. V0301-6R2

kittype

Zahl 1..7, u.a.

1: vollständiges Produkt

3: partielles Produkt (Upgrade)

4: Patch

PCSI-Dateitypen

.PCSI	sequentielles Kit
.PCSI\$COMPRESSED	komprimiertes sequentielles Kit
.*_ESW	Digitale Signatur (Manifest)
.PCSI\$CONFIGURATION	Product Configuration File (PCF)
.PCSI\$DATABASE	Product Database (PDB)
.PCSI\$DESC	Input Product Description File (PDF) (ab OpenVMS 7.1-2)
.PCSI\$DESCRIPTION	Output PDF (& Input PDF bis OpenVMS 7.1)
.PCSI\$TEXT	Product Text File (PTF)
.PCSI\$TLB	Text-Library mit PTF

Das Kommando *PRODUCT*

```
$ PRODUCT subcommand product /qualifiers
```

□ Auswahl von Kits

```
/PRODUCER=producer
/BASE_SYSTEM=base
/VERSION=version
/SPAN_VERSIONS=(...)
/KIT_ATTRIBUTES=(...)
```

□ Allgemeine Optionen

```
/SOURCE=device: [directory]
/DESTINATION=device: [directory]
/LOG
/OPTIONS=NOCONFIRM
```

Die *PRODUCT*-Subkommandos

INSTALL

REMOVE

RECONFIGURE

(ab OpenVMS 7.3-2)

UNDO PATCH

SHOW RECOVERY_DATA

DELETE RECOVERY_DATA

CONFIGURE

REGISTER PRODUCT

REGISTER VOLUME

FIND

LIST

SHOW PRODUCT

SHOW HISTORY

SHOW OBJECT

SHOW UTILITY

EXTRACT RELEASE_NOTES

EXTRACT FILE

COPY

ANALYZE PDB (ab OpenVMS 8.3)

EXTRACT PDF

EXTRACT PTF

PACKAGE

Erstellen eines PCSI-Kits

- Material (d.h. in den Kit aufzunehmende Dateien) sammeln
- PDF und optional PTF und "Installation Verification Procedure" (IVP) schreiben
- Kit erzeugen:

```
PRODUCT PACKAGE product [,...] -
  /FORMAT=SEQUENTIAL -
  /SOURCE=file_specification - ! Ort/Name von PDF/PTF
  /DESTINATION=device:[directory] -
  /MATERIAL=(path_name[,...]) -
  [/qualifiers]
```

- optional: Kit-Datei packen (ab OpenVMS V7.3-2)

```
PRODUCT COPY product -
  /FORMAT=COMPRESSED -
  /DESTINATION=device:[directory] -
  [/qualifiers]
```

- optional: Manifest erzeugen

```
@CDSA_SYSDIR:[SIGN]CDSA$SD_SIGN.COM
```

- PRODUCT INSTALL und REMOVE und IVP testen
- optional: ZIP-Archiv aus Kit-Datei und Manifest erzeugen

Product Description File (PDF)

- Beschreibungsdatei für die Installation
 - Welche Dateien? Generation? Woher? Wohin?
 - Soft- und Hardware-Voraussetzungen?
 - Abhängigkeiten von anderen Produkten?
 - Installation von optionale Sub-Paketen?
 - Pre- und Post-Installations-Aufgaben
- Product Description Language (PDL)

Product Text File (PTF)

- Ausgabertexte für die Installation
- Ähnlich aufgebaut wie eine Help-Library

```
=PRODUCT producer base product version kittype
1 ptf_module_name
=PROMPT prompt_text
help_text
```

- Spezielle Modulnamen:

```
'LICENSE
'NOTICE
'PRODUCER
'PRODUCT
```

PDL: Beispiel

```
product GNU AXPVMS HTDIG V3.1-6R2 full ;

if (not <software DEC AXPVMS VMS version minimum V7.2>) ;
  error NOVMS abort;
end if ;

information STARTUP_TASK phase after with helptext;
information POST_INSTALL phase after with helptext;

directory [HTDIG] ;

file [HTDIG]HTDIG_PCSI.COM generation 03010602 protection private
  source [000000]HTDIG_PCSI.COM ;
execute
  install "@PCSI$DESTINATION:[HTDIG]HTDIG_PCSI.COM INSTALL"
  remove "@PCSI$DESTINATION:[HTDIG]HTDIG_PCSI.COM REMOVE" ;
file [HTDIG]HTDIG_IVP.COM generation 03010602 protection private
  source [000000]HTDIG_IVP.COM ;
execute
  test "@SYS$TEST:HTDIG_IVP.COM" ;
file [HTDIG]HTDIG0301-6R2.RELEASE_NOTES generation 03010602 release notes
  source [000000]HTDIG0301-6R2.RELEASE_NOTES ;

...

directory [HTDIG.DB] ;
directory [HTDIG.TEMP] ;

end product ;
```

