



PHARMACY DATA MANAGEMENT

TECHNICAL MANUAL/ SECURITY GUIDE

Version 1.0
September 1997

(Revised October 2004)

Revision History

The table below lists changes made since the initial release of this manual. Use the Change Pages document to update an existing manual or use the entire updated manual.

Note: The Change Pages document may include unedited pages needed for two-sided copying. Only edited pages display the patch number and revision date in the page footer.

Date	Revised Pages	Patch Number	Description
10/04	i, 24a, 25, 29-31, 32d-h, 48, 53	PSS*1*82	Updated the option description to include <i>Send Entire Drug File to External Interface</i> [PSS MASTER FILE ALL] option. Added new master file update information to the “HL7 Messaging with an External System” section. Updated routine list to include PSSMSTR. Updated the web address for the <i>VISTA</i> Documentation Library (VDL).
07/03	i, 25, 31, 48	PSS*1*61	Updated routine list to four new add PKI routines. Added new <i>Controlled Substances/PKI Reports</i> [PSS/PKI REPORTS] menu and four associated report options to the <i>Pharmacy Data Management</i> [PSS MGR] menu.
04/03	i, 5, 8, 29, 35, 48	PSS*1*68	Updated patch references to include PSS*1*68. Added NON-VA MED field (#8) to the PHARMACY ORDERABLE ITEM file (#50.7).
03/03	i., 5, 8, 24a, 29, 31, 35, 48	PSS*1*47	Updated patch references to include PSS*1*47. Added new field OTHER LANGUAGE INSTRUCTIONS (#7.1) to the PHARMACY ORDERABLE ITEM File (#50.7) list and <i>Other Language Translation Setup</i> option description.
11/02	i, ii 5, (6) 23 - 24 25, (26) 29-30 (47), 48	PSS*1*55	Renumbered front matter starting from this Revision History page. Updated Patch number. Updated Option descriptions to include <i>Drug Text File Report</i> option. Added routine PSSDTR in the Routines section. Added the <i>Drug Text File Report</i> option to the current PDM Menu in the Exported Options section.
10/02	Title, i-iv, 32a-32d	PSS*1*57	Updated Title Page, Revision Page and Table of Contents. A section was added for the new HL7 Messaging with an External System.
09/01	All	PSS*1*38	Added this Revision History Page. Added Patch Release changes and Pharmacy Ordering Enhancements (POE) edits. Updated manual to comply with current documentation standards.
09/97			Original Release of Technical Manual.

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The option description below was retrieved from VA FileMan and reflects the new option added to PDM following the installation of patch PSS*1*47. *Other Language Translation Setup* [PSS OTHER LANGUAGE SETUP] option is a stand-alone option that must be assigned to the person(s) responsible for maintaining it.

```
-----  
NAME: PSS OTHER LANGUAGE SETUP  
MENU TEXT: Other Language Translation Setup  
TYPE: action  
PACKAGE: PHARMACY DATA MANAGEMENT  
DESCRIPTION: This option can be used to enter other language translations  
that will print on the outpatient pharmacy Rx labels.  
ENTRY ACTION: D OTHLAN^PSSJEEU  
UPPERCASE MENU TEXT: OTHER LANGUAGE TRANSLATION SET
```

The option description below was retrieved from VA FileMan and reflects the new option added to PDM following the installation of PSS*1*82.

```
-----  
NAME: PSS MASTER FILE ALL  
MENU TEXT: Send Entire Drug File to External Interface  
TYPE: run routine  
DESCRIPTION: This option will send the entire DRUG file (#50) to an external  
interface through HL7 messaging.  
ROUTINE: PSSMSTR  
UPPERCASE MENU TEXT: SEND ENTIRE DRUG FILE TO EXTER
```

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Routines

The following routines are used by the Pharmacy Data Management package.

