

# **Decision Support System (DSS)**

## **Version Description Document (VDD)**

**Software Version 3.0  
Patch ECX\*3.0\*177**



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**Document Version 3.0**

**Department of Veterans Affairs (VA)  
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## Document Revision History

Date	Document Version	Description	VDD Author / Team Role	VA Group or Contract Company
12/03/2019	3.0	Updates for DSS FY20 (ECX*3.0*177) patch	David Blalock, Tech Writer Daniel Liedl, PM	Systems Made Simple (SMS) / Leidos
09/25/2019	2.0	Updates for DSS FY20 (ECX*3.0*174) patch release	David Blalock, Tech Writer Daniel Liedl, PM	Systems Made Simple (SMS) / Leidos
10/20/2018	1.0	Initial Document Release	Tim Lavery, Developer David Blalock, Tech Writer	Systems Made Simple (SMS) / Leidos

## Deliverable (Product) Version History

Date	Release / Revision	Description	Project Name	VA Department
12/03/2019	ECX*3.0*177	DSS Extracts FY20 Patch Update	Decision Support System Annual Sustainment Project	Product Support
10/31/2019	ECX*3.0*174	DSS Extracts FY20 Annual Sustainment Patch	Decision Support System Annual Sustainment Project	Product Support
11/01/2018	ECX*3.0*173	DSS Extracts FY19 Annual Sustainment Patch	Decision Support System Annual Sustainment Project	Product Support

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# 1 General Configuration Management (CM) Information

Table 1 lists the general CM information for the proposed changes to the sustainment effort for Fiscal Year (FY) 2020 to the Decision Support System (DSS) application Patch Release ECX\*3.0\*177. The Patch Release number is assigned by creating a new patch number in the FORUM patch module and includes the following components for the DSS FY20 Annual Sustainment application:

- Project Namespace: ECX
- DSS Extracts Software Application Version: 3.0
- Patch Number: 177

**Table 1: General CM Information**

<b>Deliverable (Product) Name</b>	<b>Configuration Manager</b>	<b>VDD Package Name</b>	<b>Project Manager</b>
ECX*3.0*177	Daniel Liedl Configuration/Release Manager	Not Applicable (N/A)	Phillip Williams

## 2 Configuration Management (CM) Tools

Rational CM is a collaborative software development/delivery environment based on the Jazz technology platform from IBM. Rational CM provides software version control and workspace management and supports parallel development. This product is part of the Office of Information and Technology (OI&T) Chief Information Officer's (CIO) mandated, standardized toolset for OI&T projects.

Table 2 describes where the project artifacts for DSS FY20 are located within Rational.

**Table 2: Configuration Management Tools**

CM Tools	CM Tool Location	Tool Onsite/ Offsite	CM Tool Access Point of Contact	Access Information (Forms or other access requirements)
Rational DOORS Next Generation (RDNG) Requirements Management (RM)	Hines Data Center	Onsite	VA Rational Tools Team	<a href="mailto:Rational@va.gov">Rational@va.gov</a> <a href="#">Rational Service Request URL</a>
Rational Team Concert (RTC)	Hines Data Center	Onsite	VA Rational Tools Team	<a href="mailto:Rational@va.gov">Rational@va.gov</a> <a href="#">Rational Service Request URL</a>
Rational Quality Management (RQM)	Hines Data Center	Onsite	VA Rational Tools Team	<a href="mailto:Rational@va.gov">Rational@va.gov</a> <a href="#">Rational Service Request URL</a>

## 3 Configuration Management of Documents

Project-related documents are managed and controlled within the Rational Tool Suite. Final documentation deliverables are posted in the VA Software Document Library (VDL).

### 3.1 Rational Team Concert (RTC) Documents

Table 3 details the RTC location for the DSS FY20 documents.

