JTLS
Version Description Document

January 2015

DEPARTMENT OF DEFENSE
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**JOINT THEATER LEVEL SIMULATION
(JTLS 4.1.8.0)**

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ABSTRACT

The Joint Theater Level Simulation (JTLS®) is an interactive, computer-based, multi-sided wargaming system that models combined joint and coalition resource air, land, naval, and Non-Governmental Organization (NGO) environments.

This *JTLS Version Description Document (VDD)* describes specific features of the Version 4.1.8.0 delivery of the configuration-managed JTLS software suite.

JTLS 4.1.8.0 is a maintenance release of the JTLS 4.1 series that includes code modifications that represent corrections to known Software Trouble Reports (STRs), which are described in Chapter 3. Remaining and outstanding STRs are described in Chapter 4.

This publication is updated and revised as required for each Major or Maintenance version release of the JTLS model. Corrections, additions, or recommendations for improvement must reference specific sections, pages, and paragraphs with appropriate justification and be forwarded to:

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1.0 INTRODUCTION

1.1 SCOPE

This *JTLS Version Description Document* (VDD) describes Version 4.1.8.0 of the configuration managed Joint Theater Level Simulation (JTLS®) software suite. JTLS 4.1.8.0 is a Maintenance delivery for the JTLS 4.1 series of releases. JTLS 4.1.8.0 includes the entire JTLS suite of software and the SDBKOR41 Standard Database that supports a realistic scenario based on the current Korean Peninsula theater of operations.

Detailed descriptions of Engineering Change Proposals (ECPs) and minor model enhancements implemented for this release are provided in Chapter 2.0. Chapter 3.0 summarizes all of the bug fixes made since the previous official release of JTLS. Finally Chapter 4.0 lists all known bugs that have not been fixed. Each of these known issues includes a description of the problem's impact on execution of JTLS and suggestions for avoiding or working around the issue to reduce the impact on the operational use of JTLS.

The format of the database has not changed since the release of JTLS 4.1.7.0, but improvements to the suggested default data, as contained the SDBKOR41 scenario, have been made. These database improvements are summarized in this chapter, as well as APPENDIX B.

JTLS 4.1.8.0 executes on the Red Hat Enterprise Linux Version 5 or 6 64-bit operating systems. The Web-Hosted Interface Program (WHIP®) user workstation interface can be executed from any Java-compatible Web browser available on any operating system.

1.2 INVENTORY OF MATERIALS

This section lists documents and software that are relevant to JTLS. All JTLS documents included in this delivery are provided in PDF format within a documents subdirectory.

1.2.1 Obsolete/Outdated Documents

No documents have been removed from the JTLS documentation suite for this release.

1.2.2 Unchanged Documents

The following documentation is provided for this release:

- *JTLS Analyst Guide* (JTLS Document 01, Version 4.1.8.0)

- *JTLS ATOT User Guide* (JTLS Document 03, Version 4.1.8.0)

- *JTLS Controller Guide* (JTLS Document 04, Version 4.1.8.0)

- *JTLS Data Requirements Manual* (JTLS Document 05, Version 4.1.8.0)

- *JTLS DDS User Guide* (JTLS Document 06, Version 4.1.8.0)

- *JTLS Director Guide* (JTLS Document 07, Version 4.1.8.0)

- *JTLS Executive Overview* (JTLS Document 08, Version 4.1.8.0)

- *JTLS Installation Manual* (JTLS Document 09, Version 4.1.8.0)

- *JTLS WHIP Training Manual* (JTLS Document 10, Version 4.1.8.0)

- *JTLS Player Guide* (JTLS Document 12, Version 4.1.8.0)

- *JTLS Standard Database Description* (JTLS Document 14, Version 4.1.8.0)

- *JTLS Software Maintenance Manual* (JTLS Document 15, Version 4.1.8.0)

- *JTLS Technical Coordinator Guide* (JTLS Document 16, Version 4.1.8.0)

- *JTLS Entity Level Server User Guide* (JTLS Document 19, Version 4.1.8.0)

- *JTLS Federation User Guide* (JTLS Document 20, Version 4.1.8.0)

- *JTLS C4I Interface Manual* (JTLS Document 21, Version 4.1.8.0)

- *JTLS DDS Training Manual* (JTLS Document 23, Version 4.1.8.0)

1.2.3 Updated Documents

- *JTLS Version Description Document* (JTLS Document 17, Version 4.1.8.0)

1.2.4 Delivered Software Components

JTLS 4.1.8.0 may be delivered either on a CD or as a set of compressed TAR files to be downloaded. Either method includes the complete suite of software executable code and command procedures. These software components are included with this release:

- Database Configuration Program (DCP)

- DDS User Interface (DDS)

In order to use the DDSC, the GlassFish domain must be re-saved as follows:

1. In the DCP, stop the GlassFish server.

2. Change the execution host and then change it back.

3. Save (After the save, the server will be left running).

- Combat Events Program (CEP)

- Scenario Initialization Program (SIP)

- Interface Configuration Program (ICP)

- Reformat Spreadsheet Program (RSP)

- Database Development System (DDS)

- Terrain Modification Utility (TMU)

- JTLS Symbols Application (JSYMS)

- Lanchester Development Tool (LDT)

- ATO Translator Program (ATOT)

- ATO Retrieval Program (ATORET)

- Convert Location Program (XCONVERT)

- Count Critical Order Program (CCO)

- JTLS HLA Interface Program (JHIP)

- After Action Review Client (AARC)

- Scenario Data Client (SDC)

- Order Entry Client (OEC)

- Order Verification Tool (OVT)

- JTLS Object Distribution Authority (JODA)

- Web Services Manager (WSM)

- Web-Hosted Interface Program (WHIP) and its component programs:

    a. Apache Server, version 2.4.7 (APACHE)

    b. JTLS XML Serial Repository (JXSR)

    c. Order Management Authority (OMA)

    d. Synchronized Authentication and Preferences Service (SYNAPSE)

    e. XML Message Service (XMS)

    f.   Total Recall Interactive Playback Program (TRIPP)

In order to use After Action Reports in the TRIPP the GlassFish domain must be re-saved as follows:

    1.   In the WSM, stop the AAR GlassFish server.

    2.   In the ICP, on the GlassFish tab, deselect, and then reselect GlassFish.

    3.   In the ICP, save.

    4.   Restart the AAR GlassFish server.

- Entity Level Server (ELS)

- JTLS Operational Interface (JOI)

- KML Operational Interface (KOI)

- TBMCS/ICC Interface Program (JTOI)

- JTLS Interface Network Navigator (JINN)

- JTLS Order of Battle Editor (JOBE)

- Technical Control Tool (TechTool)

Instructions for installing JTLS 4.1.8.0 are provided in the *JTLS Installation Manual*. Installing a previous version of JTLS prior to installing JTLS 4.1.8.0 is not necessary. No other upgrade beyond installation of the compressed TAR files (or CD) is required. The software provided with this delivery is a complete release that includes all files and code required to execute JTLS.

1.2.5 Released Databases

This release includes these sample unclassified databases:

- The scenario developed as the Korea Standard Database and named SDBKOR41 is a large-scale, seven-sided scenario database reflecting the approximate starting positions of units involved in the Korea Peninsula theater of operations. This example scenario was developed using unclassified data sources and is consequently not completely accurate. Discrepancies among actual units and their locations are not detrimental to the intended purpose of this database, which is to provide a recognizable and realistic scenario that demonstrates the simulation capabilities and supports JTLS training.

- The scenario DEMSDBKOR41, which is a reduced version of SDBKOR41, **has** been updated from JTLS 4.1.5.0 for this release and contains the most current engineering level data from the SDBKOR41 scenario.

- The scenario blank40 is the SDBKOR41 database, with all force structure data removed, can be used as a framework for building your customized database. This database has been updated and contains the most current engineering level data from the SDBKOR41 scenario.

1.3 INTERFACE COMPATIBILITY

1.3.1 Support Software

JTLS 4.1.8.0 requires the following versions of support software, including operating systems, compilers, scripting utilities, database tools, transfer protocols, and display managers.

- Operating system for the model: Red Hat Linux Enterprise Edition Version 5 or 6 (ES), 64-bit architecture.

> Security Enabled (SE) Linux must not be enabled on systems used to execute JTLS or its components. Tests reveal that SE Linux-enabled systems cause frequent and random JXSR crashes and errors. Use of SE Linux to support JTLS is currently not authorized.

> When running JTLS on any Version 6 Red Hat Linux Enterprise Edition system, do not run the SYNAPSE and APACHE services on the same machine. This is a known issue, and the development team is continuing to find a solution, so this restriction is not necessary.

> The Development Team has started to investigate the impact of Version 7 Red Hat Linux on JTLS. This testing is not complete; therefore, JTLS 4.1.8.0 is not approved for use with Version 7 of Red Hat Linux.

- There are no restrictions on the operating system for client workstations, except that the operating system must have a Java-enabled web browser. JTLS 4.1.8.0 client software has been tested on the following operating systems:

  Red Hat Linux Enterprise Edition Version 5 and 6

  CentOS Linux Version 5 and 6

  Windows Vista, Windows 7, or Windows 8 can be used only if the workstation is an external HTTP client of the simulation network.

- Java Version 1.7.0 Update 76 is required for all platforms and must be used to support all workstations.

  Because of recent incidents of intrusions into software systems, the United States Department of Defense (DoD) has implemented a strong and strictly enforced Information Assurance (IA) program. JTLS, as software that executes on DoD systems, must comply to the mandates of the IA program, along with all of the third party software used by JTLS, such as Oracle and Java.

  One of the DoD IA requirements is that the software must implement a methodology that ensures that the end user keep the software up-to-date and all security patches are properly installed. Java 7 has fulfilled this mandate by implementing an expiration date for its software. After a certain date, all Java related programs will stop working, whether you are connected to an open network or not.

  JTLS has decided to meet this requirement by linking our JTLS software releases to the Java 7 security updates. This version of JTLS is released using Java 7 Update 76, which expires on 14 April 2015 and becomes non-operative on 14 May 2015. A new version of JTLS will be released prior to the non-operative date.

  Java 7 Update 76, suitable for use on 64-bit Linux systems, is part of this delivery. For optimal performance, a user must obtain this same version of Java for any non-Linux clients systems that they plan on using.

  JTLS has completed the IA program mandates and the JTLS 4.1 series of releases has been granted an Authority To Operate (ATO) on DoD systems.

- JTLS database tools require use of a certified Oracle database server and the full Oracle Client installation for runtime requirements. Refer to Section 1.5.2 of this chapter for additional installation details.

- Windows software, X11R5 server, Motif 1.2 Library, Motif Window Manager: These items are included as part of the supported versions of Red Hat Linux ES.

- TCP/IP is required for inter-process communication between the JODA data server and all user interface programs. The version of TCP/IP included with the supported versions of Red Hat Linux ES is sufficient.

- The Perl script language is used by the JTLS system and game setup scripts. The version of Perl included with the supported versions of Red Hat Linux ES is sufficient. The Perl program is typically located in the /usr/bin directory. If Perl is installed in a another location, a link should be created from the /usr/bin directory to this program.

- SIMSCRIPT II.5 (SIMSCRIPT to C) translator/compiler: SIMSCRIPT is required for recompiling JTLS code. It is not necessary to have a SIMSCRIPT compiler to execute JTLS, because all JTLS software executables are statically linked with the SIMSCRIPT libraries. The compiler is needed only if you are a U.S. Government organization that can obtain source code and plan to re-compile JTLS SIMSCRIPT code. To obtain a SIMSCRIPT compiler, contact CACI Inc.

- ANSI C Compiler: It is not necessary to use a C compiler to execute JTLS. This compiler is used only by U.S. Government organizations that can obtain source code and intend to re-compile any of the JTLS component programs. The C Compiler version delivered with the supported versions of Red Hat Linux ES is sufficient.

- C++ Compiler: It is not necessary to use a C++ compiler to execute JTLS. This compiler is used only by U.S. Government organizations that can obtain source code and intend to re-compile any of the JTLS HLA component programs. The C++ Compiler version delivered with the supported versions of Red Hat Linux ES is sufficient.

