Using PSL/PSA to Model Information System Planning for The United States Department of the Army Headqarters

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ABSTRACT: The US Army first adopted information system planning techniques in the early 1980s. What has evolved is a complex automated model of the functions, classes of information, systems, data flow, organizational responsibility, and their interrelationships. The intent of this paper is not to explain the methodology used in this model but to demonstrate the use of a modern, second generation CASE tool (PSL/PSA) in its implementation.

This is an information model of a portion of a large military organization. However, these tools and methods should aid any large organization to better understand and control its information requirements. The problems encountered, lessons learned, and recommendations coming from this experience will also be of value to systems planners and integrators.

This paper briefly discusses PSL/PSA, and the background of information system planning by the Army. The problems in attempting to perform information system planning by manual means are addressed, as well as the benefits of an automated model.

What are the data requirements for an information model? What analysis must be performed? What naming conventions should be used and why? What objects are needed? What relationships? How do they interact? How do these objects and relationships map into PSL/PSA? Answers to these and other questions are provided, as well as detailed syntax for the PSL/PSA implementation of the information model. The output requirements for information system planning are also discussed, and some sample reports are provided. Finally, lessons learned by the experience are shared, along with recommendations and the current status of the information modeling efforts.

KEYWORDS: Information Modeling, Information System Planning, Enterprise Modeling, System Interfacing

EXPLANATION OF TERMS

The term Business Systems Planning (BSP) refers to an enterprise modeling methodology developed by IBM, starting in the mid 1960s. This methodology defines the major functions, processes, classes of information, and data entities which are used to define a business's information systems processing. When BSP was adopted by the US Army in the early 1980s, the Army decided that Information Systems Planning (ISP) was a more appropriate term. The main output product from such a study is a Business System Plan (BSP) or Information System Plan (ISP). To avoid further confusing the reader this paper uses "BSP/ISP" to refer to the methodology and "ISP" only to refer to the plan.

APPLICABILITY

This paper directly pertains to a portion of a large military organization with functions such as direction, control, management, structure, acquisition, training, distribution, deployment, sustainment, development, and disposition. The concepts and techniques described are equally applicable to a business which might add or substitute such functions as production, marketing, order processing, etc. In fact, any large organization could use these tools and methods to gain a better understanding and control of its information requirements. Functions and objectives vary from one organization to another. This does not alter their need nor their ability to model the interrelationships of their functional and informational requirements.

INTENT

The intent of this paper is not to explain the methodology but to demonstrate the application of it, with adaptations, in an on-going project using an automated tool, PSL/PSA, and the mapping of the BSP/ISP methodology into PSL/PSA. The reader will hopefully obtain some insight into some of the problems encountered, lessons learned, and benefits to be gained by such an effort.

PSL/PSA

Problem Statement Language/Problem Statement Analyzer (PSL/PSA)* was originally developed in 1968 by the ISDOS research project at the University of Michigan. PSL/PSA was designed as an automated "entity-relationship-attribute" (ERA) model, and for several years was used primarily by students, who developed enhancements for it while doing work toward advanced degrees in systems engineering. While PSL/PSA was recognized for its power and versatility, it was condemned for years because of unfriendly, complex and inconsistent command syntax and a generally accepted reputation for substantial computer resource consumption.

Largely as a result of these factors, PSL/PSA remained for years an academic curiosity, with interest outside the university community mainly by organizations sponsoring the research.

* PSL/PSA is a registered trademark of the Regents of the University of Michigan.

PSL/PSA began to come of age in the late 1970s and early 1980s, as computers became more powerful and less expensive. It became a commercial enterprise with the formation of ISDOS, Inc. in 1983, when many of the research sponsors became customers. ISDOS later changed its name to META Systems and now licenses PSL/PSA worldwide. A partial rewrite of the PSL/PSA code (from FORTRAN to "C"), along with the development of several new companion products by META Systems, has largely rectified the previous problems of user "unfriendliness", sluggish performance, and large resource consumption. Carma McClure, an internationally recognized authority on CASE, considers PSL/PSA to be on the leading edge of second generation CASE tools (defined as having a complete repository).

PSL/PSA is an exceptionally versatile relationship modeling tool. The language supports the use of numerous object types, relationships, commands, modifiers, and reports. It can be used to model different applications with different methodologies throughout all phases of the system life-cycle. It has been used for defining system specifications, structured analysis, structured design, project management, ship maintenance, data element dictionaries, systems interface modeling, information architecture modeling, and others - including enterprise modeling or information modeling, which is the subject of this paper.

BACKGROUND

In 1981 the Inspector General of the United States Army determined that, in order to better evaluate the functioning and performance of the Army, it was necessary to better define the functions the Army actually performs. Based on his direction, the Trefrey study (named for the Inspector General), completed in 1982, identified the eight major functions regularly done by the Department of the Army.

Further studies were conducted and, by applying the BSP/ISP methodology, the original eight functions evolved into ten functional areas which became the basis for the Headquarters Department of the Army (HQDA) Information Systems Plan (ISP) published in 1983. The HQDA ISP defines the functional processes, information classes, and entities which make up the HQDA Information Model. It directs that all staff elements and Army agencies, major commands and installations conduct similar studies and produce similar ISPs and information models. It also calls for the definition of a Data Architecture, Applications Architecture, and Geographical/ Technical Architecture, based on these information models.

In 1983 the US Army Deputy Chief of Staff for Personnel (DCSPER) hired a contractor to perform such a study and produce an Automation Architecture Master Plan for the DCSPER. The contractor conducted interviews with all top level personnel in the agency, held numerous conferences with DCSPER staff personnel with expertise in each of the functional areas, and used the BSP/ISP methodology to produce the Department of the Army DCSPER Information System Plan. The DCSPER ISP defined the functional processes, information classes, entities, and critical success factors for the DCSPER. The study also identified organizational proponency (advocacy) and involvement levels for functional processes, and proponency for information classes, and developed a list of automated personnel systems which support the processes pertinent to the DCSPER and developed descriptions for each. The results of the study were presented in several formats. Some

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automated tools were used to produce output products. There was, however, no linkage between the tools used. As might be expected, the end products were inconsistent.

In October 1984 the DCSPER Manning The Force Automation Architecture (MTFAA) Office designed a PSL/PSA database, loaded the bulk of the data from the DCSPER ISP into it and, by using PSL/PSA, generated the equivalent of each of the ISP output products the contractor had produced. These products were consistent with each other and were produced in far less time.

In late 1984 a second contractor was hired in order to validate the findings of the first study and begin the definition of a Total Army Personnel Data Base. The PSL/PSA database was turned over to the second contractor (who had some in-house expertise with PSL/PSA). The contractor was shown the PSA output products and told how each was produced. The contractor argued against using PSL/PSA and stated that better looking products could be made by other means. The Army (MTFAA) insisted on the use of PSA outputs for the sake of consistency.

The contractor produced a first draft Information Systems Master Plan, consisting mostly of a collection of PSA outputs. These outputs included formatted summaries, descriptions, matrices, and lists.