**Table 3: Rational Team Concert Information**

RTC Information	Explanation
RTC URL	<a href="#">DSS (CM) Source Control</a>
RTC Project Area	Rational DSS (CM) Project Area
RTC Team Area	Sustainment Team
RTC Stream	DSS_Docs
Baseline ID	Patch ECX*3.0*177
Components	DSS_Docs
Directory Path	<a href="https://www.va.gov/vdl">https://www.va.gov/vdl</a>
Documents Included in the Baseline	DSS_VDD DSS_DIBR DSS_UG DSS_TM DSS_DDD

## 4 Configuration Management Development Files

DSS development is completed in accounts created for, and managed by, the Albany Office of Information Field Office (OIFO). The Albany OIFO has multiple accounts used by various development groups. The following subsections describe the CM development files.

### 4.1 Rational Team Concert (RTC) Repository

The DSS application source code is developed using the MUMPS language and development environment. Development source artifacts are not maintained in the Rational Team Concert Repository during development. Instead, development source artifacts/builds are produced and maintained on VistA servers. Table 4 lists the RTC information for the development files (source).

**Table 4: RTC Information**

RTC Information	Explanation
RTC URL	<a href="#">DSS (CM) Source Control</a>
RTC Project Area	RTC DSS FY20 Project Area
RTC Team Area	Sustainment Team
RTC Stream	Patch ECX*3.0*177

#### 4.1.1 Baseline and Component

Prior to the start of development, a baseline snapshot of Delphi and Massachusetts General Hospital Utility Multi-Programming System (MUMPS) source code was created and posted to Rational CM. Additional snapshots are created and posted throughout the development cycle. Table 5 lists the baseline details for DSS FY20.

**Table 5: Development Files Baseline Details**

Name	Description
ECX*3.0*177	This is an updated patch for FY20 development.
<b>Required Patches:</b> ECX*3.0*174	ECX*3.0*174 was previously released as the annual sustainment patch for FY20 and contains shared routines which make it a prerequisite for installing ECX*3.0*177.

#### 4.1.2 Build Information

Builds are performed in the Veterans Health Information Systems and Technology Architecture (VistA) development account(s) for the MUMPS code. Builds will be performed using selected versions of the formally submitted source code contained within the Development Repositories. General build information that results from the build process is maintained in the DSS (CM) repository as detailed in Table 6.



**Table 6: Build Information**

Name	Description
<b>Build Output</b>	The DSS build process does not generate output.
<b>Build Output Directory</b>	N/A
<b>Target Deployment Location</b>	Enterprise-wide National Release (December 2019). VistA Patches are released in FORUM using Packman messages.

### 4.1.3 RTC Build Definition

The Product Component build uses the approved product design and all applicable standards, tool sets, and environments. Table 7 describes the DSS FY20 build.

**Table 7: RTC Build Definition**

Name	Description
ECX*3.0*177	Release Build 1 Test 1

### 4.1.4 Build Label or Number

The Package Build consists of the individual application components, and the System Build (Release Packages) includes all packages that comprise the entire release for the specific environment.

Table 8 lists the identifier for the derived object or package produced for deployment and/or installation for DSS FY20.

**Table 8: Build Label or Number**

Name	Description
ECX*3.0*177	DSS Version 3.0, Patch 177 DSS FY20 Update Patch

## **5 Build and Packaging**

The methods of packaging and rules concerning management of a release are determined by OI&T Release Management, working with Product Management to meet the needs of the development team, along with consideration for the operational needs for accepting the product. For VA products being developed, the primary form of a release candidate will be in the form of an electronically packaged release.

### **5.1 Build Log**

The build log is found in the DSS (CM) project under the DSS\_Src stream.

### **5.2 Build System/Process Information**

The Kernel Installation and Distribution System (KIDS) is used to manually bundle all the code for distribution. The builds are then sent to FORUM where they become the basis of the patch that is sent to the sites for installation.

## 6 Change Tracking

Change tracking identifies a set of work product versions created to resolve a specific Change Request. For MUMPS-based VistA patches, there are currently no CM tools available that are approved for use by the VA.