- The JTLS DDS (Database Development System) application uses these open source libraries, which are delivered with JTLS:

  JFreeChart, licensed under LGPL (GNU LESSER GENERAL PUBLIC LICENSE) by Object Refinery Limited, http://www.object-refinery.com

  JCommon, licensed under LGPL2.1 (GNU LESSER GENERAL PUBLIC LICENSE version 2.1 or later) by Object Refinery Limited, http://www.object-refinery.com

  Commons-math3-3.0.jar, licensed under Apache Software Foundation (Apache License, Version 2.0) http://www.apache.org/licenses/LICENSE-2.0HLA Compliance

- KML Operational Interface (KOI)

  The Keyhole Markup Language (KML) Operational Interface (KOI) server utility enables the model to feed operational simulation data to any version of Google Earth™. The display capabilities and data transfer features of this terrain viewer are sufficiently robust to be used as a base-level operational interface. Operational Players who may be restricted from using the COP, C2PC, or other C4I systems may be able to install and use Google Earth and configure the KOI to provide a capability that resembles C4I for observing perception Force Side data.

  Chapter 3 of the *C4I Interface Manual* describes requirements and procedures for using the KOI capabilities.

1.3.2 Special Consideration for the JTLS Air Tasking Order Translator (ATO-T)

The ATO-T executes in two modes:

- In the basic mode, one or more files containing the translated orders is created and the Controller is responsible for submitting an appropriate READ ORDER FILE Order that submits these orders to the model.

- In the advanced mode, the ATO-T connects to the Oracle-based Scenario Database Repository (SDR) and places the translated orders into the appropriate Order Entry Client (OEC) tables. The OEC is responsible for submitting the orders to the model.

The SIMSCRIPT and Oracle libraries needed to support both ATO-T modes are delivered as part of the JTLS software package with the permission of CACI, Inc and Oracle Corporation. The necessary SIMSCRIPT libraries are released in the ~/bin_support/Linux64/simscript directory. The Oracle libraries are released in the ~/bin_support/Linux64/oracle directory.

To run the advanced mode, users must have access to an Oracle server. Users must obtain, install, and configure the most current Oracle Full Client to use the ATO-T in the OEC mode.

1.3.3 JTLS High Level Architecture Compliance

The JTLS 4.1.8.0 release is fully High Level Architecture (HLA) compliant, and includes all the programs required to run JTLS in an HLA mode. JTLS has moved to a new Federation Object Model (FOM) located in the $JGAME/data/hla directory. Federation testing of JTLS is not complete, but some initial tests with CAE's Gefechts-Simulation system (GESI) have been accomplished. Future plans include expanding the capabilities to fully establish the GlobalSim Federation.

The HLA RTI (Run Time Infrastructure) executive program (rtiexec) recommended for use with this release is RTI-NG-Pro-v7.0 or Pitch pRTI Evolved 4.4.2.0. However, these programs are not included in the JTLS 4.1.8.0 delivery. Users may obtain a full installation package of the RTI software from either vendor: Raytheon Company (http://www.raytheon.com) or Pitch Corporation (www.pitch.se). For information about executing the HLA RTI Executive and other HLA-related software, refer to the appropriate HLA documentation and user guides.

1.4 DATABASE MODIFICATIONS

1.4.1 Database Upgrade to JTLS 4.1 Series

No database structure differences exist between JTLS 4.1.8.0 and any previous 4.1 series database.

There are no changes between the database structure in JTLS 4.1.7.0 and JTLS 4.1.8.0. There are no special requirements to upgrade your database for JTLS 4.1.8.0.

To upgrade your previously installed and modified JTLS 4.1.5.0 scenario or earlier for JTLS 4.1.8.0, you must unload and reload your scenario. This will recreate the modified stored procedures, database triggers, etc. Failing to do so will cause issues in DDS operations, such as renaming, copying, and deep copying existing records.

If you are upgrading to JTLS 4.1 from JTLS 4.0 or earlier, you must unload and reload your scenario after the modification is completed.

The JTLS Default Symbol Set has not changed since the initial delivery of JTLS 4.1.0.0, If this version of JTLS is your first JTLS 4.1 series installation, then the Default Symbol set must propagated to any of your scenarios that originated under JTLS 4.0 or any previous version. Use the procedure that follows. You should not make any modifications to the Default Symbol Set.

Use this procedure to start the JSYMS program to update the Default Symbol Set used by one or more scenarios.

1. Enter the command "jsyms --edit-default" from a command prompt window. Do not use the JTLS Menu > Database Menu for this purpose. This message appears:

   "!!! JSYMS Allows Editing and Saving the Default Symbol Set."

2. Select the Default Symbol Set from the drop-down menu and select OK.

3. Select Symbols from the menu bar, and select Save to update all scenarios that use the Default Symbol Set.

4. Close JSYMS.

5. Use the JTLS Menu Option 1 > 1 > 6 (Load Symbols) to load the current Default Symbol Set to your scenario account in the Oracle database.

1.4.2 Database Upgrade from JTLS 4.0 or Earlier

Users who currently possess a JTLS scenario (ASCII file set) compatible with a version earlier than Version 4.1.0.0 can use this recommended modification procedure after installing this new version of JTLS:

1. Create a new Oracle account for the scenario.

2. From the new JTLS account, load the scenario ASCII files to the newly created Oracle account.

This process creates the JTLS schema that matches the previous JTLS version. After all data are loaded to the database tables, the process modifies the schema to match the current JTLS version. For JTLS 4.1, this process supports JTLS 3.0 (or higher) series scenarios only. If your scenario version is older than 3.0, the scenario must be upgraded to Version 3.4 first, by using the JTLS 3.4 version upgrade process. Consult Section 1.5.2 of the *JTLS 3.4.0.0 Version Description Document* for details and procedures.

JTLS users must consider that the automatic modification program inserts default values to the new database fields. Also, a new JTLS version may use previously existing data fields in a different way. Consult the appropriate *JTLS Version Description Document* to identify data fields that must be updated. The Database Modify program is the first process to use to update your databases to the new JTLS version. Changing the values in new or changed data fields is equally important.

The JTLS scenario/database modification process requires a full Oracle Client version 10.2.0.5.4 or higher installation.

1.5 INSTALLATION

1.5.1 Installation Instructions

The *JTLS Installation Manual* included in the documents compressed TAR file that is part of this JTLS delivery provides detailed instructions for installing a new version of JTLS.

1.5.2 Oracle Compatibility and Installation

A full Oracle Client installation (not Instant Client) that matches your database server version is currently a requirement for running JTLS applications. The Oracle Instant Client is not sufficient for JTLS applications because Oracle utilities, such as sqlldr, imp, exp, tnsping, etc., are missing. If you have applied a patchset to your database server, the same patchset should be applied to the Oracle Client installation. For the 64-bit version of JTLS, a 64-bit Oracle Client installation must be used. The JTLS scenario/database modification process also expects 10.2.0.5.4 or higher full Oracle Client installation. Some sites NFS mount their database server as Oracle Client; other sites prefer a full install of the Oracle Client to a different directory that mounts (simple NFS will suffice) to JTLS. Your system administrator can choose the appropriate installation. Assigning the full Oracle Client installation location (or mount point) as the ORACLE_HOME in the JTLS .cshrc file allows connecting to an Oracle database server (10.2.0.5.4 or higher - including 11g XE) running on any Oracle-certified database server platform.

The DDS application utilizes the Oracle GlassFish J2EE server, which, like the JTLS WHIP Apache server, is delivered with JTLS and requires no separate installation.

Refer to Chapter 5 of the *JTLS Installation Manual* for additional details pertaining to the Oracle installation.

1.5.3 Disabling Certificate Authority

Keeping with high security standards, R&A has opted to sign its web-enabled applications with a certificate from the COMODO Certificate Authority (CA). It uses the Public Key Infrastructure (PKI) to validate the digital signature. The PKI attempts to validate the certification on COMODO's servers via the Internet. Because of security issues and the expiration of versions, it is strongly recommended that Web Start technologies be signed by a CA to validate that an application being run comes from a trusted and registered source under the PKI.

Local area networks, intranets and standalone systems that have no outside connection to the Internet must configure their installation to disable certificate revocation checks. If this step is not taken under a closed environment, the JTLS web enabled applications will experience a significant delay in start up.

The following outlines how to turn off certificate revocation checks. Again, this step should only be taken if the WHIP, TRIPP and/or DDS are going to be run in a closed environment.

Bring up the Control Panel. On Linux, typing 'jcontrol' in a terminal window will bring up the configuration panel. On Windows, go to the Windows Control Panel and select 'Java'. Both Linux and Windows will display the same configuration panel.

Navigate to the 'Advanced' tab and scroll down to the 'Perform certificate revocation checks on' heading. Select the 'Do not check (not recommended)' radio button and click 'OK'. The image below illustrates the corresponding selection in the Control Panel.
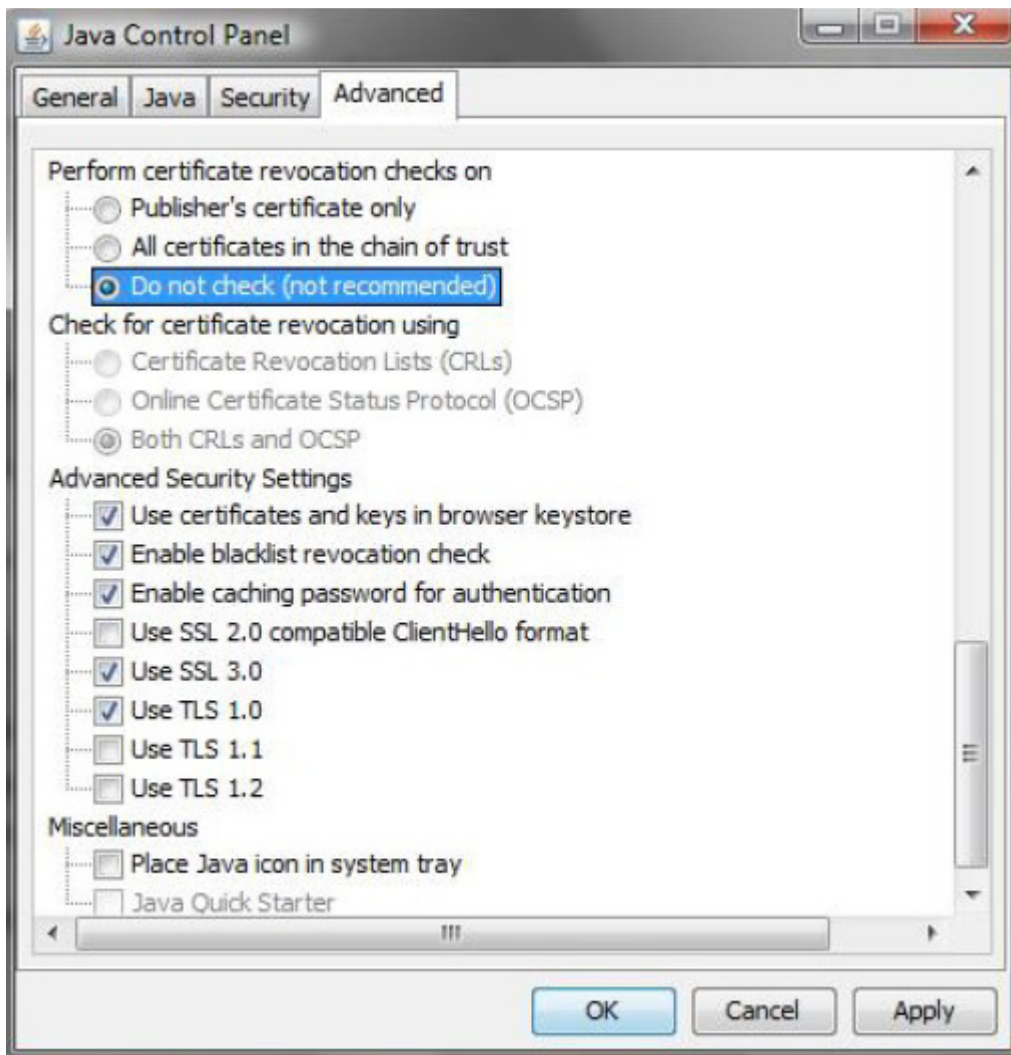
Figure 1.1   Control Panel

Completing this step will allow you to run the JTLS web enabled applications without any external checks and launch the application without the validation delay.

