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Computer-Aided Acquisition and Logistic Support Interface Requirements Report

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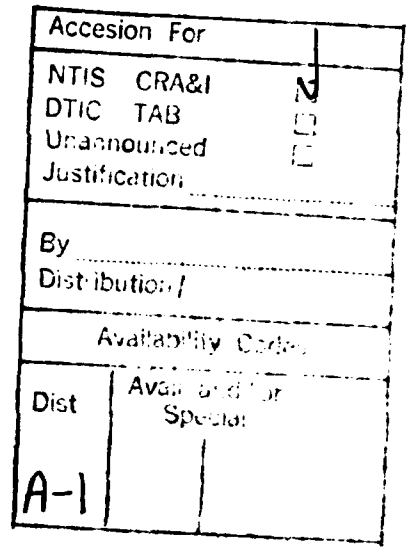

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The Joint Service Instructional Systems Development/Logistic Support Analysis Record (ISD/LSAR) Decision Support System (DSS) is a major Department of Defense (DoD) initiative to integrate training system development with other weapon system design activities. Concurrently, the DoD Computer-Aided Acquisition and Logistic Support (CALS) initiative requires the development of standard weapons system databases that can support front-end logistics, training, and performance analyses of new or emerging weapon systems. This report details the interface requirements to produce a PC-based automated Joint Service ISD/LSAR analysis system with a CALS compatible LSAR-to-ISD interface.

MANPRINT
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Logistics support analysis

Computer-aided acquisition and logistics support (CALS)

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FOREWORD

The Manned Systems Group (MSG) of the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) applies the principles of MANPRINT (Manpower and Personnel Integration) to the acquisition of weapons systems. The Joint Service Instructional Systems Development/Logistic Support Analysis Record (ISD/LSAR) Decision Support System (DSS) is a major Department of Defense (DoD) effort to improve support of ISD decision making and to integrate training system development with other weapon system design activities. This PC-based, multiuser system consists of data input, ISD analysis, and training system design procedures that reflect and accommodate Service-specific ISD methods in support of MANPRINT objectives.

The key feature of the Joint Service ISD/LSAR DSS is the automated LSAR-to-ISD data interface. The interface permits a training system development to maintain concurrency with the evolving weapon system design and supportability characteristics recorded in the LSAR.

Concurrently, the DoD Computer-Aided Acquisition and Logistic Support (CALS) initiative requires development of standard weapon system databases that can support front-end logistics, training, and performance analysis of new or emerging weapon systems. New weapon system acquisition programs must be "CALS compatible." The effective use and exchange of weapon system data in a CALS environment requires standards that overcome inherent incompatibilities between host hardware and software.

This report details the interface requirements for producing a PC-based automated Joint Service ISD analysis system with a CALS compatible automated LSAR-to-ISD data interface.

COMPUTER-AIDED ACQUISITION AND LOGISTIC SUPPORT INTERFACE REQUIREMENTS REPORT

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Background

The Joint Service ISD/LSAR DSS

The Joint Service Instructional Systems Development/Logistic Support Analysis Record (ISD/LSAR) Decision Support System (DSS) is a major Department of Defense (DoD) effort to better support ISD decision making and to integrate training system development with other weapon system design activities. The PC-based multi-user system consists of data input, ISD analysis, and training system design procedures that reflect and accommodate service-specific ISD methodologies.

The key feature of the Joint Service ISD/LSAR DSS is the automated LSAR-to-ISD data interface. The interface permits a training system development to maintain concurrency with the evolving weapon system design and supportability characteristics recorded in the LSAR. The decision support techniques employed by the DSS improve and standardize ISD decision making by providing users with appropriate and consistent presentations of LSAR and other training-related data.

The DSS consists of LSAR data input routines and Joint Service ISD analysis processes. The system includes utility functions that provide system security, database administration, report generation, and ISD analysis functions. The DSS automated procedures are presented in Figure 1 and consist of the following:

- ISD/LSAR Data Interface Functions
- Administrative Functions including data security
- ISD Program Management Functions
- ISD Analysis Procedures
- Select Tasks for Training, using the following models:

  Sub-Task Analysis Model (STAM) for Task Selection
  8-Factor Model
  4-Factor Model
  Difficulty, Importance, and Frequency (DIF) Model
  Early Comparability Analysis (ECA) Model

- Select Instructional Settings
- Develop Learning Objectives
- Determine Instructional Sequence/Develop Course Structures
- Select Training Media, using the following models
  Sub-Task Analysis Model (STAM) for Media Selection
  Automated Instructional Media Selection (AIMS) Model

- Identify Fidelity Requirements of Training Devices
- Identify Training Device Instructional Features

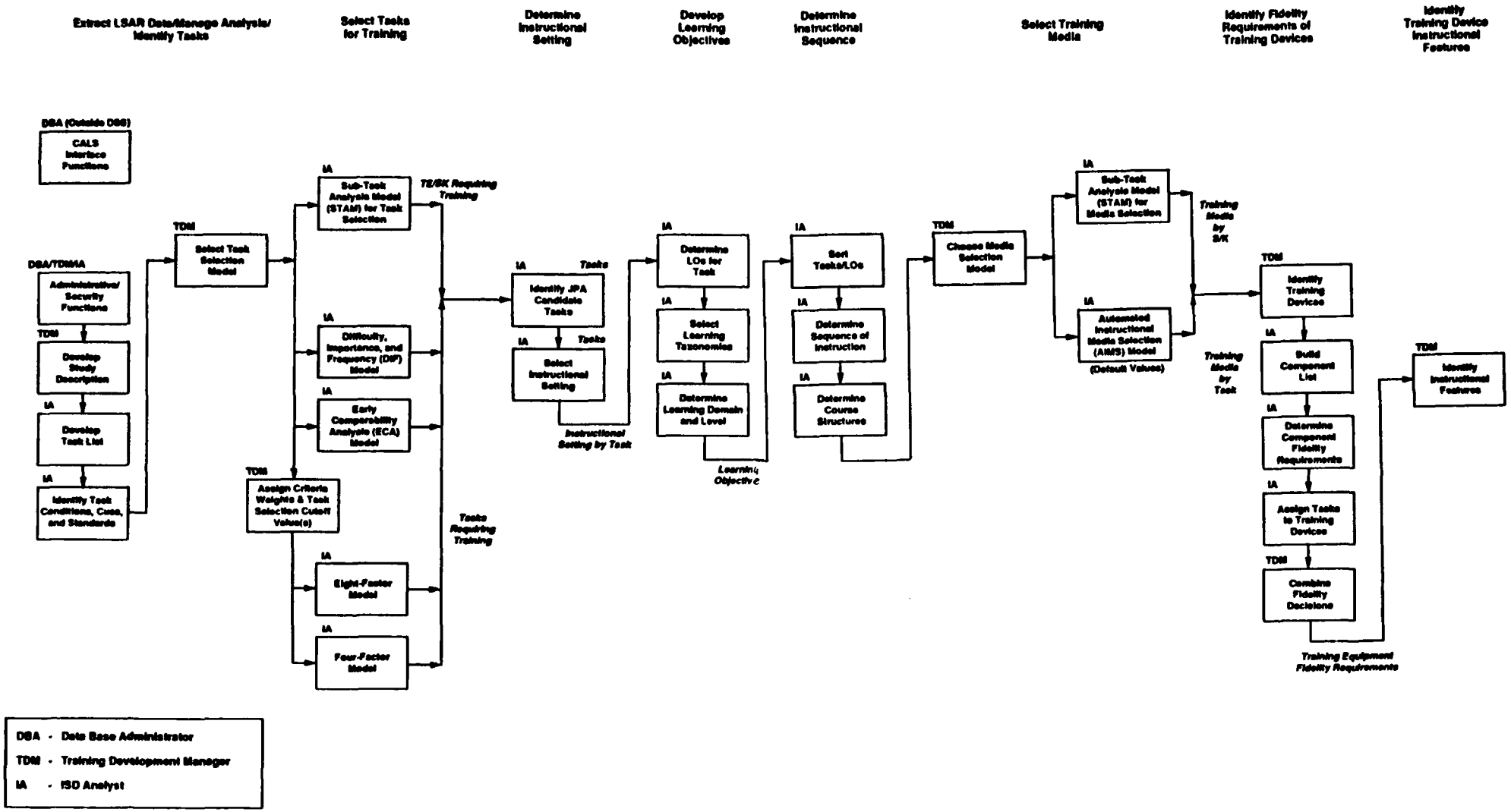

Figure 1-1. The Joint Service ISD/LSAR DSS

The Joint Service ISD/LSAR DSS is a powerful tool for performing ISD analyses of weapon systems. The LSAR interface improves the quality of information exchange between ISD analysts and system/equipment designers, providing the ability to address a wider range of training issues in a more complete fashion. Both the early analysis of training requirements and the systems engineering interaction with the equipment designers contribute to the development of more effective training systems.

Development History

The Joint Service ISD/LSAR DSS program evolved from a detailed study of the ISD front-end analysis techniques developed and used by the Air Force's 3306th Training Development and Evaluation Squadron (TDES), Edwards AFB, CA. The 3306th TDES is one activity for which the use of LSAR data in ISD analyses is a standard approach. When the initial study of their techniques was conducted, the 3306th TDES was just beginning to support their work with automation. Therefore, a key element of the study involved assessing the feasibility of automating: (1) the 3306th TDES ISD procedures, and (2) an interface with LSAR data that would support a 3306th TDES ISD analysis. The feasibility study resulted in a conceptual automated ISD analysis tool that included the LSAR data interface. The conceptual system was designated TRANSFORM, or Training Systems for Maintenance.

The apparent benefits of the TRANSFORM ISD analysis tool were attractive across the Armed Services. Although ISD procedures differ among Services, each Service conforms to the same generic ISD approach. The multi-service interest resulted in design and implementation phases, and the program took the Joint Service ISD/LSAR DSS name. The DSS effort required functional analyses of many Service ISD methodologies. The final design included the automated interface with LSAR data, as well as a range of user-selectable ISD tools and techniques applicable to service-specific and situational ISD analyses.

Figure 2 contains a high-level Gantt chart of the DSS evolution. There have been a number of interim capabilities produced during the current Joint Service ISD/LSAR DSS implementation phase that ends in September 1990. The Government distributed the interim capabilities on a limited basis for the primary purpose of evaluating design concepts, ISD analysis procedure validity, and user interface. The July 1990 Version 3.1 served as the DSS interim capability. The final production version completed in September 1990 is designated Version 4.0. The Joint Service ISD/LSAR DSS Version 4.0 is referred to hereafter as simply DSS, or where version distinctions are significant, as DSS Version 4.0.

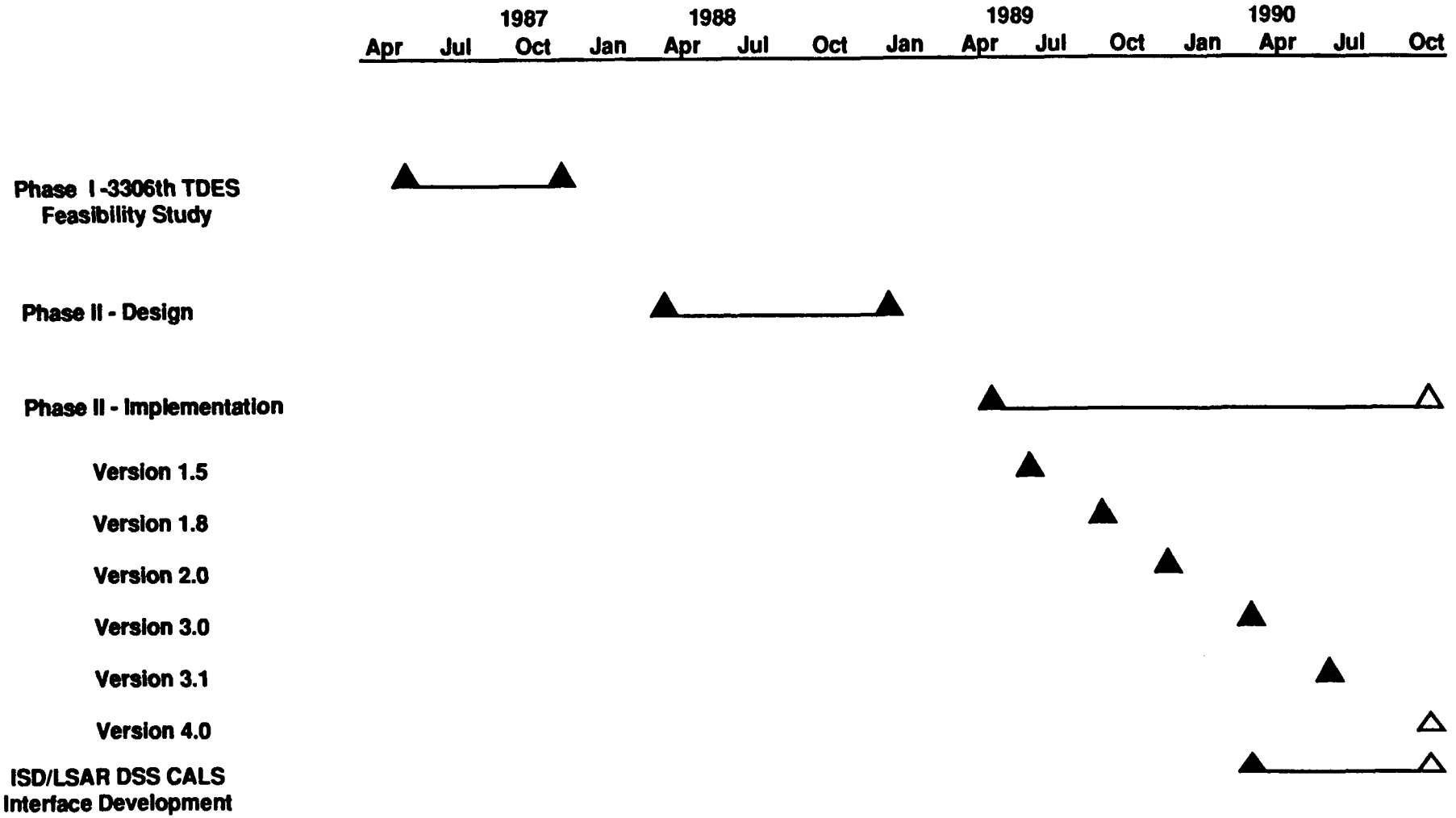

Figure 2. The ISD/LSAR DSS development.

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The Joint Service ISD/LSAR DSS CALS Interface

LSAR Data Presentations

One of the unique features of the Joint Service ISD/LSAR DSS is its interface with LSAR data. Meaningful presentations of LSAR training-related data support the analyst in performing ISD analyses and in making effective ISD decisions. The DSS uses LSAR data in one of two ways. First, LSAR data that describe a weapon system's equipment structure, task hierarchy, and task performance requirements provide the ISD analysis structure used by the DSS. The ISD analyst uses LSAR data to construct the DSS subsystem, task, task element, skill/knowledge hierarchy. The second purpose of LSAR data is to support specific ISD decisions.

The Joint Service ISD/LSAR DSS, Versions 3.1 and 4.0 are compatible with data element definitions and relationships in MIL-STD-1388-2A, Logistic Support Analysis Record, 20 July 1984. It is desirable to have the DSS eventually conform to the emerging revision to the LSAR standard, MIL-STD-1388-2B. Both MIL-STDs prescribe the data element definitions, data field lengths, and data entry requirements for LSAR data. MIL-STD-1388-2A uses two LSAR master files: the LSA Control Number (LCN) Master File and the Task Narrative Master File. The May 1990 draft MIL-STD-1388-2B uses a relational table structure of functional data element groupings, where MIL-STD-1388-2A consists of card images. Even though the new standard continues to evolve, most imported training data elements from -2A have been preserved in the -2B version with minor modifications. Table 1 provides a cross-reference of the training-related LSAR data elements from the two MIL-STDs that support DSS training analyses. The data elements are listed by both MIL-STD-1388-2A and MIL-STD-1388-2B (May 1990 draft) data element definition (DED) number. Appendix B contains data element definitions of all MIL-STD-1388-2B (May 1990 draft) data elements that cross-reference to the Version 3.1/4.0 DSS.

Table 1

LSAR Data Elements in the DSS Data Set

	May 1990 Draft MIL-STD-1388-2B	MIL-STD-1388-2A
Data Element Title	DED	DED
ALTERNATE LCN CODE	019	023
ANNUAL NUMBER OF MISSIONS	021	027
ANNUAL OPERATING DAYS	022	028
ANNUAL OPERATING REQUIREMENTS	023	029
END ITEM ACRONYM CODE	093	106
HARDNESS CRITICAL PROCEDURES (HCP)	148	153
HAZARDOUS MAINTENANCE PROCEDURES CODE	151	155
LCN NOMENCLATURE	195	181
LSA CONTROL NUMBER (LCN)	193	197
MEAN ELAPSED TIME	217	220
MEAN MAN-MINUTES	219	223
MEAN MINUTE ELAPSED TIME	220	232
MEAN MISSION DURATION	221	234
MEANS OF DETECTION	230	242
MEASUREMENT BASE (MB)	231	244
OPERATIONAL REQUIREMENT INDICATOR	268	285
PERFORMANCE STANDARDS	280	313
FACILITIES TRAINING REQUIREMENT CODE	350A	394A
TRAINING EQUIPMENT REQUIREMENT CODE	350B	394B
TOOL/SUPPORT EQUIPMENT REQUIREMENTS CO	350C	394C
SEQUENTIAL SUBTASK DESCRIPTION	364	410
SKILL LEVEL CODE	378	422
SKILL SPECIALTY CODE (SSC)	379	423
SKILL SPECIALTY EVALUATION CODE	380	433
SUBTASK NUMBER	399	451
TASK CODE	419	467
TASK CONDITION	420	468
TASK CRITICALITY	421	469
TASK FREQUENCY	422	470
TASK IDENTIFICATION	423	472
TECHNICAL MANUAL CODE (TM CODE)	429	479
TRAINING LOCATION RATIONALE	456	502
TRAINING RATIONALE	457	503
TRAINING RECOMMENDATION	458	504
WORK AREA CODE	508	544

The Joint Service ISD/LSAR DSS and CALS

The Department of Defense (DoD) Computer-Aided Acquisition and Logistic Support (CALS) initiative requires the development of standard weapon system data bases that can support front-end logistics, training, and performance analysis of new or emerging weapon systems. CALS includes the evolving concept of an Integrated Weapon System Data Base (IWSDB), a logical (as opposed to physical) collection of all data related to a weapon system's acquisition, design, operation, and support. Training analyses, as well as other LSA component processes, will have automated access to current weapon system data pertinent to training system development decision making.

New weapon system acquisition programs are being required to be "CALS compatible". Both contractor and Government participants in many new system acquisitions are attempting to address CALS technical issues and realize the communication efficiencies and cost reductions expected from CALS compatibility. The effective use and exchange of weapon system design data in a CALS environment requires standard definitions of data elements and data exchange standards that overcome inherent incompatibilities between host hardware/software. The Joint Service ISD/LSAR DSS CALS interface will depend upon standard definitions of training data elements and unique data exchange standards and procedures.

Dynamics Research Corporation (DRC), Wilmington, MA, is under contract to produce a PC-based automated Joint Service ISD analysis system with a CALS compatible automated LSAR-to-ISD data interface. The data interface will support the concurrent performance of LSA and ISD.