For DSS, a baseline snapshot of M routines is created and posted to Rational and may be used to observe changes between fiscal year patches. Table 9 lists the Change Tracking information.

**Table 9: Change Tracking Information**

Change Tracking Tool	Change Tracking Tool Location	Tool Onsite/ Offsite	Change Tracking Tool Access / Point of Contact (POC)	Access Information (Forms or other access requirements)
Rational (CM)	Hines Data Center	Onsite	VA Rational Tools Team	<a href="mailto:Rational@va.gov">Rational@va.gov</a> <a href="#">Rational Service Request URL</a>

### 6.1 Rational Team Concert (RTC) Repository

Table 10 provides details for the RTC Repository used for Change Tracking.

**Table 10: RTC Change Tracking Repository Information**

RTC Information	Explanation
RTC URL	<a href="#">DSS (CM) Project Dashboard</a>
RTC Project Area	DSS(CM) Project Area
RTC Team Area	Sustainment Team

Table 11 provides details for the DSS FY20 Business User Stories.

**Table 11: Business User Stories**

Rational ID	Summary
1057859	As a user, I no longer need Religion in the extracts
1057864	As a user, I no longer need ADM DRG in the extract
1057866	As a user, I no longer need Sharing Agreement Payor in the extracts
1057867	As a user, I no longer need National Patient Record Flag in the extracts
1057869	As a user, I no longer need DSS Product Department in the extracts
1057872	As a user, I need to have the Service Connected Status of the patient

Rational ID	Summary
1057880	As a user I want additional technical descriptions in the Pharmacy section of Vista Data Dictionary.
1057888	As a user I need to have the quantity in all PRO Rental transactions & reports to be expressed in days.
1057892	As a user I want to be able to see the appropriate Stop Code in the Stop field for Surgery records
1057895	As a user I need more information about pharmacy records when the feeder key is all zeros.
1057896	As a user I don't want to see options that are no longer used.
1057897	As a user, I am confused by the value in Discharge Treating Specialty field since the patient was never in that Treating Specialty
1057898	As a user, I want to see encounter and cost information by feeder key for all pharmacy extracts.
1057899	As a user, I need to see what CPT Code values are being coded in the Lab
1057900	As a user, I no longer need the obsolete Cost of Transaction field
1057903	As a user, I no longer need the obsolete Lab Labor Cost
1057906	As a user, I no longer need the obsolete Lab Material Cost field
1057908	As a user, I need to create a larger New Cost of Transaction field
1057910	As a user, I need to create a larger New Lab Labor Cost field
1057913	As a user, I need to create a larger New Lab Material Cost field
1058004	As a user, I no longer need the TYPE (fld #13) in the MOV extract
1058005	As a user, I no longer need the DSS IP # fields in the extracts
1058006	As a user, I no longer need the Encounter SC field in "ancillary" extracts
1058041	As a user, I want accurate report logging instructions for all exportable reports.
1058042	As a user, I would like to see the division for all feeder locations for the selected feeder system.
1058043	As a user, I need to know the values used to represent locations/divisions in MCA coding schemes
1058045	As a user, I want my BCM Extract to run to completion.