PSSADDIT	PSSAUTL	PSSCHENV	PSSCHPRE	PSSCHPST	PSSCOMMN	PSSCLDRG
PSSCPRS	PSSCPRS1	PSSCREAT	PSSCSPD	PSSDDUT	PSSDDUT2	PSSDDUT3
PSSDEE	PSSDEE1	PSSDEE2	PSSDENT	PSSDELOI	PSSDFEE	PSSDIN
PSSDGUPD	PSSDOS	PSSDOSCR	PSSDOSCX	PSSDOSED	PSSDOSER	PSSDOSRP
PSSDTR	PSSENV	PSSENVN	PSSFIL	PSSFILED	PSSGENM	PSSGIU
PSSGMI	PSSGS0	PSSGSH	PSSHELP	PSSHL1	PSSHLSCH	PSSHLU
PSSJEEU	PSSJORDF	PSSJSPU	PSSJSPU0	PSSJSV	PSSJSV0	PSSJXR
PSSJXR1	PSSJXR12	PSSJXR13	PSSJXR14	PSSJXR15	PSSJXR10	PSSJXR11
PSSJXR18	PSSJXR19	PSSJXR2	PSSJXR20	PSSJXR16	PSSJXR17	PSSJXR
PSSJXR4	PSSJXR5	PSSJXR6	PSSJXR21	PSSJXR22	PSSJXR9	PSSJXR8
PSSJXR7	PSSLAB	PSSLOOK	PSSMARK	PSSMATCH	PSSMSTR	PSSNOUNR
PSSNTEG	PSSOICT	PSSOICT1	PSSOPKI	PSSOPKI1	PSSORPH	PSSORPH1
PSSORUTL	PSSOUTSC	PSSPKIPI	PSSPKIPR	PSSPNSRP	PSSPOI	PSSPOIC
PSSPOID1	PSSPOID2	PSSPOID3	PSSPOIDT	PSSPOIKA	PSSPOIM	PSSPOIM1
PSSPOIM2	PSSPOIM3	PSSPOIMN	PSSPOIMO	PSSPOST	PSSPOST1	PSSPOST2
PSSPOST5	PSSPRE	PSSPRETR	PSSQORD	PSSREF	PSSREMCH	PSSSPD
PSSSOLI1	PSSSOLIT	PSSSUTIL	PSSSYN	PSSUTIL	PSSUTLA1	PSSUTLPR
PSSVIDRG	PSSVX6	PSSVX61	PSSVX62	PSSVX63	PSSVX64	PSSVX65
PSSVX66	PSSYSP					

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The PDM menu that was exported with the original PDM package has been modified to include subsequent changes and patches, including the changes resulting from the Pharmacy Ordering Enhancements project.

The PDM menu up to and including PSS*1*82 appears below

When using the *CMOP Mark/Unmark (Single drug)* [PSSXX MARK] option to mark a drug for CMOP the user **must** update the cost information in the DRUG file (#50) to ensure the cost data for each prescription fill will be correct.

CMOP Mark/Unmark (Single drug)
[PSSXX MARK] 

Dosages...

[PSS DOSAGES MANAGEMENT]

Auto Create Dosages

[PSS DOSAGE CONVERSION]

Dosage Form File Enter/Edit

[PSS DOSAGE FORM EDIT]

Enter/Edit Dosages

[PSS EDIT DOSAGES]

Most Common Dosages Report

[PSS COMMON DOSAGES]

Noun/Dosage Form Report

[PSS DOSE FORM/ NOUN REPORT]

Review Dosages Report

[PSS DOSAGE REVIEW REPORT]

Drug Enter/Edit

[PSS DRUG ENTER/ EDIT]

Drug Interaction Management...

[PSS DRG INTER MANAGEMENT]

Enter/Edit Local Drug Interaction

[PSS INTERACTION LOCAL ADD]

Report of Locally Entered Interactions

[PSS REPORT LOCAL INTERACTIONS]

Electrolyte File (IV)

[PSSJI ELECTROLYTE FILE]

Lookup into Dispense Drug File
[PSS LOOK]

Medication Instruction File Add/Edit
[PSSJU MI]

Medication Route File Enter/Edit
[PSS MEDICATION ROUTES EDIT]

Orderable Item Management...
[PSS ORDERABLE ITEM MANAGEMENT]

 Edit Orderable Items
 [PSS EDIT ORDERABLE ITEMS]

 Dispense Drug/Orderable Item Maintenance
 [PSS MAINTAIN ORDERABLE ITEMS]

 Orderable Item/Dosages Report
 [PSS ORDERABLE ITEM DOSAGES]