2.0 MINOR MODEL ENHANCEMENTS

This chapter summarizes model capabilities added to JTLS 4.1.8.0 as a result of implementing minor Engineering Change Proposals (ECPs). No major design related ECPs are delivered with JTLS 4.1.8.0.

2.1 JTLS-2014-12332 Disable SSL 2.0 And 3.0

Summary of Model Change Request

Secure Sockets Layer (SSL) 2.0 and 3.0 should be disabled on all servers, because they are vulnerable to attack.

Design Summary

The Apache configuration was modified to disable SSL 2.0 and 3.0. Transport Layer Security (TLS) 1.0 will be used instead. TLS 1.0 is supported by all versions of Firefox, Chrome, and Internet Explorer 7 and newer. Users will notice no change in the manner that JTLS operates.

2.2 JTLS-2014-12345 Provide More Info In Mission Report Subject Line

Summary of Model Change Request

It was difficult to determine which Mission Reports (MISREPs) were of interest to users. The Mission Type and Home Squadron of the Air Mission should be included in the Message Text Format (MTF) version of the Subject line.

Design Summary

The old MTF subject for a MISREP for RECCE mission 1234-120030 from Squadron ABCD was:

        MISREP 1234-120030 - COMPLETED

The new subject reads as follows:

        MISREP 1234-120030 RECCE FROM ABCD - COMPLETED

No changes were made to the English version of the message.

2.3 JTLS-2014-12350 Need Capability To Sort ATO-T Error/Warning Table

Summary of Model Change Request

It would be much simpler to correct the errors and warnings if they could be grouped by the type (number) of the error or warning.

Design Summary

The capability to sort on various columns was introduced by adding Sort buttons to the top of the desired columns and the internal code was modified to perform the task.

3.0 SOFTWARE TROUBLE REPORTS

Software Trouble Reports (STRs) describe software code errors that have been discovered by JTLS users or developers and have been corrected. The following STRs have been identified for this JTLS Maintenance release.

STRs that remain outstanding from previous JTLS versions are listed and described in Chapter 4.0.

3.1 JTLS-2014-12105 DDS - Preference Save

DDS preferences are currently saved locally, but they should be saved based on the user and scenario.

DDS preferences are now saved locally.

3.2 JTLS-2014-12115 SVPR - Generate Unique Error/Warning Numbers

A unique Error/Warning number should be used to identify errors across multiple SVPR developers accessing the same scenario.

This problem has been solved using an alternative method - the SVPR user is now notified that a new Error/Warning list is available, with previously-solved Errors and Warnings noted.

3.3 JTLS-2014-12118 DDS - Map Dogpile Option Not Working

When a user selects several units on the DDS Map as a group and moves them to a new location, the original relative positions of the units were not maintained. Some users were using this as a feature when moving units, rather than a bug.

This problem has been corrected - the DDS Map dogpile option now functions as designed.

3.4 JTLS-2014-12120 No Selection From DDS Map With IADS Filter

The user was unable to select objects from the DDS map when the IADS filter was selected.

The DDS map was modified to no longer ignore mouse clicks when the IADS filter was selected. It still ignores mouse clicks in IADS edit mode.

3.5 JTLS-2014-12124 DDS - Table Special Reference Cell Editor, Units/Targets

Not all location fields in the DDS have the ability to select a location off of the map. All locations should have the same options for entering data into the field.

3.6 JTLS-2014-12129 New Line Characters In Order Text Fields

New line characters were considered valid characters in a order text field. The new line character would cause the order to be truncated during Order Management Authority (OMA) checking, resulting in an invalid order.

New line characters can no longer be entered in order text fields. Any new line characters entered by a user are ignored. This is the same process used for other illegal text field characters.

This problem has been corrected - location fields in the DDS can now select locations off the map.

3.7 JTLS-2014-12137 WHIP - MSEND With Increment In Seconds Not Realizable

When sending game time to the model, a time using Date Time Group format is sent to the CEP. This time can only specify order execution time in minutes. Incrementing the order execution time by seconds is not properly handled. This situation needs to be solved.

This problem has been solved by only allowing the user to send MSEND orders using Date Time Group format. Adding the ability to send MSEND orders to the CEP by seconds would require a substantial change to the capabilities of the CEP.

3.8 JTLS-2014-12139 OVP - Checkorder Script Needs Update

The checkorder script is obsolete. For example, CONVOY is a valid JDSP class, but is treated as an error by checkorder script. This is nothing that will usually be seen or used by an end user.

This issue is obsolete - CONVOY is represented by the GENERIC.OBJECT class.

3.9 JTLS-2014-12267 WHIP - Illegal Character In Order Appears To Validate

If an illegal character like "/" is sent as part of an order, the reply from the OMA has a line that starts with "$", which causes an Exception when parsing the response.

This problem has been corrected by preventing the user from being able to enter illegal characters in order fields.

3.10 JTLS-2014-12274 WHIP - Flight Path And Air Mission Location Inconsistent

An air mission composed of helicopters was tasked for an orbiting OAS. The helicopters were assigned to a squadron, which was assigned to a FARP. The air mission was shown either taking off from the FARP or from the squadron enroute to the second orbit point, while the route shows that it took off from the squadron location enroute to the first orbit point.

Air mission flight paths and location are now fully consistent.

3.11 JTLS-2014-12283 CEP - SimDebug Issues Reading In Checkpoints

Numerous places within the ASCII write code we use the pointer for a variable to indicate if data exists to be read back in. For instance, we write out AM.ORIG.ORDER.POINTER in WRITE.AIR.MISSION.ASCII and if it is not NONE we also write out the Player Order data. During read, if the old pointer is not .NONE we know there is additional data to be read.The problem is that we read the old pointer into a pointer variable, but it is not a valid pointer.

JTLS now defines the old pointers as integer variables, correcting the problem.

3.12 JTLS-2014-12294 WHIP Filter/View Saving Problem

The first filters and views saved on the Controller WHIP do not appear on other Side's filters and views until the other Side WHIPs are closed and reopened, but subsequent filters and views are available.

Viewing and saving of WHIP filters now functions correctly.

3.13 JTLS-2014-12302 DCP - Scenario Map Changes

The scenario map sometimes changes to "Afghanistan." This problem is not reliably repeatable.

This problem was caused by user error, not by code problems.

3.14 JTLS-2014-12307 DDSC - Raw Data Shows Decimal Place For Integers

When displaying with the user preference "raw data", integers have 1 decimal place. For instance 1 is displayed as 1.0. When raw data is not selected, they are correct.

Integers are now correctly displayed as raw data in the DDSC.

3.15 JTLS-2014-12324 JOBE: Data Type Mismatch With Database

When the JOBE launches, it reads the static data and stores the data in the JOBE database. However, some of the data overflowed because the data type description in the code was "Byte", rather than "Integer". The JOBE crashed due to a number format exception.

Some of the data types, which were categorized as "Byte" were changed to "Integer" or "Float," based on the Oracle table data type description. The user should regenerate the static data XML file for a scenario prior to using the JOBE.

3.16 JTLS-2014-12325 Crash When Stopping JOI

During the preparation for a recent exercise, in which three JOIs were attached to the game, the model crashed when one of the JOIs sent a connection request.

The problem was caused because the model somehow received two connection requests from a single JOI, without receiving a disconnect message between the first and second connection request. When the first connection request is obtained by the model, it places the newly connected JOI in its list of active JOIs. When the second connection request came in, the model attempted to place the JOI in the same list, which resulted in a crash.

At the time of the crash there were many pre-exercise checks and issues with the network. We could never recreate the situation. Still, the model logic was changed to avoid the crash. Prior to placing the JOI in the list of active JOIs, the model now asks whether it is already in the list. If not, the JOI is placed in the list. If the same situation ever occurs again, the model will simply generate a Logic Error.

3.17 JTLS-2014-12326 Week Of Year Showing Up In Times

While viewing an "Air Order Received, Cannot Comply" message, it was noted that a time field within the message started with the week number of the year. This was tracked down to the use of the %U modifier within the message's time field. A further examination found numerous other messages with the same modifier. These messages should not be displaying the week number of the year.

The %U modifier is an obsolete modifier that was previously used to indicate that the output should appear in uppercase. The functionality of this modifier was removed with the introduction of timezones into time formats. The corresponding messages should have had the %U modifiers removed at that point. They have now been removed.

3.18 JTLS-2014-12327 Crash During Implicit Resupply Event

After restarting from a checkpoint, the CEP crashed while executing the Implicit Resupply event.

In a previous version of JTLS, the code for the Implicit Resupply event had been modified. The number of arguments sent to the event had changed. In some places in the code, the rescheduling of this event did not use the correct number of arguments. This crash occurred due to the mismatch between what was provided versus what was expected. The code was modified to ensure that the calling arguments match the expectations of the event.

3.19 JTLS-2014-12328 Inactive JXSRs Not Removed From Apache Configuration

If a JXSR was marked as inactive in the ICP, it was not available in the WSM, but was not removed from the Apache configuration. This caused Apache to attempt to forward queries to non-running JXSRs, which led to severe throughput issues. If a debug console was visible it would show a number of JXSR resets.

The ICP was modified to not save inactive web-services to the Apache configuration file.

3.20 JTLS-2014-12329 Detail Window Failed To Open From Category Sorted List

When the object type TARGET was selected from the JOI main window, a separate window was displayed with targets in the game. If the list was sorted by Target Category, the Detail window failed to open when the Detail button was selected.

The JOI code was modified to correct the problem.

3.21 JTLS-2014-12330 Fill All Function Fails For Certain Prototype Screens

The DDS "Fill All" function was failing to populate the related child tables for certain prototype screens because of the missing Java program tag, named "child-table". When the related call string was constructed at the GlassFish middle tier, the users was getting a Java program exception because of the missing tag. The only workaround was to invoke the related Oracle stored procedure from sqlplus, which may not be available to all DDS users unless they have sqlplus access to the database.

The related "child-name" tags, which specifies the related child table names used in the construction of Java call statements at the GlassFish server side, were added to the related, failing DDS screen definition XML files.

3.22 JTLS-2014-12331 WHIP Component Saving

Attempting to save the WHIP, Message Browser, and Command Tree configurations would generate errors and not allow the user to share the configuration with other WHIPs.

The WHIP's save code was updated to provide the user with a full list of WHIP logins with which it could share its current configuration settings. While implementing this STR, several minor errors were also fixed when writing out configuration files.

3.23 JTLS-2014-12333 Provide Radar Status For Link16 Air Defense Targets

The Link-16 radar status field data was not filled by the JOI for Link-16 capable air defense targets. The same information was provided in the Link-16 messages for the sensor targets.

The primary surveillance radar status field is a part of the Link-16 J13.5 (Land Platform and System) message. Using the same rule as the sensor targets, the JOI code was modified to provide the radar status data from Link-16 capable air defense targets.

3.24 JTLS-2014-12334 Link-16 Drop Track Failed When Game Restarted

When the game was restarted with the JOI process running and producing Link-16 messages, the Link-16 Drop track (J7.0) from a ground unit was sent without the JU number.

This situation occurred when the game was restarted from a previous checkpoint and the ground unit that was producing the Land PPLI (J2.5) did not have a JU number in the previous checkpoint. The code was modified to correct the problem.

3.25 JTLS-2014-12340 NATO Reports Cannot Be Read By NATO C4I System

JTLS contains two NATO specific messages, called the NATO Own Situation Report (OWNSITREP) and the NATO Enemy Situation Report (ENSITREP). These two reports are designed to be read in by a real-world C4I system used by a NATO staff. Several formatting errors were uncovered.