Joint Service ISD/LSAR DSS CALS Interface Requirements

Operational Overview

Figure 3 presents an overview of the conceptual Joint Service ISD/LSAR DSS CALS interface. The interface consists of several major data stores and data processes. The data stores depicted on Figure 3 reside either within the CALS IWSDB or the DSS tool. Each data store is described below:

Within the IWSDB:

LSAR Data - System/equipment logistics data maintained in accordance with MIL-STD-1388-2B.

ISD Data - A logical store (corresponding to one or more physical stores) of training system-related data. The data may or may not also reside in the LSAR.

Input Interchange Files - The subset of LSAR data that will be used to perform ISD analyses within the DSS. The generic structure of the input interchange data file is expected to closely resemble the files that result from the DSS Version 3.1

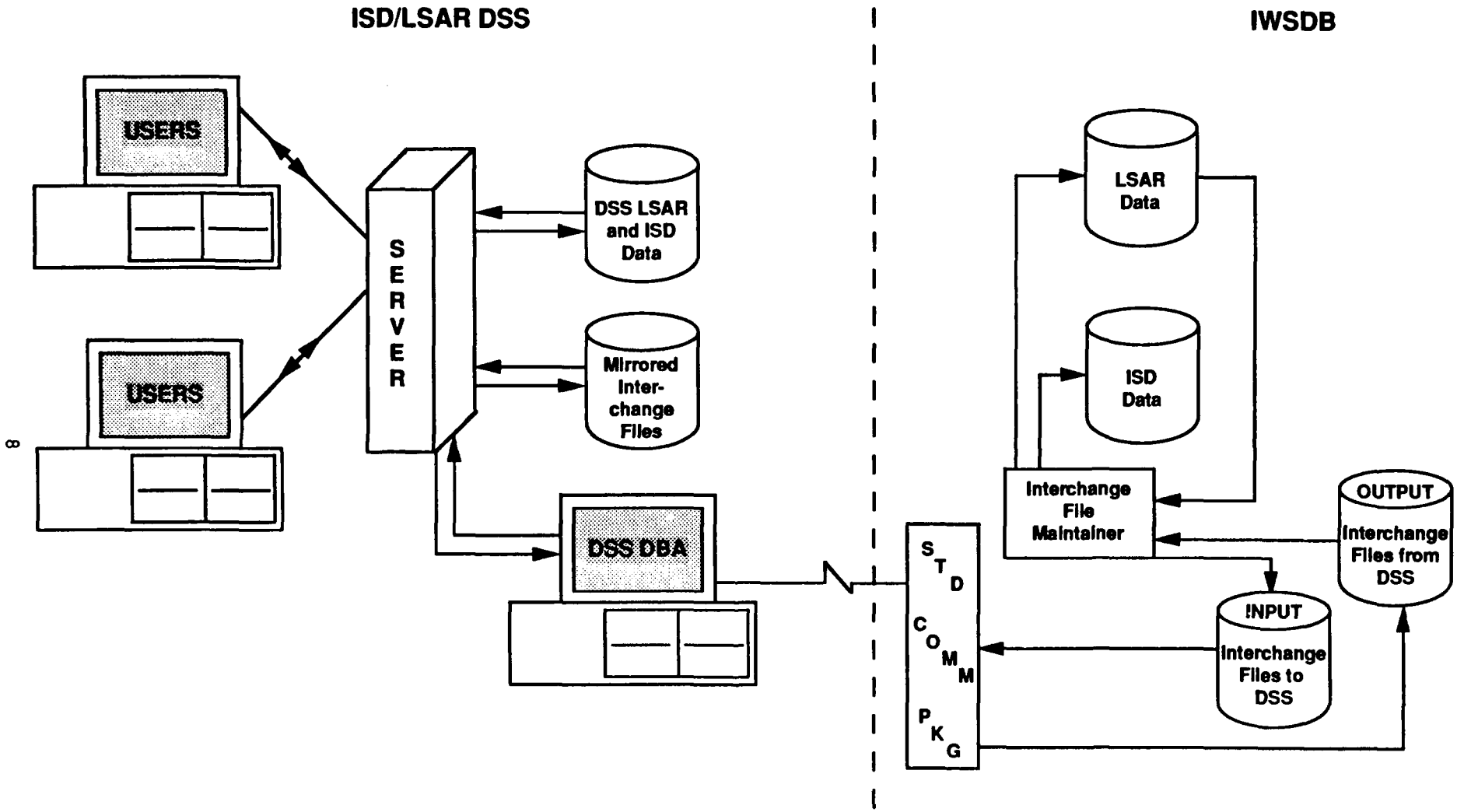

Figure 3. ISD/DSS CALS interface concept.

VAX pre-processing routines used in the current non-CALS LSAR data interface.

Output Interchange Files - Data resulting from ISD analyses performed using the DSS. Data elements in this file will include LSAR data elements, as well as data that can be used in other concurrent logistics and engineering processes.

Within the Joint Service ISD/LSAR DSS:

Mirrored Interchange Files - The complete or partial IWSDB interchange data files. The mirrored input files will be contain data awaiting analysis within the DSS; the mirrored output files will contain data awaiting transmission to the IWSDB.

DSS LSAR and ISD Data - In-process LSAR and ISD data.

In addition to the above data stores, Figure 3 depicts three DSS CALS interface data processes, each described below:

Produce Input Interchange Files/Extract Data from Output Interchange Files - This is actually two data processes represented by the "Interchange File Maintainer" box on Figure 3. Placing LSAR data into (extracting DSS data from) the input (output) interchange files will be a user responsibility. Creating the input interchange files will require the performance of LSAR data comparisons (detecting LSAR updates/changes).

Transfer Interchange Files - Represented on Figure 3 by the "STD COMM PKG" box, the transfer of interchange files between the IWSDB and the DSS will be accomplished using the appropriate host-to-PC communications package (not part of the DSS).

Perform ISD Analyses/Produce Output Interchange Files - Performing ISD analyses using the DSS is not expected to change when the CALS interface is implemented. A process will be added that constructs the output interchange files using DSS analysis results. The DSS DBA will perform this function.

Interface Data Flow Processes

Figure 4 displays the high level, or level 0, data flow diagram (DFD) for the Joint Service ISD/LSAR DSS CALS interface. The figure details the flow of information required to support the concurrent performance of LSA and ISD using the DSS analysis tool. The processes and data stores presented in Figure 4 expand upon those discussed in the Operational Overview section. The Interface Data Flow Processes section and Data Store Requirements section describe the data processes and data stores, respectively.

The following sections describe the DSS CALS interface processes (process numbers are in parentheses). The descriptions indicate what

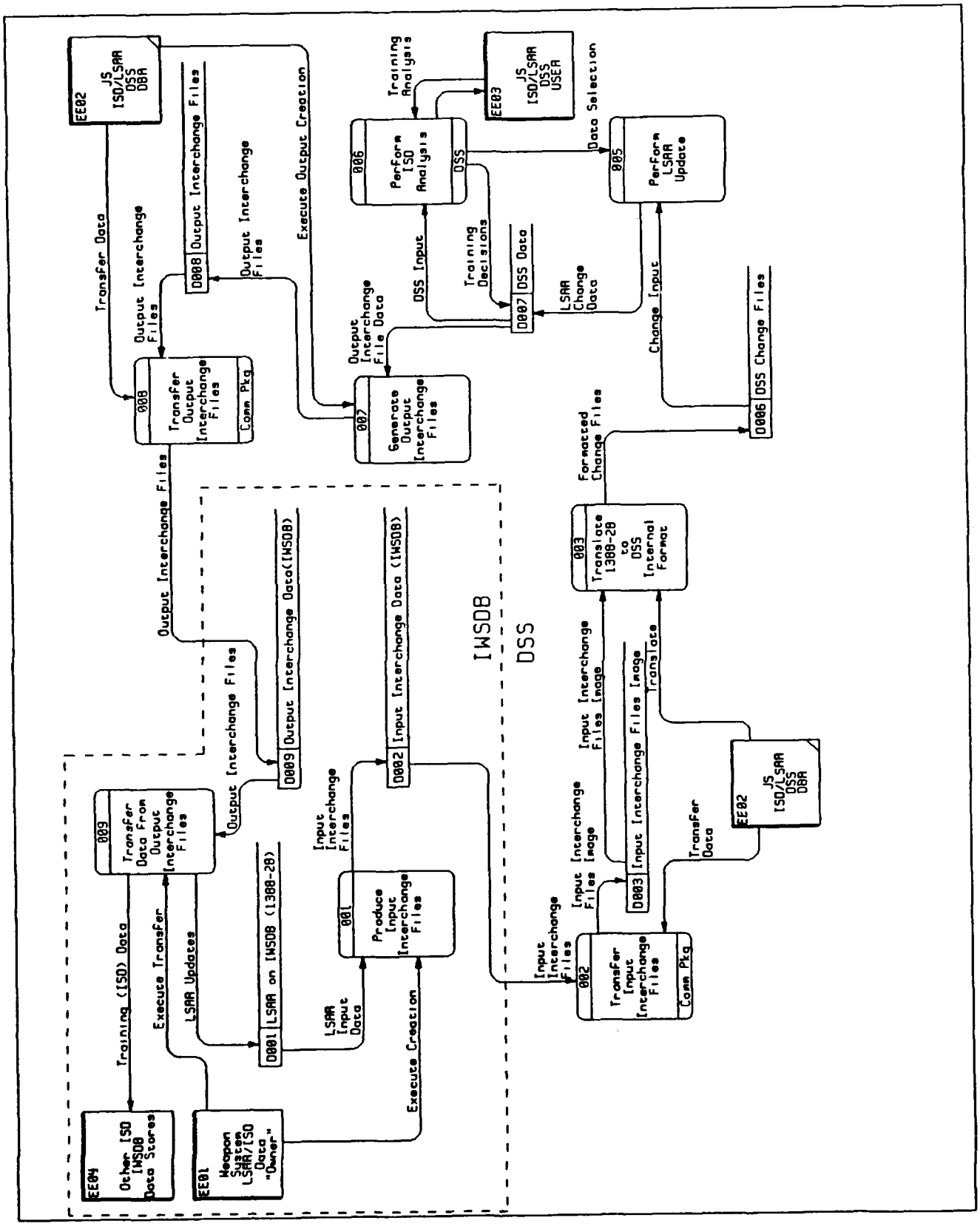

Figure 4. ISD/DSS CALS data flow diagram - level 0.

users/activities are responsible for process development and for process performance. Some processes, such as 001 and 009, remain outside the scope of DRC's CALS interface development effort. Many processes can be performed by a variety of users/activities. The user/activity categories "LSAR 'owners'" and "ISD data 'owners'" indicate those activities that exercise control over the data integrity of the LSAR and ISD data stores (databases) within the IWSDE. Only the "owners" of databases within the IWSDB have the authority to write to the database. Such authority may be delegated.

Produce Input Interchange Files (001)

Controlling Activity: EE01 - Weapon System LSAR/ISD Data Owner

Input Data Stores: D001 - LSAR on IWSDB (1388-2B)

Output Data Stores: D002 - Input Interchange Data (IWSDB)

Process Narrative: The LSAR "owner" will produce the input interchange files. This activity consists of preparing the input files in accordance with the approved MIL-STD-1388-2B data definitions and structure, by extracting training-related data elements from the LSAR. In addition to producing the input interchange files, the LSAR "owner" has the responsibility of determining changes from the previous input interchange files. This function consists of identifying LSAR subsystem and task additions, changes, and deletions.

This process will not be fully defined until the final MIL-STD-1388-2B is approved. In the interim, the content and format for training analysis input interchange files for use with the DSS have been recommended for inclusion as a part of the final MIL-STD-1388-2B. The tentatively defined files are discussed in the Input Interchange Files Image (D003) section and Appendix A (Issues 001, 003, and 006). To demonstrate a DSS CALS interface, MIL-STD-1388-2A data will be used for the September 1990 CALS interface demonstration (see Appendix A, Issue 009).

Transfer Input Interchange Files (002)

Controlling Activity: EE02 - JS ISD/LSAR DSS DBA

Input Data Stores: D002 - Input Interchange Data (IWSDB)

Output Data Stores: D003 - Input Interchange Files Image

Process Narrative: The DSS DBA will transmit the Input Interchange Data from the IWSDB to the DSS on the PC subsystem using a standard off-the-shelf communications package. In the absence of a communications procedures, data transfer

can take place over an "air gap" using tapes or disks. The DBA will transfer the data to hard disk storage in data store D003 - Input Interchange File Image, on the DSS PC subsystem.

Translate 1388-2B to DSS Internal Format (003)

Controlling Activity: EE02 - JS ISD/LSAR DSS DBA

Input Data Stores: D003 - Input Interchange Files Image

Output Data Stores: D006 - DSS Change Files

Process Narrative: The file structure residing in data store D003 - Input Interchange Files Image, may require translation into the DSS data input format. The translation will automatically occur when the DSS DBA performs any LSAR data download. The process creates data store D006 - DSS Change Files, and will be performed for the initial load of LSAR data and all subsequent updates. Process 003 will not be fully defined until the final MIL-STD-1388-2B is approved. The MIL-STD-1388-2B to -2A translation of data elements only needs to be performed if MIL-STD-1388-2B data is feeding a 1388-2A-conforming DSS version. This issue is discussed in more detail in Appendix A (Issue 008). Additionally, the September 1990 CALS interface demonstration will exclusively use MIL-STD-1388-2A input data (see Appendix A, Issue 009).

Perform LSAR Update (005)

Controlling Activity: EE02 - JS ISD/LSAR DSS DBA

Input Data Stores: D006 - DSS Change Files

Output Data Stores: D007 - DSS Data

Process Narrative: This process takes place only if new LSAR data has been downloaded to update or append a previous download for a weapon system. Data from D006 - DSS Change Files, will be identified as additions, changes, and deletions in the DSS. Each addition, change, and deletion has been previously tagged within the IWSDB so that a DSS user will have the option of importing the new record into the analysis.

The DSS DBA will perform the initial download. The DSS Training Development Manager and Subsystem Lead Analyst will interact with the changes by adding subsystems/tasks directly into the DSS, linking an

LSAR addition to a user-created subsystem/task, and verifying changes and deletions.

Perform ISD Analysis (006)

Controlling Activity: EE03 - JS ISD/LSAR DSS User

Input Data Stores: D007 - DSS Data

Output Data Stores: D007 - DSS Data

Process Narrative: All users of the DSS will perform this process. The users include: DBA, Training Development Manager, Subsystem Lead Analyst, Task Lead Analyst, and ISD Analyst. Each user will interact with D007 - DSS Data, by accessing LSAR and other analysis data, to develop an equipment and task hierarchy. In DSS ISD analysis processes, users will determine training system requirements using LSAR and other data, using subject matter experience, supported by structured decision aids. Throughout the ISD analysis, iterative read/writes will take place with data store D007.

Generate Output Interchange Files (007)

Controlling Activity: EE02 - JS ISD/LSAR DSS DBA

Input Data Stores: D007 - DSS Data

Output Data Stores: D008 - Output Interchange Files

Process Narrative: The DSS DBA will perform the process of creating Output Interchange Files through a standard DSS report option. Data store D008 will be created in the format discussed in the Output Interchange Files (D008) section and displayed in Table 5. The output format will facilitate placement of DSS analysis results into the LSAR residing within the IWSDB (see Process 009).

Transfer Output Interchange Files (008)

Controlling Activity: EE02 - JS ISD/LSAR DSS DBA

Input Data Stores: D008 - Output Interchange Files

Output Data Stores: D009 - Output Interchange Data (IWSDB)

Process Narrative: This process resembles process 002 - Transfer Input Interchange Output, but is reversed. The DSS DBA will transmit data from data store D008 - Output Interchange Files, from the DSS to the IWSDB using a standard off-the-shelf communications package. In the

absence of a communications procedures, data transfer can take place over an "air gap" using tapes or disks.

Transfer Data From Output Interchange Files (009)

Controlling Activity: EE01 - Weapon System LSAR/ISD Data "Owners"

Input Data Stores: D009 - Output Interchange Data (IWSDB)

Output Data Stores: Entity Destination (EE04 - Other ISD IWSDB Data Stores)

D001 - LSAR on IWSDB (1388-2B)

Process Narrative: This process, like process 001 - Produce Input Interchange Files, takes place outside of the DSS. The actual interaction of the LSAR and ISD data "owners" and data stores D009 and D001 will be uniquely defined by each user. Data contained in the Output Interchange Files is provided to support other concurrent logistics and system engineering activities.

Data Store Requirements

The following sections describe Joint Service ISD/LSAR DSS CALS interface data stores (*data store numbers are in parentheses*). The descriptions correspond to the data stores on Figure 4.

LSAR on IWSDB (1388-2B) (D001)

The approved MIL-STD-1388-2B will prescribe the data element definitions (DEDs), data field lengths, and formats for the LSAR. Government and contractor organizations will be required to adhere to the standard for all system/equipment acquisition programs, major modification programs, and applicable research and development projects through all phases of the system/equipment life cycle.

The physical implementation of the MIL-STD-1388-2B LSAR data will vary widely among users. However, Government and contractor organizations will be capable of producing standard LSAR output reports. The Input Interchange Data (data store D002, as described in the following section), required to feed LSAR data to the DSS, have been recommended for inclusion in the final MIL-STD-1388-2B as a standard output.

Input Interchange Data (IWSDB) (D002)

Training analyses using the DSS do not require LSAR data, but are most effective when fully supported by available LSAR data. Only training-related LSAR data elements are imported for ISD analyses using the DSS. The LSAR

"owner" generates this data store for LSAR data transmittal to the DSS PC subsystem.

The Input Interchange Data files are tentatively defined pending final approval of MIL-STD-1388-2B. The following description of the data store D002 was recommended to the Army's Materiel Readiness Support Activity (proponent for MIL-STD-1388-2B) for inclusion in the revised 1388-2B as a standard LSAR report. The report description would appear in MIL-STD-1388-2B Appendix B, paragraph 30.XX.

"30.XX LSA-XXX, Training Analysis Input Interchange Files. These files provide LSAR data that support an ongoing training analysis. The files consist of the following LSAR tables: AB, CA, CB, CC, CD, CE, CF, CG, and CH. With each LSAR data exportation to the training analysis process, two additional tables must be produced. The two tables, the LCN Nomenclature Update File and the Task Identification Update File, identify LCN nomenclature and task identification data element changes since the last data exportation. The two update files satisfy the deliverables cited in MIL-STD-1379D.

"30.XX.1 The following "header" data required to identify both the LSAR tables and the update files are not a part of the LSAR, but are contained in the LSA-XXX, Training Analysis Input Interchange Files.

"a. Weapon System Identification (WSYIDO). A 2-position alphanumeric entry used to identify the training analysis to which the LSAR data are to be exported.

"b. Julian Date (JULDAT). A 5-position number indicating the Julian date on which the input interchange files were produced for exportation to the training analysis process.

"30.XX.2 LSA-XXX Update Identification. There are six types of LSA-XXX updates which are reflected in the LCN Nomenclature and Task Identification Update Files. The updates are based upon a comparison of the LSAR data in the current Training Analysis Input Files with the Training Analysis Input Files baseline (established by previous LSA-XXX submittals).

"a. LCN Nomenclature Updates. Recorded in the LCN Nomenclature Update File as a single character LCN Nomenclature Update Code. Codes "A", "D", and "C" refer to additions, deletions, and changes to the LCN Nomenclature data element, since the last generation of the LSA-XXX.

"b. Task Identification Updates. Recorded in the Task Identification Update File as a single character Task Identification Update Code. Codes "A", "D", and "C" refer to additions, deletions, and changes to the Task Identification data element, since the last generation of the LSA-XXX."