Rational ID	Summary
1058048	As a user, I want my Pharmacy Unusual Volume Report for ANY pharmacy report to run to completion.
1058049	As a user, I want to be able to see entries on the Prosthetics Monthly Rental Report by station+division and with Unit of Issue.
1058052	As a user, I don't want to see obsolete divisions in the UDP Extract
1058053	As a user I want to see correct online help for clinic actions.
1058055	As a user, I want useful options on the Print PHA Feeder Keys Report
1059886	As a user, I no longer need the Encounter Camp Lejeune field in "ancillary" extracts
1059887	As a user, I no longer need the Encounter SHAD field in "ancillary" extracts
1059888	As a user, I no longer need the Encounter CV field in "ancillary" extracts
1059889	As a user, I no longer need the Encounter SWAC field in "ancillary" extracts
1059890	As a user, I no longer need the Agent Orange Enc field in "ancillary" extracts
1059891	As a user, I no longer need the Encounter Head/Neck CA field in "ancillary" extracts
1059892	As a user, I no longer need the Encounter MST field in "ancillary" extracts
1059893	As a user, I no longer need the Radiation Encounter Indicator field in "ancillary" extracts
1059894	As a user, I no longer need Sharing Agreement Insurance & Sharing Agreement Insurance Co. in the extracts
1059895	As a user of extract audit reports, I need to know how to handle ASIH Other Facility patients.
1063922	As a user, I need to know when a clinic is non-count.
1063923	As a user, I need to know what State Home Event Capture records are associated with.
1065736	As a user, I want to see actual Stop Codes instead of their IENs
1065737	As a user, I want to see all possible values in the DEA Special HdIg field.
1065819	As a user, I no longer need the Lab Results Translation field in the LAR extract.
1148473	As a user I need to be able to identify Mission Act related prescriptions, in addition to CHOICE prescriptions, in the PRE extract.

## 7 Release (Deployment) Information

The VIP Release management process is required for any release into production environments, for all national releases (limited or widespread), and for all releases that might have national impact.

The HPS Application Coordinator is responsible for coordinating the activities for the national release of the product or patch and representing Health Product Support (HPS) for the product or patch release. This includes working with the appropriate Sustainment Manager (SM) to ensure a smooth and successful transition of the product from development to sustainment. This project is using the Initial Operating Capability (IOC) model.

Table 12 lists the release (deployment) POC information.

**Table 12: Release (Deployment) POC Information**

Release Identification	Release Package POC Name	Release Package POC Email
ECX*3.0*177	Stacy Hardy HPS Application Coordinator	<a href="mailto:Stacy.Hardy@va.gov">Stacy.Hardy@va.gov</a>

Table 13 lists the release package information for DSS FY20.

**Table 13: Release Package Information**

Release Package (Component) Identified	Release Package Description	Release Package Delivery Method	Release Package Location Identified
ECX*3.0*177	KIDS Build DSS FY20 annual sustainment update	FORUM KIDS Build	FORUM.MED.VA.GOV

## Appendix A Acronyms

Table 14 lists the acronyms used in this document.

**Table 14: Acronym Table**

Acronym	Description
AC	Application Coordinator
API	Application Programming Interface
AS	Annual Sustainment
BUS	Business User Story
CIO	Chief Information Officer
CM	Configuration Management
CPT	Current Procedural Terminology
DD	Data Dictionary
DDD	Data Definitions Document
DSS	Decision Support System
FY	Fiscal Year
HPS	Health Product Support
IBM	International Business Machines
ID	Identification
IM/KM	Information Management / Knowledge Management
IOC	Initial Operating Capability
KIDS	Kernel Installation and Distribution System
MCA	Managerial Cost Accounting
MCAO	Managerial Cost Accounting Office
MUMPS	Massachusetts General Hospital Utility Multi-Programming System
N/A	Not Applicable
OI&T	Office of Information and Technology
OIFO	Office of Information Field Office
OOS	Occasion of Service
PCE	Patient Care Encounter
PIMS	Patient Information Management System
POC	Point of Contact
QM	Rational Quality Manager
RB	Release Build
RDNG	Rational DOORS Next Generation
RM	Requirements Management
RQM	Rational Quality Management
RTC	Rational Team Concert
SCM	Software Configuration Management

Acronym	Description
SM	Sustainment Manager
SSN	Social Security Number
Sta5	Station number 5 digits (Point of-Service VHA Facility/Division number)
Sta6	Station number 6 digits (National Facility/Division number)
TBD	To Be Determined
URL	Uniform Resource Locator
VA	Department of Veterans Affairs
VDD	Version Description Document
VDL	VA Software Document Library
VistA	Veterans Health Information Systems and Technology Architecture



## Appendix B Data Dictionary Changes

Table 15 is a list of the Data Dictionary files and fields modified for DSS FY20.