The draft was reviewed by the conference participants who recommended and submitted changes. The contractor applied the updates and produced a second draft which was then sent out for review.

Since there were only a few changes received on the second draft the Army decided to apply the updates in-house. When Army personnel started to update the database they discovered that the contractor had not applied the earlier updates to the PSL/PSA database but had instead updated the PSA outputs. The Army took over control of the database at this time. In January 1986 the MTFAA Office produced the final DCSPER Automation Architecture Master Plan, using DocGen (the PSA documentation generation package). The complete package of 500 pages was generated by one command. All output products were consistent, thus demonstrating some advantages of using an automated tool to support an ISP.

Having consistent output products is obviously essential for successful information modeling. What comes out is, however, only as good as what goes in. The fact that reports are consistent in no way infers that the information is accurate, but it does help to verify the input.

INFORMATION MODELING WITH THE BSP/ISP METHODOLOGY

Information modeling helps to identify an organization's functional and informational requirements. These techniques provide a vehicle for defining the interrelationships between the component parts of the organization, their functional responsibilities, the information that they derive and utilize, and how they process that information. Rather than discuss the specific functional and informational requirements, this paper shows how this "meta-information" can be captured, maintained, and recycled back to the supplier of the raw data by the use of modern CASE technology.

What is needed to construct a meaningful and useful information model?

Data - quite a lot of data, simplistic in nature, but carefully reviewed and cleaned up and meticulously maintained. There are continual changes in functional responsibility, organizational structure, and system environment. As a result, the information model must be updated regularly in order to keep it current.

If the ISP is in a manual form it cannot be updated and rapidly becomes obsolete. Any changes would require that the study which produced the ISP be periodically redone. This costs a great deal of time, money, and human resources and is totally impractical. It is essential that the information is maintained in a fully automated form so that it can be easily updated as required, and consistent output products can be produced.

With the use of PSL/PSA, changes are easily entered and automatically carried throughout the model. By entering a change to a given aspect or relationship in one view of the model, the change will show up in any other view in which the aspect or relationship is represented. Because of this, changes can be applied as they occur or become apparent, the model can be kept current, and information extracted is always up-to-date.

Analysis - the analysis required is rather basic. It consists mainly of:

(a) reviewing and cleaning up the input which has been received,

(b) identifying inconsistencies, and

(c) correcting them.

This is not to say, however, that the review and clean-up is easy. On the contrary, obtaining and maintaining reliable data is perhaps the most difficult task involved in any form of information modeling. The difficulties are in:

(a) the volume of data,

(b) the number of sources for the data,

(c) identifying the correct sources.

With data coming from more than one source, quite often inconsistencies appear. However, when there is only one source, the ability to cross check against another source is not there, and invalid data may very likely be accepted.

The most basic example of multiple sources for the same data is in the definition of system-to-system interfaces. The complete description of a system-to-system interface will include communication protocols, media type and characteristics, volume of data, frequency of data, and more.

The most simplistic need, however, is merely to identify which systems are, in fact, interfacing and what data flows from one system to the other. At times this is extremely difficult to determine, especially in the case of planned systems or systems under development or revision.

THE INFORMATION MODEL

The BSP/ISP methodology makes use of several interrelated objects in defining the information model. Specifically, these objects and their data requirements are as follows:

Processes - Identified by the functional group number and/or sequence number and process name and defined with one to three paragraphs of narrative description, identification of information classes created and used by the processes, critical success factors relating to the processes, systems supporting the process, parent and/or subordinate processes and organizations with proponency and/or involvement with it. (Figure 4 on page 10 shows a detailed PSL syntax definition for a DCSPER Process.)

Information Classes - Identified by the functional group number and/or sequence number and information class name and defined with one to three paragraphs of narrative description, identification of parent and/or subordinate information classes, creating and using processes and organizations, and entities making up the information class. (Figure 5 on page 11 shows a detailed PSL syntax definition for a DCSPER Information Class.)

Organizations - Identified by the name of the organization and showing the identification of parent or subordinate organizations (if any), systems for which this organization has proponency, information classes used or created, critical success factors relating to the organization, and processes for which the organization has proponency or involvement. (Figure 6 on page 12 shows a detailed PSL syntax definition for a DCSPER Organization.)

Systems - Identified by the system acronym and defined with one to three paragraphs of narrative description, identification of parent or subordinate systems (if any), interfacing systems, major inputs into and outputs from the system, points of contact, and several items of specific environmental and characteristic data. (Figure 7 on page 13 shows a detailed PSL syntax definition for a System.)

Points of Contact - Identified by the office symbol and last name of the point of contact and showing the identification of systems for which the point of contact has responsibility, type of responsibility, organization, complete mailing address, and phone numbers. (Figure 8 on page 14 shows a detailed PSL syntax definition for a Point Of Contact.)

Entities (Input/Output flows) - Identified by the name of the entity and showing the identification of parent and/or subordinate entities (if any), associated information class(es), and system(s) having the entity as an input or output.

Critical Success Factors - Identified by the ranking sequence and name of the critical success factor and defined with one or two sentences, identification of processes and organizations which may have significant impact on the outcome of the critical success factor.

Naming Conventions

Strict naming conventions are necessary for the ISP objects defined in the model in order to properly identify and sequence Processes, Information Classes, and Critical Success Factors.

Naming conventions are also essential to help separate and categorize object names, and to distinguish between the several ISP object types modeled using the same PSL object type. ISP Processes, Organizations, and Systems are all modeled using the PSL object "PROCESS". This is not a problem with version 6 of PSL/PSA because of a subtyping capability. This model, however, was constructed using an earlier version, and the naming conventions are an absolute necessity. Since this model covers both the HQDA and DCSPER ISPs, some additional objects, relationships, and naming conventions are required.

HQDA/DCSPER Information Model for PSL/PSA

As shown in Figure 1 through 3, few of the object or relationship names in the ISP model show any similarity to those in the PSL model. Information modeling represents a somewhat unique application of PSL/PSA, which was originally developed as an ERA modeling tool. Some disregard for PSL/PSA terminology was necessary in order to successfully map the BSP/ISP methodology into PSL. However, "post editing" of the reports make this transparent to the receiver who sees only the BSP/ISP terminology.

OBJECTS: Figure 1 shows the ISP objects, naming conventions, and corresponding PSL objects used to model them.

Objects used in the ISP Information Model	Naming Convention (prefix- and/or -suffix)	Modeled in PSL as:
Functional Group	DA-99- -GROUP	PROCESS
HQDA Process	DAP-99-	PROCESS
HQDA Information Class	IC-99-	SET
HQDA Entity	DAE-	ENTITY
DCSPER Process	P99.99-	PROCESS
DCSPER Information Class	D99.99-	SET
DCSPER Organization	ORG-	PROCESS
DCSPER Critical Success Factor	CSF-99-	MEMO
System	SYS- (or) SYSREF-	PROCESS
DCSPER Entity (System IO)	IO-	ENTITY
Point Of Contact	office-symbol{last-name}	PROCESSOR

The "9"s indicate a sequence number or position in a structural schema. "99" by itself represents a sequence number while ".99" represents a sequence number within a higher sequence structure.