Table 2 displays the LSA-XXX Header Data, the LCN Nomenclature Update File, and the Task Identification Update File.

Table 2

LSA-XXX Header Data and Update Files

Header Data for all LSA-XXX Training Analysis Interchange Data Files

Code	Data Element Title	Format	DED	Key
WSYIDO	WEAPON SYSTEM IDENTIFICATION	2 X F -	N/A	-
JULDAT	JULIAN DATE	5 N F -	N/A	-

LCN Nomenclature Update File

Code	Data Element Title	Format	DED	Key
EIACODXA	END ITEM ACRONYM CODE	10 X L -	093	X
LSACONXB	LSA CONTROL NUMBER (LCN)	18 X L -	193	X
ALTLCNXB	ALTERNATE LCN CODE	2 X L -	019	X
LCNTYPXB	LCN TYPE	1 A F -	197	X
UPDCOD	LCN NOMENCLATURE UPDATE CODE	1 A F -	N/A	X

Task Identification Update File

Code	Data Element Title	Format	DED	Key
EIACODXA	END ITEM ACRONYM CODE	10 X L -	093	X
LSACONXB	LSA CONTROL NUMBER (LCN)	18 X L -	193	X
ALTLCNXB	ALTERNATE LCN CODE	2 X L -	019	X
LCNTYPXB	LCN TYPE	1 A F -	197	X
TASKCDCA	TASK CODE	7 X F -	419	X
UPDCOD	TASK IDENTIFICATION UPDATE CODE	1 A F -	N/A	-

Column headings in Table 2 are described below:

Code	An eight character mnemonic assigned to each element. If the 7th and 8th mnemonic field table reference is present, the data element is described in MIL-STD-1388-2B (May 1990 draft). Mnemonics with blank 7th and 8th fields are non-LSAR data elements
Data Element Title	The noun name of the element; if an LSAR element, from MIL-STD-1388-2B (May 1990 draft)
Format	A four-field column: (1) Length - number of character positions (2) Type - "A" = alphabetic, "N" = numeric, "X" = combination (3) Justification - "L" = left, "R" = right, "F" = fixed, "-" = not applicable (4) Decimal Placement - "-" = not applicable
DED	If applicable, the data element definition number from MIL-STD-1388-2B (May 1990 draft)
Key	An indicator that identifies data keys within a data table

The LSA-XXX LSAR tables are listed in Table 3, and are described in detail in the May 1990 draft of MIL-STD-1388-2B.

By including entire LSAR tables, the LSA-XXX is expected to be more easily generated. Not all LSAR data elements identified in the LSA-XXX will be used by the DSS, Version 4.0. Many of the data elements that are not currently used are expected to be useful in future DSS decision support enhancements. For the same reason, additional LSAR tables may be added to the LSA-XXX if there is a future need.

Input Interchange Files Image (D003)

This data store will mirror D002 - Input Interchange Data (IWSDB), described above. When D002 is transferred from the IWSDB, D003 will exist within the DSS on the PC.

DSS Change Files (D006)

Within the DSS, D003 - Input Interchange Files Image, must be translated into a structure that conforms to the DSS data model (Process 003). The result is data store D006. Throughout an ISD analysis, the Training Development Manager and Subsystem Lead Analyst may access the additions, changes, and deletions on an as needed basis. When exchanging LSAR data with the [MIL-STD-1388-2A conforming] DSS Version 4.0, D006 files are exactly the same as the existing LSAR update files. When the DSS is modified to conform with an approved MIL-STD-1388-2B, no translation is anticipated between the

Table 3

LSA-XXX LSAR Data Tables, MIL-STD-1388-2B (May 1990 Draft)

TABLE CODE	TABLE TITLE
AB	War/Peace Operations and Maintenance Requirement
CA	Task Requirement
CB	Subtask Requirement
CC	Sequential Subtask Description
CD	Subtask Personnel Requirement
CE	Task Remark
CF	Task Remark Reference
CG	Task Support Equipment
CH	Task Manual

D003 - Input Interchange Files, and the D006 - DSS Change Files. D003 will be the direct input to the 1388-2B DSS, and Process 003 will be eliminated.

DSS Data (D007)

D007 - DSS Data, is the collection of data residing in the Joint Service ISD/LSAR DSS. The data include LSAR data, inserted analysis administrative data, training system requirements decisions, and analysis working data. The DSS DBA, Training Development Manager, and ISD Analysts will access this data store continually throughout an analysis. Table 4 contains a cross-reference listing of the Government-approved CALS training data elements in the DSS Version 4.0 data set. The data elements are referenced by the six-character DSS variable data element code. Appendix B contains more detailed descriptions of these data elements.

Output Interchange Files (D008)

Data store D008 - Output Interchange Files, will consist of MIL-STD-1388-2B and MIL-STD-1379D data elements resulting from ISD analyses performed using the DSS. These data are intended for use by the LSAR "owner" and other concurrent logistics and engineering processes, thus supporting the intent of the

Table 4

CALS Training Data Elements in the DSS Data Set

DSS Variable	Training Data Element Title	1388-2B DED
ALCNUM	ALTERNATE LCN CODE	019
ANNMSN	ANNUAL NUMBER OF MISSIONS	021
ANNOPD	ANNUAL OPERATING DAYS	022
ANXDES	ANNEX NAME	
ANXIDS	ANNEX IDENTIFIER	
CCSDES	TASK CUE TEXT	
COMFUN	FIDELITY CODE	
COMNAM	COMPONENT NAME	
COMNUM	COMPONENT IDENTIFIER	
COMPHY	FIDELITY CODE	
CRICUT	MODEL CUT-OFF SCORE	
CRSDES	COURSE NAME	
CRSIDS	COURSE NUMBER	
CRTRTG	TASK RANK NUMBER	
DOMAIN	LEARNING DOMAIN NAME	
ELODES	TERMINAL LEARNING OBJECTJVE STATEMENT TEXT	
ELODOM	LEARNING DOMAIN NAME	
ELOIDS	TERMINAL LEARNING OBJECTIVE NUMBER	
ELOOTX	LEARNING TAXONOMY NAME	
ENDCOD	END ITEM ACRONYM CODE	093
FACCOD	FACILITIES TRAINING REQUIREMENTS CODE	350
HAZCOD	AZARDOUS MAINTENANCE PROCEDURES CODE	151
HAZPRC	HARDNESS CRITICAL PROCEDURES (HCP)	148
INTMED	MEDIA TYPE NAME	
ISCMNT	INSTRUCTIONAL SEQUENCE RATIONALE TEXT	
ISDNAM	LCN NOMENCLATURE	195
ISFINL	INSTRUCTIONAL SETTING CODE	
ITMNAM	LCN NOMENCLAUTRE	195
JPAAGY	JOB PERFORMANCE AID AUTHORITY NAME	
JPANAM	JOB PERFORMANCE AID NAME	
KEYWRD	LEARNING TAXONOMY ACTION VERB NAME	
LCNNUM	LSA CONTROL NUMBER (LCN)	193
LESDES	LESSON NAME	
LESIDS	LESSON IDENTIFIER	
LVLCOD	SKILL LEVEL CODE	378
MANMIN	MEAN MAN-MINUTES	219
MEDNAM	MEDIA TYPE NAME	
MENDET	MEANS OF DETECTION	230
MMINET	MEAN MINUTE ELAPSED TIME	220
MMSNMB	MEASUREMENT BASE (MB)	231
MODNAM	MEDIA SELECTION MODEL NAME	
MSNDUR	MEAN MISSION DURATION	221

Table 4 (cont'd)

DSS Variable	Training Data Element Title	1388-2B DED
OPR1MB	MEASUREMENT BASE (MB)	231
OPRQT1	ANNUAL OPERATING REQUIREMENTS	023
OPRQTI	OPERATIONAL REQUIREMENT INDICATOR	268
PFMSTD	PERFORMANCE STANDARDS	280
SKDESC	SKILL/KNOWLEDGE NAME	
SKINUM	SKILL/KNOWLEDGE NUMBER	
SQTDES	SEQUENTIAL SUBTASK DESCRIPTION	364
SSCCOD	SKILL SPECIALTY CODE (SSC)	379
SSECOD	SKILL SPECIALTY EVALUATION CODE	380
SSLEAD	SKILL SPECIALTY CODE (SSC)	379
TASKLD	SKILL SPECIALTY CODE (SSC)	379
TEDESC	SEQUENTIAL SUBTASK DESCRIPTION	364
TEINUM	TASK ELEMENT NUMBER	
TLCRAT	TRAINING LOCATION RATIONALE	456
TMLCOD	TECHNICAL MANUAL CODE (TM CODE)	429
TNGCOD	TRAINING EQUIPMENT REQUIREMENT CODE	350
TNGRAT	TRAINING RATIONALE	457
TNGREC	TRAINING RECOMMENDATION	458
TRMDES	TERMINAL LEARNING OBJECTIVE STATEMENT TEXT	
TRMDOM	LEARNING DOMAIN NAME	
TRMIDS	TERMINAL LEARNING OBJECTIVE NUMBER	
TSECOD	TOOL/SUPPORT EQUIPMENT REQUIREMENTS CODE	350
TSKCND	TASK CONDITION CODE	420
TSKCRT	TASK CRITICALITY	421
TSKFRQ	TASK FREQUENCY	422
TSKIDN	TASK IDENTIFICATION	423
TTYCOD	TASK CODE	419
TTYNAM	TASK TYPE TEXT	
WRKCOD	WORK AREA CODE	508

DoD CALS initiatives. Two files have been defined based upon the current drafts of the MIL-STD-1388-2B and MIL-STD-1379D standards:

- ISD LCN Structure File
- ISD Task Data File

The key fields are shown for each record.

Table 5 describes the attributes for each data element in the output interchange files. Column headings in Table 5 are identical to those described above for Table 2, with the exception that the data element codes do not include the LSAR table references (7th and 8th mnemonic fields).

Table 5

Output Interchange File Formats

Header Data for All output Interchange Files

Code	Data Element Title	Format	DED	Key
WSYIDO	WEAPON SYSTEM IDENTIFICATION	2 X F -	N/A	-
JULDAT	JULIAN DATE	5 N F -	N/A	-

ISD LCN Structure File

Code	Data Element Title	Format	DED	Key
EIACOD	END ITEM ACRONYM CODE	10 X L -	093	X
LSACON	LSA CONTROL NUMBER (LCN)	18 X L -	193	X
ALTCLN	ALTERNATE LCN CODE	2 X L -	019	X
LCNTYP	LCN TYPE	1 A F -	197	X
LCNAME	LCN NOMENCLATURE	19 X L -	195	-

ISD TASK Data File

Code	Data Element Title	Format	DED	Key
EIACOD	END ITEM ACRONYM CODE	10 X L -	093	X
LSACON	LSA CONTROL NUMBER (LCN)	18 X L -	193	X
ALTLCN	ALTERNATE LCN CODE	2 X L -	019	X
LCNTYP	LCN TYPE	1 A F -	197	X
TASKCD	TASK CODE	7 X F -	419	X
TASKID	TASK IDENTIFICATION	36 X L -	423	-
TRNREC	TRAINING RECOMMENDATION	1 A F -	458	-
TRNRAT	TRAINING RATIONALE	4 A L -	457	-
TRNLOC	TRAINING LOCATION RATIONALE	4 A L -	466	-

Output Interchange Data (IWSDB) (D009)

This data store will mirror the D008 - Output Interchange Files, described in the preceding section.

Appendix A

Joint Service ISD/LSAR DSS CALS Interface Issues

Appendix A
Joint Service ISD/LSAR DSS CALS Interface Issues

To refine the design of an ISD-LSAR data interface that is both CALS compatible and operationally practical, user involvement in the design process was essential. The Joint Service ISD/LSAR DSS CALS interface design and operational concept, described in Section 3.0 of this document, were discussed at two Joint Service ISD/LSAR DSS CALS interface working group (IWG) meetings. The IWG meetings served as a forum in which expected users participated in the interface concept development and design. The IWGs took place on 23-24 May 1990 and 10-12 July 1990, in Washington, D.C.

Appendix A addresses the following issues related to the DSS CALS interface design and implementation. (Note: A number of recommendations related to the DSS operation and screen presentations, but not related to the CALS interface, were made during and since the two IWGs. Issues/recommendations with no bearing upon the CALS interface are not presented in Appendix A, but will be considered as potential enhancements or improvements to the DSS.)

Issue #

001 MIL-STD-1388-2B Status
002 Ongoing Evolution of CALS Training Data Element Definitions and Relationships
003 Input Interchange File Construction by LSAR "Owners"
004 Output Interchange File Review and Handling by LSAR and ISD Data "Owners"
005 Concurrent Government and Contractor/Sub-contractor Use of Interchange Files
006 LSAR Update Data Comparisons
007 CALS Interchange Data Concurrency
008 Data Translation from MIL-STD-1388-2B to DSS Format
009 September 1990 CALS Interface Demonstration
010 Ongoing ISD/LSAR DSS CALS Interface Information Exchange

Each issue presented in Appendix A begins on a new page. The issue is identified by name and explained in detail. If an issue is of primary concern to a specific DSS user or activity, the concerned party is identified. Since the CALS interface effort to be conducted through September 1990 is of limited scope, specific issue accommodations to be accomplished by September are detailed. Additional actions that could more fully address the issue beyond September 1990 are also identified. Finally, a history of discussions about each issue is summarized.

Issue Number: 001

Issue: MIL-STD-1388-2B Status

Concerned User/Activity:

Detailed Explanation: The Statement of Work for the CALS interface delivery order states that: "The CALS IWSDB ISD-LSAR interchange data files will comply with the latest version of MIL-STD-1388-2B in existence at contract start whether or not it is the final approved document or a draft." (The latest version of MIL-STD-1388-2B as of contract start was the draft dated 31 March 1989.)

The Version 4.0 DSS data structures are compatible with the MIL-STD-1388-2A standard. In several cases, key LSAR data elements are changing in the emerging MIL-STD-1388-2B. Two concerns exist with regard to the draft status of the new LSAR standard. First, the Version 4.0 DSS will not comply with all LSAR standards as defined in the eventually approved MIL-STD-1388-2B. Second, the DSS CALS interface must provide data to and from the Version 4.0 DSS data model; therefore, the interchange files also will not comply with all LSAR standards as defined in the eventual approved MIL-STD-1388-2B.

A May 1990 draft of MIL-STD-1388-2B was recently completed and is currently being reviewed. The Joint Service ISD/LSAR DSS CALS Interface Requirements Report and other documentation related to the ISD-LSAR CALS interface will use the May 1990 draft as the MIL-STD-1388-2B reference.

Issue Accommodations by September 1990: As discussed at IWG#2, DRC recommended to the Army's Materiel Readiness Support Activity (proponent for MIL-STD-1388-2B) a format for a MIL-STD-1388-2B LSAR report (designated LSA-XXX) that would serve as the DSS CALS interface input interchange files (see Section 3.3.2). The LSAR report is tentatively defined pending final approval of MIL-STD-1388-2B. Via Dr. Sorensen, DRC also recommended to the MIL-STD-1379D committee, references within 1379D to the LSAR input interchange files as a source of input data for training analyses. As agreed to at IWG#2, the September CALS interface demonstration will use MIL-STD-1388-2A data, formatted as DSS LSAR change files, as the input interchange files.

Deferred Actions: (1) Recommend date/time stamping of MIL-STD-1388-2B data elements for identifying changes in LSAR data.
(2) A high priority future action is to modify the DSS CALS interface to comply with LSAR standards specified in the final version of MIL-STD-1388-2B. Required 1388-2B data element date/time stamping or other scheme to track LSAR changes will be used to identify LSAR updates in DSS analyses. (3) Modify the DSS to better use data available in the approved MIL-STD-1388-2B LSAR. Not all LSAR data elements identified in the recommended LSA-XXX report will be used by the DSS, Version 4.0. Many of the data elements that are not currently used are expected to be useful in future DSS decision support enhancements. For the same reason, additional LSAR tables may be added to the LSA-XXX if there is a future need.

Issue History:

Date	Action
4/26/90	Issue identified
5/24/90	Discussed at IWG#1
5/31/90	Received copies of May 1990 draft MIL-STD-1388-2B, Appendices A and E
7/10/90	Received copies of May 1990 draft MIL-STD-1388-2B, remaining Appendices
7/12/90	Discussed at IWG#2
7/19/90	Submitted MIL-STD-1388-2B and MIL-STD-1379D change recommendations to Dr. Sorensen
7/30/90	Last issue update

Issue Number: 002

Issue: Ongoing Evolution of CALS Training Data Element Definitions and Relationships

Concerned User/Activity:

Detailed Explanation: The issue of the evolving CALS training data element definitions and relationships is similar to the MIL-STD-1388-2B status issue (Issue #001). The most current 437 CALS training data elements, maintained by the Training Performance Data Center (TPDC), are being used to support the DSS CALS interface development. To the extent possible, the Version 4.0 DSS data structures conform to the emerging CALS training data dictionary. Two concerns exist with regard to the emerging training data element definitions and relationships. First, the Version 4.0 DSS may not comply with all TPDC-maintained CALS data definitions/relationships. Second, the DSS CALS interface must provide data to and from the Version 4.0 DSS data model; therefore, the interchange files also may not comply with all TPDC-maintained CALS data definitions.

A number of DSS data elements are not included among the TPDC-maintained CALS training data elements (see Appendix C).

Issue Accommodations by September 1990: This issue will not impact the DSS CALS interface as currently designed. All data elements provided in the output interchange files (see Section 3.3.8 and Table 3-4) are defined in the May 1990 draft of MIL-STD-1388-2B, which are included in the TPDC-maintained training data elements.

Deferred Actions: If required to support the extraction of CALS compatible training data from a DSS analysis, the DSS data model may have to be modified to comply with the data elements and relationships maintained in the TPDC CALS training data element dictionary.

Issue History:

Date	Action
4/26/90	Issue identified
5/24/90	Discussed at IWG#1
7/12/90	Discussed at IWG#2
7/30/90	Last issue update

Issue Number: 003

Issue: Input Interchange File Construction by LSAR "Owner"

Concerned User/Activity:

Detailed Explanation: The input interchange files will be generically defined so that their construction within the CALS IWSDB is hardware/software/database-independent. The DSS will utilize data downloaded from the input interchange files, regardless of the hardware/software environment in which the interchange files reside. The data transfer will be accomplished outside of the DSS, using an appropriate host-to-PC communications package (not part of the DSS). Construction of a generic input interchange file by the LSAR "owner" will enable the DSS CALS interface to be a generic solution.

At IWG#1, both Government and industry representatives voiced concern about the input interchange files being an additional data delivery that the LSAR "owner" is not contractually required to deliver. Viewing the input interchange files as additional deliverables is only one way to look at the requirement. Production and exchange of the input interchange files could also be viewed simply as a component process of an activity's approach to satisfying CALS compatibility requirements using the DSS.

As discussed at IWG#2, DRC recommended to the Army's Materiel Readiness Support Activity (proponent for MIL-STD-1388-2B) a format for a MIL-STD-1388-2B LSAR report (designated LSA-XXX) that would serve as the DSS CALS interface input interchange files (see Section 3.3.2). By including entire 1388-2B tables in the LSA-XXX, the report is expected to be more easily generated. The LSAR report is tentatively defined pending final approval of MIL-STD-1388-2B.

The May 1990 draft MIL-STD-1388-2B does not identify LSAR additions, deletions, and changes. The LSAR "owner" must produce the LSAR input interchange file "update codes" (the LCN Nomenclature Code and the Task Identification Code; see Section 3.3.2). The final approved MIL-STD-1388-2B may better support tracking LSAR updates than the current draft through the use of data element date/time stamping or some other scheme.