 Patient Instructions Report
 [PSS INSTRUCTIONS/ ITEMS REPORT]

Orderable Item Report
[PSS ORDERABLE ITEM REPORT]

Formulary Information Report
[PSSNFI]

Drug Text Enter/Edit
[PSS EDIT TEXT]

Drug Text File Report
[PSS DRUG TEXT FILE REPORT]

Pharmacy System Parameters Edit
[PSS SYS EDIT]

Standard Schedule Edit
[PSS SCHEDULE EDIT]

Synonym Enter/Edit
[PSS SYNONYM EDIT]

Other Language Translation Setup
[PSS OTHER LANGUAGE SETUP]

The *Other Language Translation Setup* [PSS OTHER LANGUAGE SETUP] option is a stand-alone option that must be assigned to the person(s) responsible for maintaining it.

Controlled Substances/PKI Reports
[PSS CS/PKI REPORTS]

DEA Spec Hdlg & CS Fed Sch Discrepancy
[PSS DEA VS CS FED. SCH. DISCR.]

Controlled Substances Not Matched to NDF
[PSS CS NOT MATCHED TO NDF]

CS (DRUGS) Inconsistent with DEA Spec Hdlg
[PSS CS DRUGS INCON WITH DEA]

CS (Ord. Item) Inconsistent with DEA Spec Hdlg
[PSS CS (OI) INCON WITH DEA]

Send Entire Drug File to External Interface
[PSS MASTER FILE ALL]



Locked: PSXCMOPMGR

Without the PSXCMOPMGR key, the *CMOP Mark/Unmark (Single drug)* option will not appear on your menu.



A post-installation routine for patch PSS*1*61 identifies those drugs with discrepancies between the CS FEDERAL SCHEDULE field (#19) of the VA PRODUCT file (#50.68) and DEA, SPECIAL HDLG field (#3) of the DRUG file (#50). Four mail messages are generated and sent to the installer and to holders of the PSNMGR keys: These mail messages can be re-generated on demand using the Controlled Substances/PKI Reports [PSS CS/PKI REPORTS] menu added with this patch.

The post-install also checks to see if the DEA, SPECIAL HDLG field (#3) of the DRUG file (#50) is null and if the drug is matched to an entry in the VA PRODUCT file (#50.68), and the CS FEDERAL SCHEDULE field (#19) of the VA PRODUCT file (#50.68) has data, then it updates the DEA, SPECIAL HDLG field (#3) of the DRUG file (#50) with the DEA, SPECIAL HDLG code mapped to corresponding CS FEDERAL SCHEDULE code.

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Segment	Piece	Field Name	HL7 TBL # or Data Type	Description
	4	VSN	ST	Vendor Stock Number
	5	ORDER UNIT	CE	IEN^ABBREVIATION^EXPANSION ^PSD51.5
	6	PRICE PER ORDER UNIT	NM	
	7	DISPENSE UNITS PER ORDER UNIT	NM	
	8	PRICE PER DISPENSE UNIT	NM	
	9	VENDOR	ST	Vendor
{{ZPE}}	1	ACTIVITY LOG	DT	HL7 Format YYYYMMDDHHMM[SS]-ZZZZ
	2	REASON	CE	E^EDIT
	3	INITIATOR OF ACTIVITY	CE	IEN^NEW PERSON^VA200
	4	FIELD EDITED	ST	
	5	NEW VALUE	ST	
	6	NDF UPDATE	ST	
{{ZPF}}	1	DISPENSE UNITS PER DOSE	NM	
	2	DOSE	NM	
	3	PACKAGE	CE	CE^PACKAGE(S)
	4	BCMA UNITS PER DOSE	NM	
{{ZPG}}	1	CLOZAPINE LAB TEST	CE	IEN^LAB TEST^LAB60
	2	MONITOR MAX DAYS	NM	
	3	SPECIMEN TYPE	CE	IEN^ SPECIMEN TYPE^LAB61
	4	TYPE OF TEST	CE	1^WBC or 2^ANC
{{ZPH}}	1	LOCAL POSSIBLE DOSAGE	ST	FREE TEXT
	2	PACKAGE	CE	CE^PACKAGE(S)
	3	BCMA UNITS PER DOSE	NM	