FIGURE 1

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RELATIONSHIPS: Figure 2 shows the relationships between the ISP objects represented in the Information Model and corresponding PSL relationships used to model them.

Relationships used in the ISP Information Model	PSL Relationship Name	PSL Abre
Process/Organization **Creates** an Information Class	DERIVES	DRVS
An Information Class is **Used by** a Process	EMPLOYED BY	EPLD
A Major Input is **Received by** a System	EMPLOYED BY	EPLD
System **Creates** a Major Output	DERIVES	DRVS
Functional Group **Decomposes into** HQDA Processes	SUBPARTS ARE	SUBP
HQDA Process **Decomposes into** DCSPER Processes	SUBPARTS ARE	SUBP
HQDA Information Class **Decomposes into** DCSPER Information Classes	SUBSETS ARE	SSTS
System **Interfaces** another System	TRIGGERS	TRGS
Process **is Supported by** a System	UTILIZES	UTLS
Organization **is the Proponent for** a System	TERMINATES	TRMS
Process or Organization **Supports** a Critical Success Factor	SEE MEMO	SM
HQDA Entity **Decomposes into** a DCSPER Entity	SUBPARTS ARE	SUBP
Information Class **is Linked to** an Entity	COLLECTION OF	CLTN
Process **Identifies** an Organization as its **Proponent**	INCEPTION CAUSES	INCC
Process **Identifies** an Organization with **Major Involvement**	INTERRUPTS	INTS
Process **Identifies** an Organization with **Some Involvement**	TERMINATION CAUSES	TERC

FIGURE 2

HQDA/DCSPER INFORMATION MODEL for PSL/PSA

HQDA ENTITY — ENTITY

HQDA FUNCTIONAL GROUP — PROCESS

CLTN LINKAGE TO

SUBP DECOMPOSES INTO

HQDA INFORMATION CLASS — SET

EPLD USED BY →

HQDA PROCESS — PROCESS

DRVS CREATES

SSTS DECOMPOSES INTO

SUBP DECOMPOSES INTO

POINT OF CONTACT — PROCESSOR

PFMS POINT OF CONTACT FOR

DCSPER INFORMATION CLASS — SET

EPLD USED BY →

DCSPER PROCESS — PROCESS

DRVS CREATES

UTLS SUPPORTED BY

SM SUPPORTS

SYSTEM — PROCESS

CLTN LINKAGE TO

INCC PROPONENT

INTS MAJOR INVOLVEMENT

TERC SOME INVOLVEMENT

DCSPER CRITICAL SUCCESS FACTOR — MEMO

TRGS INTERFACES WITH

INTS INTERIM INTERFACE

SUBP DECOMPOSES INTO

EPLD USED BY

DRVS CREATES

DCSPER ORGANIZATION — PROCESS

SM SUPPORTS

TRMS PROPONENT

DCSPER ENTITY — ENTITY

EPLD

DRVS

MAJOR INPUT

MAJOR OUTPUT

BSP/ISP Object and Relationship mapping into PSL Objects and Relationships
BSP/ISP terminology is at the upper left corner of the objects and in small print on the lines representing the relationships. PSL terminology is shown at the lower right of the objects and in large print on the relationship lines.
Figure 3

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```
  D C S P E R    P R O C E S S
_____

DEFINE PROCESS              P___.___-____process-name_____;

     DESCRIPTION;
FULL NAME
spelled out full name of the process
*******************************************************************

      -- brief narrative description of the process --


;

     PART:           DAP-___-_HQDA-process-name_____;.   parent process

     UTILIZES:       SYS-_____system-acronym_____,   supporting
                     SYS-_____system-acronym_____,    system(s)
                     SYS-_____system-acronym_____;

     EMPLOYS:        D___.___-_information-class-name_____,  information
                     D___.___-_information-class-name_____,   class(es) used
                     D___.___-_information-class-name_____;

     DERIVES:        D___.___-_information-class-name_____,.  information
                     D___.___-_information-class-name_____;    class(es) created

     SEE MEMO:       CSF-___-_CSF-name_____,   critical success
                     CSF-___-_CSF-name_____;    factor(s) which apply

     INCEPTION-CAUSES:
                     ORG-_____organization-name_____,   proponent
                     ORG-_____organization-name_____;    organization(s)

     INTERRUPTS:     ORG-_____organization-name_____,   organization(s)
                     ORG-_____organization-name_____,    with major
                     ORG-_____organization-name_____;     involvement

     TERMINATION-CAUSES:
                     ORG-_____organization-name_____,   organization(s)
                     ORG-_____organization-name_____,    with some
                     ORG-_____organization-name_____;     involvement
_____