Issue Accommodations by September 1990: Provide sufficient information to LSAR "owners" to support construction of input interchange files.

Deferred Actions: None.

Issue History:

Date	Action
4/26/90	Issue identified
5/24/90	Discussed at IWG#1
7/12/90	Discussed at IWG#2
7/30/90	Last issue update

Issue Number: 004

Issue: Output Interchange File Review and Handling by LSAR and ISD Data "Owners"

Concerned User/Activity:

Detailed Explanation: The output interchange files will be generically defined so that use of the data they contain within the CALS IWSDB is hardware/software/database-independent. The DSS will prepare data files to be copied to the output interchange files, regardless of the hardware/software environment in which the interchange files reside. The data transfer will be accomplished outside of the DSS, using a standard communications package. LSAR and ISD data "owner" extraction of data from a generic input interchange file will enable the DSS CALS interface to be a generic solution.
At IWG#1, it was generally agreed that the output interchange files ought to contain only data elements contained in either MIL-STD-1388-2B or MIL-STD-1379D. Requirements for other data products will be satisfied by directly querying the DSS.

Issue Accommodations by September 1990: Provide sufficient information to LSAR and ISD data "owners" to support the use of data contained in the output interchange files.

Deferred Actions: None.

Issue History:

Date	Action
4/26/90	Issue identified
5/24/90	Discussed at IWG#1
7/12/90	Discussed at IWG#2
7/30/90	Last issue update

Issue Number: 005

Issue: Concurrent Government and Contractor/Sub-contractor Use of Interchange Files

Concerned User/Activity:

Detailed Explanation: Both industry and Government users of the DSS will want access to data in the IWSDB. Users must only be provided access to those data to which they have access authority. For example, Government users will not have access to contractor proprietary data.

A number of off-line discussions related to this issue occurred at IWG#1. One such discussion concerned the delivery to the Government of DSS CALS interface input interchange files produced by a contractor LSAR "owner". See Figure A-1. Periodic delivery of the input interchange files may be useless without the concurrent delivery of the DSS data files. If the DSS data files are delivered, then the input interchange files would only be useful only if the Government intended to conduct a parallel analysis. The DSS currently does not support efficient comparisons of two parallel analyses of the same weapon system. Figures A-2 and A-3 display two different example scenarios for the exchange of LSAR and DSS data between Government and industry contractors.

Issue Accommodations by September 1990: An example data exchange/coordination scenario will be used for the September CALS demonstration.

Deferred Actions: Probably will require program-specific procedures for the delivery/exchange of DSS data files and CALS input/output interchange files (probable Government action item).

Issue History:

Date	Action
4/26/90	Issue identified
5/24/90	Discussed at IWG#1
7/12/90	Discussed at IWG#2
7/30/90	Last issue update

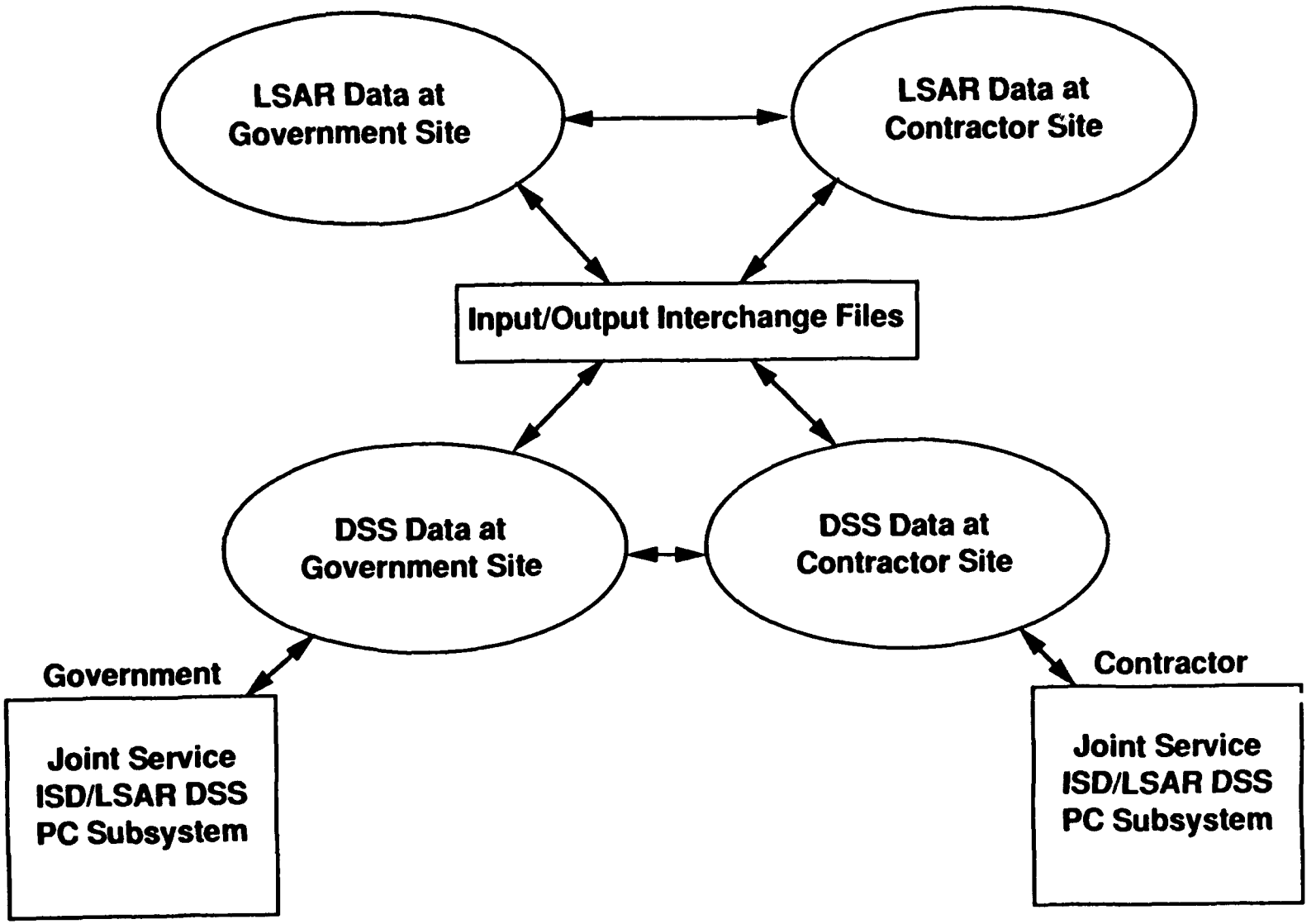

Figure A-1. Options for Government-Contractor Exchange of LSAR and DSS Data

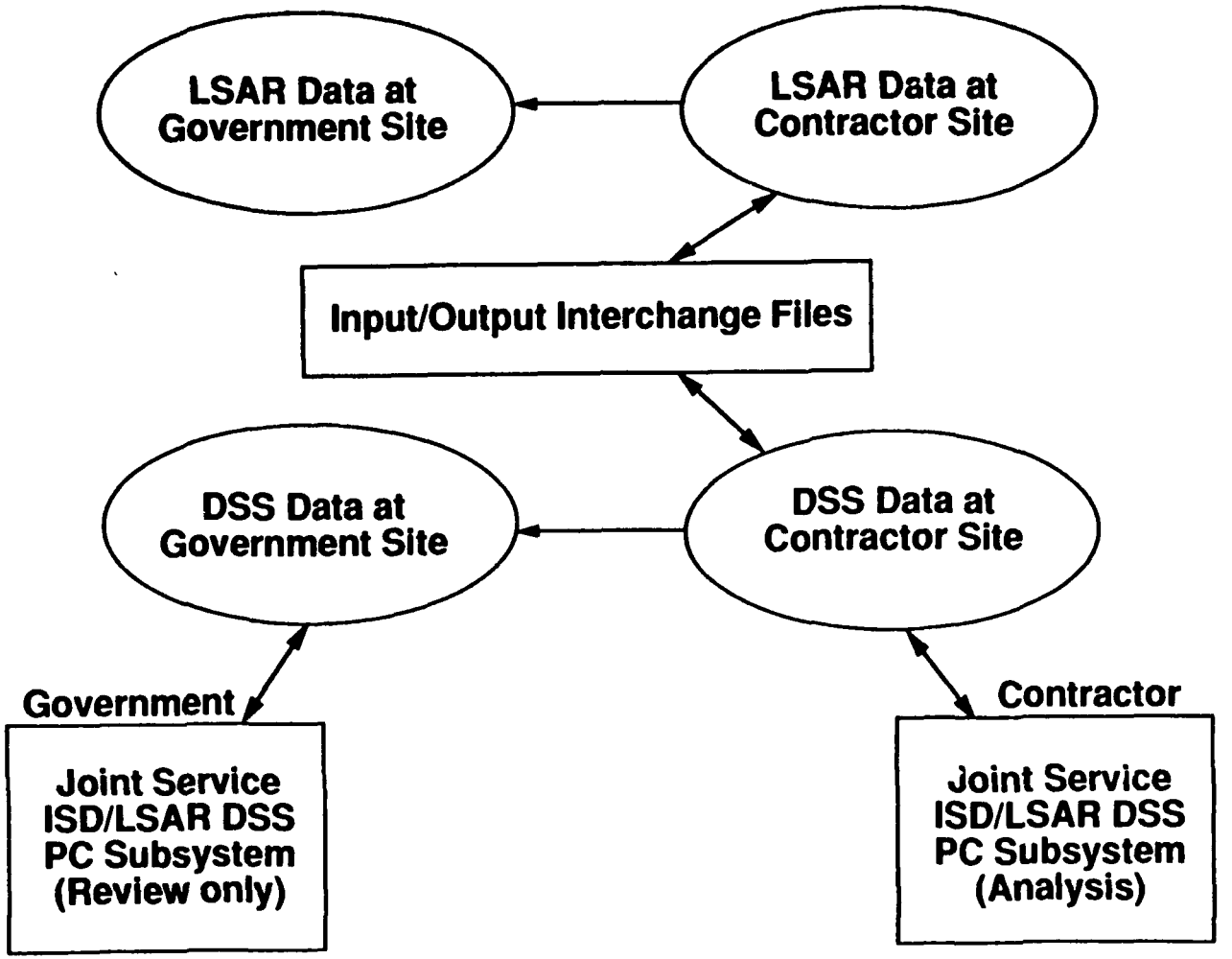

Figure A-2. Example Scenario 1: Contractor-Performed ISD Analysis

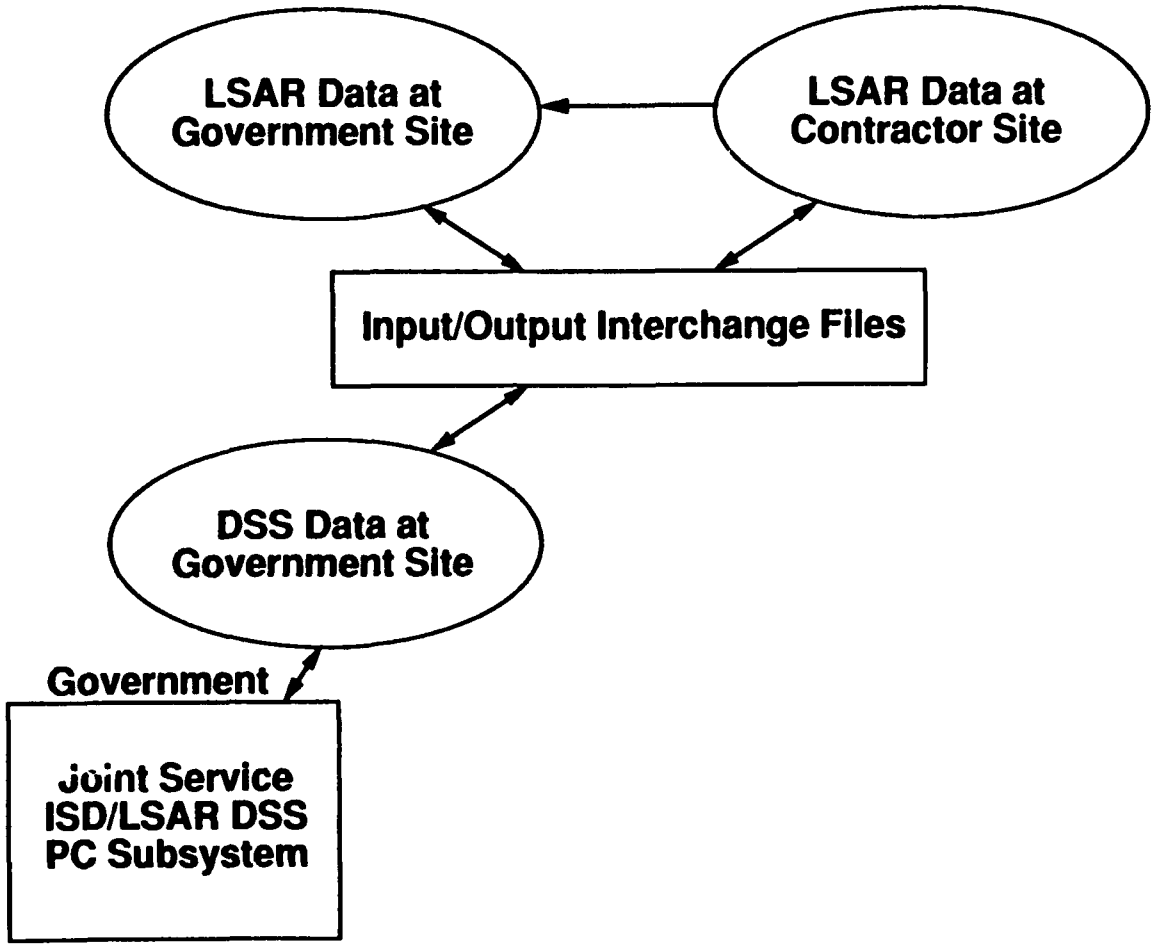

Figure A-3. Example Scenario 2: Contractor-Performed LSA/Government-Performed ISD Analysis

Issue Number: 006

Issue: LSAR Update Data Comparisons

Concerned User/Activity:

Detailed Explanation: For the Version 3.1 DSS, comparisons of key LSAR data fields are performed using VAX routines. The preliminary design concept of the DSS CALS interface envisioned the LSAR update comparisons to be conducted on the DSS PC subsystem. As a result of IWG#1 discussions, it was agreed that LSAR data updates would be identified within the CALS interface input interchange files constructed by the LSAR "owners" (see Issue 003). This would support construction of the input interface files in unique ways to support different types of LSAR updates (eg., engineering change proposals (ECPs), design evolution during system acquisition, etc.) LSAR data updates will be presented to Version 4.0 DSS users in the way they are presented in Version 3.1.

The tentatively defined (pending final approval of MIL-STD-1388-2B) Input Interchange Data files contain two tables, the LCN Nomenclature Update File and the Task Identification Update File, that identify LCN nomenclature and task identification data element changes since the last data exportation. The LSAR data "owner" will be required to produce LCN Nomenclature and Task Identification Updates Codes that identify additions, deletions, and changes to those LSAR data elements, respectively, since the last production of the input interchange files. (See Section 3.3.2.)

Issue Accommodations by September 1990: As discussed at IWG#2, DRC a format for a MIL-STD-1388-2B LSAR report that would serve as the DSS CALS interface input interchange files, with LSAR update codes (see Section 3.3.2). The LSAR report is tentatively defined pending final approval of MIL-STD-1388-2B. As agreed to at IWG#2, the September CALS interface demonstration will use MIL-STD-1388-2A data, formatted as DSS LSAR change files, as the input interchange files.

Deferred Actions: (1) Recommend date/time stamping of MIL-STD-1388-2B data elements to facilitate tracking LSAR data updates and their impacts on training and other analyses. (2) Based on the approved MIL-STD-1388-2A, provide sufficient information to LSAR "owners" to support construction of the LCN Nomenclature Update File and the Task Identification Update File (part of the input interchange files).

Issue History:

Date	Action
4/26/90	Issue identified
5/24/90	Discussed at IWG#1
7/12/90	Discussed at IWG#2
7/30/90	Last issue update

Issue Number: 007

Issue: CALS Interchange Data Concurrency

Concerned User/Activity:

Detailed Explanation: This issue is related to Process 009 - Transfer Data From Output Interchange Files. The output interchange files format is designed to facilitate placement of DSS analysis results into the LSAR residing within the IWSDB. Only the LSAR data "owner" can grant the authority to place these data back into the LSAR. Even though data can physically be placed back into the LSAR, the LSAR "owner" needs to be concerned about data concurrency. In this CALS Phase I-type LSAR-DSS interface, it is possible to inadvertently associate DSS-generated training analysis results with LSAR data that have changed since being provided as the source data that led to the results. The risk of this occurring can be minimized, but not eliminated. Examples of ways to minimize data concurrency problems are to: (1) reduce the LSAR input-to-DSS results-to LSAR feedback cycle time, (2) allow no changes to LSAR data currently being used in the DSS, and (3) assign the responsibility of placing data from the output interchange files back into the LSAR to a skilled data administrator.

Issue Accommodations by September 1990: Provide sufficient information to LSAR "owners" to support the use of data contained in the output interchange files, with attention to potential data concurrency problems.

Deferred Actions: Solve data concurrency problems with a CALS Phase II-type solution, using an integrated data base (the DSS interfacing directly with the LSAR).

Issue History:

Date	Action
6/19/90	Issue identified
7/12/90	Discussed at IWG#2
7/30/90	Last issue update

Issue Number: 008

Issue: Data Translation from MIL-STD-1388-2B to DSS Format

Concerned User/Activity:

Detailed Explanation: The DSS Version 4.0 conforms to MIL-STD-1388-2A data element definitions and structures, and will not accommodate all data definitions in the revised 1388-2B LSAR standard. Table A-1 compares the MIL-STD-1388-2A and the May 1990 draft MIL-STD-1388-2B definitions of LSAR data elements that are imported to the DSS Version 4.0. The 1388-2A/-2B data element differences indicate that it may be preferable to modify the DSS to conform with the approved MIL-STD-1388-2B rather than contend with 1388-2B to -2A data translation, as represented by Process 003 - Translate 1388-2B to DSS Internal Format. Modification of the DSS to fully conform to MIL-STD-1388-2B is planned once the new LSAR standard is approved. Process 003 will be important only in the unlikely situation in which a user wishes to use MIL-STD-1388-2B input data for a training analysis using a 1388-2A-conforming DSS version.

Issue Accommodations by September 1990: As agreed to at IWG#2, the September CALS interface demonstration will use MIL-STD-1388-2A data, formatted as DSS LSAR change files, as the input interchange files.

Deferred Actions: If required (ie., there is a requirement to import actual MIL-STD-1388-2B data into a DSS training analysis before a MIL-STD-1388-2B compatible DSS is available), construct a Process 003 process to accomplish -2B to -2A data translation.