New Protocol

Two new protocols, PSS EXT MFU CLIENT and PSS EXT MFU SERVER, are exported and have been created to generate HL7 messages when new drugs are added to the DRUG file (#50) and existing entries are updated. These protocols can only be activated by setting the following parameters in the OUTPATIENT SITE file (#59):

- AUTOMATED DISPENSE field (#105) needs to be set to **2.4**.
- ENABLE MASTER FILE UPDATE field (#105.2) needs to be set to **YES**.
- LOGICAL LINK field (#2005) needs to be set to **PSO DISP**.
- DISPENSE DNS NAME field (#2006) needs to be set to the dispensing system DNS name (for example, **dispensemachine1.vha.med.va.gov**).
- DISPENSE DNS PORT field (#2007) needs to be set to the dispensing system port number.

Specific Transaction

The Pharmacy/Treatment Encoded Order Message is as follows:

<u>MFN</u>	<u>Master File Notification Message</u>
MSH	Message Header
MFI	Master File Identifier
{MFE	Master File Entry
{ {ZPA}	Drug File Information
{ {RXD}	Pharmacy/Treatment Dispense
{ {OBR}}	Observation Request
}	

Example:

```
MSH|^~^&|PSS VISTA|521~FO~BIRM.VHA.MED.VA.GOV~DNS|PSS
DISPENSE|^~DISPENSE1.VHA.MED.VA.GOV:9300~DNS|20030701||MFN~M01~MFN_M01|10001|P|2.4||AL|AL
MFI|50~DRUG~99PSD||UPD|||NE
MFE|MUP|||PROPANTHELINE 15MG TAB
ZPA|PROPANTHELINE 15MG TAB|N|LFN~Local Non-Formulary~Pharm Formulary Listing|20031226|Take with
food|DE200|6|P|50~6505~00~960~8383~LPS50|8~NO
ALCOHOL~LPS54|229~Bacitracin~LPSD50.7|3~CAP,ORAL~LPSD50.606|15~IV PUSH~LPSD51.2|3643~ATROPINE SO4
0.4MG TAB~LPSD50.68|OP~OP Dispense~99OP|20030830|9~Rubella~LLAB60|72~Hair of
Scalp~LLAB61|PSOCL01|N|100|20~MG~LPSD50.607|4.28&USD~UP|15.64&USD~UP|TAB|2|BLUE HOUSE
VENDOR|0010~0501~33|TRADE NAME
RXD|||1|||1|||~P&200&LPSD50.0903|||o
OBR|||1102~ACETAZOLAMIDE~LLAB60|||70&NECK&LLAB61|||WBC|||7
```

HL7 Drug Message Segment Definition Table

When the PSS EXT MFU SERVER protocol is enabled, the following table defines the data elements sent in each segment of the HL7 drug message.

Segments used in the Master File Update message:

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE	
MSH	1	1	ST	R			Field Separator		
	2	4	ST	R			Encoding Characters	~^ &	
	3	180	HD	R		0361	Sending Application	PSS VISTA	
	4	180	HD	R		0362	Sending Facility – station ID and station DNS name	521~FO-BIRM.MED.VA.GOV~DNS	
	5	180	HD	R		0361	Receiving Application	PSS DISPENSE	
	6	180	HD	R		0362	Receiving Facility – DNS name and port of dispensing machine	~DISPENSE.VH A.MED.VA.GOV :9300~DNS	
	7	26	TS				Date/Time of Message	20040405152416	
	9	15	CM	R	0076		Message Type	MFN_M01	
	10	20	ST	R			Message Control ID	10001	
	11	3	PT	R	0103		Processing ID	P	
	12	3	VID	R	0104		Version ID	2.4	
	15	2	ID			0155	Accept Ack. Type	AL	
	16	2	ID			0155	Application Ack Type	AL	
	MFI	1	250	CE	R		0175	Master File Identifier	50^DRUG^99PS D
		3	3	ID	R		0178	File-Level Event Code	UPD
		6	2	ID	R		0179	Response Level Code	NE
MFE	1	3	ID	R		0180	Record-Level Event Code	MUP	
	4	200	Varies	R			Primary Key Value – MFE	PROPANTHELINE 15MG TAB	
ZPA	1	200	Varies	R			Primary Key Value – ZPA	PROPANTHELINE 15MG TAB	
	2	1	ID	R		0136	Is Synonym	N	
	3	200	CE	R			Formulary Listing	LFN~Local Non-Formulary~Pharm Formulary Listing	
	4	10	DT	O			Inactive Date	20031226	
	5	200	ST	O			Drug Message	Take with Food	
	6	30	ST	O			Drug Classification	DE200	
	7	10	ST	O			DEA-Schedule Code	6	
	8	1	ST	O			DEA-Drug Type	P	
	9	100	CE	R			Stock Number	50~6505-00-960-8383~LPS50	
	10	100	CE	O			Warning Label	8~NO ALCOHOL~LPS 54	