                            FIGURE 4
```

```
 _____
|  _____   |
| | D C S P E R   I N F O R M A T I O N   C L A S S             |   |
| |_____|   |
|                                                                   |
| DEFINE SET                        D___.___-____information-class-name_____;  |
|                                                                   |
|     DESCRIPTION;                                                  |
| FULL NAME                                                         |
| spelled out full name of the information class                    |
| ***************************************************************** |
|                                                                   |
|     -- brief narrative description of the information class --     |
|                                                                   |
|                                                                   |
| ;                                                                 |
|                                                                   |
|     SUBSET:          IC-___-___HQDA-information-class-name_;  parent information class |
|                                                                   |
|     COLLECTION:      IO-_____entity-name_____,   entities       |
|                      IO-_____entity-name_____,    connected     |
|                      IO-_____entity-name_____,      to the      |
|                      IO-_____entity-name_____,        information|
|                      IO-_____entity-name_____;          class   |
|                                                                   |
|     EMPLOYED:        ORG-_____organization-name_____,   organization(s)|
|                      ORG-_____organization-name_____,    & process(es) |
|                      ORG-_____organization-name_____,      which use the|
|                      P___.___-_process-name_____,        information class|
|                      P___.___-_process-name_____,                    |
|                      P___.___-_process-name_____;                    |
|                                                                   |
|     DERIVED:         ORG-_____organization-name_____,   organization(s)|
|                      ORG-_____organization-name_____,    & process(es) |
|                      ORG-_____organization-name_____,      which use the|
|                      P___.___-_process-name_____,        information class|
|                      P___.___-_process-name_____,                    |
|                      P___.___-_process-name_____;                    |
|                                                                   |
|  _____   |
| |                        FIGURE 5                              |  |
| |_____|  |
|_____|
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┌─────────────────────────────────────────────────────────────────────────────┐
│        D C S P E R    O R G A N I Z A T I O N                                 │
├─────────────────────────────────────────────────────────────────────────────┤
```

DEFINE PROCESS   ORG-_____organization-name_____;

    PART: ORG-_____organization-name_____;   parent organization

    TERMINATES: SYS-_____system-acronym_____,   system
                  SYS-_____system-acronym_____,   proponency
                  SYS-_____system-acronym_____;

    EMPLOYS: D___.___-_information-class-name_____,   information
                  D___.___-_information-class-name_____,   class(es) used
                  D___.___-_information-class-name_____;

    DERIVES: D___.___-_information-class-name_____,   information
                  D___.___-_information-class-name_____;   class(es) created

    SEE MEMO: CSF-___-_CSF-name_____,   critical success
                  CSF-___-_CSF-name_____;   factor(s) which apply

    ON-INCEPTION-OF:
                  P___.___-_process-name_____,   proponent
                  P___.___-_process-name_____,   for these
                  P___.___-_process-name_____;   processes

    INTERRUPTED: P___.___-_process-name_____,   major
                  P___.___-_process-name_____,   involvement
                  P___.___-_process-name_____,   in these
                  P___.___-_process-name_____;   processes

    TERMINATION: P___.___-_process-name_____,   some
                  P___.___-_process-name_____,   involvement
                  P___.___-_process-name_____,   in these
                  P___.___-_process-name_____;   processes

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├─────────────────────────────────────────────────────────────────────────────┤
│                              FIGURE 6                                        │
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┌──────────────────────────────────────────────────────────────────────────────┐
│  S Y S T E M                                                                   │
├──────────────────────────────────────────────────────────────────────────────┤
│ DEFINE PROCESS                    SYS-_____system-acronym_____ ;        │
│                                                                                │
│     DESCRIPTION;                                                               │
│ FULL NAME                                                                      │
│ spelled out full name of the system                                           │
│ ****************************************************************************    │
│                                                                                │
│     -- brief narrative description of the system --                            │
│                                                                                │
│ ;                                                                              │
│                                                                                │
│     TRIGGERS:          SYS-_____system-acronym_____,    interfacing      │
│                        SYS-_____system-acronym_____;                     │
│                                                                                │
│     EMPLOYS:           IO-_____entity-name_____,      major            │
│                        IO-_____entity-name_____;                       │
│                                                                                │
│     DERIVES:           IO-_____entity-name_____,      major            │
│                        IO-_____entity-name_____;                       │