Issue History:

Date	Action
6/19/90	Issue identified
7/12/90	Discussed at IWG#2
7/30/90	Last issue update

Table A-1 MIL-STD-1388-2B to MIL-STD-1388-2A Element Comparison

May 1990 Draft MIL-STD-1388-2B				MIL-STD-1388-2A			
DED	Abbreviation	Type	Length	DED	Type	Length	Format Change
019	ALTERNATE LCN CODE	CHR	2	023	CHR	1	YES
021	ANNUAL NUMBER OF MISSIONS	INT	6	027	INT	6	
022	ANNUAL OPERATING DAYS	INT	3	028	INT	3	
023	ANNUAL OPERATING REQUIREMENTS	INT	6	029	INT	6	
093	END ITEM ACRONYM CODE	CHR	10	106	CHR	10	
148	HARDNESS CRITICAL PROCEDURES (HCP)	CHR	1	153	CHR	1	
151	HAZARDOUS MAINTENANCE PROCEDURES CODE	CHR	1	155	CHR	1	
195	LCN NOMENCLATURE	CHR	19	181	CHR	19	
193	LSA CONTROL NUMBER (LCN)	CHR	18	197	CHR	11	YES
217	MEAN ELAPSED TIME	REL	5.2	220	REL	5.2	
219	MEAN MAN-MINUTES	REL	4.1	223	REL	4.1	
220	MEAN MINUTE ELAPSED TIME	REL	5.1	232	REL	4.1	YES
221	MEAN MISSION DURATION	INT	5	234	INT	5	
230	MEANS OF DETECTION	CHR	2	242	CHR	2	
231	MEASUREMENT BASE (MB)	CHR	1	244	CHR	1	
268	OPERATIONAL REQUIREMENT INDICATOR	CHR	1	285	CHR	1	
280	PERFORMANCE STANDARDS	CHR	3	313	CHR	3	
350A	FACILITIES TRAINING REQUIREMENT CODE	CHR	1	394A	CHR	1	
350B	TRAINING EQUIPMENT REQUIREMENT CODE	CHR	1	394B	CHR	1	
350C	TOOL/SUPPORT EQUIPMENT REQUIREMENTS CO	CHR	1	394C	CHR	1	
364	SEQUENTIAL SUBTASK DESCRIPTION	DBA		410	CHR	54	YES
378	SKILL LEVEL CODE	CHR	1	422	CHR	1	
379	SKILL SPECIALTY CODE (SSC)	CHR	7	423	CHR	7	
380	SKILL SPECIALTY EVALUATION CODE	CHR	1	433	CHR	1	
399	SUBTASK NUMBER	INT	3	451	CHR	1	YES
419	TASK CODE	CHR	7	467	CHR	7	
420	TASK CONDITION	CHR	3	468	CHR	3	
421	TASK CRITICALITY	CHR	1	469	CHR	1	
422	TASK FREQUENCY	REL	7.4	470	REL	6.3	YES
423	TASK IDENTIFICATION	CHR	36	472	CHR	36	
429	TECHNICAL MANUAL CODE (TM CODE)	CHR	3	479	CHR	3	
456	TRAINING LOCATION RATIONALE	CHR	4	502	CHR	4	
457	TRAINING RATIONALE	CHR	4	503	CHR	4	
458	TRAINING RECOMMENDATION	CHR	1	504	CHR	1	
508	WORK AREA CODE	CHR	4	544	CHR	4	

Issue Number: 009

Issue: September 1990 CALS Interface Demonstration

Concerned User/Activity:

Detailed Explanation: The CALS interface delivery order requires a demonstration of the Joint Service ISD/LSAR DSS CALS interface at contract completion. The Government is required to: (1) provide the ISD-LSAR interchange data files that will support the demonstration, and (2) identify the CALS interface demonstration site. The demonstration requires access to the IWSDB LSAR data resident in a sample input interchange data file, a Joint Service ISD/LSAR DSS in a local area network (LAN) configuration, and the ISD/LSAR DSS database file server equipped with a PC communications package. The final Joint Service ISD/LSAR DSS CALS interface demonstration is scheduled for 11-12 September 1990.

Issue Accommodations by September 1990: The following arrangements regarding the CALS interface demonstration were agreed to at IWG#2/IPR#1: (1) The Government will identify a site willing to support the CALS demonstration during the week of 10 September 1990. The site must be willing to devote required data storage space, to install the DSS on a site PC-LAN, and to host an advance demo coordination visit. Site points-of-contact (POCs) will be provided to DRC. (2) DRC will provide the input interchange files using MIL-STD-1388-2A data, formatted as DSS LSAR change files, obviating the need for -2B to -2A LSAR data translation.

Deferred Actions: Not applicable

Issue History:

Date	Action
6/19/90	Issue identified
7/12/90	Discussed at IWG#2
7/30/90	Last issue update

Issue Number: 010

Issue: Ongoing ISD/LSAR DSS CALS Interface Information Exchange

Concerned User/Activity:

Detailed Explanation: At IWG#2, IWG participants expressed a desire to be kept informed regarding the ongoing development of the Joint Service ISD/LSAR DSS and the CALS interface.

Issue Accommodations by September 1990: Add IWG participants to the mailing list of Dr. Sorensen's periodic ISD/LSAR DSS newsletter.

Deferred Actions: Not applicable

Issue History:

Date	Action
7/12/90	Issue identified and discussed at IWG#2
7/30/90	Last issue update

Appendix B

Joint Service ISD/LSAR DSS CALS Data Dictionary - CALS Compatible Training Data Elements

Appendix B is a dictionary of Government approved CALS compatible training data elements that are included in the Joint Service ISD/LSAR DSS Version 4.0 data set. Table B-1 provides a cross-reference between the ISD/LSAR DSS data element variable code and the CALS data element. Following Table B-1 is a one-page description of each data element. The format for the data element description is as follows:

	Joint Service ISD/LSAR DSS
Variable	The six character ISD/LSAR DSS mnemonic assigned to each element
Data Type/Length	The data element type and length for each data element. The data element type may be: CHR = Alpha or Alphanumeric INT = Integer or Number REL = Real or Decimal DBA = Data Base Address
	CALS
Data Element Name	The complete name of the Government approved CALS training data element
Abbreviation	The abbreviated noun name of the element
Data Element Definition	The description of the element
Data Code Structure/	The specification of the fieldlength, character type, and decimal placement as appropriate, of the element where: A = Alpha or Alphanumeric Character I = Integer or Number Character D = Decimal Character with Decimal Places Indicated A64T = Extended Text Field
Data Item/Data Code Assigned	The identification and description of any coded element fields
Data Use Identifier	The name given to the use of the data
Reference	The reference field reflects the same element as defined in a Government standard or already in use in another data system. A reference marked with an asterisk indicates that the source document contained a similar definition, or an element with a slightly different usage definition

Table B-1 DSS CALS Data Element Cross Reference List

DSS Variable	DSS Variable Abbreviation	CALS Data Element Name
ALCNUM	ALTN-LSA-CONT-NO	ALTERNATE LCN CODE
ANNMSN	ANNUAL-NO-MSN	ANNUAL NUMBER OF MISSIONS
ANNOPD	ANNUAL-OPRNG-DAYS	ANNUAL OPERATING DAYS
ANXDES	ANNEX-DESCRIPTION	ANNEX NAME
ANXIDS	ANNEX-IDENTIFICATION	ANNEX IDENTIFIER
CCSDES	COND-CUE-STD-DESCRIPTION	TASK CUE TEXT
COMFUN	CMPNT-CMNT-FCTNL-FID	FIDELITY CODE
COMNAM	CMPNT-NAME	COMPONENT NAME
COMNUM	CMPNT-NO	COMPONENT IDENTIFIER
COMPHY	CMPNT-PHYS-FID	FIDELITY CODE
CRICUT	CRITERIA-CUT-OFF-VALUE	MODEL CUT OFF SCORE
CRSDES	COURSE-DESCRIPTION	COURSE NAME
CRSIDS	COURSE-IDENT	COURSE NUMBER
CRTRTG	WEIGHTED-CRITERIA-TOTAL	TASK RANK NUMBER
DOMAIN	DOMAIN	LEARNING DOMAIN NAME
ELODES	ELO-DESCRIPTION	TERMINAL LEARNING OBJ STATEMENT
ELODOM	ELO-DOMAIN	LEARNING DOMAIN NAME
ELOIDS	ELO-IDENT	TERMINAL LEARNING OBJECTIVE NUMBER
ELOOTX	ELO-OTHER-TAXONOMY	LEARNING TAXONOMY NAME
ENDCOD	END-ITEM-ACRONYM-CODE	END ITEM ACRONYM CODE
FACCOD	FACIL-REQT-CODE	FACILITIES TRAINING REQUIREMENT CODE
HAZCOD	HAZ-MAINT-PROC-CODE	HAZARDOUS MAINTENANCE PROCEDURE
HAZPRC	HAZ-CRIT-PROC	HARDNESS CRITICAL PROCEDURES (HCP)
INTMED	INT-MED	MEDIA TYPE NAME
ISCMNT	INSTR-SET-CMNT	INSTRUCTIONAL SEQUENCE RATIONALE
ISDNAM	ITEM-NAME	LCN NOMENCLATURE
ISFINL	INSTR-SET-FINAL	INSTRUCTIONAL SETTING CODE
ITMNAM	ITEM-NAME	LCN NOMENCLATURE
JPAAGY	JPA-AGENCY	JOB PERFORMANCE AID AUTHORITY
JPANAM	JPA-NAME	JOB PERFORMANCE AID NAME
KEYWRD	LRNG-OBJ-KEYWORD	LEARNING TAXONOMY ACTION VERB
LCNNUM	LSA-CONT-NO	LSA CONTROL NUMBER (LCN)
LESDES	LESSON-DESCRIPTION	LESSON NAME
LESIDS	LESSON-IDENTIFICATION	LESSON IDENTIFIER
LVLCOD	SKILL-LVL-CODE	SKILL LEVEL CODE
MANMIN	MEAN-MAN-MIN	MEAN MAN-MINUTES
MEDNAM	MED-NAME	MEDIA TYPE NAME
MENDET	MEANS-OF-DETECT	MEANS OF DETECTION
MMINET	MEAN-MIN-ET	MEAN MINUTE ELAPSED TIME
MMSNMB	MEAN-MSN-DURATION-MEAS-BASE	MEASUREMENT BASE (MB)
MODNAM	MODL-NAME	MEDIA SELECTION MODEL NAME
MSNDUR	MEAN-MSN-DURATION	MEAN MISSION DURATION
OPR1MB	ANNUAL-OPRNG-REQTS1-MEAS-BASE	MEASUREMENT BASE (MB)
OPRQT1	ANNUAL-OPRNG-REQTS1	ANNUAL OPERATING REQUIREMENTS
OPRQTI	OPNL-REQT-IND	OPERATIONAL REQUIREMENT INDICATOR
PFMSTD	PRFM-STD	PERFORMANCE STANDARDS
SKDESC	SK-DESCP	SKILL/KNOWLEDGE NAME
SKINUM	SK-IDENT-NO	SKILL/KNOWLEDGE NUMBER
SQTDES	SEQ-TASK-DESCP	SEQUENTIAL SUBTASK DESCRIPTION
SSCCOD	SKILL-SPCLTY-CODE	SKILL SPECIALTY CODE (SSC)
SSECOD	SKILL-SPCLTY-EVLTN-CODE	SKILL SPECIALTY EVALUATION CODE

Table B-1 DSS CALS Data Element Cross Reference List (cont.)

DSS Variable	DSS Variable Abbreviation	CALS Data Element Name
SSLEAD	SUBSYSTEM-LEAD	SKILL SPECIALTY CODE (SSC)
TASKLD	TASK-LEAD	SKILL SPECIALTY CODE (SSC)
TEDESC	TASK-ELEM-DESCP	SEQUENTIAL SUBTASK DESCRIPTION
TEINUM	TASK-ELEM-IDENT-NO	TASK ELEMENT NUMBER
TLCRAT	TNG-LCTN-RATNL	TRAINING LOCATION RATIONALE
TMLCOD	TECH-MNL-CODE	TECHNICAL MANUAL CODE (TM CODE)
TNGCOD	TNG-EQ-REQT-CODE	TRAINING EQUIPMENT REQUIREMENT CODE
TNGRAT	TNG-RATNL	TRAINING RATIONALE
TNGREC	TNG-RECM	TRAINING RECOMMENDATION
TRMDES	TERMINAL-LRNG-OBJ-DESCRIPTION	TERMINAL LEARNING OBJ STATEMENT
TRMDOM	TERMINAL-LRNG-OBJ-DOMAIN	LEARNING DOMAIN NAME
TRMIDS	TERMINAL-LRNG-OBJ-IDENT	TERMINAL LEARNING OBJECTIVE NUMBER
TSECOD	TOOL-SE-REQT-CODE	TOLL/SUPPORT EQUIPMENT REQUIREMENTS CODE
TSKCND	TASK-COND	TASK CONDITION CODE
TSKCRT	TASK-CRIT	TASK CRITICALITY
TSKFRQ	TASK-FREQ	TASK FREQUENCY
TSKIDN	TASK-ID-NAME	TASK IDENTIFICATION
TTYCOD	TASK-TYPE-CODE	TASK CODE
TTYNAM	TASK-TYPE-NAME	TASK TYPE TEXT
WRKCOD	WORK-AREA-CODE	WORK AREA CODE

Joint Service ISD/LSAR DSS

VARIABLE: ALCNUM

DATA TYPE/LENGTH: CHR/1

C A L S

DATA ELEMENT NAME: ALTERNATE LCN CODE

ABBREVIATION: ALT-LSA-CNTRL-NBR-CD

DATA ELEMENT DEFINITION:
A SINGLE POSITION CODE USED TO ALLOW DOCUMENTATION OF MULTIPLE MODELS OF A SYSTEM/EQUIPMENT, OR ALTERNATE DESIGN CONSIDERATIONS OF AN ITEM, USING THE SAME LOGISTIC SUPPORT ANALYSIS CONTROL NUMBER (LCN) BREAKDOWN.

DATA CODE STRUCTURE/LENGTH: A02

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: ALTERNATE LCN CODE

REFERENCE: MIL-STD-1388-2B, DE 019

Joint Service ISD/LSAR DSS

VARIABLE: ANXIDS

DATA TYPE/LENGTH: CHR/10

C A L S

DATA ELEMENT NAME: ANNEX IDENTIFIER

ABBREVIATION: ANNEX-ID

DATA ELEMENT DEFINITION:
THE UNIQUE IDENTIFYING LETTERS FOR EACH SECTION OF RELATED LESSON MATERIAL AND INFORMATION TO BE PROVIDED FOR TRAINING.

DATA CODE STRUCTURE/LENGTH: A02

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: ANNEX IDENTIFIER

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: ANXDES

DATA TYPE/LENGTH: CHR/108

C A L S

DATA ELEMENT NAME: ANNEX NAME

ABBREVIATION: ANNEX-NAME

DATA ELEMENT DEFINITION:
THE DESIGNATED NAME FOR EACH SECTION OF RELATED MATERIAL AND INFORMATION TO BE TRAINED.

DATA CODE STRUCTURE/LENGTH: A45

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: ANNEX NAME

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: ANNMSN

DATA TYPE/LENGTH: CHR/6

C A L S

DATA ELEMENT NAME: ANNUAL NUMBER OF MISSIONS

ABBREVIATION: ANNOMIAH

DATA ELEMENT DEFINITION:
THE ESTIMATED OR SPECIFIED MEAN NUMBER OF MISSIONS AN ITEM WILL BE EXPECTED TO ACCOMPLISH IN A YEAR.

DATA CODE STRUCTURE/LENGTH: I03

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: ANNUAL NUMBER OF MISSIONS

REFERENCE: MIL-STD-1388-2B, DE 021

Joint Service ISD/LSAR DSS

VARIABLE: ANNOPD

DATA TYPE/LENGTH: CHR/3

C A L S

DATA ELEMENT NAME: ANNUAL OPERATING DAYS

ABBREVIATION: ANOPDAAH

DATA ELEMENT DEFINITION:
THE MEAN NUMBER OF DAYS PER YEAR THAT A MISSION DEMAND WILL BE PLACED ON AN ITEM.

DATA CODE STRUCTURE/LENGTH: I03

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: ANNUAL OPERATING DAYS

REFERENCE: MIL-STD-1388-2B, DE 022

Joint Service ISD/LSAR DSS

VARIABLE: COMNAM

DATA TYPE/LENGTH: CHR/19

C A L S

DATA ELEMENT NAME: COMPONENT NAME

ABBREVIATION: COMP-NAME

DATA ELEMENT DEFINITION:
A NAME WHICH UNIQUELY IDENTIFIES THE INDIVIDUAL COMPONENT PART OF AN OPERATIONAL SYSTEM, COMPONENT BEING AT THE THIRD LEVEL OF INDENTURE OR LOWER, IN THE HIERARCHY OF OPERATIONAL SYSTEM, SUBSYSTEM, AND COMPONENT.

DATA CODE STRUCTURE/LENGTH: A45

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: COMPONENT NAME

REFERENCE: NOT FOUND

Joint Service ISD/LSAR DSS

VARIABLE: CRSDES

DATA TYPE/LENGTH: CHR/108

C A L S

DATA ELEMENT NAME: COURSE NAME

ABBREVIATION: CRS-NAME

DATA ELEMENT DEFINITION:
THE DESCRIPTIVE TITLE OF THE COURSE OF INSTRUCTION. IF THE COURSE SUPPORTS A MAJOR OPERATIONAL OR SUPPORT SYSTEM, THAT SYSTEM DESIGNATOR (F-16, M1, C-130E) IS ENTERED AS THE FIRST PART OF THE COURSE TITLE.

DATA CODE STRUCTURE/LENGTH: A100

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: COURSE NAME

REFERENCE: NOT FOUND

VARIABLE: CRSIDS

DATA TYPE/LENGTH: CHR/10

C A L S

DATA ELEMENT NAME: COURSE NUMBER

ABBREVIATION: CRS-NBR

DATA ELEMENT DEFINITION:
THE SERVICE APPORVED ALPHA-NUMERIC DESIGNATOR USED TO IDENTIFY A SPECIFIC COURSE OF INSTRUCTION.

DATA CODE STRUCTURE/LENGTH: A26

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: COURSE NUMBER

REFERENCE: ITRO GLOSSARY OR TRAINING TERMS

Joint Service ISD/LSAR DSS

VARIABLE: ENDCOD

DATA TYPE/LENGTH: CHR/10

C A L S

DATA ELEMENT NAME: END ITEM ACRONYM CODE

ABBREVIATION: EIAC

DATA ELEMENT DEFINITION:
A CODE WHICH UNIQUELY IDENTIFIES THE SYSTEM/EQUIPMENT END ITEM. THIS CODE WILL BE ASSIGNED BY THE REQUIRING AUTHORITY. IT WILL REMAIN CONSTANT THROUGHOUT THE ITEM'S LIFE CYCLE. EXAMPLES ARE TOW, PATRIOT, TOMAHAWK, SPARROW, AND ALCM.

DATA CODE STRUCTURE/LENGTH: A10

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: END ITEM ACRONYM CODE

REFERENCE: MIL-STD-1388-2B, DE 088

VARIABLE: COMFUN

DATA TYPE/LENGTH: CHR/2

C A L S

DATA ELEMENT NAME: FIDELITY CODE

ABBREVIATION: FDLTY-CODE

DATA ELEMENT DEFINITION:
THE TWO CHARACTER CODE IS USED TO DESCRIBE PHYSICALLY AND FUNCTIONALLY HOW REALISTICALLY THE HARDWARE MUST BE REPRESENTED TO ACHIEVE THE TRAINING REQUIREMENTS. A DEGREE OF FIDELITY IS DETERMINED FOR EACH COMPONENT INCLUDED ON THE TRAINER.

DATA CODE STRUCTURE/LENGTH: A02

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: FIDELITY CODE

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: COMPHY

DATA TYPE/LENGTH: CHR/2

C A L S

DATA ELEMENT NAME: FIDELITY CODE

ABBREVIATION: FDLTY-CODE

DATA ELEMENT DEFINITION:
THE TWO CHARACTER CODE IS USED TO DESCRIBE PHYSICALLY AND FUNCTIONALLY HOW REALISTICALLY THE HARDWARE MUST BE REPRESENTED TO ACHIEVE THE TRAINING REQUIREMENTS. A DEGREE OF FIDELITY IS DETERMINED FOR EACH COMPONENT INCLUDED ON THE TRAINER.