Segments used in the Master File Update message: (continued)

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
	11	100	CE	O			Pharmacy Orderable Item	229~Bacitracin~L PSD50.7
	12	100	CE	O			Dosage Form	3~CAP,ORAL~L PSD50.606
	13	100	CE	O			Medication Route	15~IV PUSH~LPSD51.2
	14	100	CE	O			Drug Name Identifiers	3643~ATROPIN E SO4 0.4MG TAB~LPSD50.68
	15	100	CE	O			Dispense Flags	OP~OP Dispense~99OP
	16	15	DT	O			Drug Expiration Date	20030830
	17	100	CE	O			Lab Test Monitor	9~Rubella~LLAB 60
	18	100	CE	O			Specimen Type	72~Hair of Scalp~LLAB61
	19	10	CE	O			Monitor Routine	PSOCLO1
	20	1	ID	O			Lab Monitor Mark	N
	21	50	NM	O			Strength	100
	22	250	CE	R			Unit	20~MG~LPSD50. 607
	23	50	CP	R			Price Per Order Unit	4.28&USD~UP
	24	50	CP	R			Price Per Dispense Unit	15.64&USD~UP
	25	25	ST	O			Dispense Unit	TAB
	26	50	NM	O			Dispense Units Per Order Unit	2
	27	50	ST	O			Vendor	BLUE HOUSE VENDOR
	28	12	ST	O			NDC Code	0010-0501-33
	29	25	ST	O			Intended Use	TRADE NAME
RXD	4	20	NM	R			Actual Dispense Amount	1
	8	20	NM	R			Dispense Notes	1
	12	10	CQ	O			Total Daily Dose	~P&200&LPSD5 0.0903
	24	2	ID	R			Dispense Package Method	O
OBR	4	250	CE	O			Universal Service Identifier	1102~ACETAZO LAMIDE~LLAB 60
	15	300	CM	O			Specimen Source	70&NECK&LLA B61
	24	3	ID	R			Diagnostic Serv Sect ID	WBC
	27	200	TQ	O			Quantity/Timing	7

Notes pertaining to some of the data elements:

[MSH-3] Sending Application is the station ID along with the DNS name of the sending facility.

[MSH-5] Receiving Application is the DNS name and DNS port number of the dispensing application.

[MSH-10] Message Control ID is the number that uniquely identifies the message. It is returned in MSA-2 of the dispense completion message.

[MFI-1] Master File Identifier is hard-coded to 50~DRUG~99PSD.

[MFE-1] Record-Level Event Code can be either MUP for Update or MAD for Add.

[MFE-4] Primary Key Value – MFE is the GENERIC NAME field (#.01) from the DRUG file (#50).

[ZPA-1] Primary Key Value – ZPA will be the generic name of the drug first and then all synonyms will follow in consecutive ZPA segments.

[ZPA-2] Is Synonym is set to Y or N depending on whether the primary key is a synonym.

[ZPA-3] Formulary Listing will contain LFN and/or VISN is the formulary is not to appear on the Local or VISN formulary.

[ZPA-9] Stock Number is the FSN field (#6) from the DRUG file (#50) or the VSN field (#400) from the SYNONYM subfile (#50.1) of the PRESCRIPTION file (#50).

[ZPA-15] Dispense Flags will indicate if this drug may be dispensed to an external interface and if it is marked to be dispensed at a Consolidated Outpatient Pharmacy (CMOP). If both are yes, the answer would be OP~OP Dispense~Pharm dispense^CMOP~CMOP dispense~Pharm dispense flag.