The following issues were uncovered:

1. Several report records were cut across several lines. This was not allowed. The message definition files were changed to remove the unwanted new line characters.

2. The UICs for the units had to follow a very specific format. Since the database had not used the format, a new User Code section was added to the SIP to generated an SQL file used to update the UIC for all Ground Combat Units and Support units in the game. This new code was run and the file was used to update the UICs in the initialization database prior to the start of the exercise.

3. The ENSITREP cannot have more than 1500 lines. For this reason the report was changed and the model simply breaks the ENSITREP into several reports, each of which will not contain more than 350 foreign units.

3.26 JTLS-2014-12341 Inappropriate WHIP Alert Message

The WHIP Alert "AM No Next Intercepting Hex Found" was confusing to users.

A more descriptive alert message was created for this situation, in which a mission had no permission to cross a national boundary in pursuit of an air mission. The new alert reads: "AM No Feasible Intercepting Location".

3.27 JTLS-2014-12342 Missile Not Fired On Time

A user input two sets of Fire Missile Orders. The first set launched at the expected time, but the second set of missiles, designated to have a Time Over Target 40 minutes later, did not fire.

The situation was replayed. The problem occurred because the firing ship was moving closer to the target area. This meant that the missile was to launch at a later time but the event OBJECT TAKE ACTION was not rescheduled. When the event executed, the event determined no missile needed to fire, but the event did not reschedule another look at the new firing time.

The code was change to reschedule the OBJECT TAKE ACTION event at the next required firing time.

During the exercise, the process was restarted without a code change by submitting a new firing a missile ASAP order. This triggered the ship to start firing and the delayed missiles fired as expected.

3.28 JTLS-2014-12343 HRU Did Not Jettison Supplies

A user attempted to put an HRU on a full helicopter and it did not properly jettison its supplies.

The user told a mission to Extract an HRU, and then later in the Mission Instruction list told the mission to Insert the HRU. This was an unusual order. The HRU was being picked up at its home base, which should be represented as an administrative "Pickup" not as a operational "Extract". The logic had an error when an HRU was being extracted and the same HRU had a subsequent "Insert" order.

The problem was solved and the HRU being extracted, even when there is a subsequent insert for the HRU, now properly jettisons its extra supplies and equipment. All other combinations worked just fine and were not changed as a result of this STR. Pickup, followed by an Extract, results in the HRU mission being canceled if it does not fit on the provided aircraft during the Pickup process.

3.29 JTLS-2014-12344 Bad IIR Message When Ship Damaged

A user noticed an IIR message that could not be properly displayed by the message browser.

The problem occurred when reporting the damage to a ship. The IIR message indicates the level of damage the ship has suffered, such as whether there is visible smoke or fire, the direction that the ship is listing, and whether the ship appears to be riding low and sinking.

The ship "Listing" characteristics: LISTING.UNIFORMLY (0), LISTING.FORWARD (1), and LISTING.AFT (2) are linked to the "Riding Low" characteristics: DOWN.BY.THE.BOW (1), DOWN.BY.THE.STERN (2), RIDING.LOW.IN.WATER (3). The model assumed that the values for these two characteristics were consistently formed, but this is not true. The result was that the listing characteristic for the ship was set to an undefined value. The problem was solved by simply linking the proper listing value to the different Riding Low values.

In the future, this issue may be revisited to make the two attributes consistent to avoid these types of problems.

3.30 JTLS-2014-12346 Wrong Mission Type Using ATO Translator

When the CINT mission order is translated by the ATO Translator, it is created as a Electronic Combat Mission when it should be a Reconnaissance Mission.

The CINT mission type is defined as Communication Intelligence collection. In JTLS the best representation of that mission type would be a reconnaissance mission. The requested change has been implemented.

3.31 JTLS-2014-12347 ATO-T DSA - Sensor Usage

The last field in the ATO-T DSA spreadsheet is labeled Sensor Usage, but there is no information provided to describe what should be entered in the field.

The Sensor Usage field should have read DSA Radius and has been corrected. Several other column header comments were corrected.

3.32 JTLS-2014-12348 ATO-T Table Data Corrupted

The data in the Mission summary table periodically appears to be corrupted.

The Simgraphics program reserves the maximum array size as defined in the initial table description. If the user data to be displayed exceeds these table sizes, it will overwrite other data in memory. The first step in this correction was to increase all multidimensional arrays sizes to an amount larger than would reasonably be expected.

A future correction will add internal program checks to compare default tables sizes with the requested user data.

3.33 JTLS-2014-12349 Missing Load Name

The ATO-T user has the option of modifying the ato text file after the initial read and then re-executing the error checking procedure. If a change is made to add or change a mission load name, the change is not reflected in the weapons load table unless the ATO-T is completely restarted.

If the user adds or modifies a load name that is not part of the initialization data, the load is now added to the weapons load table and the form table data is updated.

3.34 JTLS-2014-12351 Inconsistent Format Of ATO-T Output File Names

The usage of the underscore ("_")and period (",") characters in the file names was inconsistent and made it difficult for the user to enter names in the OVT and READ FILE Order. Additionally, in some instances the ATO-T would write generic names for mission and error reports. When a new report is written, the ATO-T would overwrite the previous version, destroying any possibility of maintaining historical copies.

All output report names were modified for consistent use of special characters. Each of the filenames now includes the ato name and ato change number as part of the filename to aid in maintaining unique file names.

3.35 JTLS-2014-12352 DSA Order Rejected By OVT

DSA creation orders generated by the ATO-T generated numerous errors when they were checked by the OVT.

The translator code has been updated to match the DSA format used by the CEP for circular DSAs.

3.36 JTLS-2014-12353 Make Processing Of Mixed ATOs Easier

The ATO shop for the exercise routinely released the first ATO of the day as CHANGE1 and it would contain both ORIGINAL ATO missions and the CHANGE1 missions. The user then has to duplicate the ATO and manually create a ORIGINAL and a CHANGE1 ATO. The process to do so is filled with the possibility of mistakes and other problems.

The translator now contains code to process a ATO text file that is mixed with both ORIGNAL and CHANGE ato missions. The main setup screen for the translator contains a flag that must be checked (on) for this option to function. The user then must ensure the ato text file has been edited to look like an original ATO. As each mission is processed, if the mission is a change, the translator will write the necessary information to the screen to allow the user to hand enter the change numbers for each of the mission after they have been read into the CEP. Future ATO-T changes will do more to automate this process.

3.37 JTLS-2014-12354 Civilian Air Traffic Error Screen Missing Data

The ATO-T error and warning screen does not contain the line number for a bad record in the original file, which makes it difficult to find the bad record for correction.

Air Traffic processing is different from other portions of the ATO-T, in that it reads all the records and then performs error checking. Thus the original line number is lost when errors are identified. A new field has been added to the air traffic record, set to save the line number as the record is read in. The new field is used to populate the error and warning table.

3.38 JTLS-2014-12355 New ATO Record Type AOTRP

The AOTRP record type is being flagged as an unknown record type by the ATO-T.

The AOTRP record type provides rendezvous information for different types of missions and packages. The ATO-T was processing the information as part of the initialization and setup, but did not recognize it as legal in the processing and execution phase. The code has been updated to handle this situation.

3.39 JTLS-2014-12356 Incorrect Number Of Refuel Chits

The CEP crashed while processing a read order file that had been checked by the Order Verification Library (OVT).

The crash was caused when the number of refuel chits for the refueler was greater than the actual number of refuel chits that were a part of the order. The primary cause was in the ATO-T code. When it determined it should destroy a refuel chit, it failed to decrement the number of

chits on the refueler even though it threw the chit away. The routine has been modified and retested with the original files.

That being said, the OVT library should not have allowed the ill-formed order to make it to the CEP. JTLS-2014-12360 OVT Crash With Wrong Number Of Utility Records, Section 3.42 fixes this problem.

3.40 JTLS-2014-12357 Problems Processing Incomplete RESASSET records

When a RESASSET record is incomplete or contains data not previously recognized, the ATO-T garbles follow-on records.

The ATO-T expects all fields on a record to be filled or defaulted with a place holder. When the data is completely left out, it causes a problems in the read routine. The code for the RESASSET record has been updated to catch this situation and generate an error.

3.41 JTLS-2014-12359 ATO Records Being Skipped

Several missions were missing from the final mission list and several errors and warnings did not make sense. Entire missions had been skipped.

An incomplete AMSNLOC record for a alert mission caused the ATO-T to skip the next record. By skipping the next record, the translator could inappropriately miss the next mission specified in the ATO file. The code was modified to properly recognize and report the AMSNLOC record error without skipping the next record in the file.

3.42 JTLS-2014-12360 OVT Crash With Wrong Number Of Utility Records

When the OVT is used to verify a read order file, and one of the orders has the wrong number of utility records specified, the OVT will crash.

The OVT catches the original error and attempts to compose an error message for it. During this composition the OVT parses the order and then accesses the order reference from the parsed order. Since parsing of the order will fail due to the wrong record count, the access of the order also fails, resulting in the crash. The composition of the error message was modified, so that if the order does not parse correctly, a reference name of "Unknown" is used in the error message.

3.43 JTLS-2014-12361 Incorrect Days Since Start In WHIP Messages

The number of days since game start in WHIP messages was incorrect.

The Calendar object used for date calculations was changed to use ZULU time instead of the machine default time zone.

3.44 JTLS-2014-12362 Armed Recce Attacking Mail Supply Routes

A minor misspelling in the help for the Armed Recce order specified that the mission was useful when flown along likely Mail Supply Routes. This should have been Main Supply Routes.

The text associated with the help was modified as required.

3.45 JTLS-2014-12363 Unable To Set Unit Disease/Failure Numbers

The Controller's Set Unit Disease Failure order was used to assign a Daily Occurrence Rate for Cold Exposure to a unit, and to assign an initial number of afflicted Infantry combat systems. This attempt to use the order resulted in numerous issues:

The first issue was that the resultant message showed an Occurrence Rate of zero and the initial number of afflicted systems as zero.

Second, upon further examination of the code, it was discovered that there was no way to ask for a report of the current values without setting a value.

Lastly, the line in the message that contained both pieces of data had a "PCT", or percent, designator assigned after the number of afflicted systems, instead of after the Occurrence Rate.

The problems with the implementation of the order and the ability to ask for a current report were introduced when the older Set and Show version of the order were combined into a single order with tabs. The order panel was reorganized to use a tab concept, but the underlying code was never updated to recognize the tab structure.

Updating the underlying code solved the first problem of the order not being implemented. To solve the second issue, a field was added to the order, with underlying code, allowing the WHIP operator to specify that a report was required without setting any of the values of the Disease/ Failure. The last problem was solved with a simple modification to the Message Definition File, replacing the "PCT" designator with a "%" sign and ensuring it occurred in the proper places.

3.46 JTLS-2014-12364 Multiple Generation Of NATO Sitreps

The player and Controller have orders that allow the generation of NATO OwnSitrep and NATO EnSitrep (Enemy Sitrep) reports on a periodic cycle. The underlying code is designed to recognize that an OwnSitrep order from a WHIP should be considered to be a set of modification instructions if a report for the same unit or using the same order reference name already exists. Similarly, a NATO EnSitrep order from a player is considered replacement instructions if an existing report for the same side or order reference name already exists.

The problem was that, for both reports, if all conditions existed, a new report was generated instead of modifying the existing report. Sending an OwnSitrep order from the same WHIP with either the same unit or the same order reference specified resulted in a modification to the existing report, but if both the unit and the order reference were the same, a second OwnSitrep

was generated. The same problem of having a matching WHIP, reporting side, and order reference existed for the EnSitrep.

The code was modified to recognize that, if all three conditions existed for either the OwnSitrep or the EnSitrep, the order would be recognized as a modification to the existing report rather than generation of a new report. In addition, the order and field help were modified to explicitly state these rules to the WHIP operator.

3.47 JTLS-2014-12365 NATO Enemy Sitrep and Own Sitrep Message Sorting.

When NATO Enemy Sitreps and On Sitreps are automatically send by the Message Delivery Program (MDP) to NATO's Land Command Control Information System (LC2IS), the subject line of the message did not provide the type of information needed to properly categorize the messages.