DATA CODE STRUCTURE/LENGTH: A02

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: FIDELITY CODE

REFERENCE: AFHRL

VARIABLE: HAZCOD

DATA TYPE/LENGTH: CHR/1

C A L S

DATA ELEMENT NAME: HAZARDOUS MAINTENANCE PROCEDURES CODE

ABBREVIATION: HAZ-MAINT-PROC-CD

DATA ELEMENT DEFINITION:
A CODE WHICH DENOTES WHETHER THE PERFORMANCE OF THE MAINTENANCE ACTION IDENTIFIED BY THE TASK CODE WILL POTENTIALLY EXPOSE MAINTENANCE PERSONNEL TO HAZARDOUS CONDITIONS.

DATA CODE STRUCTURE/LENGTH: A01

DATA ITEM/DATA CODE ASSIGNED:

A	POTENTIAL LOSS OF LIFE CONSEQUENCES
B	POTENTIAL SEVERE INJURY
C	POTENTIAL MINOR INJURY
D	NO POTENTIAL INJURY

DATA USE IDENTIFIER: HAZARDOUS MAINTENANCE PROCEDURES CODE

REFERENCE: MIL-STD-1388-2B DE 151

Joint Service ISD/LSAR DSS

VARIABLE: ISFINL

DATA TYPE/LENGTH: CHR/4

C A L S

DATA ELEMENT NAME: INSTRUCTIONAL SETTING CODE

ABBREVIATION: INSTRNL-SET-CODE

DATA ELEMENT DEFINITION:
A ONE CHARACTER CODE WHICH IDENTIFIES THE INSTRUCTIONAL SETTING.

DATA CODE STRUCTURE/LENGTH: A06

DATA ITEM/DATA CODE ASSIGNED:

A	FORMAL ON-THE-JOB TRAINING (FOJT)
B	FORMAL ON-THE-JOB TRAINING (FOJT) W/JPA
C	INSTALLATION SUPPORT SCHOOLS (ISS)
D	INSTALLATION SUPPORT SCHOOLS (ISS) W/JPA
E	RESIDENT SCHOOLS (RS)
F	RESIDENT SCHOOLS (RS) WITH JPA
G	OTHER

DATA USE IDENTIFIER: INSTRUCTIONAL SETTING CODE

REFERENCE: AFHRL

VARIABLE: ISDNAM

DATA TYPE/LENGTH: CHR/19

C A L S

DATA ELEMENT NAME: LCN NOMENCLATURE

ABBREVIATION: INAME

DATA ELEMENT DEFINITION:
AN IDENTIFYING NOUN WITH APPROPRIATE ADJECTIVE MODIFIER AS CONTAINED IN FEDERAL ITEM NAME DIRECTORY FOR SUPPLY CATALOGING, H6-1. WHEN APPLICABLE, ITEM NAMES CONTAINED IN FEDERAL ITEM NAME DIRECTORY FOR SUPPLY CATALOGING, H6-1 CANNOT BE ABBREVIATED UNLESS APPROVED BY THE REQUIRING AUTHORITY. NONAPPROVED ITEM NAMES CAN BE ABBREVIATED IN ACCORDANCE WITH MIL-STD-12.

DATA CODE STRUCTURE/LENGTH: A19

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: LCN NOMENCLATURE

REFERENCE: MIL-STD-1388-2B DE 195

Joint Service ISD/LSAR DSS

VARIABLE: ITMNAM

DATA TYPE/LENGTH: CHR/19

C A L S

DATA ELEMENT NAME: LCN NOMENCLATURE

ABBREVIATION: INAME

DATA ELEMENT DEFINITION:
AN IDENTIFYING NOUN WITH APPROPRIATE ADJECTIVE MODIFIER AS CONTAINED IN FEDERAL ITEM NAME DIRECTORY FOR SUPPLY CATALOGING, H6-1. WHEN APPLICABLE, ITEM NAMES CONTAINED IN FEDERAL ITEM NAME DIRECTORY FOR SUPPLY CATALOGING, H6-1 CANNOT BE ABBREVIATED UNLESS APPROVED BY THE REQUIRING AUTHORITY. NONAPPROVED ITEM NAMES CAN BE ABBREVIATED IN ACCORDANCE WITH MIL-STD-12.

DATA CODE STRUCTURE/LENGTH: A19

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: LCN NOMENCLATURE

REFERENCE: MIL-STD-1388-2B DE 195

VARIABLE: JPAAGY

DATA TYPE/LENGTH: CHR/15

DATA ELEMENT NAME: JOB PERFORMANCE AID AUTHORITY NAME

ABBREVIATION: JPA-AUTHTY-NAME

DATA ELEMENT DEFINITION:
THE NAME OF THE ORGANIZATION/ACTIVITY RESPONSIBLE FOR ADVISING TRAINING DEVELOPERS ABOUT THE POSSIBLE CHOICES OF JOB PERFORMANCE AIDS (JPA) AND THEIR VALUE TO A PARTICULAR TRAINING REQUIREMENT.

DATA CODE STRUCTURE/LENGTH: A45

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: JOB PERFORMANCE AID AUTHORITY NAME

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: JPANAM

DATA TYPE/LENGTH: CHR/30

C A L S

DATA ELEMENT NAME: JOB PERFORMANCE AID NAME

ABBREVIATION: JPA-NAME

DATA ELEMENT DEFINITION:
THE NAME OF THE JOB PERFORMANCE AID (JPA) SELECTED TO TRAIN A TASK, TASK ELEMENT, OR TASK CLUSTER, EXISTING JPA NAMES IF APPLICABLE AND AVAILABLE SHOULD BE USED.

DATA CODE STRUCTURE/LENGTH: A45

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: JOB PERFORMANCE AID NAME

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: DOMAIN

DATA TYPE/LENGTH: CHR/12

C A L S

DATA ELEMENT NAME: LEARNING DOMAIN NAME

ABBREVIATION: LRNG-DOMN-NAME

DATA ELEMENT DEFINITION:
THE NAME IDENTIFIES THE SPECIFIC LEARNING DOMAIN APPLICABLE TO THE LEARNING OBJECTIVE STATEMENT ACTION BEING ANALYZED.

DATA CODE STRUCTURE/LENGTH: A01

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: LEARNING DOMAIN NAME

REFERENCE: AFHRL

VARIABLE: ELODOM

DATA TYPE/LENGTH: CHR/12

C A L S

DATA ELEMENT NAME: LEARNING DOMAIN NAME

ABBREVIATION: LRNG-DOMN-NAME

DATA ELEMENT DEFINITION:
THE NAME IDENTIFIES THE SPECIFIC LEARNING DOMAIN APPLICABLE TO THE LEARNING OBJECTIVE STATEMENT ACTION BEING ANALYZED.

DATA CODE STRUCTURE/LENGTH: A01

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: LEARNING DOMAIN NAME

REFERENCE: AFHRL

VARIABLE: TRMDOM

DATA TYPE/LENGTH: CHR/12

C A L S

DATA ELEMENT NAME: LEARNING DOMAIN NAME

ABBREVIATION: LRNG-DOMN-NAME

DATA ELEMENT DEFINITION:
THE NAME IDENTIFIES THE SPECIFIC LEARNING DOMAIN APPLICABLE TO THE LEARNING OBJECTIVE STATEMENT ACTION BEING ANALYZED.

DATA CODE STRUCTURE/LENGTH: A01

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: LEARNING DOMAIN NAME

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: KEYWRD

DATA TYPE/LENGTH: CHR/20

C A L S

DATA ELEMENT NAME: LEARNING TAXONOMY ACTION VERB NAME

ABBREVIATION: LRNG-TAXNMY-ACTN-VERB-NAME

DATA ELEMENT DEFINITION:
THE NAME OF THE ACTION VERB ASSIGNED TO AN APPROPRIATE TAXONOMY AND DOMAIN WHICH IS UTILIZED IN THE TASK STATEMENT.

DATA CODE STRUCTURE/LENGTH: A20

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: LEARNING TAXONOMY ACTION VERB NAME

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: ELOOTX

DATA TYPE/LENGTH: CHR/1

C A L S

DATA ELEMENT NAME: LEARNING TAXONOMY NAME

ABBREVIATION: LRNG-TAXNMY-NAME

DATA ELEMENT DEFINITION:
THE NAME WHICH IDENTIFIES THE SPECIFIC TAXONOMY THAT IS APPLICABLE TO THE ACTION VERB OF THE LEARNING OBJECTIVE BEING ANALYZED SUCH AS ITRO; GAGNE; BLOOM; KRATHWAHL; OR SIMPSON.

DATA CODE STRUCTURE/LENGTH: A45

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: LEARNING TAXONOMY NAME

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: LESIDS

DATA TYPE/LENGTH: CHR/10

C A L S

DATA ELEMENT NAME: LESSON IDENTIFIER

ABBREVIATION: LESN-ID

DATA ELEMENT DEFINITION:
THE UNIQUE ALPHANUMERIC DESIGNATION FOR AN INDIVIDUAL BLOCK OF INSTRUCTION FOR A PARTICULAR TRAINING COURSE. THE LESSON IDENTIFIER MAY ALSO INCLUDE THE SEQUENCE NUMBER OF LESSONS WITHIN A COURSE.

DATA CODE STRUCTURE/LENGTH: A05

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: LESSON IDENTIFIER

REFERENCE: NOT FOUND

VARIABLE: LCNNUM

DATA TYPE/LENGTH: CHR/11

C A L S

DATA ELEMENT NAME: LSA CONTROL NUMBER (LCN)

ABBREVIATION: LCN

DATA ELEMENT DEFINITION:
A CODE THAT REPRESENTS A HARDWARE GENERATION BREAKDOWN/ DISASSEMBLY SEQUENCE OF SYSTEM/EQUIPMENT HARDWARE INCLUDING SUPPORT EQUIPMENT, TRAINING EQUIPMENT, AND INSTALLATION (CONNECTING) HARDWARE.

DATA CODE STRUCTURE/LENGTH: A18

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: LSA CONTROL NUMBER (LCN)

REFERENCE: MIL-STD-1388-2B DE 193

Joint Service ISD/LSAR DSS

VARIABLE: MANMIN

DATA TYPE/LENGTH: CHR/5

C A L S

DATA ELEMENT NAME: MEAN MAN-MINUTES

ABBREVIATION: MEAN MAN-MIN

DATA ELEMENT DEFINITION:
THE MEAN MAN-MINUTES REQUIRED FOR EACH PERSON IDENTIFIED TO PERFORM A STEP WITHIN A TASK, EXPRESSED IN MINUTES AND TENTHS.

DATA CODE STRUCTURE/LENGTH: D4.1

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: MEAN MAN-MINUTES

REFERENCE: MIL-STD-1388-2B DE 219

VARIABLE: MMINET

DATA TYPE/LENGTH: CHR/5

C A L S

DATA ELEMENT NAME: MEAN MINUTE ELAPSED TIME

ABBREVIATION: MEAN-MIN-ELPSD-TIME

DATA ELEMENT DEFINITION:
THE MEAN MINUTE ELAPSED TIME REQUIRED FOR EACH STEP WITHIN A TASK, EXPRESSED IN MINUTES AND TENTHS, REGARDLESS OF THE NUMBER OF PERSONNEL WORKING SIMULTANEOUSLY. THIS DOES NOT INCLUDE LOGISTIC DELAY TIME.

DATA CODE STRUCTURE/LENGTH: D5.1

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: MEAN MINUTE ELAPSED TIME

REFERENCE: MIL-STD-1388-2B DE 220

Joint Service ISD/LSAR DSS

VARIABLE: MSNDUR

DATA TYPE/LENGTH: CHR/5

C A L S

DATA ELEMENT NAME: MEAN MISSION DURATION

ABBREVIATION: MMISDUAH

DATA ELEMENT DEFINITION:
THE AVERAGE LENGTH OF A MISSION FOR AN ITEM.

DATA CODE STRUCTURE/LENGTH: I05

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: MEAN MISSION DURATION

REFERENCE: MIL-STD-1388-2B DE 221

VARIABLE: MENDET

DATA TYPE/LENGTH: CHR/2

C A L S

DATA ELEMENT NAME: MEANS OF DETECTION

ABBREVIATION: MEANS-DETECTN

DATA ELEMENT DEFINITION:
THE MEANS BY WHICH A SYSTEM, SUBSYSTEM, ASSEMBLY OR SUBASSEMBLY IS CHECKED TO VERIFY ITS OPERATIONAL STATE OR CONDITION. THE FIRST LETTER (IN THE LEFT MOST POSITION) IDENTIFIES THE PRIMARY MEANS OF DETECTION AND THE SECOND INDICATES THE SECONDARY MEANS OF DETECTION.

DATA CODE STRUCTURE/LENGTH: A02

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: MEANS OF DETECTION

REFERENCE: MIL-STD-1388-2B DE 230

Joint Service ISD/LSAR DSS

VARIABLE: MMSNMB

DATA TYPE/LENGTH: CHR/1

C A L S

DATA ELEMENT NAME: MEASUREMENT BASE (MB)

ABBREVIATION: MEASBSXF

DATA ELEMENT DEFINITION:
SINGLE POSITION CODE WHICH IDENTIFIES THE UNIT OF MEASURE FOR A PARTICULAR OPERATING TIME PERIOD OR NUMBER OF EVENTS.

DATA CODE STRUCTURE/LENGTH: A01

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: MEASUREMENT BASE (MB)

REFERENCE: MIL-STD-1388-2B DE 231

VARIABLE: OPR1MB

DATA TYPE/LENGTH: CHR/1

C A L S

DATA ELEMENT NAME: MEASUREMENT BASE (MB)

ABBREVIATION: MEASBSXF

DATA ELEMENT DEFINITION:
SINGLE POSITION CODE WHICH IDENTIFIES THE UNIT OF MEASURE FOR A PARTICULAR OPERATING TIME PERIOD OR NUMBER OF EVENTS.

DATA CODE STRUCTURE/LENGTH: A01

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: MEASUREMENT BASE (MB)

REFERENCE: MIL-STD-1388-2B DE 231

Joint Service ISD/LSAR DSS

VARIABLE: MODNAM

DATA TYPE/LENGTH: CHR/10

C A L S

DATA ELEMENT NAME: MEDIA SELECTION MODEL NAME

ABBREVIATION: MEDIA-SEL-MOD-NAME

DATA ELEMENT DEFINITION:
THE NAME OF THE MEDIA SELECTION MODEL CHOSEN FROM A LIST OF THE DOD APPROVED MEDIA SELECTION MODELS SUCH AS ASTAR/DEFT; CASDAT; AIMS; MODIA; ETC.

DATA CODE STRUCTURE/LENGTH: A45

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: MEDIA SELECTION MODEL NAME

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: INTMED

DATA TYPE/LENGTH: CHR/3

C A L S

DATA ELEMENT NAME: MEDIA TYPE NAME

ABBREVIATION: MEDIA-TYPE-NAME

DATA ELEMENT DEFINITION:
THE NAME WHICH IDENTIFIES THE SPECIFIC TYPE OF MEDIA SELECTED FOR USE IN TRAINING A TASK AND/OR TASK ELEMENT.

DATA CODE STRUCTURE/LENGTH: A45

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: MEDIA TYPE NAME

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: MEDNAM

DATA TYPE/LENGTH: CHR/40

C A L S

DATA ELEMENT NAME: MEDIA TYPE NAME

ABBREVIATION: MEDIA-TYPE-NAME

DATA ELEMENT DEFINITION:
THE NAME WHICH IDENTIFIES THE SPECIFIC TYPE OF MEDIA SELECTED FOR USE IN TRAINING A TASK AND/OR TASK ELEMENT.

DATA CODE STRUCTURE/LENGTH: A45

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: MEDIA TYPE NAME

REFERENCE: AFHRL

VARIABLE: CRICUT

DATA TYPE/LENGTH: CHR/2

C A L S

DATA ELEMENT NAME: MODEL CUT OFF SCORE

ABBREVIATION: MOD-CUT-OFF-SCORE

DATA ELEMENT DEFINITION:
THE SCORE IS THE TASK SELECTION MODEL CUT-OFF VALUE FOR TASKS THAT NEED TO BE TRAINED. THE SCORE IS ASSIGNED FOR NUMERICALLY-BASED TASK SELECTION MODELS ONLY.

DATA CODE STRUCTURE/LENGTH: I04

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: MODEL CUT OFF SCORE

REFERENCE: AFHRL

VARIABLE: OPRQTI

DATA TYPE/LENGTH: CHR/1

C A L S

DATA ELEMENT NAME: OPERATIONAL REQUIREMENT INDICATOR

ABBREVIATION: OPRQINAG

DATA ELEMENT DEFINITION:
A CODE INDICATING WHETHER THE OPERATIONAL REQUIREMENT SPECIFIED PERTAINS TO A WARTIME OR PEACETIME SCENARIO.

DATA CODE STRUCTURE/LENGTH: A01

DATA ITEM/DATA CODE ASSIGNED:

P	PEACETIME
W	WARTIME

DATA USE IDENTIFIER: OPERATIONAL REQUIREMENT INDICATOR

REFERENCE: MIL-STD-1388-2B DE 268

VARIABLE: PFMSTD

DATA TYPE/LENGTH: CHR/3

C A L S

DATA ELEMENT NAME: PERFORMANCE STANDARDS

ABBREVIATION: PERF-STNDRD-CD

DATA ELEMENT DEFINITION:
SIGNIFIES WHEN THE FOLLOWING PERFORMANCE STANDARDS ARE REQUIRED FOR AN INDIVIDUAL TASK. ALL CODES MAY APPLY.

DATA CODE STRUCTURE/LENGTH: A03

DATA ITEM/DATA CODE ASSIGNED:

A	SUPERVISION REQUIRED
B	PRECISION REQUIRED
C	TIME STANDARD

DATA USE IDENTIFIER: PERFORMANCE STANDARDS

REFERENCE: MIL-STD-1388-2B DE 280

Joint Service ISD/LSAR DSS

VARIABLE: FACCOD

DATA TYPE/LENGTH: CHR/1

C A L S

DATA ELEMENT NAME: FACILITIES TRAINING REQUIREMENT CODE

ABBREVIATION: TSEREQCC/FTRNRQDE/TRNRQCDE

DATA ELEMENT DEFINITION:
INDICATES A REQUIREMENT FOR TRAINING FACILITIES, TRAINING EQUIPMENT, TOOLS AND/OR SUPPORT EQUIPMENT. CONSISTS OF THE FOLLOWING SUBFIELDS:
A. FACILITIES TRAINING REQUIREMENT CODE (A01)
A CODE TO INDICATE WHETHER OR NOT FACILITIES ARE REQUIRED FOR TRAINING. SEE A. CODES.
B. TRAINING EQUIPMENT REQUIREMENT CODE (A01)
DENOTES WHETHER TRAINING MATERIAL IS REQUIRED TO PREPARE THE OPERATOR OR MAINTENANCE PERSON TO PERFORM A GIVEN TASK. SEE B. CODES.
C. TOOL/SUPPORT EQUIPMENT REQUIREMENTS CODE (A01)
INDICATES TOOL/SUPPORT EQUIPMENT REQUIREMENTS AND WHETHER THE TOOL/SUPPORT EQUIPMENT ARE COMMON OR PECULIAR. SEE C. CODES.