│                                                                                │
│     UTILIZED BY:       P___.___-_process-name_____,      processes        │
│                        P___.___-_process-name_____;                       │
│                                                                                │
│     TERMINATED:        ORG-_____organization-name_____,   proponent        │
│                        ORG-_____organization-name_____;    organization(s) │
│                                                                                │
│     ASSERT:            __office-symbol__-{___lastname___} PROPONENT POC,        │
│                        __office-symbol__-{___lastname___} ARA POC;             │
│                                                                                │
│     ATTRIBUTES ARE:                                                            │
│         SYS-STAT           'CURRENT/PLANNED',                                  │
│         PROG-LANG          'LANG: _____',                    │
│       . COMMO              '_____',                    │
│         IMP/IMMP-NO        'IMMP# ___-___-___',                                │
│         HOST-LOC           '_____',                    │
│         HARDWARE           '_____',                    │
│         MDEP-NO            'MDEP# _____',                                       │
│         OS                 'OS: _____',                 │
│         DBMS               'DBMS: _____';                 │
│                                                                                │
│     KEYWORDS ARE:      'PRE-MOBILIZATION',                                      │
│                        'MOBILIZATION',                                          │
│                        'DEPLOYMENT',                                            │
│                        'EMPLOYMENT';                                            │
│                                                                                │
│     PERFORMED BY:      __office-symbol__-{___lastname___},                      │
│                        __office-symbol__-{___lastname___};                      │
├──────────────────────────────────────────────────────────────────────────────┤
│                              FIGURE 7                                           │
└──────────────────────────────────────────────────────────────────────────────┘
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┌─────────────────────────────────────────────────────────────────────┐
│                                                                       │
│  ┌─────────────────────────────────────────────────────────────────┐ │
│  │   P O I N T   o f   C O N T A C T                               │ │
│  └─────────────────────────────────────────────────────────────────┘ │
│                                                                       │
│  DEFINE PROCESSOR            __office-symbol__-{__lastname__};        │
│                                                                       │
│      DESCRIPTION;                                                      │
│          full mailing address                                         │
│          of the                                                       │
│          point of contact                                             │
│          in address format                                            │
│          (to include zip code)                                        │
│                                                                       │
│  ;                                                                    │
│                                                                       │
│      ASSERTED BY:   SYS-_____system-acronym_____ TO BE POC FOR ARA;   │
│      ASSERTED BY:   SYS-_____system-acronym_____ TO BE POC FOR ARA;   │
│      ASSERTED BY:   SYS-_____system-acronym_____ TO BE POC FOR PROPONENT; │
│      ASSERTED BY:   SYS-_____system-acronym_____ TO BE POC FOR PROPONENT; │
│                                                                       │
│      ATTRIBUTES ARE:                                                  │
│          AUTOV-PHONE      '999-9999',                                 │
│          COM-PHONE        '(999)999-9999',                            │
│          FAX-PHONE        '(999)999-9999',                            │
│          POC-NAME         '_____';                │
│          ACTIVITY         '_____';                │
│                                                                       │
│  ┌─────────────────────────────────────────────────────────────────┐ │
│  │                         FIGURE 8                                 │ │
│  └─────────────────────────────────────────────────────────────────┘ │
└─────────────────────────────────────────────────────────────────────┘
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Output Products

Because there is so much interrelated data collected in the ISP Information Model, the possibilities for extracting information from it are only limited by the imagination. There are, however, several basic reports which are standard to the BSP/ISP methodology, all of which can be produced by PSA.

For each HQDA Functional Group: A listing of all HQDA Processes subordinate to it and all DCSPER Processes subordinate to each HQDA Process.

For each Process (HQDA and DCSPER): A summary showing the process name as used in the model, the process name fully spelled out, the description of the process, the information classes used by the process, and the information classes created by the process. Additionally, for each DCSPER Process the summary includes the organizational proponency and involvement levels.

For each DCSPER Process: A listing showing the systems which support it.

For each Information Class (HQDA and DCSPER): The description of the process.

For each HQDA Information Class: A listing showing the DCSPER Information Classes subordinate to each.

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Matrix reports showing the Process usage and creation of Information Classes, one for HQDA and another for DCSPER.

A matrix report showing the Proponency and involvement levels which the DCSPER Organizations have with each Process.

A matrix report showing the DCSPER Processes and Systems and indicating which System(s) support each Process.

In addition to the basic BSP/ISP outputs some additional reports are beneficial.