The MTF message files for both the EnSitrep and OwnSitrep reports were modified so that the subject lines adhered to the desired NATO format.

3.48 JTLS-2014-12366 No ICC Updates For Inactive Objects In Update Mode

When the JTOI was used to update the ICC, all object updates were sent if they were from the owning side. This was fine during initialization, but a user requested not to receive any updates from the JTOI for units that have not arrived in the theater.

The JTOI code was changed so that no updates are sent for inactive objects when the JTOI is running in update mode.

3.49 JTLS-2014-12367 JTOI: Provide AC Loss Data To ICC With MISREP

Information on numbers of aircraft losses, aircraft successful, and aircraft unsuccessful were sent to update the ATO_MISSION_OPS table when an air mission has completed. A user requested that the same Aircraft number information also be sent to the MTOTE table when the JTOI sends the mission report to ICC.

The JTOI code was changed so that the numbers for aircraft lost, aircraft successful, and aircraft unsuccessful are provided to ICC when the MISREP is sent. The data provided is now available on MTOTE.

3.50 JTLS-2014-12368 Sending Directed Messages From MDP

Problems were encountered with both the MDP and the MDP configuration GUI when attempting to send directed NATO EnSitrep and OwnSitrep messages to a C2 system via e-mail.

The first issue was with the GUI; when switching Delivery Profiles it was not clearing the list of selected WHIP names. This meant that names from the previous Delivery Profile were

automatically being added to each successive Delivery Profile that was viewed, making configuration of the Delivery Profiles difficult.

The second issue was with the MDP code itself. For directed messages, the MDP will send out a message only if the message number and the designated WHIP matches the configuraiton file specifications. The MDP was incorrectly storing the WHIP names and therefore messages were being incorrectly sent or incorrectly not sent.

The third issue was the actual comparison of a directed message against the stored WHIP names, which was comparing the memory locations of the two versus a string comparison of what was stored at those memory locations.

Lastly, it was determined that more flexibility in the name of the attachment files for e-mails, rather than just setting the file extension name, was needed.

The MDP configuration GUI was modified to clear and re-populate the list of selected WHIPS when changing Delivery Profiles and the Attachment Extension field for e-mails was expanded and renamed as the Attachment Filename field. The new Attachment Filename field has the full functionality of using message variables as the Subject field and has been assigned a default filename of {SUBJECT}_{ID}.txt. The MDP was modified to use this new field, with variable substitutions, as the filename for e-mail attachments.

Further code modifications were done to ensure the proper parsing, storing, and lookup of WHIP names from the Delivery Profile.

3.51 JTLS-2014-12369 Message Browser MGRS Location Right-click

When right-clicking on MGRS coordinates in the contents of a message in the Message Browser, no context-sensitive menu would appear. However, when right-clicking on Latitude/Longitude coordinates, a context-sensitive menu would appear, allowing the user to find that point on the map, as well as zoom in on its position.

Support was added for MGRS coordinates to the Message Browser's right-click functionality.

3.52 JTLS-2014-12370 Download Progress Popup Stealing Focus

The download progress frame, used by Java programs including the WHIP and DDS, would steal focus from the primary window when it became active. This would cause the main program window to erratically lose and gain focus.

The download progress frame was modified to no longer request focus when it becomes active. This allows the main program being run, such as the WHIP or DDS, to maintain focus.

3.53 JTLS-2014-12371 Email Configuration Dialog Misplaced Commas

When compiling a list of selected email address, the email configuration dialog would inappropriately place a comma at the beginning of the list when the user left the destination address text field blank. In addition, a horizontal scroll bar was not always created when needed.

The function that generates a list of email addresses has been fixed so that commas will not be misplaced. User interface elements have been modified to allow for the creation of a horizontal scroll bar or the expansion of the display area when needed.

3.54 JTLS-2014-12372 Controller Context-Sensitive Menu Manage JDPI Order

The Controller's context-sensitive menu for JDPIs did not contain the menu item for the "Manage JDPI" order.

The menu file for controllers was updated to include a context-sensitive item for JDPIs that will display the option to select the Manage JDPI order.

3.55 JTLS-2014-12373 Command Hierarchy Wiped Out Unit Placement

Units having a posture of WIPED_OUT would be inconsistently placed in the Command Hierarchy. Depending on if the Command Hierarchy had been opened before or after the unit had been wiped out, the unit's placement in the Command Hierarchy would be different.

Units with a posture of WIPED_OUT are now consistently placed in the Command Hierarchy. These units will appear as peers of their side's highest headquarters unit(s). Wiped out units will also be added below all other units in the hierarchy.

3.56 JTLS-2014-12374 Utility Time Fields Mishandling

Time fields in utilities that had their value set to "ASAP" were returning the date-time-group representation of that time, rather than the value of "ASAP".

Time fields were updated to recognize when the value of "ASAP" is set. If found, that value is used, rather than the date-time-group value.

3.57 JTLS-2014-12375 Message Browser Config Layout Reformatting

The lists contained in the Message Browser's configuration tabs were statically formatted. This prevented users from being able to expand the Message Browser in order to get more comprehensive view of these lists and their contents.

The layout formatting was redone to make the selection lists of the Message Browser expandable rather than static.

3.58 JTLS-2014-12376 Crash When Port Unit Lost During Unit Arrival

A new unit was ordered to arrive (TPFDD) at an existing port unit. The port unit was killed while the new unit was in the process of arriving. The loss of the port unit was modeled as having a strength of zero. This may have happened due to Controller order, or by being destroyed. While the new unit was acquiring its supplies at the port, the model crashed.

The model crashed during the clean-up process, when the model was attempting to reconcile the supplies in the port and the supplies in the newly arriving unit. The code was modified to consider this possibility. With this change, the crash no longer occurs and the port unit appeared to be fully destroyed as ordered.

3.59 JTLS-2015-12377 Air Movement Report For Transfer Mission Nonfunctional

The context-sensitive order "Air Movement Report" for a transfer mission does not work.

The Air Movement Report is used to generate a report on the current status of an Air Mission used to move Units, Personnel, or Supplies. The Transfer mission does not fit into this category. The option to request a Air Movement Report for a Transport Mission has been removed.

While researching this problem several other inconsistencies in the use of the Air Movement Report were identified and corrected.

3.60 JTLS-2015-12378 CEP Empty Update Of Perceived Target Name Causes Crash

When the CEP sends an update of a target that includes the target's perceived name, the OVT aborts and exits while processing the update. The exit from the OVT causes any program linked with the OVT library to also exit. This includes the Order Entry Client (OEC) program.

When the CEP published an update of a perceived target name, the CEP used an incorrect data structure to fill the target's name attribute. The incorrect structure likely resulted in providing a blank for the perceived target name causing the OVT while processing the empty name attribute. The CEP routine was modified to use the proper data structure for updating the name.

No OVT changes were made since it is inappropriate for the name of any object to be blank within the JODA. Adding unnecessary protection code to the OVT reduces its efficiency.

3.61 JTLS-2015-12379 DDS Menu Item, Related Screen Mislabeled

The DDS menu item label for the Unit Supply Category screen, and the related DDS screen label, was misleading. The menu item should be accessible from the generic Unit menu and labeled as "Log Hierarchy" instead of "Supply Category".

The related DDS menu item label, and the related screen definition label, was modified to read "Log Hierarchy" and was made accessible from the generic Unit menu.

3.62 JTLS-2015-12380 Error Creating orders.def File

An error was discovered with the stylesheet that generates the orders.def file. This file is used by the CEP to decipher orders received from the WHIP and Read Order Files. The stylesheet was failing to properly identify which tab or panel a field or group was on when that field/group was contained in another group.

A re-work of the stylesheet was conducted, to implement a recursive search methodology to find the tab/panel that a field or group is on. In addition to fixing the immediate problem, this approach also handles deeper recursion of groups within groups, in case a future complicated order requires it.

It should be noted that, although this error existed in the JTLS 4.1.7 release, there are no orders complicated enough within that release for the problem to manifest.

3.63 JTLS-2015-12382 DDSC Uses CPU Heavily When Table Open

Database Development System Configuration (DDSC) program tables were continuously redrawn when open, leading to excessive CPU usage.

DDSC code was modified to prevent continuous redrawing of open tables, by removing a call to repaint when retrieving the table cell renderer.

4.0 REMAINING ERRORS

Every effort has been made to correct known model errors. All reproducible errors that resulted in CEP catastrophic software failures (crashes) have been corrected. Other corrections were prioritized and completed according to their resource cost-to-benefit relationship.

Correction of the remaining STRs, however, must be postponed to a later version due to time and resource constraints. These problems may be corrected prior to the next release of JTLS. If an immediate need arises for code corrections to remedy any of these outstanding STRs, such as an exercise planned to occur before the next release, contact the JTLS Development Team Leader. Refer to the Abstract of this document for the current address.

Code errors described in this chapter should be noted specifically because they affect the basic functionality of JTLS. Information is provided regarding the extent of the error, as well as suggestions to avoid or minimize the effects of the problem.

4.1 JTLS-0942 CEP: Air Transport Cannot Combine Wet And Dry Supplies

When both wet and dry supply categories are included in the same Transport Instructions List for an Air Transport mission, they will not be transported at the same time. The first supply category shipment type will be loaded, but the second will not. If both are included in the same Supply List, the wet category is preferred. The aircraft go through the motions as if loading and delivering the denied category, including MISREP confirmation. No pickup or delivery is made, although an empty storage area may be created. There is no documentation to support this situation, and the user is not notified of the problem.

4.2 JTLS-0956 CEP: MPP Messages For Canceled Missions In Error

If an airbase is magic moved with several squadrons on active missions that need to be canceled or with squadrons in the middle of a self lift, the subsequent message generated for the situation has several errors. The changes required are too risky during the exercise. The problem will not cause a crash, but will cause the MPP to incorrectly display the message contents.

4.3 JTLS-0961 CEP: Group Ground Move Delayed To Lead Unit

There is a problem when a group ground move is sent. The directive is delayed to the lead unit. When the lead unit learns about the move, it immediately tells the units in the follow-on group. This could lead to directives being received out of order. Assume the user sends a directive at 0100 and the CEP determines the lead unit should receive the message at 0200. The lead unit cannot receive any other directives until after 0200. The CEP ensures that directive receipt is in the same order as the user sent the directives. This is not true for the follow-on units. If the user sent an order at 0115 directly to one of the follow-on units, the follow-on unit could receive the 0115 directive prior to the order sent at 0100. If this error is causing problems for upcoming exercises, the Configuration Manager should be contacted for a code fix to solve this problem.

4.4 JTLS-0968 CEP: Inconsistency Between Regular Run And Pusher

There is a major inconsistency between a regular run and a run created using pusher. When an order with ASAP is sent, the READ KEYWORD routine sets the data parameter to TIME.V. When pusher reads in the order, TIME.V is much earlier than it was when the order arrived in the first place. For orbiting missions and alert missions, this alters when they will go off alert by a great deal. This must be fixed and made consistent. It appears that both TIME.V and order receipt time must be saved to the ci1 file to accomplish this task.

4.5 JTLS-0973 CEP: Periodic Report Air Supplies And Fuel Not Correct

The arrays which hold air supply usage are not being maintained correctly given the new MISSION RESOURCE ALLOCATION event.

4.6 JTLS-0974 CEP: Submarine Detection By Ground Sensors

A moving submarine does not get full credit for coverage time by sonars on board other ships or submarines. It gets full coverage time for airborne sensors but not ground based sensors.

4.7 JTLS-1384 Documentation: Area, Target, And Unit Report Documentation

Some users have indicated that the documentation of Area Report, Unit Report, and Target Report similarities and differences are incomplete or inaccurate. A review of this documentation is needed.

4.8 JTLS-2014-12093 CEP - HRU Reports Do Not Include Detected HRUs

Periodically, an HRU will report what it has seen. It reports units moving into and out of the area. The data is collected when it detects HRUs moving into and out of the area, but this information is not included in the generated report. This should be done in the routine GENERATE HRU REPORT.