DATA CODE STRUCTURE/LENGTH: A03

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: FACILITIES TRAINING REQUIREMENT CODE

REFERENCE: MIL-STD-1388-2B, DE 350

Joint Service ISD/LSAR DSS

VARIABLE: TNGCOD

DATA TYPE/LENGTH: CHR/1

C A L S

DATA ELEMENT NAME: TRAINING EQUIPMENT REQUIREMENT CODE

ABBREVIATION: TSEREQCC/FTRNRQDE/TRNRQCDE

DATA ELEMENT DEFINITION:
INDICATES A REQUIREMENT FOR TRAINING FACILITIES, TRAINING EQUIPMENT, TOOLS AND/OR SUPPORT EQUIPMENT. CONSISTS OF THE FOLLOWING SUBFIELDS:
A. FACILITIES TRAINING REQUIREMENT CODE (A01)
A CODE TO INDICATE WHETHER OR NOT FACILITIES ARE REQUIRED FOR TRAINING. SEE A. CODES.
B. TRAINING EQUIPMENT REQUIREMENT CODE (A01)
DENOTES WHETHER TRAINING MATERIAL IS REQUIRED TO PREPARE THE OPERATOR OR MAINTENANCE PERSON TO PERFORM A GIVEN TASK. SEE B. CODES.
C. TOOL/SUPPORT EQUIPMENT REQUIREMENTS CODE (A01)
INDICATES TOOL/SUPPORT EQUIPMENT REQUIREMENTS AND WHETHER THE TOOL/SUPPORT EQUIPMENT ARE COMMON OR PECULIAR. SEE C. CODES.

DATA CODE STRUCTURE/LENGTH: A03

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: TRAINING EQUIPMENT REQUIREMENT CODE

REFERENCE: MIL-STD-1388-2B, DE 350

Joint Service ISD/LSAR DSS

VARIABLE: TSECOD

DATA TYPE/LENGTH: CHR/1

C A L S

DATA ELEMENT NAME: TOOL/SUPPORT EQUIPMENT REQUIREMENTS CODE

ABBREVIATION: TSEREQCC/FTRNRQDE/TRNRQCDE

DATA ELEMENT DEFINITION:
INDICATES A REQUIREMENT FOR TRAINING FACILITIES, TRAINING EQUIPMENT, TOOLS AND/OR SUPPORT EQUIPMENT. CONSISTS OF THE FOLLOWING SUBFIELDS:
A. FACILITIES TRAINING REQUIREMENT CODE (A01)
A CODE TO INDICATE WHETHER OR NOT FACILITIES ARE REQUIRED FOR TRAINING. SEE A. CODES.
B. TRAINING EQUIPMENT REQUIREMENT CODE (A01)
DENOTES WHETHER TRAINING MATERIAL IS REQUIRED TO PREPARE THE OPERATOR OR MAINTENANCE PERSON TO PERFORM A GIVEN TASK. SEE B. CODES.
C. TOOL/SUPPORT EQUIPMENT REQUIREMENTS CODE (A01)
INDICATES TOOL/SUPPORT EQUIPMENT REQUIREMENTS AND WHETHER THE TOOL/SUPPORT EQUIPMENT ARE COMMON OR PECULIAR. SEE C. CODES.

DATA CODE STRUCTURE/LENGTH: A03

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: TOOL/SUPPORT EQUIPMENT REQUIREMENTS CODE

REFERENCE: MIL-STD-1388-2B, DE 350

Joint Service ISD/LSAR DSS

VARIABLE: SQTDES

DATA TYPE/LENGTH: CHR/54

C A L S

DATA ELEMENT NAME: SEQUENTIAL SUBTASK DESCRIPTION

ABBREVIATION: SEQ-TASK-DESC

DATA ELEMENT DEFINITION:
A NARRATIVE DESCRIPTION OF THE COMPLETE EFFORT EXPENDED TO ACCOMPLISH A SPECIFIC OPERATIONAL OR MAINTENANCE TASK.

DATA CODE STRUCTURE/LENGTH: A64T

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: SEQUENTIAL SUBTASK DESCRIPTION

REFERENCE: MIL-STD-1388-2B DE 364

Joint Service ISD/LSAR DSS

VARIABLE: LVLCOD

DATA TYPE/LENGTH: CHR/1

C A L S

DATA ELEMENT NAME: SKILL LEVEL CODE

ABBREVIATION: SKLVCDGB

DATA ELEMENT DEFINITION:
A SINGLE POSITION CODE INDICATING THE SKILL LEVEL OF A GIVEN SKILL SPECIALTY CODE (SSC).

DATA CODE STRUCTURE/LENGTH: A01

DATA ITEM/DATA CODE ASSIGNED:

A	ADVANCED - PAY GRADE E-6 AND ABOVE
B	BASIC - PAY GRADE E-4 AND BELOW
I	INTERMEDIATE - PAY GRADE E-5

DATA USE IDENTIFIER: SKILL LEVEL CODE

REFERENCE: MIL-STD-1388-2B DE 378

Joint Service ISD/LSAR DSS

VARIABLE: SSCCOD

DATA TYPE/LENGTH: CHR/7

C A L S

DATA ELEMENT NAME: SKILL SPECIALTY CODE (SSC)

ABBREVIATION: SKL-SPEC-CD

DATA ELEMENT DEFINITION:
THE SPECIALTY SKILL OR JOB SERIES CODE THAT REPRESENTS THE QUALIFICATION REQUIREMENT OF A BILLET OR POSITION. THIS CODE IS SERVICE SPECIFIC AND IS THE PRIMARY MEANS OF IDENTIFYING BILLET REQUIREMENTS AND PERSONNEL QUALIFICATIONS. CODES ARE SPECIFIED IN THE PUBLICATIONS LISTED BELOW.
ARMY: AR 611-101 (OFFICER), AR 611-112 (WARRANT OFFICER), AR 611-210 (ENLISTED)
NAVY: NAVPERS 15839 (OFFICER AND WARRANT OFFICER), NAVPERS 18068D (ENLISTED)
MARINE CORPS: MCO P 1200.7 (OFFICER, WARRANT OFFICER AND ENLISTED)
AIR FORCE: AFR 36-1 (OFFICER), AFR 39-1 (ENLISTED)

DATA CODE STRUCTURE/LENGTH: A07

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: SKILL SPECIALTY CODE (SSC)

REFERENCE: MIL-STD-1388-2B, DE 379

Joint Service ISD/LSAR DSS

VARIABLE: SSLEAD

DATA TYPE/LENGTH: CHR/7

C A L S

DATA ELEMENT NAME: SKILL SPECIALTY CODE (SSC)

ABBREVIATION: SKL-SPEC-CD

DATA ELEMENT DEFINITION:
THE SPECIALTY SKILL OR JOB SERIES CODE THAT REPRESENTS THE QUALIFICATION REQUIREMENT OF A BILLET OR POSITION. THIS CODE IS SERVICE SPECIFIC AND IS THE PRIMARY MEANS OF IDENTIFYING BILLET REQUIREMENTS AND PERSONNEL QUALIFICATIONS. CODES ARE SPECIFIED IN THE PUBLICATIONS LISTED BELOW.
ARMY: AR 611-101 (OFFICER), AR 611-112 (WARRANT OFFICER), AR 611-210 (ENLISTED)
NAVY: NAVPERS 15839 (OFFICER AND WARRANT OFFICER), NAVPERS 18068D (ENLISTED)
MARINE CORPS: MCO P 1200.7 (OFFICER, WARRANT OFFICER AND ENLISTED)
AIR FORCE: AFR 36-1 (OFFICER), AFR 39-1 (ENLISTED)

DATA CODE STRUCTURE/LENGTH: A07

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: SKILL SPECIALTY CODE (SSC)

REFERENCE: MIL-STD-1388-2B, DE 379

Joint Service ISD/LSAR DSS

VARIABLE: TASKLD

DATA TYPE/LENGTH: CHR/7

C A L S

DATA ELEMENT NAME: SKILL SPECIALTY CODE (SSC)

ABBREVIATION: SKL-SPEC-CD

DATA ELEMENT DEFINITION:
THE SPECIALTY SKILL OR JOB SERIES CODE THAT REPRESENTS THE QUALIFICATION REQUIREMENT OF A BILLET OR POSITION. THIS CODE IS SERVICE SPECIFIC AND IS THE PRIMARY MEANS OF IDENTIFYING BILLET REQUIREMENTS AND PERSONNEL QUALIFICATIONS. CODES ARE SPECIFIED IN THE PUBLICATIONS LISTED BELOW.
ARMY: AR 611-101 (OFFICER), AR 611-112 (WARRANT OFFICER), AR 611-210 (ENLISTED)
NAVY: NAVPERS 15839 (OFFICER AND WARRANT OFFICER), NAVPERS 18068D (ENLISTED)
MARINE CORPS: MCO P 1200.7 (OFFICER, WARRANT OFFICER AND ENLISTED)
AIR FORCE: AFR 36-1 (OFFICER), AFR 39-1 (ENLISTED)

DATA CODE STRUCTURE/LENGTH: A07

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: SKILL SPECIALTY CODE (SSC)

REFERENCE: MIL-STD-1388-2B, DE 379

VARIABLE: SSECOD

DATA TYPE/LENGTH: CHR/1

C A L S

DATA ELEMENT NAME: SKILL SPECIALTY EVALUATION CODE

ABBREVIATION: SSEC

DATA ELEMENT DEFINITION:
A SINGLE-POSITION CODE DENOTING THE ADEQUACY OF THE IDENTIFIED SKILL SPECIALTY CODE (SSC) WITH REGARD TO THE SPECIFIC SKILLS AND KNOWLEDGE REQUIRED TO ACCOMPLISH THE IDENTICAL TASK. USED AS A FLAG TO INDICATE THE REQUIREMENT FOR ADDITIONAL TRAINING.

DATA CODE STRUCTURE/LENGTH: A01

DATA ITEM/DATA CODE ASSIGNED:

A	SS IS ADEQUATE
E	NEW SS SHOULD BE ESTABLISHED
M	SS NEEDS MODIFICATION (ADDITIONAL TRNG)

DATA USE IDENTIFIER: SKILL SPECIALTY EVALUATION CODE

REFERENCE: MIL-STD-1388-2B DE 380

Joint Service ISD/LSAR DSS

VARIABLE: SKDESC

DATA TYPE/LENGTH: CHR/54

C A L S

DATA ELEMENT NAME: SKILL/KNOWLEDGE NAME

ABBREVIATION: SKILL-KNOWLDG-NAME

DATA ELEMENT DEFINITION:
THE NAME WHICH DESCRIBES A SKILL OR KNOWLEDGE REQUIRED TO PERFORM A SPECIFIC OPERATIONAL OR MAINTENANCE TASK ELEMENT OF A TASK.

DATA CODE STRUCTURE/LENGTH: A45

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: SKILL/KNOWLEDGE NAME

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: SKINUM

DATA TYPE/LENGTH: INT/0

C A L S

DATA ELEMENT NAME: SKILL/KNOWLEDGE NUMBER

ABBREVIATION: SKILL-KNOWLDG-NBR

DATA ELEMENT DEFINITION:
THE NUMBER ASSIGNED TO EACH SKILL/KNOWLEDGE NAME THAT PROVIDES A LINK TO THE TASK ELEMENT AND TASK IN WHICH IT BELONGS.

DATA CODE STRUCTURE/LENGTH: I03

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: SKILL/KNOWLEDGE NUMBER

REFERENCE: AFHRL

VARIABLE: TSKCND

DATA TYPE/LENGTH: CHR/3

C A L S

DATA ELEMENT NAME: TASK CONDITION CODE

ABBREVIATION: TASK-COND-CD

DATA ELEMENT DEFINITION:
INDICATOR THAT SPECIAL CONSIDERATIONS MUST BE TAKEN INTO ACCOUNT DURING ANALYSIS OF THE TASK.

DATA CODE STRUCTURE/LENGTH: A03

DATA ITEM/DATA CODE ASSIGNED:

A	TM/TO USE NOT FEASIBLE
B	TMDE/ATE/BIT/BITE REQUIRED
C	SPECIAL TOOLS REQUIRED

DATA USE IDENTIFIER: TASK CONDITION CODE

REFERENCE: MIL-STD-1388-2B DE 420

VARIABLE: TSKCRT

DATA TYPE/LENGTH: CHR/1

C A L S

DATA ELEMENT NAME: TASK CRITICALITY

ABBREVIATION: TASK-CRIT-CODE

DATA ELEMENT DEFINITION:
SINGLE-POSITION CODE KEYED TO TASK LEVEL ENTRIES IN SEQUENTIAL DESCRIPTIONS AND USED TO INDICATE WHETHER OF NOT THE TASK IS CRITICAL. A TASK IS CRITICAL IF FAILURE TO ACCOMPLISH IT IN ACCORDANCE WITH SYSTEM REQUIREMENTS WOULD RESULT IN ADVERSE EFFECTS ON SYSTEM RELIABILITY, EFFICIENCY, EFFECTIVENESS, SAFETY OR COST. A TASK WILL ALSO BE DESIGNATED AS CRITICAL WHENEVER ITEM DESIGN CHARACTERISTICS APPROACH HUMAN LIMITATIONS AND THERBY SIGNIFICANTLY INCREASE THE LIKELIHOOD OF DEGRADED, DELAYED OR OTHERWISE IMPAIRED MISSION PERFORMANCE.

DATA CODE STRUCTURE/LENGTH: A01

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: TASK CRITICALITY

REFERENCE: MIL-STD-1388-2B DE 421

Joint Service ISD/LSAR DSS

VARIABLE: CCSDES

DATA TYPE/LENGTH: CHR/54

C A L S

DATA ELEMENT NAME: TASK CUE TEXT

ABBREVIATION: TASK-CUE-TXT

DATA ELEMENT DEFINITION:
THE BRIEF DESCRIPTION OF THE PROMPT OCCURRENCE THAT DETERMINES WHEN A TASK IS TO BE PERFORMED.

DATA CODE STRUCTURE/LENGTH: A64T

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: TASK CUE TEXT

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: TEDESC

DATA TYPE/LENGTH: CHR/54

C A L S

DATA ELEMENT NAME: SEQUENTIAL SUBTASK DESCRIPTION

ABBREVIATION: TASK-ELEM-NAME

DATA ELEMENT DEFINITION:
A NARRATIVE DESCRIPTION OF THE COMPLETE EFFORT EXPENDED TO ACCOMPLISH A SPECIFIC OPERATIONAL OR MAINTENANCE TASK. THE NAME OF THE TASK ELEMENT.

DATA CODE STRUCTURE/LENGTH: A45

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: SEQUENTIAL SUBTASK DESCRIPTION

REFERENCE: MIL-STD-1388-2B DE 364

VARIABLE: TEINUM

DATA TYPE/LENGTH: INT/0

C A L S

DATA ELEMENT NAME: TASK ELEMENT NUMBER

ABBREVIATION: TASK-ELEM-NBR

DATA ELEMENT DEFINITION:
THE NUMBER ASSIGNED TO EACH TASK ELEMENT THAT PROVIDES A LINK TO THE TASK TO WHICH IT BELONGS.

DATA CODE STRUCTURE/LENGTH: I03

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: TASK ELEMENT NUMBER

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: TSKFRQ

DATA TYPE/LENGTH: CHR/7

C A L S

DATA ELEMENT NAME: TASK FREQUENCY

ABBREVIATION: TASK-FREQ-TOT

DATA ELEMENT DEFINITION:
THE FREQUENCY OF PERFORMANCE OR OCCURRENCE OF THE SPECIFIC TASK, IDENTIFIED BY THE TASK IDENTIFIER AND EXPRESSED AS THE NUMBER OF ANNUAL OCCURENCES FOR EACH APPROPRIATE SKILL SPECIALTY CODE.

DATA CODE STRUCTURE/LENGTH: I07

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: TASK FREQUENCY

REFERENCE: MIL-STD-1388-2B DE 422

VARIABLE: TTYCOD

DATA TYPE/LENGTH: CHR/1

DATA ELEMENT NAME: TASK CODE

ABBREVIATION: TASK-FUNC-CODE

DATA ELEMENT DEFINITION:
CODE THAT DENOTES SPECIFIC MAINTENANCE, OPERATOR, OR SUPPORT TYPE FUNCTIONS NECESSARY TO THE OPERATION AND MAINTENANCE OF AN ITEM.

DATA CODE STRUCTURE/LENGTH: A07

DATA ITEM/DATA CODE ASSIGNED:

REFER TO MIL-STD-1388-2B, DE 374A FOR DATA CODES

DATA USE IDENTIFIER: TASK CODE

REFERENCE: MIL-STD-1388-2B, DE 419

VARIABLE: TSKIDN

DATA TYPE/LENGTH: CHR/36

C A L S

DATA ELEMENT NAME: TASK IDENTIFICATION

ABBREVIATION: TASKID

DATA ELEMENT DEFINITION:
A BRIEF NARRATIVE ENTRY DESCRIBING THE TASK TO BE PERFORMED, E.G., "SERVICE STRUT" OR "REPLACE BRAKE"

DATA CODE STRUCTURE/LENGTH: A36

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: TASK IDENTIFICATION

REFERENCE: MIL-STD-1388-2B DE 423

VARIABLE: CRTRTG

DATA TYPE/LENGTH: REL/3.1

C A L S

DATA ELEMENT NAME: TASK RANK NUMBER

ABBREVIATION: TASK-RANK-NBR

DATA ELEMENT DEFINITION:
THE NUMBER IDENTIFIES THE RANK ORDER OF THE TASK'S REQUIREMENT FOR TRAINING IN COMPARISON WITH ALL THE TASKS REQUIRING TRAINING.

DATA CODE STRUCTURE/LENGTH: I03

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: TASK RANK NUMBER

REFERENCE: AFHRL

VARIABLE: TTYNAM

DATA TYPE/LENGTH: CHR/25

C A L S

DATA ELEMENT NAME: TASK TYPE TEXT

ABBREVIATION: TASK-TYPE-TXT

DATA ELEMENT DEFINITION:
THE TEXT WHICH AMPLIFIES THE SELECTED TASK TYPE CATEGORY FOR EACH MAINTENANCE LEVEL.

DATA CODE STRUCTURE/LENGTH: A64T

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: TASK TYPE TEXT

REFERENCE: AFHRL

VARIABLE: TMLCOD

DATA TYPE/LENGTH: CHR/3

C A L S

DATA ELEMENT NAME: TECHNICAL MANUAL CODE (TM CODE)

ABBREVIATION: TECH-MNL-CD

DATA ELEMENT DEFINITION:
THE IDENTIFICATION CODE ASSIGNED TO A SPECIFIC MANUAL.

DATA CODE STRUCTURE/LENGTH: A03

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: TECHNICAL MANUAL CODE (TM CODE)

REFERENCE: MIL-STD-1388-2B, DE 429

Joint Service ISD/LSAR DSS

VARIABLE: ELODES

DATA TYPE/LENGTH: CHR/540

C A L S

DATA ELEMENT NAME: TERMINAL LEARNING OBJ STATEMENT TEXT

ABBREVIATION: TERM-LRNG-OBJ-STMNT-TXT

DATA ELEMENT DEFINITION:
A ONE SENTENCE/STATEMENT IN THE APPROPRIATE,
SERVICE-SPECIFIC FORMAT FOR TERMINAL LEARNING OBJECTIVES.