**Table 15: Data Dictionary Changes**

File Name	File Number	Field Name	Field Number
ADMISSION EXTRACT	#727.802	PLACEHOLD RELIGION	#12
ADMISSION EXTRACT	#727.802	PLACEHOLD DRG	#31
ADMISSION EXTRACT	#727.802	PLACEHOLD SHARE AGREEMNT PAYOR	#45
ADMISSION EXTRACT	#727.802	PLACEHOLD SHARE AGREEMNT INSUR	#46
ADMISSION EXTRACT	#727.802	PLACEHOLD NAT'L PAT REC FLAG	#72
BCMA EXTRACT	#727.833	VISTA DEA SPECIAL HDLG	#89
BLOOD BANK EXTRACT	#727.829	PLACEHOLD DSS IP #	#19
BLOOD BANK EXTRACT	#727.829	PLACEHOLD ENCOUNTER SC	#31
CLINIC EXTRACT	#727.827	PLACEHOLD DSS PRODUCT DEPT	#43
CLINIC EXTRACT	#727.827	PLACEHOLD SHARE AGREEMNT PAYOR	#51
CLINIC EXTRACT	#727.827	PLACEHOLD SHARE AGREEMNT INSUR	#52
CLINIC EXTRACT	#727.827	PLACEHOLD DSS IP #	#76
CLINIC EXTRACT	#727.827	PLACEHOLD NAT'L PAT REC FLAG	#83
CLINIC EXTRACT	#727.827	SERVICE CONNECTED STATUS	#158
CLINIC EXTRACT	#727.827	NON-COUNT FLAG	#159
EVENT CAPTURE LOCAL EXTRACT	#727.815	PLACEHOLD DSS IP #	#75
EVENT CAPTURE LOCAL EXTRACT	#727.815	STATE HOME NAME	#130
IV DETAIL EXTRACT	#727.819	PATIENT NO. - DFN	#4
IV DETAIL EXTRACT	#727.819	DAY	#8
IV DETAIL EXTRACT	#727.819	VA DRUG CLASSIFICATION	#9
IV DETAIL EXTRACT	#727.819	QUANTITY	#10
IV DETAIL EXTRACT	#727.819	PHARMACY IV DISPENSING FEE	#18
IV DETAIL EXTRACT	#727.819	ORDERING PROVIDER	#37
IV DETAIL EXTRACT	#727.819	ORDERING DATE	#39

File Name	File Number	Field Name	Field Number
IV DETAIL EXTRACT	#727.819	PLACEHOLD DSS IP #	#72
IV DETAIL EXTRACT	#727.819	VISTA DEA SPECIAL HDLG	#95
LABORATORY EXTRACT	#727.813	PLACEHOLD DSS IP #	#36
LABORATORY EXTRACT	#727.813	PLACEHOLD ENCOUNTER SC	#48
LABORATORY RESULTS EXTRACT	#727.824	PLACEHOLD LAB RESULTS TRANS	#27
LABORATORY RESULTS EXTRACT	#727.824	PLACEHOLD ENCOUNTER SC	#33
LABORATORY RESULTS EXTRACT	#727.824	PLACEHOLD ENC CAMP LEJEUNE	#35
PHYSICAL MOVEMENT EXTRACT	#727.808	PLACEHOLD TYPE	#13
PRESCRIPTION EXTRACT	#727.81	PLACEHOLD ENCOUNTER SHAD	#18
PRESCRIPTION EXTRACT	#727.81	PLACEHOLD SHARE AGREEMNT PAYOR	#47
PRESCRIPTION EXTRACT	#727.81	PLACEHOLD SHARE AGREEMNT INSUR	#48
PRESCRIPTION EXTRACT	#727.81	PLACEHOLD DSS IP #	#73
PRESCRIPTION EXTRACT	#727.81	PLACEHOLD ENCOUNTER CV	#79
PRESCRIPTION EXTRACT	#727.81	PLACEHOLD AGENT ORANGE ENC	#85
PRESCRIPTION EXTRACT	#727.81	PLACEHOLD ENCOUNTER SWAC	#86
PRESCRIPTION EXTRACT	#727.81	PLACEHOLD ENC HEAD/NECK CA	#87
PRESCRIPTION EXTRACT	#727.81	PLACEHOLD ENCOUNTER MST	#88
PRESCRIPTION EXTRACT	#727.81	PLACEHOLD RADIATION ENCOUNTER	#90
PRESCRIPTION EXTRACT	#727.81	PLACEHOLD ENCOUNTER SC	#99
PRESCRIPTION EXTRACT	#727.81	PLACEHOLD ENC CAMP LEJEUNE	#102
PRESCRIPTION EXTRACT	#727.81	VISTA DEA SPECIAL HDLG	#107
PROSTHETICS EXTRACT	#727.826	PLACEHOLD COST OF TRANSACTION	#24
PROSTHETICS EXTRACT	#727.826	PLACEHOLD LAB LABOR COST	#25
PROSTHETICS EXTRACT	#727.826	PLACEHOLD LAB MATERIAL COST	#26
PROSTHETICS EXTRACT	#727.826	PLACEHOLD SHARE AGREEMNT PAYOR	#44
PROSTHETICS EXTRACT	#727.826	PLACEHOLD SHARE AGREEMNT INSUR	#45