[ZPA-29] Intended User will be TRADE NAME, QUICK CODE, DRUG ACCOUNTABILITY or CONTROLLED SUBSTANCES.

[RXD-4] Actual Dispense Amount is the BCMA UNITS PER DOSE field (#3) from the POSSIBLE DOSAGES file (#50.0903).

[RXD-9] Dispense Notes is the DISPENSE UNITS PER DOSE field (#.01) from the POSSIBLE DOSAGES file (#50.0903).

[RXD-12] Total Daily Dose will be either P for Possible Dosages or LP for Local Possible Dosages.

[OBR-4] Universal Service Identifier is used for Clozapine Lab Test.

[OBR-15] Specimen Source is used for Clozapine Specimen Type.

[OBR-24] Diagnostic Serv Sect ID is used for Clozapine Type of Test.

[OBR-27] Quantity/Timing is used to encode Monitor Max days from the CLOZAPINE LAB TEST file (#50.02).

Menus

The *Pharmacy Data Management* menu that is exported with the initial release of the PDM package is as follows.

**Primary/VA Generic Orderable Item Report*

**VA Generic Orderable Item Report*

**Create Pharmacy Orderable Items*

**Manually Match Dispense Drugs*

**Orderable Item Matching Status*

CMOP Mark/Unmark (Single drug)

Locked with PSXCMOPMGR

Drug Enter/Edit

IMPORTANT: Once Pharmacy Data Management is installed, the *Outpatient Drug Enter/Edit* and the *Inpatient Medications Dispense Drug Fields* options will be disabled and the *PDM Drug Enter/Edit* option should be used.

Drug Interaction Management...

Enter/Edit Local Drug Interaction

Edit Drug Interaction Severity

Electrolyte File (IV)

Lookup into Dispense Drug File

Med. Route/Instructions Table Maintenance

Medication Instruction File Add/Edit

Orderable Item Management...

Edit Orderable Items

Dispense Drug/Orderable Item Maintenance

Additive/Solutions, Orderable Items

Orderable Item Report

**Primary Drug Edit*

Pharmacy System Parameters Edit

Standard Schedule Edit

* These items are for pre-release only and will be deleted with the installation Outpatient Pharmacy V. 7.0 and Inpatient Medications V. 5.0.

The PDM menu up to and including the release of PSS*1*82 appears below. PSS*1*82 was the last patch to affect a change to the PDM menu.

CMOP Mark/Unmark (Single drug) 
Dosages ...
 Auto Create Dosages
 Dosage Form File Enter/Edit
 Enter/Edit Dosages
 Most Common Dosages Report
 Noun/Dosage Form Report
 Review Dosages Report
Drug Enter/Edit
Drug Interaction Management ...
 Enter/Edit Local Drug Interaction
 Report of Locally Entered Interactions
Electrolyte File (IV)
Lookup into Dispense Drug File
Medication Instruction File Add/Edit
Medication Route File Enter/Edit
Orderable Item Management ...
 Edit Orderable Items
 Dispense Drug/Orderable Item Maintenance
 Orderable Item/Dosages Report
 Patient Instructions Report
Orderable Item Report
Formulary Information Report
Drug Text Enter/Edit
Drug Text File Report
Pharmacy System Parameters Edit
Standard Schedule Edit
Synonym Enter/Edit
Other Language Translation Setup
Controlled Substances/PKI Reports
 DEA Spec Hdlg & CS Fed Sch Discrepancy
 Controlled Substances Not Matched to NDF
 CS (DRUGS) Inconsistent with DEA Spec Hdlg
 CS (Ord. Item) Inconsistent with DEA Spec Hdlg
Send Entire Drug File to External Interface



Locked: PSXCMOPMGR

Without the PSXCMOPMGR key, the *CMOP Mark/Unmark (Single drug)* option will not appear on your menu.

References

There are no regulations or directives related to the Pharmacy Data Management package. Additional manuals related to the Pharmacy Data Management package can be found at the **VISTA** Documentation Library (VDL) on the Internet at: <http://www.va.gov/vdl/>.

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