DATA CODE STRUCTURE/LENGTH: A64T

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: TERMINAL LEARNING OBJ STATEMENT TEXT

REFERENCE: AFHRL

VARIABLE: TRMDES

DATA TYPE/LENGTH: CHR/540

DATA ELEMENT NAME: TERMINAL LEARNING OBJ STATEMENT TEXT

ABBREVIATION: TERM-LRNG-OBJ-STMNT-TXT

DATA ELEMENT DEFINITION:
A ONE SENTENCE/STATEMENT IN THE APPROPRIATE,
SERVICE-SPECIFIC FORMAT FOR TERMINAL LEARNING OBJECTIVES.

DATA CODE STRUCTURE/LENGTH: A64T

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: TERMINAL LEARNING OBJ STATEMENT TEXT

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: ELOIDS

DATA TYPE/LENGTH: CHR/12

C A L S

DATA ELEMENT NAME: TERMINAL LEARNING OBJECTIVE NUMBER

ABBREVIATION: TERM-LRNG-OBJ-NBR

DATA ELEMENT DEFINITION:
THE NUMBER WHICH UNIQUELY IDENTIFIES INDIVIDUAL TERMINAL LEARNING OBJECTIVE STATEMENTS.

DATA CODE STRUCTURE/LENGTH: I03

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: TERMINAL LEARNING OBJECTIVE NUMBER

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: TRMIDS

DATA TYPE/LENGTH: CHR/12

C A L S

DATA ELEMENT NAME: TERMINAL LEARNING OBJECTIVE NUMBER

ABBREVIATION: TERM-LRNG-OBJ-NBR

DATA ELEMENT DEFINITION:
THE NUMBER WHICH UNIQUELY IDENTIFIES INDIVIDUAL TERMINAL LEARNING OBJECTIVE STATEMENTS.

DATA CODE STRUCTURE/LENGTH: I03

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: TERMINAL LEARNING OBJECTIVE NUMBER

REFERENCE: AFHRL

Joint Service ISD/LSAR DSS

VARIABLE: TNGRAT

DATA TYPE/LENGTH: CHR/4

C A L S

DATA ELEMENT NAME: TRAINING RATIONALE

ABBREVIATION: TRNRATDE

DATA ELEMENT DEFINITION:
DENOTES THE REASONS FOR RECOMMENDING TRAINING FOR A TASK.

DATA CODE STRUCTURE/LENGTH: AO4

DATA ITEM/DATA CODE ASSIGNED:

A	FREQUENCY OF PERFORMANCE
B	PROBABLE CONSEQUENCE OF INADEQUATE PERFORMANCE C
TASK DELAY TOLERANCE	
D	TASK LEARNING DIFFICULTY
E	PROBABILITY OF DEFICIENT PERFORMANCE
F	IMMEDIACY OF PERFORMANCE
G	PERCENT OF WORK FORCE PERFORMING TASK
H	PCT OF TOTAL WORK TIME PERFORMING TASK

DATA USE IDENTIFIER: TRAINING RATIONALE

REFERENCE: MIL-STD-1388-2B DE 457

VARIABLE: TNGREC

DATA TYPE/LENGTH: CHR/1

C A L S

DATA ELEMENT NAME: TRAINING RECOMMENDATION

ABBREVIATION: TNG-REC-CODE

DATA ELEMENT DEFINITION:
SINGLE POSITION CODE INDICATING WHEN A TASK IS RECOMMENDED FOR TRAINING AND WHAT TYPE OF TRAINING IS NEEDED. TRAINING, IN THIS CONTEXT, DOES NOT INCLUDE EQUIPMENT FAMILIARIZATION.

DATA CODE STRUCTURE/LENGTH: A01

DATA ITEM/DATA CODE ASSIGNED:

A	CLASS AND OJT
B	CLASS
C	OJT
D	NO TRAINING NECESSARY

DATA USE IDENTIFIER: TRAINING RECOMMENDATION

REFERENCE: MIL-STD-1388-2B DE 458

Joint Service ISD/LSAR DSS

VARIABLE: WRKCOD

DATA TYPE/LENGTH: CHR/4

C A L S

DATA ELEMENT NAME: WORK AREA CODE

ABBREVIATION: WORK-AR-CD

DATA ELEMENT DEFINITION:
AN ALPHA-NUMERIC COE ASSIGNED TO THE AREA OF WORK (E.G., WHEEL-WELL) WHEN A MAINTENANCE FUNCTION IS TO BE PERFORMED AT A SPECIFIC LOCATION.

DATA CODE STRUCTURE/LENGTH: A04

DATA ITEM/DATA CODE ASSIGNED:

DATA USE IDENTIFIER: WORK AREA CODE

REFERENCE: MIL-STD-1388-2B DE 508

Appendix C

Joint Service ISD/LSAR DSS CALS Data Dictionary - Other DSS Data Elements

Appendix C contains DSS data elements that are not within the set of Government approved CALS compatible training data elements. Many of the DSS data elements listed in this Appendix are internal system variables. Other data elements record preliminary training decisions. All data elements that represent training analysis information (in both Appendices B and C) will be able to be extracted from the DSS using system queries. The data elements listed below are by the DSS data element variable, DSS data element name, and data type/length.

DSS Variable	DSS Data Element Name	Type	Length
ANXCOD	ANNEX-CODE	CHR	3
ANXINT	ANNEX-INTERSECT	CHR	20
ATTDES	ATTRIBUTE-DESCRIPTION	CHR	31
ATTKEY	ATTRIBUTE-KEY	INT	
BLOLVL	BLOOM-TAXONOMY-LEVEL	CHR	1
BLOTAX	BLOOM-TAXONOMY	CHR	10
CCSORD	COND-CUE-STD-ORD-NO	INT	3
CCSREF	COND-CUE-STD-REF-NO	CHR	3
CCSTYP	COND-CUE-STD-TYPE	INT	1
CHOSEN	CHOSEN	INT	
CNDTNG	COND-Y-N	CHR	1
COMCMT	CMPNT-CMNT	CHR	300
COMIDO	CMPNT-ID	CHR	3
COMIDS	COMMON-ELO-IDENT	CHR	12
CRIDES	CRITERIA-DESCRIPTION	CHR	162
CRITER	CRITERIA-Y-N	CHR	1
CRITID	CRIT-VALUE-IDENT-NO	CHR	3
CRITTL	CRITERIA-TITLE	CHR	54
CRITYP	CRITERIA-TYPE	CHR	1
CRIVL1	CRITERIA-LEVEL-1	CHR	70
CRIVL2	CRITERIA-LEVEL-2	CHR	70
CRIVL3	CRITERIA-LEVEL-3	CHR	70
CRIVL4	CRITERIA-LEVEL-4	CHR	70
CRIVL5	CRITERIA-LEVEL-5	CHR	70
CRIVL6	CRITERIA-LEVEL-6	CHR	70
CRIVL7	CRITERIA-LEVEL-7	CHR	70
CRIWGT	CRIT-WEIGHT	REL	3.1
CRSCOD	COURSE-CODE	CHR	3
CRSINT	COURSE-INTERSECT	CHR	10
DBALEV	DBA-LEVEL	INT	1
DEVDES	DEVICE-DESCRIPTION	CHR	30
DEVIDO	DEVICE-IDENTIFICATION	CHR	3
DEVNAR	DEVICE-NARRATIVE	CHR	300
DIFFEX	DIFF-EXEC-Y-N	CHR	1
DRIDEF	CRITERIA-DEFAULT	CHR	2
ELOCOD	ELO-CODE	INT	3
ELOGLV	ELO-G-LEVEL	CHR	1
ELOOLV	ELO-OTHER-LEVEL	CHR	1
ERRCON	HIGH-ERROR-CONSEQ-Y-N	CHR	1
FBKCCP	INST-FEA-FEEDBACK-Q17	CHR	1
FBKCON	INST-FEA-FEEDBACK-Q18	CHR	1
FBKCOP	INST-FEA-FEEDBACK-Q19	CHR	1
FBKCQS	INST-FEA-FEEDBACK-Q20	CHR	1
FBKGIV	INST-FEA-FEEDBACK-Q21	CHR	1
FBKRES	INST-FEA-FEEDBACK-Q22	CHR	1
FBKSCR	INST-FEA-FEEDBACK-Q23	CHR	1
FBKSIB	INST-FEA-FEEDBACK-Q24	CHR	1
FBKSRI	INST-FEA-FEEDBACK-Q25	CHR	1

DSS Variable	DSS Data Element Name	Type	Length
FIRNAM	USER-FIRST-NAME	CHR	10
FREQRQ	FREQ-REQT-HI-LOW-Y-N	CHR	1
FSQNUM	FIRST-POS-SEQ-AND-INSR-NO	CHR	4
FUNABN	FIDELITY-FUNCTIONAL-Q1	CHR	1
FUNDIF	FIDELITY-FUNCTIONAL-Q2	CHR	1
FUNIMP	FIDELTIY-FUNCTIONAL-Q3	CHR	1
FUNMOT	FIDELITY-FUNCTIONAL-Q4	CHR	1
FUNREC	FUNCTIONAL-RECOMMENDATION	CHR	2
GAGLVL	GAGNE-TAXONOMY-LEVEL	CHR	1
GAGTAX	GAGNE-TAXONOMY	CHR	10
HRSSSC	MEAS-MEAN-MAN-HRS-PER-SKILL-SPCLTY	CHR	6
HWCUES	HDW-CUES-Y-N	CHR	1
INTMET	INT-MTHD	CHR	3
ISMLGC	INSTR-SET-LGC	CHR	4
ISSCMNT	INSTR-SET-CMNT	DBA	
ISSEDTE	UNDEFINED	DAT	
ISSPRIOR	UNDEFINED	CHR	1
ISSSDTE	UNDEFINED	DAT	
ISSSRC	UNDEFINED	DBA	
ISSSTAT	UNDEFINED	CHR	1
ISSTXT	UNDEFINED	DBA	
ISSTXTX	UNDEFINED	CHR	1
ISSUEID	UNDEFINED	INT	0
JPCMNT	JPA-CMNT	CHR	300
JTBENE	POT-JPA-BENEFIT-Y-N	CHR	1
JTDLYT	POT-JPA-DLY-TOL-Y-N	CHR	1
JTEXCL	JPA-EXCL-Y-N	CHR	1
JTFREQ	POT-JPA-FREQ-Y-N	CHR	1
JTMOTS	POT-JPA-MOTOR-SKILLS-Y-N	CHR	1
JTPRAC	POT-JPA-PRAC-Y-N	CHR	1
JTREQT	JPA-REQT-Y-N	CHR	1
KRALVL	KRATHWOL-TAXONOMY-LEVEL	CHR	1
KRATAX	KRATHWOL-TAXONOMY	CHR	10
LATNAM	USER-LAST-NAME	CHR	15
LESCOD	LESSON-CODE	CHR	3
LESINT	LESSON-INTERSECT	CHR	30
LMEDES	MEDIA-LONG-NAME-DESCP	CHR	31
LSQNUM	LAST-POS-SEQ-AND-INSR-NO	CHR	4
MALINS	INST-FEA-MALFUNCTION-Q31	CHR	1
MALTOI	INST-FEA-MALFUNCTION-Q32	CHR	1
MANCMNT	UNDEFINED	DBA	
MANEDTE	UNDEFINED	DAT	
MANSDTE	UNDEFINED	DAT	
MANSSRC	UNDEFINED	DBA	
MANTXT	UNDEFINED	DBA	
MEANET	MEAS-MEAN-ET	CHR	6
MEDCOD	MED-CODE	CHR	3
MEDKEY	MED-KEY	INT	

DSS Variable	DSS Data Element Name	Type	Length
MEDLVL	MED-LEVEL	CHR	4
MEDNME	MED-NAME	CHR	11
MEDRNK	MEDIA-RANKING	INT	
MEDVAL	MED-VALUE	INT	
MIDINT	USER-MIDDLE-INIT	CHR	1
MMCMNT	MED-MTHD-CMNT	CHR	300
MNTCMNT	UNDEFINED	DBA	
MNTEDTE	UNDEFINED	DAT	
MNTSDTE	UNDEFINED	DAT	
MNTSSRC	UNDEFINED	DBA	
MNTTXT	UNDEFINED	DBA	
MODCHG	MODL-CHG-Y-N	CHR	1
MODDAT	MODL-DATE	DAT	
MODDES	MODL-DESCRIPTION	CHR	108
MODLID	MODL-IDENT-NO	CHR	2
MTHCOD	MTHD-CODE	CHR	3
MTHNAM	MTHD-NAME	CHR	40
NAYCIR	INST-FEA-NXT-ACT-Q26	CHR	1
NAYCON	INST-FEA-NXT-ACT-Q27	CHR	1
NAYSCR	INST-FEA-NXT-ACT-Q28	CHR	1
NAYSOI	INST-FEA-NXT-ACT-Q29	CHR	1
NAYVAR	INST-FEA-NXT-ACT-Q30	CHR	1
NEGTRA	NEG-TRANS-Y-N	CHR	1
NEWSEQ	NEW-SE-Y-N	CHR	1
NEWSTU	NEW-TO-STUDENT-Y-N	CHR	1
OPR2MB	ANNUAL-OPRNG-REQTS2-MEAS-BASE	CHR	1
OPR3MB	ANNUAL-OPRNG-REQTS3-MEAS-BASE	CHR	1
OPRQT2	ANNUAL-OPRNG-REQTS2	CHR	6
OPRQT3	ANNUAL-OPRNG-REQTS3	CHR	6
OPSCMNT	UNDEFINED	DBA	
OPSEDTE	UNDEFINED	DAT	
OPSSDTE	UNDEFINED	DAT	
OPSSSRC	UNDEFINED	DBA	
OPSTXT	UNDEFINED	DBA	
PASWRD	USER-PASSWORD	CHR	7
PHYABN	FIDELITY-PHYSICAL-Q1	CHR	1
PHYACT	FIDELITY-PHYSICAL-Q2	CHR	1
PHYDIF	FIDELITY-PHYSICAL-Q3	CHR	1
PHYFID	FIDELITY-PHYSICAL-Q4	CHR	1
PHYPOS	FIDLEITY-PHYSICAL-Q5	CHR	1
PHYREC	PHYSICAL-RECOMMENDATION	CHR	2
POCAEXT	UNDEFINED	CHR	6
POCAFAX	UNDEFINED	CHR	7
POCAPHNE	UNDEFINED	CHR	7
POCCEXT	UNDEFINED	CHR	6
POCCFAX	UNDEFINED	CHR	10
POCCPHNE	UNDEFINED	CHR	10
POCFNAME	UNDEFINED	CHR	15

DSS Variable	DSS Data Element Name	Type	Length
POCLNAME	UNDEFINED	CHR	25
POCMA1	UNDEFINED	CHR	60
POCMA2	UNDEFINED	CHR	60
POCMCITY	UNDEFINED	CHR	15
POCMNAME	UNDEFINED	CHR	1
POCMSTAT	UNDEFINED	CHR	2
POCMZIP	UNDEFINED	CHR	9
POCNNAME	UNDEFINED	CHR	15
POCORG	UNDEFINED	CHR	120
POCPHCMT	UNDEFINED	CHR	65
POCREL	UNDEFINED	DBA	
POCTITLE	UNDEFINED	CHR	3
POPCMNT	UNDEFINED	DBA	
POPEDTE	UNDEFINED	DAT	
POPSDTE	UNDEFINED	DAT	
POPSSRC	UNDEFINED	DBA	
POPTXT	UNDEFINED	DBA	
PRGNAM	PROGRAM-NAME	INT	4
PRINTR	PRINTER-PORT	CHR	9
PRIORDSC	UNDEFINED	CHR	10
QALEVL	QA-LEVEL	INT	1
QRYTTL	QUERY-TITLE	CHR	39
REFDOC	UNDEFINED	DBA	
RELCONT	UNDEFINED	DBA	
RESCON	INST-FEA-RESPONSE-Q06	CHR	1
RESCOP	INST-FEA-RESPONSE-Q07	CHR	1
RESCRI	INST-FEA-RESPONSE-Q08	CHR	1
RESFRZ	INST-FEA-RESPONSE-Q09	CHR	1
RESINS	INST-FEA-RESPONSE-Q10	CHR	1
RESMON	INST-FEA-RESPONSE-Q11	CHR	1
RESPDD	INST-FEA-RESPONSE-Q12	CHR	1
RESREC	INST-FEA-RESPONSE-Q13	CHR	1
RESREM	INST-FEA-RESPONSE-Q14	CHR	1
RESSCR	INST-FEA-RESPONSE-Q15	CHR	1
RESSNS	INST-FEA-RESPONSE-Q16	CHR	1
SCEDES	SCENARIO-DESCP	CHR	30
SCEIDO	SCENARIO-IDENT	CHR	3
SCENAR	SCENARIO-NARRATIVE	CHR	300
SERCOD	SERVICE-CODE	CHR	4
SERNAM	SERVICE-NAME	CHR	35
SIMLVL	SIMPSON-TAXONOMY-LEVEL	CHR	1
SIMTAX	SIMPSON-TAXONOMY	CHR	10
SKONUM	SK-ORD-NO	CHR	2
SMEDES	MEDIA-SHORT-NAME-DESCP	CHR	12
SPCRIT	SPCL-CRITERIA-Y-N	CHR	1
SPECTE	SPCL-TSTEQ-Y-N	CHR	1
SSCNAM	SKILL-SPCLTY-CODE-NAME	CHR	30
STATDSC	UNDEFINED	CHR	10

DSS Variable	DSS Data Element Name	Type	Length
STCMNT	ST-COMMENT	CHR	1
STICON	STIMULUS-CONTROL	CHR	1
STIPRE	STIMULUS-PRESENTATION	CHR	1
STIRTE	STIMULUS-RATE	CHR	1
STISTN	STIMULUS-SIGNAL-TO-NOISE	CHR	1
STIVAR	STIMULUS-RATE-TYPE	CHR	1
SUBCOD	SUBCODE	CHR	1
SUMADD	SUM-ADDS	INT	1
SUMDEL	SUM-DELS	INT	1
SUMMOD	SUM-MODS	INT	1
SUMTYP	SUM-TYPE	CHR	8
SYSCMNT	UNDEFINED	DBA	
SYSEDTE	UNDEFINED	DAT	
SYSSDTE	UNDEFINED	DAT	
SYSSSRC	UNDEFINED	DBA	
SYSTXT	UNDEFINED	DBA	
TIPCMNT	UNDEFINED	DBA	
TIPEDTE	UNDEFINED	DAT	
TIPSDTE	UNDEFINED	DAT	
TIPSSRC	UNDEFINED	DBA	
TIPTXT	UNDEFINED	DBA	
TNCMNT	TNG-REQT-CMNT	CHR	120
TORDER	ISD-SUBTASK-ORDER	CHR	3
TREFCH	ISD-SUBTASK-REF-LTRS	CHR	3
TRMCOD	TERMINAL-LRNG-OBJ-CODE	INT	3
TRMGLV	TERMINAL-LRNG-OBJ-G-LEVEL	CHR	1
TRMOLV	TERMINAL-LRNG-OBJ-OTHER-LEVEL	CHR	1
TRMOTX	TERMINAL-LRNG-OBJ-OTHER-TAXONOMY	CHR	1
TSKANL	TASK-LEAD-ANALYST	CHR	8
TSKCOD	TASK-CODE	CHR	7
TSKFMB	TASK-FREQ-MEAS-BASE	CHR	1
TSKIDC	TASK-IDENT-CODE	CHR	4
UNCOND	UNUSUAL-COND-Y-N	CHR	1
UPDCOD	UPDATE-CODE	CHR	1
USRNAM	USER-NAME	INT	4
USTITL	USER-TITLE	CHR	6
WSYIDO	WS-IDENT	CHR	2
WSYNAM	WS-NAME	CHR	10