For each System: A summary showing the System name as used in the model, the System name fully spelled out, the description of the System, the major inputs to the System and major outputs from the System, various characteristic data about the System and its environment, and a collection of information about the System's points of contact, to include: name, mailing address, phone numbers, and organization.

A consolidated Points Of Contact (POC) list: showing the name, office symbol, and phone numbers for each system POC.

A consolidated system characteristic list: showing the system acronym, operational status, operating location, hardware, operating system, communication protocal(s) used, DBMS, and programming language for each system.

A matrix showing the systems and major inputs/outputs indicating which system(s) produce and which system(s) use each of the inputs/outputs.

Additionally, several other reports can be generated to help purify the model and assist in architectural analysis.

CONCLUSION

Lessons Learned

1. The information model must be maintained in an automated form in order to keep pace with constant changes in functional responsibility, organizational structure, and system environment.

2. Other, off-line, techniques may produce more attractive results than can initially come from an automated tool. However, in the long run the consistency and the ability to recreate the automated tool output products totally outweigh the false beauty of products derived by other means.

3. "Canned" macro generation of report packages can save enormous amounts of time in the creation and tailoring of specific output products. Canned macro "post-editing" of PSA reports is also an easy and consistent way to isolate the end user of the ISP products from confusing terminology.

4. The "sub-typing" capability of PSL/PSA version 6.0, will allow objects to be named, referred to, and reported using the terminology desired, i.e., "System" to be called a "SYSTEM" and a "Point Of Contact" to be called a "POINT OF CONTACT".

5. Another META Systems product, Report Specification Interface (RSI), allows reports to be generated showing the appropriate information model objects and relationships directly.

6. While processes and information classes may be of interest at higher levels of an organization, system interfacing and system characteristics are much more important at the lower levels.

7. There is a general lack of interest shown in submitting data for what could be (and should be) a meaningful and useful information model. There are two main reasons for this:

   a. Data calls (requests for specific data from subordinate organizations) are all too often one-way streets. The information is generally useful only to the higher level organization which commissioned the study in the first place.

   b. The information, particularly information on developing systems and changing organizational responsibility, is quickly out of date and may be obsolete even before it is published.

As a result, information models, for all their required effort, tend to become bookcase fillers or door stops. One reason why weak or inconsistent data may be received is the difficulty in identifying the correct sources for reliable data. Roles may vary from system to system, process to process, and organization to organization. Another is actually getting the correct information from the source. Some of this is because of the individual personalities. Variations in personal experience, level of cooperation, and level of interest, as well as personnel turnover, are also important factors. Some is because of the degree of familiarity which the source has with the subject matter involved. But most of the problems are encountered because of apathy on the part of the suppliers of the data.

How can you overcome these difficulties?

Recommendations

1. Start early with an automated model and keep it updated. An information model is like housework - it's not hard when you keep it up an a regular basis, but when you let it go, everything becomes a mess.

2. For organizations hiring a contractor to establish an information model: Insist on the contractor maintaining all of the ISP data within an automated tool, and monitor the compliance of the contractor with this requirement.

3. For contractors performing BSP/ISP studies and producing ISPs: Actively use, and advertise the fact that you use, tools capable of directly generating all ISP output products from a logically single data base.

4. Get information back to the people who submitted the data in the first place in a timely enough manner that it is useful.

5. Produce several smaller packages of information rather than one large package of several hundred pages. A few up-to-date references are far better than a single, large, obsolete one.

6. Put products out in soft format and/or have them available via E-mail or bulletin boards.

7. Require that requests for project funding identify how the project will fit into the overall master plan and, specifically, which processes will be supported.

Current Status of the Information Model

Information from the DCSPER ISP database is now periodically extracted and formally sent to various responsible organizations for review and update. As responses are received, they are consolidated and applied to the database.

Various extractions from the Information Model are now distributed throughout the Army personnel community, and the PSL/PSA database is becoming recognized as a valuable tool for analyzing system-to-system interfaces and tracking overall system architecture development.

ACKNOWLEDGMENTS

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**Process / Information Class
Creation and Usage Matrix**

U Indicates that the Process Uses the Information Class

C Indicates that the Process Creates the Information Class

Information Classes