File Name	File Number	Field Name	Field Number
PROSTHETICS EXTRACT	#727.826	PLACEHOLD DSS IP #	#67
PROSTHETICS EXTRACT	#727.826	PLACEHOLD ENCOUNTER CV	#73
PROSTHETICS EXTRACT	#727.826	PLACEHOLD AGENT ORANGE ENC	#76
PROSTHETICS EXTRACT	#727.826	PLACEHOLD ENCOUNTER SWAC	#77
PROSTHETICS EXTRACT	#727.826	PLACEHOLD ENC HEAD/NECK CA	#78
PROSTHETICS EXTRACT	#727.826	PLACEHOLD ENCOUNTER MST	#79
PROSTHETICS EXTRACT	#727.826	PLACEHOLD RADIATION ENCOUNTER	#80
PROSTHETICS EXTRACT	#727.826	PLACEHOLD ENCOUNTER SHAD	#89
PROSTHETICS EXTRACT	#727.826	PLACEHOLD ENCOUNTER SC	#97
PROSTHETICS EXTRACT	#727.826	PLACEHOLD ENC CAMP LEJEUNE	#100
PROSTHETICS EXTRACT	#727.826	NEW COST OF TRANSACTION	#105
PROSTHETICS EXTRACT	#727.826	NEW LAB LABOR COST	#106
PROSTHETICS EXTRACT	#727.826	NEW LAB MATERIAL COST	#107
QUASAR EXTRACT	#727.825	PLACEHOLD DSS IP #	#75
RADIOLOGY EXTRACT	#727.814	PLACEHOLD DSS IP #	#37
RADIOLOGY EXTRACT	#727.814	PLACEHOLD ENCOUNTER SC	#50
RADIOLOGY EXTRACT	#727.814	PLACEHOLD ENC CAMP LEJEUNE	#52
UNIT DOSE LOCAL EXTRACT	#727.809	VA DRUG CLASSIFICATION	#9
UNIT DOSE LOCAL EXTRACT	#727.809	QUANTITY	#10
UNIT DOSE LOCAL EXTRACT	#727.809	WARD	#11
UNIT DOSE LOCAL EXTRACT	#727.809	PROVIDER	#12
UNIT DOSE LOCAL EXTRACT	#727.809	NDC	#16
UNIT DOSE LOCAL EXTRACT	#727.809	PLACEHOLD DSS IP #	#67
UNIT DOSE LOCAL EXTRACT	#727.809	VISTA DEA SPECIAL HDLG	#91