4.9 JTLS-2014-12094 DDS/SVPR - UOM Flicker

It appears that the UOM periodically changes and then changes back in the SVPR, but it doesn't stay changed long enough to see what it changes to.

4.10 JTLS-2014-12096 APACHE/SYNAPSE Cannot Run On Same CentOS 6 Machine

When the Synapse and Apache are run on the same instance of CentOS 6 or Red Hat 6 on the same machine, the Synapse will back up. Running the Synapse and Apache on separate virtual machines or two difference physical machine works correctly. The JTLS Development Team have continue to consider this a high priority item.

4.11 JTLS-2014-12098 CEP - Moved Units Do Not Remove CS From Shelters

Units moved out of a hex do not remove combat systems from shelters.

4.12 JTLS-2014-12099 SVPR - Ensure DDS Sending SVP Info To Debug

The SVP crashed while running the SVP from the SVPR, but the only sign there was a problem was that nothing was happening. The output of what was being read by the SIP was hung, without any information in the debug console or other information.

4.13 JTLS-2014-12101 SVPR - Auto-Fix Not Selecting Affected Supply Category

When auto-selecting a TUP/SUP supply category to fix, the SVPR always opens the corresponding column in the first supply category, rather than the affected supply category.

4.14 JTLS-2014-12102 DDS - SVPR Warning 1223 Empty Table

When clicking on the solution for Warning 1223 in the SVPR to bring up the CSP_CS table, an empty table is brought up instead.

4.15 JTLS-2014-12103 DDS - No Change For Default UOM For Basic Categories

Since the CEP is coded to expect a default UOM of the raw data for each basic category. The user should not be able to delete or edit these UOM.

4.16 JTLS-2014-12104 WHIP - Issues On 32 Bit Machines

WHIPs being run on a 32 bit Windows machine were using over 1 gigabyte of memory each. In addition, the WHIPs would often lock up or the Map would not respond to Sitreps, route requests, and so on. This problem will be corrected with the release of JTLS 5.0.

4.17 JTLS-2014-12106 AAR - Exception When Translating Report

When a report is rendered in the TRIPP, the report is rendered in English even if another language is selected. Two FileNotFoundExceptions are found in the GlassFish log, indicating that the language properties and default language properties are not found.

4.18 JTLS-2014-12107 WSM - Apache Status Fails When Firewall Blocks HTTP

The WSM always uses HTTP to get the Apache status even when running with HTTPS. Both ports are open on the server, so this fails when the firewall blocks HTTP.

4.19 JTLS-2014-12108 CEP - BDA Reports Inaccurate On Sheltered CS Kills

When air missions attacked airbase targets sheltered in barracks shelters and killed combat systems, the BDA Report for the attacking side showed grossly inflated numbers of combat

systems killed. The BDA report is much more accurate when killing systems by attacking the unit or a location. The false numbers only happen when killing an occupied shelter.

4.20 JTLS-2014-12110 DDS - Printing Multiple DDS Reports Needs Correction

One can print multiple DDS Reports with one print command. This is done by selecting the reports individually. With more than one highlighted, a single print command can be used. However, in the resulting print, the reports run together - the second report starts on the next line after the previous report ended. Also, it adds a line of text that looks like the last line of the first report. This added line is actually the title of the second report, left justified and inserted in a smaller font. You see the title of the second report twice, and it looks unprofessional.

4.21 JTLS-2014-12112 DDS - Oracle Error Display Dialog

A dialog currently exists in the DDS that pops up when an error condition happens. This dialog should be used to display Oracle errors as well, given that the user sees nothing happening when a command is executed and it fails for one reason or another and is confusing them. When no action is displayed, the interpretation is that the DDS is failing and not the database layer.

4.22 JTLS-2014-12114 DDS - Add New Validator To Check For "NotOffspring"

Current validators for fields like "HHQ" cannot verify that the assigned unit is not an "offspring" of the unit that is being modified. Even though this type of mistake can be caught by SVP eventually, it still can have ill effect to components like Command Hierarchy once the data committed to the database. It needs to be caught and prevented.

4.23 JTLS-2014-12116 DDS - Railroad Name Remains On Map After Deletion

If a user deletes a Railroad Network from the Map, the Name remains displayed. It stays even if Railroad Edit Mode is exited and reentered. Stopping and restarting the DDS is necessary to remove the Railroad Network Name from the Map.

4.24 JTLS-2014-12117 DDS - Map Create Railroad Network Works Deceptively

When you select the "New Railroad" button in the DDS, the cursor becomes a "pointing finger," allowing you to select a location on the map to place the first Railroad node. However, after you place the first node, the cursor reverts to its default appearance. One expects that selecting a new location will place the next node there, but no matter what location you select, the second node is always created on the hex due east of the first node.

4.25 JTLS-2014-12119 DDS - Columns Data From Another Table Not Updated

Some tables have columns whose data is retrieved using a "Select" statement that queries data from another database table (e.g. the formation column in the naval unit screen). For these columns, when DDS does a flashback version query for the updates, Oracle does not report any

update if the actual update occurs in the other table. Therefore, these columns' data are not updated in the DDS.

4.26 JTLS-2014-12121 DDS - Drag/Drop Problems Modifying Rail Networks

When clicking and dragging a Node or an Arc, one has to be careful to make sure the correct item is selected. One can, for example, drag an arc completely away from its endpoint nodes. In addition, Java exceptions can occur when the correct item is not selected.

4.27 JTLS-2014-12122 DDS - No Spaces in Long Name After Hierarchy DeepCopy

A user cannot enter spaces in the long name replacement string after a Hierarchy Deep Copy, although spaces are allowed in long names.

4.28 JTLS-2014-12123 DDS - Add UIC Replacement Option In Hierarchy DeepCopy

The short name replacement string should be added to the UIC, so that hand-editing UICs after a Hierarchy DeepCopy is not necessary.

4.29 JTLS-2014-12125 DDS - Editing Location Fields XX-60-60.0N Can Be Entered

It is possible to enter a location such as 10-60-60.0N in a location field in the DDS, The location field text formating functions needs to be improved.

4.30 JTLS-2014-12126 AAR - Aircraft Kill Summary Report Time Format

AAR reports can contain times, but these are currently being generated using the url time format, which is difficult to read by the end user. These times need to be output in a more user friendly format.

4.31 JTLS-2014-12127 DDS - In IADS Edit Mode, Link Targets On Different Sides

In the DDS IADS Edit Mode, a user is able to link a target (comm site, sensor site, or SAM/AAA) to a target on a different side. Linkage should be allowed only between targets on the same side. SVP Error 628 catches this problem, but the DDS should be able to catch the situation.

4.32 JTLS-2014-12131 DDS - Add Report Title To Report

All DDS Reports should have titles. If a user prints out several reports, it is difficult to know what each report contains. The title should help with this.

4.33 JTLS-2014-12132 DDS - Confusing Report Popup Menu Item

The bottom of the report browser popup menu has part of the stylesheet name (e.g., 01-dcr). This is confusing.

4.34 JTLS-2014-12133 DDS - Reports Order Help Text Needs Improvement

DDS report orders help text needs improvement.

4.35 JTLS-2014-12136 DDS - TMU Different Algorithms For Polygons, Areas

The DDS TMU Map Polygon algorithm is different from the TMU Area algorithm. In other words, drawing a rectangular Polygon does not result in the same area having its attributes changed as does drawing a rectangular Area of exactly the same size.

4.36 JTLS-2014-12140 DDS - Flight Paths Difficult To See

Flight Paths are difficult to see because the default color is white. The color should be changed to Cyan. Cyan is currently the color used to display OPAREAs, so the default OPAREA color should be changed to Orange. This change should be made in both the DDS and the WHIP for consistency.

4.37 JTLS-2014-12143 DDS - REPORTS - Rename the MUSE report to DIS.

The MUSE Report should be renamed to the DIS (Distributed Interactive Simulation) Report. The report is no longer just used for MUSE. There are several other models that need to know the current set of DIS codes in a specific scenario.

4.38 JTLS-2014-12144 DDS - Exception While Opening TUP From SVPR

An exception occurs when opening a TUP from the SVPR. The exact circumstances have still not been identified, and so a correction could not be implemented.

4.39 JTLS-2014-12145 DDS - Exception Logged With No Stack Trace

A ClassCastException in the DDS was logged, but no Stack Trace was saved. The exact circumstances have still not been identified, and so a correction could not be implemented.

4.40 JTLS-2014-12146 DDS - Cannot Delete Illogical Pipeline Arc From Map

You cannot delete an illogical Pipeline arc from the Map. An illogical Arc is one that would create an illogical flow. An example of an illogical flow would be one connecting nodes: A to B to C to A. The Map will not let you create Arc C to A. But you can create that illogical arc in the Pipeline Arc table. IF you do so, the arc will show up on the Map and exist in the arc table, and you cannot delete it from the Map. You must use the table to delete it.

4.41 JTLS-2014-12147 DDS - Flight Path With Min Altitude Higher Than Max

When you create a Flight Path between two Nodes, you are asked to assign a Minimum and a Maximum altitude along the path. You can assign a Minimum that is greater than the Maximum. You cannot do this in the Table, but the Map allows it.

4.42 JTLS-2014-12148 DDS History Table Missing Record Identifier

The DDS keeps track of when data is changed in a table history table. If an attribute of a child table is changed, the history table does not list exactly what is changed. For example, assume you change the quantity of a CL.V supply category with which an SSA Target. This supply information is in a child table for the SSA target type table. The problem is that this one change generates a single history record which properly indicates the old value and the new value, but does not list what SSA SC category record was changed.

4.43 JTLS-2014-12264 CEP - Naval Mine Damage Documentation Obsolete

The discussion of Naval Mine Damage in the Analyst Guide is obsolete. It does not address the use of lanes nor the current variables used in the determination of encounter and damage.

4.44 JTLS-2014-12265 DDS - Need "Not In" Validator For Composite Unique Key

Currently, the "not in" validator has limited capability, meaning it can only check for single column. But many database tables have composite unique keys, which can take up to N number of columns. Therefore to check their uniqueness, the current "notin" validator is not sufficient. It needs to be expanded or a new validator needs to be introduced that can check uniqueness for multiple columns. This problem will be corrected in JTLS 5.0.

4.45 JTLS-2014-12266 WSM - Reloading Database While Starting Service Lockup

If the ICP database is reloaded while a service is starting, the WSM appears to freeze for a period of time.

4.46 JTLS-2014-12269 DDS - Moving Unit On Top Of Another Hides Unit

Moving unit A on top of another unit B, and then moving unit A leaves unit B hidden until "Move Units/Objects" mode is exited.

4.47 JTLS-2014-12270 WHIP - Message Browser Moves With New Message

If the user selects a message and then scrolls down, the Message Browser jumps to the selected message when the next message arrives.

4.48 JTLS-2014-12271 JOBE - Runway Should Not Be Created Under Unit

After a new runway object is created in the JOBE, it uploads to the runway table in the JINN. At the same time, the ab_runway table is uploaded with the new runway CCFNumber and the parent unit short-name (which is supposed to be the Airbase). An Oracle error occurs if a Unit's short-name is not found in the Airbase table.

4.49 JTLS-2014-12272 WHIP - Incorrect Behavior Selecting Multiple Messages

If a number of messages are selected using the shift key in the WHIP Message Browser, and an attempt is made to select more, the second batch begins with the last message selected in the first batch, thus excluding many messages from the first batch.

4.50 JTLS-2014-12275 DDS - Mouse Panning Documentation Needed

New documentation on how to use the Mouse Panning map mode needs to be added to the DDS User Guide.

4.51 JTLS-2014-12277 DDS - NB Map Filter Does Not Turn NB On/Off

National Boundaries and hex barriers are not displayed on the DDS map.

4.52 JTLS-2014-12278 DDS - Targets Gone When Parent Unit's Name Changed

On the DDS Command Tree, when a Unit name changed on the 'Reset Tree' mode, all or a part of Targets under the Unit disappeared.