Processes	D01.01-STRATEGIC-DIRECTION	D01.02-MARKET/TRENDS	D01.03-ORGANIZATION-MASTER	D01.04-CONTRACT-SUPPORT	D01.05-LEGAL-SUPPORT	D01.06-GOALS-AND-OBJECTIVES	D01.07-POS-MGT-POL/GUID	D01.08-PLANNING-POL/GUID	D01.09-ACCESSION-POL/GUID	D01.10-TRAINING/DEV-POL/GUID	D01.11-DISTRIBUTION-POL/GUID	D01.12-SUSTAINMENT-POL/GUID	D01.13-LEADERSHIP-STANDARDS	D01.14-TRANSITION-POL/GUID	D01.15-PERSONNEL-PLANS	D01.16-PERS-CONT/JT-PLANS	D01.17-MANPOWER-PROGRAM	D01.18-PROG-OBJECTIVE-MEMO	D02.01-MPR-BUDGET-EXEC	D02.02-ACCESS-BUDGET-EXEC	D02.03-RESOURCE-ACCOUNTING	D02.04-ACCESSION-EFFECTIVENESS	D02.05-SURVEY-RESULTS	D02.06-ANALYSIS-RESULTS	D03.01-AUDIT-RESULTS	D03.02-INFORMATION-RESOURCES	D03.03-PERSONNEL-RECORDS	D03.04-STUDIES-RESULTS	D04.01-TAA-MPR-REQUIREMENTS	D04.02-MANPOWER-REQUIREMENTS	D04.03-MANPOWER-STANDARDS	D04.04-CIVILIAN-POSITIONS	D04.05-MANPOWER-AUTHORIZATION	D05.01-RESEARCH-RESULTS	D05.02-PERS-PROCUREMENT-PLAN	D05.03-MPR-BUDGET	D05.04-ACCESSION-BUDGET	D05.05-ACCESSION-STANDARDS	D05.06-ENL-PREACC/ACCESSIONS	D05.07-OFF-PREACC/ACCESSIONS	D05.08-CIV-APPL/ACCESSIONS	D05.09-MOBILIZATION	D06.01-TRAINING-REQUIREMENTS	D06.02-TRAINING-PROGRAM	D06.03-TRAINING-SEATS	D06.04-TRAINING-RESERVATIONS	D06.05-TRAINING-ATTENDANCE	D07.01-UNIT-REPL-PRIORITIES	D07.02-PERS-DISTRIBUTION-PLAN	D07.03-REQUISITIONS	D07.04-ASSIGNMENTS	D07.05-CIVILIAN-PLACEMENT	D07.06-MOVEMENT-INSTRUCTIONS	D07.07-XLVL/REDST/DST	D07.08-UNIT-MANNING-SYS-INFO	D07.09-DEPLOYMENT	D08.01-UNIT-PERS-STATUS	D08.02-PERSONNEL-STRENGTH	D08.03-SECTY/SURETY-CLEARANCES	D08.04-COMMUNITY-SUPPORT	D08.05-CASUALTY-INFO	D08.06-NAF	D08.07-COMP/BENEFITS/ENTITLE	D08.08-CIVILIAN-CLASSIFICATION	D08.09-CAREER-PROGRAM	D08.10-PROF-DEV-REQ	D08.11-PROF-DEV-PROG	D08.12-ENLISTED-PROMOTIONS	D08.13-OFFICER-PROMOTIONS	D08.14-MIL-RECLASSIFICATION	D08.15-REENLISTMENTS	D08.16-RETENTION-PROGRAM	D08.17-PERFORMANCE-EVALUATION	D08.18-EMPLOYEE/LABOR-REL	D08.19-EO/EEO-PROGRAM	D10.01-TRANSITIONS	D10.02-DEMOBILIZATION
P01.01-DEV-MANNING-GOALS/OBJ	U					C	U	U	U	U	U	U		U	U	U	U	U					U	U	U			U	U					U										U														U			U						U													
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P01.06-DEV-DISTR-POL/GUID	U		U			U	U	U	U	U	C				U	U	U	U	U		U				U				U				U				U			U	U	U	U	U	U				U	U	U	U				U	U		U											U										U	U
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P04.01-PERF-MPR-PORTION-OF-TAA						U	U	U							U	U	U	U	U	U	U		U	U	U			U	C		U		U	U		U			U	U	U	U													U																						U
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P08.07-MGE-COMP/BENEFIT/ENTITL		U		U		U					U	U		U				U	U	U			U	U	U			U					U	U		U			U	U	U																						C	U													U	U
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P08.10-FCST-PERS-PROF-DEV-REQ												U					U																U							U	U	U																	U							U	C				U	U						
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P08.12-MGE-MIL-PROMOTIONS												U																	U										U	U																												C	C								
P08.13-MGE-MIL-PERS-RECLASS												U																											U	U	U																								U					C						U	U
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P08.15-MGE-PERF-MGMT-PROG				U	U	U						U											U	U				U											U	U	U		U										U												U										C				
P08.16-MGE-EMP/LABOR-REL-PROGS				U	U	U						U		U			U						U	U	U			U							U							U																			U			U												C	C		U
P10.01-MGE-TRANS-PROGS					U									U																									U	U	U																					U															C	U
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Systems

- SYS-ACPERS
- SYS-AIMS
- SYS-AMS
- SYS-APDS-C
- SYS-ARADS
- SYS-ARTS
- SYS-ATRRS
- SYS-AUTOREP
- SYS-BRD
- SYS-CARSTATS
- SYS-CIVPERSINS
- SYS-CMS
- SYS-CSMIS
- SYS-CSSCS
- SYS-DACEPS
- SYS-DAMIS
- SYS-DAMPRE
- SYS-DVIS
- SYS-EDAS
- SYS-EMF
- SYS-ERAS
- SYS-GAINS
- SYS-IBM
- SYS-JOIN
- SYS-KEYSTONE-MCL
- SYS-KEYSTONE-REQUEST
- SYS-KEYSTONE-RETAIN
- SYS-KEYSTONE-RMS
- SYS-MEPRS
- SYS-MOBPERS
- SYS-MOBREPS
- SYS-NES
- SYS-ODAS
- SYS-ODIS
- SYS-OMF
- SYS-PER-DSS-ACT-ENL
- SYS-PER-DSS-BUDGET
- SYS-PER-DSS-CIVFORS
- SYS-PER-DSS-IDMS
- SYS-PER-DSS-MADIMS
- SYS-PER-DSS-MOBMAN
- SYS-PER-DSS-PAM
- SYS-PERSACS
- SYS-RCAS
- SYS-RCCPDS
- SYS-RECBASS
- SYS-RESBENE
- SYS-RETERN
- SYS-ROEPMS
- SYS-ROTC-HHS
- SYS-RRS
- SYS-SDBS
- SYS-SCIPMIS
- SYS-SIDPERS-3-TIER-III-V1
- SYS-SIDPERS-3
- SYS-SIDPERS-ARNG
- SYS-SIDPERS-USAR
- SYS-SIRRS
- SYS-SRTS
- SYS-STRAMS-E
- SYS-TAPDB

Processes

- P01.01-DEV-MANNING-GOALS/OBJ
- P01.02-DEV-POS-MGT-POL/GUID
- P01.03-DEV-PLANNING-POL/GUID
- P01.04-DEV-ACCN-POL/GUID
- P01.05-DEV-MANPRINT-POL/GUID
- P01.06-DEV-TNG/DEV-POL/GUID
- P01.07-DEV-DISTR-POL/GUID
- P01.08-DEV-SUST-POL/GUID
- P01.09-DEV-TRANS/SEP-POL/GUID
- P01.10-DEV-PERS-PLANS
- P01.11-PREP-PERS-CONT/JT-PLNS
- P01.12-DEV-THE-ARMY-MPR-PROG
- P01.13-ACCOMP-MPR-PROG-POM
- P02.01-MGE-MPR-BUDGET-EXEC
- P02.02-MGE-ACCESS-BUDGET-EXEC
- P02.03-MGE-INDIV-ACCT
- P02.04-EVAL-ACCN-EFF
- P02.05-CDT-SURVEYS
- P02.06-CDT-ANALYSIS
- P03.01-CDT-AUDITS
- P03.02-MGE-INFO-RESOURCES
- P03.03-CREATE/MAINT-PERS-RCDS
- P03.04-DEVELOP-STUDIES
- P04.01-PERF-MPR-PORTION-OF-TAA
- P04.02-DETM-FORCE-REQ
- P04.03-MGE-MPR-RQMT-SYS
- P04.04-MGE-CIV-POSITION-MGT
- P04.05-DEV-MPR-FORCE-STRUC-INP
- P05.01-CDT-RESEARCH
- P05.02-DEV-PERS-PROC-PLAN
- P05.03-FORM-MPR-DUDG
- P05.04-DEV-ACCN-PROG/BUDG
- P05.05-DEV-ACCN-PROC/STDS
- P05.06-ACCESS-PERS
- P05.07-MOB-PERS
- P05.08-MONITOR-MAT-ACQ-PROG
- P06.01-FCST-TOT-AR-INIT-TN-RQT
- P06.02-DEV-TOT-AR-INIT-TN-PROG
- P06.03-MGE-ARMY-INIT-TRNG-PROG
- P07.01-DET-UNIT-PRI-PERS-REPL
- P07.02-DEV-PERS-DIST-PL/PROGS
- P07.03-VAL-MIL-PERS-RQNS
- P07.04-ASSIGN-MIL-PERS
- P07.05-MGE-CIVILIAN-PLACEMENT
- P07.06-MOVE-PERS
- P07.07-MGE-IND-XLVL/REDST/DST
- P07.08-DEV/IMPL-UNT-MAN-SYS-PG
- P07.09-MOVE-COHESIVE-ELEMENTS
- P08.01-MONT-PERS-RDY-STAT/UNTS
- P08.02-MGE-PERS-STR
- P08.03-MGE-PERS-SEC/SRTY-CLEAR
- P08.04-PROV-COMMUNITY-SPT
- P08.05-MGE-CASUALTY
- P08.06-MGE-NAF
- P08.07-MGE-COMP/BENEFIT/ENTITL
- P08.08-MGE-CIVILIAN-CLASSIFICN
- P08.09-MGE-CIV-CAREER-PROGS
- P08.10-FCST-PERS-PROF-DEV-REQ
- P08.11-MGE-PROF-DEV-PROG
- P08.12-MGE-MIL-PROMOTIONS
- P08.13-MGE-MIL-PERS-RECLASS
- P08.14-DEV/MGE-MIL-RETENTION
- P08.15-MGE-PERF-MGMT-PROG
- P08.16-MGE-EMP/LABOR-REL-PROGS
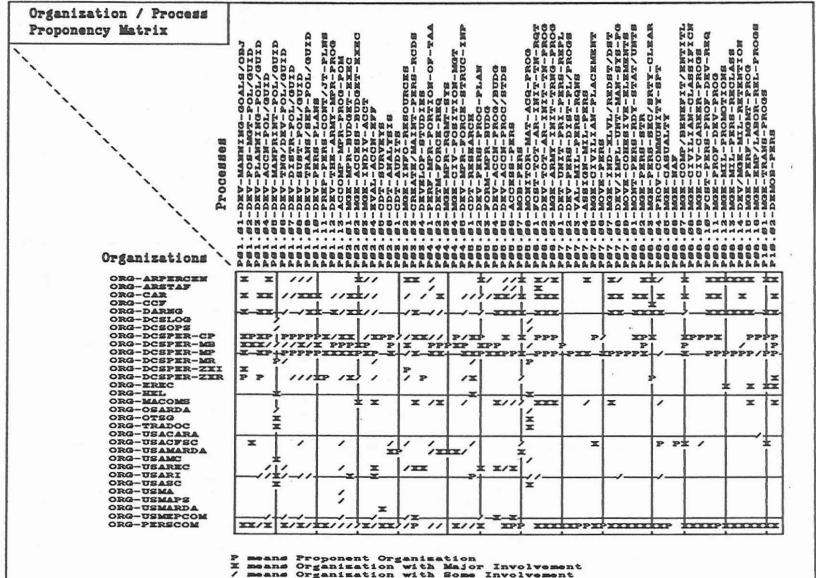- P10.01-MGE-TRANS-PROGS
- P10.02-DEMOB-PERS

S

Organization / Process
Proponency Matrix

Processes

P01.01-DEV-MANNING-GOALS/OBJ
P01.02-DEV-POS-MGT-POL/GUID
P01.03-DEV-PLANNING-POL/GUID
P01.04-DEV-ACCM-POL/GUID
P01.05-DEV-MANPRINT-POL/GUID
P01.06-DEV-TNG/DEV-POL/GUID
P01.07-DEV-DISTR-POL/GUID
P01.08-DEV-SUST-POL/GUID
P01.09-DEV-TRANS/SEP-POL/GUID
P01.10-PREP-PERS-CONT/JT-PLNS
P01.11-PREP-PERS-PLANS
P01.12-ACCOMP-MPR-PROG-POM
P01.13-MGMT-THE-ARMY-MPR-PROG
P02.01-MGE-MPR-BUDGET-EXEC
P02.02-MGE-ACCESS-BUDGET-EXEC
P02.03-MGE-INDIV-ACCT
P02.04-EVAL-ACCM-EFF
P02.05-CDT-SURVEYS
P02.06-CDT-ANALYSIS
P02.07-CDT-AUDITS
P03.01-MGE-INFO-RESOURCES
P03.02-CREATE/MAINT-PERS-RCDS
P03.03-DEVELOP-STUDIES
P04.01-PERF-MPR-PORTION-OF-TAA
P04.02-DETM-FORCE-REQ
P04.03-MGE-MPR-RQMT-SYS
P04.04-MGE-CIV-POSITION-MGT
P05.01-CDT-RESEARCH