PTF: Beispiel

```

=product GNU AXPVMS HTDIG V3.1-6R2 full
1 'NOTICE
=prompt Copyright (c) 1995-2002 The ht://Dig Group
This product is licensed under the GNU General Public License V2,
which is included in this kit as GNU_GENERAL_PUBLIC_LICENSE.TXT.
1 'PRODUCT
=prompt ht://Dig for OpenVMS
ht://Dig is a system for indexing and searching a finite (not necessarily
small) set of sites or intranet. It is not meant to replace any of the many
internet-wide search engines.
1 NOVMS
=prompt Minimum OpenVMS software not found on system, abort installation
This kit requires a minimum OpenVMS version of V7.2.
1 STARTUP_TASK
=prompt Run HTDIG_STARTUP.COM.
Execute SYS$STARTUP:HTDIG_STARTUP.COM to set up ht://Dig for use,
and add a call to that procedure to your system startup procedures
to automatically start ht://Dig on each reboot.
...

```



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PDL: Die wichtigsten Befehle 1

```

PRODUCT producer base name version kittype ;
  [ pdl_statements ]
END PRODUCT ;

EXECUTE
  INSTALL (command, ...)
  REMOVE (command, ...)
  [ INTERACTIVE ]
  [ USES (file, ...) ] ;

EXECUTE
  TEST (command, ...)
  [ INTERACTIVE ] ;

```

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PDL: Die wichtigsten Befehle 2

```

FILE name
  [ [NO] ACCESS CONTROL (ace,...) ] -- Default: no ACL
  [ [NO] ARCHIVE ]
  [ ASSEMBLE EXECUTE (command,...) [ ASSEMBLE USES (file,...) ] ] -- deprecated
  [ [NO] GENERATION generation ] -- Default: NO GENERATION (i.e. 0)
  [ IMAGE LIBRARY ]
  [ OWNER owner ] -- Default: SYSTEM
  [ PROTECTION { EXECUTE | PRIVATE | PUBLIC } ] -- Default: PUBLIC
  [ RELEASE MERGE ]
  [ RELEASE NOTES ]
  [ SIZE size ] -- Do not specify in your PDF!
  [ SOURCE source ]
  [ [NO] WRITE ] ;

MODULE file
  TYPE { COMMAND | HELP | MACRO | OBJECT | TEXT }
  MODULE (module_name{,...})
  [ [NO] GENERATION generation ]
  [ [NO] GLOBALS ]
  [ LIBRARY library ] -- Default by TYPE
  [ [NO] SELECTIVE SEARCH ] ;

```

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PDL: Die wichtigsten Befehle 3

```

OPTION ptf_module_name [ DEFAULT value ] [ WITH HELPTTEXT ] ;
  [ pdl_statements ]
END OPTION ;

SOFTWARE producer base name
  [ [NO] COMPONENT ]
  [ { VERSION ABOVE version |
  VERSION BELOW version |
  VERSION MAXIMUM version |
  VERSION MINIMUM version |
  VERSION REQUIRED version |
  VERSION ABOVE version VERSION BELOW version |
  VERSION ABOVE version VERSION MAXIMUM version |
  VERSION MINIMUM version VERSION BELOW version |
  VERSION MINIMUM version VERSION MAXIMUM version } ] ;

```

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PDL: Die wichtigsten Befehle 4

```

IF expression ;
    pdl_statements
[ ELSE IF expression ;
    pdl_statements ... ]
[ ELSE ;
    pdl_statements ]
END IF ;

expression :
    (term) | (term AND term) | (term OR term) | (NOT term)
term :
    expression | function

```

PDL: Funktionen

```

< SOFTWARE producer base name [...] >
< OPTION ptf_module_name [ DEFAULT value ]
    [ WITH HELPTTEXT ] >
< LOGICAL NAME name [ EQUALS value ]
    [ TABLE table_name ] >
< FILESYSTEM { ODS-2 | ODS-5 }
    [ VOLUME { DESTINATION | SYSTEM } ] >
    -- ab OpenVMS 8.3
< HARDWARE DEVICE name >
< HARDWARE PROCESSOR MODEL (model, ...) >

```


Literatur

- ❑ HP OpenVMS System Management Utilities Reference Manual
 - ❑ POLYCENTER Software Installation Utility (PCSI)
- ❑ POLYCENTER Software Installation Utility Developer's Guide
- ❑ HP OpenVMS Version 8.3
New Features and Documentation Overview
 - ❑ 3.10: PCSI Utility Enhancements
- ❑ HP OpenVMS Alpha Version 7.3-2
New Features and Documentation Overview
 - ❑ 4.1: POLYCENTER Software Installation New Features
- ❑ HP Open Source Security for OpenVMS Volume 1:
Common Data Security Architecture
 - ❑ Secure Delivery

Fragen?