4.53 JTLS-2014-12279 DDS - Remove Reference Field From Report Orders

The reference field for report orders appears to be unused, but is required to be filled in. It should be removed.

4.54 JTLS-2014-12280 JTLSConsole - Needs Recall Command Similar To Xterm

The JTLSConsole needs a library for managing command history.

4.55 JTLS-2014-12281 SVPR - Error Corrective Action Finds Target, not JDPI

The corrective action for Error 634 centers the map on a target of the same name as the JDPI, rather than the intended JDPI.

4.56 JTLS-2014-12282 WHIP - On Demand Range Ring Remained After Deletion

An on-demand weapon range ring was added and then deleted, but remained visible until the next screen update.

4.57 JTLS-2014-12284 SVPR - Various Error/Warning Issues

A number of issues have been noted in the format of the SVPR Errors and Warnings, including Warnings 2000-2008 being documented but not implemented anywhere, a number of Error and Warning numbers not currently being used, and many Errors and Warnings requiring a minor correction or clarification.

4.58 JTLS-2014-12285 AAR/DDS Reports - User Added Reports Documentation

New documentation on how to create custom AAR and DDS reports needs to be added.

4.59 JTLS-2014-12286 CEP - Improper Calculation Manifest Processing Time

The routine MANIFEST.PROCESSING.TIME specifies that all manifests take one hour to load or offload. This routine needs to be made more robust, and examine the contents of the manifest, the A/C load/offload time, and the possibility of using MHE. Additionally, the 4th argument within the calls to this routine, which specifies whether it is a loading or offloading event, need to be standardized.

4.60 JTLS-2014-12287 DDS - Oracle Error Windows When DDS Reconnects

With DDS sessions up at two separate workstations, the primary DDS user shut down and restarted GlassFish for the scenario. The DDS at the second workstation lost, and then attempted to re-establish connection (as it should have). However, at the DDS that was up during the GlassFish stop and restart, a pop-up "Oracle Error" window was displayed.

The problem was that NUMEROUS versions of this error window are present, and clicking to close each window simply reveals more error windows, even though the DDS is by now reconnected. The error window probably came up every time the DDS tried to update some table. This error window should, if possible, only be displayed once.

4.61 JTLS-2014-12288 AAR - Target Damage History Report Missing Table

The Target Damage History detailed report outputs the data as a block quote, rather than the expected table.

4.62 JTLS-2014-12289 CEP - Amphibious Assault Crash

When two ground units, magic moved onto a naval formation, were ordered to conduct an amphibious assault using vehicles and helicopters (which were magic moved onto the formation after having their Naval Qualified flag changed to YES), the CEP crashed. This problem is related to but separate from JTLS-2014-12154, which has been fixed in this release.

4.63 JTLS-2014-12290 CEP - Amphibious Assault Not Completing

Out of two ground units, magic moved onto a naval formation, and ordered to conduct an amphibious assault using vehicles and helicopters (which were magic moved onto the formation after having their Naval Qualified flag changed to YES), one ground unit completed the assault, while the other (which arrived onto the game board through a port) never assaulted. This problem is related to but separate from JTLS-2014-12154, which has been fixed in this release.

4.64 JTLS-2014-12291 AAR - Add AAR Documentation

New documentation on how to run AAR reports needed to be added to the WHIP Training Manual.

4.65 JTLS-2014-12292 ICP - Saving Caused Connect Request to CEP

The JXSR execution host was changed while the JXSR is running, and then changed back. When the ICP was saved and the WSM was refreshed, the CEP crashed. It appears the JXSR sent a new connection request.

4.66 JTLS-2014-12293 WSM - Add Web Services Documentation

New GlassFish documentation, adding instructions for modifying a game in progress (such as adding new WHIPs or moving web services to a different host) needs to be added to the Technical Controller's Guide.

4.67 JTLS-2014-12295 DDS - SQLException With Copied TUP

When copying a TUP and attempting to fill in the number of location transponders on the copy, an error message pops up, saying that "this feature is still in development. This is an error expected by the development team. It is not necessary to report this error." This error is caused by attempting to insert a null value in a field that cannot hold a null character.

4.68 JTLS-2014-12296 SVPR - Warning To Find CEP Crash, Never Generated

Warning 1137 states: Database Entity ENTITY.NAME, index INDEX, should have at least one record. The absence of at least one record for a permanent entities causes a CEP Crash during start. It happens, for example, when the CEP tries to reserve certain arrays using a zero length. There is SIP code to generate this Warning, but the Warning will never be generated. The SIP first crashes during Read, for the same reason the CEP would crash during its Read.

The resolution to this problem involves four actions:

- The DDS should prevent removal of the last remaining record for selected tables holding Permanent Entity data.

- The DDS should perform checks for selected tables being empty whenever a Download is generated from the DDS. Tables could have been emptied by direct sql statements.

- The SIP read code should, when reading the record count file, cease execution if any zeros are found. It will generate a message to the execution window saying why.

- Warning 1137 should be removed.

4.69 JTLS-2014-12297 WHIP - Coordinate Converter Cannot Find Lat/Lon

As with the WHIP IMT windows, the Coordinate Converter tool should allow users to locate a Lat/Log point on the Map, but it currently does not.

4.70 JTLS-2014-12298 DDS - History Table Field Not Updated For POT Targets

The DDS History Table "Record Identifier" field was not updated for SUP/TUP POT targets.

4.71 JTLS-2014-12299 DDS - Strange Behavior In Hierarchy DeepCopy

A ground unit had 10 ground subordinates and 1 depot subordinate (Hierarchy A). When Hierarchy Copy was performed (from the Command Hierarchy window) it only copied the top unit and the subordinate depot. After using this copy as Hierarchy B, and just copying the individual subordinate units and re-parenting them under Hierarchy B, a successful Hierarchy Copy of Hierarchy B in its entirety was able to be performed.

4.72 JTLS-2014-12300 SVPR - Auto-Fix Terrain Problems Nonfunctional

The SVPR was unable to auto-fix mismatched barriers.

4.73 JTLS-2014-12301 CEP - No Divert When Friendly Air Refuel Flag Changes

Commented out code exists in the routine CHANGE.REFUEL.FLAG when the Friendly Refuel Flag for a tanker mission is switched to NO. The code appears to have been commented out because it was causing an infinite loop, but there may be a problem with foreign missions that are heading for the tanker when the flag changes not diverting elsewhere.

4.74 JTLS-2014-12303 WHIP - TRIPP Running With Shut Down Web Services Lock

The TRIPP will sometimes freeze when running with web services shut down.

4.75 JTLS-2014-12304 WHIP - New WHIP Pushed When Running Security Exception

A security exception is thrown when a WHIP component is used for the first time after a new WHIP is pushed while the WHIP is running.

4.76 JTLS-2014-12305 WHIP - Route Deselected Using Context Menu Stays

A route that was deselected using the context-sensitive menu stayed on the map. The route could be removed using the routes filter panel for demand routes.

4.77 JTLS-2014-12306 WHIP - Deadlock While Saving Map Filters

The WHIP froze while trying to save map filters.

APPENDIX A. ABBREVIATIONS AND ACRONYMS

Terms are included in this Appendix to define their usage in JTLS design, functionality, and documentation.

AAA	Anti-Aircraft Artillery
AADC	Area Air Defense Commander
AAL	Air-to-Air Lethality
A/C	Aircraft
ACP	Air Control Prototype
ADA	Air Defense Artillery
AEW	Airborne Early Warning
AFB	Air Force Base
AG	Air-Ground (Air-to-Ground)
AI	Air Interdiction
AIM	Air Intercept Missile
AIREF	Air Refueling
AKL	Area Kill Lethality
AMMO	Ammunition
AO	Area of Operations
AOC	Air Operations Center
APC	Armored Personnel Carrier
ARECCE	Armed Reconnaissance
ARTE	Air Route
ARTY	Artillery
ASC	Automatic Supply Calculation
ASCII	American Standard Code for Information Interchange
ASW	Anti-Submarine Warfare
ATC	Aircraft Target Category
ATGM	Anti-Tank Guided Missile
ATK	Attack
ATO	Air Tasking Order
ATORET	Air Tasking Order Retrieve Program
ATOT	Air Tasking Order Translator
AWACS	Airborne Warning And Control System
AZ	Altitude Zone

BADGE   Bilateral Air Defense Ground Environment (used by Japan Defense Agency)

BAI   Battlefield Air Interdiction

BDA   Battle Damage Assessment

BDE   Brigade

BN   Battalion

C3   Command, Control, and Communications

C3I   Command, Control, Communications, and Intelligence

C4I   Command, Control, Communications, Computers, and Intelligence

CA   Civil Affairs

CADRG   Compressed ARC Digitized Raster Graphics

CAP   Combat Air Patrol

CAS   Close Air Support

CAT   Category

CCF   Central Control Facility

CCP   Command Control Prototype

CCU   Controller Change Unit

CEP   Combat Events Program

CMDR   Commander

COP   Common Operational Picture

CP   Combat Power

CS   Combat System

CSP   Combat System Prototype

CTAPS   Contingency Tactical Air Planning System

CTG   Commander Task Group

CTRL   Control keyboard command

DCA   Defense Counter Air

DCL   Digital Command Language

DDS   Database Development System

DEMSDB   Demonstration Standard Database

DISA   Defense Information Systems Agency

DIV   Division

DMA   Defense Mapping Agency

DoD   Department of Defense

DOS   Days of Supply

DPICM	Dual Purpose Improved Conventional Munitions
DS	Direct Support
DSA	Directed Search Area
DTG	Date Time Group
EC	Electronic Combat
ECM	Electronic Counter Measure
ECP	Engineering Change Proposal
EEI	Essential Elements of Information
ELINT	Electronic Intelligence
ELS	Entity Level Server
EODA	Entity Level JTLS Object Data Authority
ETA	Estimated Time of Arrival
FARP	Forward Arming and Refueling Point
FLP	Fire Lethality Prototype
FLOT	Forward Location of Troops
FOL	Forward Operating Location
FWL	Frederick W. Lanchester (originated a differential equation model of attrition)
GAL	Gallon
GCCS	Global Command and Control System
GRTE	Ground Route
GS	General Support
GSR	General Support Reinforcing
GUI	Graphical User Interface
HARM	High-speed Anti-radiation Missile
HE	High Explosive
HELO	Helicopter
HMMWV	High Mobility Multipurpose Wheeled Vehicle
HQ	Headquarters
HRU	High Resolution Unit
HTML	Hypertext Markup Language
HTT	High resolution unit Target Type
HUP	High resolution Unit Prototype
ICM	Improved Conventional Munitions
ICP	Interface Configuration Program

ICPLogin	Interface Login Program
ID	Identifier
IFF	Identification Friend or Foe
IIP	Intelligence Information Prototype
IMT	Information Management Tool
INFO	Information
INTEL	Intelligence
JCATS	Joint Conflict And Tactical Simulation
JDA	Japan Defense Agency
JDPI	Joint Desired Point of Impact (formerly DMPI: Desired Mean Point of Impact)
JDS	JTLS Data System
JDSP	JTLS Data System Protocol
JEDI	JODA Entity Data Identifier
JMCIS	Joint Maritime Combat Information System
JMEM	Joint Munitions Effectiveness Manuals
JODA	JTLS Object Distribution Authority
JOI	JTLS Operational Interface
JPL	Jet Propulsion Laboratory
JRSG	Joint Rapid Scenario Generation (formerly JIDPS: Joint Integrated Database Preparation System)
JSDF	Japanese Self-Defense Force
JTLS	Joint Theater Level Simulation
JTOI	JTLS Transaction Operational Interface
JXSR	JTLS XML Serial Repository
KIA	Killed In Action
KM	Kilometer
KNOTS	Nautical miles per hour
LA	Lethal Area
LAN	Local Area Network
LAT	Latitude
LB	Login Build (JTLS order type)
LDAP	Lightweight Directory Access Protocol
LDT	Lanchester coefficient Development Tool
LOG	Logistics
LOGIN	Logistics Input

LOGREP   Logistics Report

LONG   Longitude

LOTS   Logistics Over The Shore

LR   Long Range

M&S   Modeling and Simulation

MAPP   Modern Aids to Planning Program

MB   Megabyte

MCP   Mobility Counter-mobility Prototype

MCR   Model Change Request

MG   Machine Gun

MHE   Material Handling Equipment

MIP   Model Interface Program

MOGAS   Motor Gasoline

MOPP   Mission-Oriented Protective Posture

MOSAIC   NCSA user interface software

MOTIF   X Window System graphical interface

MP   Maneuver Prototype

MPP   Message Processor Program

MSC   Major Subordinate Command

MSG   Message

MTF   Message Text Formats

MUREP   Munitions Report

MUSE   Multiple Unified Simulation Environment

NCSA   National Center for Supercomputing Applications (University of Illinois)

NEO   Noncombatant Evacuation Operations

NFS   Network File Server

NGO   Non-Governmental Organization

NIS   Network Information Service or Network Information System

NM   Nautical Mile

NTSC   Naval Telecommunications System Center

OAS   Offensive Air Support

OBS   Order of Battle Service (formerly UGU: Unit Generation Utility)

OCA   Offensive Counter-Air

OJCS   Organization of the Joint Chiefs of Staff

OMA	Order Management Authority
ONC	Operational Navigation Chart
OPM	Online Player Manual
OPP	Order Preprocessing Program
OTH	Over The Horizon
OTH Gold	Over The Horizon message specification
OTH-T	Over The Horizon-Targeting
pD	Probability of Detection
pE	Probability of Engage
pH	Probability of Hit
pK	Probability of Kill
PKL	Point Kill Lethality
POL	Petroleum, Oil, and Lubricants
POSIX	International operating system standard based on System V and BSD
PPS	Postprocessor System
PSYOPS	Psychological Operations
RAM	Random Access Memory
RDMS	Relational Database Management System
RECCE	Reconnaissance (air missions)
RECON	Reconnaissance (ground missions)
REGT	Regiment
RNS	Random Number Seed
ROE	Rules Of Engagement
RPT	Report
RSP	Reformat Spreadsheet Program
SAL	Surface-to-Air Lethality
SAM	Surface-to-Air Missile
SAM/AAA	Surface-to-Air Missile/Anti-Aircraft Artillery
SC	Supply Category
SCP	Simulation Control Plan
SDB	Standard Database
SEAD	Suppression of Enemy Air Defense
SIMSCRIPT	Simulation programming language (product of CACI, Inc.)
SIP	Scenario Initialization Program

SITREP	Situation Report
SLP	Sustainment Log Prototype
SOF	Special Operations Forces
SP	Survivability Prototype
SQL	Structured Query Language
SR	Short Range
SRP	Start/Restart Program (a JTLS component)
SRTE	Sea Route
SSM	Surface-to-Surface Missile
STR	Software Trouble Report
SUP	Ship Unit Prototype
SVP	Scenario Verification Program
SYNAPSE	Synchronized Authentication and Preferences Service
TADIL	Tactical Digital Interface Link
TCP/IP	Transmission Control Protocol/Internet Protocol
TEL	Transporter Erector Launcher
TG	Target entity attribute prefix
TGS	Terrain Generation Service (formerly TPS:Terrain Preparation System)
TGT	Target
TMU	Terrain Modification Utility
TOE	Table of Organization and Equipment
TOT	Time Over Target
TOW	Tube-launched Optically-tracked Wire-guided missile
TPFDD	Time-Phased Force Deployment Data
TTG	Target Type Group
TTL	Target Types List
TUP	Tactical Unit Prototype
TW	Targetable Weapon
UBL	Unit Basic Load
UIM/X	GUI builder tool
UNIX	POSIX-compliant operating system
UNK	Unknown
UOM	Unit Of Measure
USA	United States Army (U.S. and U.S.A. refer to United States and United States of America)

USAF	United States Air Force
USCG	United States Coast Guard
USMC	United States Marine Corps
USMTF	United States Message Text Format
USN	United States Navy
UT	Unit entity attribute prefix
UTM	Universal Transverse Mercator
VIFRED	Visual Forms Editor
VMS	Virtual Memory System
VTOL	Vertical Take-Off and Landing aircraft
WAN	Wide Area Network
WDRAW	Withdraw
WEJ	Web Enabled JTLS
WHIP	Web Hosted Interface Program
WIA	Wounded In Action
WPC	Warrior Preparation Center
WPN	Weapon
WT	Weight
WW	Wild Weasel
XMS	XML Message Service

APPENDIX B.   Version 4.1.8.0 STANDARD DATABASE CHANGES

B.1 New SUPs

- 78FT_PH

- AGUINALDO_PH

- CANNON_PH

- CYCLONE_PH

- PCE827_PH

- PEACOCK_PH

B.2 New Aircraft

- A330.MRTT

- A330-200.AIRBUS

- A330-200F

- A330-300.AIRBUS

- A400M.AIRBUS

- A-50EI.INDIA

- AH-64E.GUARDIAN

- ALPHA.JET-B

- AS555AN.FENNEC

- AS555SN.FENNEC

- AS555UN.FENNEC

- E3G.SENTRY

- EC120.COLIBRI

- EC225 SECMAR

- EC665.TIGER.HAP

- EC725.ARMED

- EC725.UNARMED

- EMB145AEW_R99A

- EMB145MPA_P99

- EMB145RS_R99B

- FA50_KS

- J-10B.V.DRAGON

- J-10S.V.DRAGON

- J11BS.FLANKER-B

- J15.FLYINGSHARK

- J16.SILENT.FLNK

- J7E.FISHBED

- J8H.FINBACK

- JH7A.FLOUNDER

- M2000-5F.MIRAGE

- M2000D.MIRAGE

- MC27J.PRETORIAN

- MIG29K.FLCM-D

- NH90.NFH

- NH90.TTH

- Q5D.FANTAN

- Q5E.FANTAN

- RAFALE-B

- SA341F.ARMED

- SA342F.GAZELLE

- SA365F.DAUPHIN2

- SA365N.DAUPHIN2

- SAAB.2000AEW

- SAAB340.AEW

- T129.ATK

- TA50_KS

- Y-8CA.ELINT

- Y-8CB.ELINT

- Y-8DZ.ELINT

- Y-8FQ_GX-6.MPA

- Y-8J.MPA

- Y-8JB.ELINT

- Y8P_ZDK03

- Y-8Q.MPA

- Y-8T.ACP

- Y8W_KJ200

- Y-8XZ.PSYOPS

- Y-9

- YAK42.CLOBBER

B.3 New Sensors

- ALR735_AEE

- ANTILOPE-5

- APG67_AAD

- APG67_AGK

- BALANC.BEAM_AAA

- CHINESE_AEC

- DAEDELUS_AEE

- ELM-2032_AAA

- ELM-2032_AGK

- ELM-2032_AGN

- ELM-2075_AAA

- ELM-2075_AGN

- EMB145_AGR

- ERIEYE_AAA

- KLJ-3_AAD

- KLJ-3_AGK

- KLJ-6E_AAD

- KLJ-6E_AGK

- KZ8608_AEE

- RDR1500B_AGN

- SAAB_AEE

- SAFIRE.FLIR_AGK

- TYPE-1471_AAD

- TYPE-1474_AAD

B.4 New Aircraft Loads

- 10A176X10G44X600_30MM

- 12ATX12GP_68MM-RKTX90RD_20MM

- 14HE_90MM-RKTX2PL8X2

- 14HEAT_90MM-RKTX2PL8X2

- 19ATX19GP_68MM-RKTX180RD_20MM

- 26FAB250KGX2PL9CX2PL12

- 2A65GX2WSX3

- 2AS17BX2PL9CX2PL12

- 2AS18X2PL9CX2PL12X1APK9

- 2C03X2WSX3

- 2C04X2WSX3

- 2C05X2WSX3

- 2C52X2WSX3

- 2C801A.ERX2PL8X2

- 2C801AX2PL8X2

- 2C802A.ERX2PL8X2

- 2C802A.LAMX2PL8X2

- 2C802AX2PL8X2

- 2C803AX2PL9CX2PL12

- 2C87X2WSX3

- 2C89X2WSX3

- 2C97X2WSX3

- 2KAB1500KR-PENX2PL9CX2PL12

- 2M20X2WSX3

- 2M82X4WSX3

- 2OFAB250KGX2PL8X3

- 2OFAB500KGX2PL8X3

- 2PL12X2PL9

- 2PL12X2PL9CX3

- 2PL8X2

- 2PL8X2-1400L

- 2PL8X2PL12X3

- 2PL9CX2PL12

- 36APAM_57MM-RKTX2PL8X2

- 4AS14-KH29TE-TVX2PL9CX2PL12

- 4AS17A1X2PL9CX2PL12

- 4AS17BX2PL9CX2PL12

- 4FAB500KGX2PL9CX2PL12

- 4KAB500KR-PENX2PL9CX2PL12

- 4OFAB500KGX2PL8X2

- 4PL12X2PL9CX3

- 4PL8X3

- 4PL9CX6PL12

- 4WSX3

- 6PL12X4PL9

- 80S8ATAM_80MM-RKTX2PL9CX2PL12

- 8FAB250KGX2PL9CX2PL12

- 8FAB500KGX2PL9CX2PL12

- 8HEX6HEAT_90MM-RKTX2PL8X2

- 8M82X2WSX1

- 8OFAB250KGX2PL8X2

- A330.MRTT.TANKER

- A330.MRTT.TRANSFER

- A400M.TANKER

- A400M.TRANSFER

- A50EI.DEF

- AH64E.DEF

- ALPHA.JET-B.DEF

- ANTILOPE-5

- AS555AN.DEF

- AS555SN.DEF

- E3G.AWAC.DEF

- EC725.ARMED.DEF

- EMB145AEW_R99A.DEF

- EMB145AEW_R99A.DEF

- EMB145AEW_R99A.DEF

- FA50_KS.DEF

- GUNSLINGER.GBU44

- GUNSLINGER.GRIFFIN

- HARVEST.HAWK.7OMM.APAM

- HARVEST.HAWK.7OMM.APAM-ATAM

- HARVEST.HAWK.7OMM.ATAM

- HARVEST.HAWK.AGM114P

- HARVEST.HAWK.GRIFFIN

- J10B.DEF

- J10S.DEF

- J11BS.DEF

- J15.FLYING.SHARK.DEF

- J16.DEF

- J7E.DEF

- J8H.DEF

- JH7A.DEF

- M2000-5F.DEF

- M2000D.DEF

- MC27J.DEF

- MIG29K.DEF

- NH90.NFH.DEF

- NH90.TTH.DEF

- Q5E.FANTAN.DEF

- RAFALE-B.DEF

- SA341F.DEF

- SA365F.DEF

- SAAB2000.AEW.DEF

- SAAB340.AEW.DEF

- T129.DEF

- TA50_KS.DEF

- Y8CA.ELINT.DEF

- Y8CB.ELINT.DEF

- Y8DZ.ELINT.DEF

- Y8FQ_GX-6.MPA.DEF

- Y8J.MPA.DEF

- Y8JB.ELINT.DEF

- Y8P_ZDK03.DEF

- Y8Q.MPA.DEF

- Y8T.ACP.DEF

- Y8W_KJ200.DEF

- Y8XZ.PSYOPS.DEF

B.5 New Jammer

- TAILFIN.RJ

B.6 New TW

- AGM176.GRIFFIN

B.7 Sensors

- Sensor - TV.OPTIC-DY_AGK

  - Changed Collection Mode to Imagery

  - Changed Reporting Method to IIR

- Sensor - TV.OPTIC-NT_AGK

  - Changed Collection Mode to Imagery

  - Changed Reporting Method to IIR

B.8 Aircraft Class

- Aircraft Class - SCANEAGLE.UAV

  - Changed Crew Time to 2D

B.9 Disease Failure

- HYPERTHERMIA

- HYPOTHERMIA

- THIRST

- STARVATION