P05.02-DEV-MPR-FORCE-STRUC-IMP
P05.03-DEV-PERS-PROG-PLAN
P06.01-FORM-MPR-BUDG
P06.02-DEV-ACCM-PROG/BUDG
P06.03-DEV-ACCM-PROC/STDS
P06.04-ACCESS-PERS
P06.05-MOB-PERS
P06.06-MONITOR-MAT-ACQ-PROG
P06.07-FCST-TOT-AR-INIT-TN-RQT
P06.08-DEV-TOT-AR-INIT-TN-PROG
P06.09-MGE-ARMY-INIT-TRNG-PROG
P07.01-DET-UNIT-PRI-PERS-REPL
P07.02-DEV-PERS-DIST-PL/PROGS
P07.03-VAL-MIL-PERS-RQMS
P07.04-ASSIGN-MIL-PERS
P07.05-MGE-CIVILIAN-PLACEMENT
P07.06-MOVE-PERS
P07.07-MGE-MAP
P08.01-MGE-IND-LVL-REDST/DST
P08.02-DEV-IMPL-UNT-MAN-SYS-PG
P08.03-MOVE-COHESIVE-ELEMENTS
P08.04-MONT-PERS-RDY-STAT/UNTS
P08.05-MGE-PERS-STR
P08.06-MGE-PERS-SEC/SRTY-CLEAR
P08.07-PROV-COMMUNITY-SPT
P08.08-MGE-CASUALTY
P09.01-MGE-COMP/BENEFIT/ENTITL
P09.02-MGE-CIVILIAN-CLASSIFICN
P09.03-MGE-CIV-CAREER-PROGS
P10.01-FCST-PERS-PROF-DEV-RKQ
P10.11-MGE-PROF-DEV-PROG
P10.12-MGE-MIL-PROMOTIONS
P10.13-MGE-MIL-PERS-RECLASS
P10.14-DEV-MGE-MIL-RETENTION
P10.15-MGE-PERF-MGMT-PROG
P10.16-MGE-EMP/LABOR-REL-PROGS
P10.21-MGE-TRANS-PROGS
P10.82-DEMOB-PERS

Organizations

ORG-ARPERCEN
ORG-ARSTAF
ORG-CAR
ORG-CCF
ORG-DARNG
ORG-DCSLOG
ORG-DCSOPS
ORG-DCSPER-CP
ORG-DCSPER-MB
ORG-DCSPER-MP
ORG-DCSPER-MR
ORG-DCSPER-ZXI
ORG-DCSPER-ZXR
ORG-EREC
ORG-HEL
ORG-MACOMS
ORG-OSARDA
ORG-OTSG
ORG-TRADOC
ORG-USACARA
ORG-USACFSC
ORG-USAMARDA
ORG-USAMC
ORG-USAREC
ORG-USARI
ORG-USASC
ORG-USMA
ORG-USMAPS
ORG-USMARDA
ORG-USMEPCOM
ORG-PERSCOM

P means Proponent Organization
X means Organization with Major Involvement
/ means Organization with Some Involvement

20

* = Interface

? = Interim Interface

Column headers (top, left to right):

ACPERS, AIMS, AMS, APDS-C, ARADS, ARMPRO, ARTS, ATRRS, AUTOREP, AWIS, BRD, CARSTATS, CIVPERSINS, CMS, CSMIS, CSSCS, DACEPS, DAMIS, DAMPRE, DVIS, EDAS, EMF, ERAS, GAINS, ISM, JOIM, KEYSTONE-MCL, KEYSTONE-REQUEST, KEYSTONE-RETAIN, KEYSTONE-RMS, MEPRS, MIRS, MOBPERS, MOBREPS, MRS, ODAS, ODIS, OMF, PER-DSS-ACT-ENL, PER-DSS-ACT-OFF, PER-DSS-BUDGET, PER-DSS-CIVFORS, PER-DSS-IDMS, PER-DSS-MADIMS, PER-DSS-MOBMAN, PER-DSS-PAM, PER-DSS-RC-ENL, PER-DSS-RC-OFF, PERSACS, RCAS, RCCPDS, RECBASS, RESBENE, RETERM, RIMS, RMPMIS, ROKPMS, ROTC-MMS, RPAS, RRS, SDSS, SCIPMIS, SIDPERS-2-ASIMS, SIDPERS-3, SIDPERS-3-TIER-III-V1, SIDPERS-ARNG, SIDPERS-USAR, SIRRS, SRTS, STRAMS-E, TAAMRIS/MACDB, TAPDB, TAPER

Row headers (left, top to bottom):

ACPERS, AIMS, AMS, APDS-C, ARADS, ARMPRO, ARTS, ATRRS, AUTOREP, AWIS, BRD, CARSTATS, CIVPERSINS, CMS, CSMIS, CSSCS, DACEPS, DAMIS, DAMPRE, DVIS, EDAS, EMF, ERAS, GAINS, ISM, JOIM, KEYSTONE-MCL, KEYSTONE-REQUEST, KEYSTONE-RETAIN, KEYSTONE-RMS, MEPRS, MIRS, MOBPERS, MOBREPS, NES, ODAS, ODIS, OMF, PER-DSS-ACT-ENL, PER-DSS-ACT-OFF, PER-DSS-BUDGET, PER-DSS-CIVFORS, PER-DSS-IDMS, PER-DSS-MADIMS, PER-DSS-MOBMAN, PER-DSS-PAM, PER-DSS-RC-ENL, PER-DSS-RC-OFF, PERSACS, RCAS, RCCPDS, RECBASS, RESBENE, RETERM, RIMS, RMPMIS, ROKPMS, ROTC-MMS, RPAS, RRS, SDSS, SCIPMIS, SIDPERS-2-ASIMS, SIDPERS-3, SIDPERS-3-TIER-III-V1, SIDPERS-ARNG, SIDPERS-USAR, SIRRS, SRTS, STRAMS-E, TAAMRIS/MACDB, TAPDB, TAPER

* = Interface

? = Interim Interface

Column headers (left to right):

ACIIPS, ADAPS, AIRTEMS, AURS, BOIP-QQPRI, CMORK, COEMIS-PA, CPAS, CRS-2, CTF-TPMIS, CW-FORCON, DCII, DEERS, DEPOT-ASSETS, DIS, DMDC, DOD-MERB, FAS/VFAS, FMTS, FORDIMS-P/BS, HOMES, ICR, IDACS, ITCS, JUMPS, JUSTIS, LIMAPS, MOBREP, MOF, MTBSP, MTMC, NGIC, OMA-BUDGET, OORMS, OPM-CPDF, ORS-2, PBS-PROBE, PMAD, PMS, POSC, PPBS, RAPIDS, RETAMS, RSS, SORTS, SQT, SSS, STAMFIMS, STARCIPS-R, STARCIPS, TAADS/VTAADS, TAKDP, TOM, TREDS

Row labels (top to bottom):

ACPERS, AIMS, AMIS, AMS, APDS-C, ARADS, ARMPRO, ARTS, ATRRS, AUTOREP, AWIS, BRD, CARSTATS, CIVPERSINS, CMS, CSMIS, CSSCS, DACEPS, DAMIS, DAMPRE, DVIS, EDAS, EMF, ERAS, GAINS, ISM, JOIN, KEYSTONE-MCL, KEYSTONE-REQUEST, KEYSTONE-RETAIN, KEYSTONE-RMS, MEPRS, MIRS, MOBPERS, MOBREPS, NES, ODAS, ODIS, OMF, PER-DSS-ACT-ENL, PER-DSS-ACT-OFF, PER-DSS-BUDGET, PER-DSS-CIVFORS, PER-DSS-IDMS, PER-DSS-MADIMS, PER-DSS-MOBMAN, PER-DSS-PAM, PER-DSS-RC-ENL, PER-DSS-RC-OFF, PERSACS, RCAS, RCCPDS, RECBASS, RESBENE, RETERM, RIMS, RMPMIS, ROEPMS, ROTC-MMS, RPAS, RRS, SBSS, SCIPMIS, SIDPERS-2-ASIMS, SIDPERS-3, SIDPERS-3-TIER-III-V1, SIDPERS-ARNG, SIDPERS-USAR, SIRRS, SRTS, STRAMS-E, TAAMRIS/MACDB, TAPDB, TAPER

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MTFAA_MASTER_PLAN

System Descriptive Information

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                        +----------------------------------+
                        !         CURRENT/PLANNED          !
                        !----------------------------------!
                        !        BASELINE/OBJECTIVE        !
                        !----------------------------------!
                        !       USATRADOC INSTALLATIONS    !
                        !----------------------------------!
IO-ACADEMIC-DATA --------------!        SYS-AIMS           !-  IO-ACADEMIC-DATA
IO-CLASS-SCHED-DATA -----------!                           !-  IO-CLASS-SCHED-DATA
IO-PERSONNEL-DATA -------------!     DEC VAX 11/750        !-  IO-CLASS-UTILIZATION-DATA
IO-POI-DATA -------------------!       OS: VMS             !-  IO-COURSE-SCHEDULES
IO-TESTING-DATA ---------------!     DBMS: INGRES          !
IO-TRAINING-DATA --------------!   LANG: BASIC+, "C"       !
                        !   DIAL-UP / DDN (FUTURE)  !
       +----------------------+                    +--------------------+
       ! FULL NAME
       ! AUTOMATED INSTRUCTIONAL MANAGEMENT SYSTEM
       ! ****************************************************************************
       !
       ! AIMS IS AN INTERACTIVE TRAINING MANAGEMENT SYSTEM TO BE UTILIZED BY
       ! SCHOOLS AND TRAINING CENTERS IN THE ENROLLMENT, TESTING, GRADING,
       ! SCHEDULING, AND GRADUATION OF STUDENTS.  AIMS PROVIDES SUMMARY DATA TO
       ! HQ TRADOC AND CLASS RESERVATIONS TO HQDA THROUGH ATRRS.
       !
       +----------------------+                    +--------------------+
                        !----------------------------------!
                        !            MDEP# TSPU            !
                        !----------------------------------!
                        !         IMMP# 57-85-400         !
                        +----------------------------------+
```

Supports: PRE-MOBILIZATION
      MOBILIZATION

System Interaction

        SYS-AIMS
            SYS-ATRRS   (Interfacing System)
            SYSREF-FORDIMS-P/BS   (Interfacing System)
            SYS-SIDPERS-3   (Interfacing System)
            SYS-ROTC-MMS   (Interfacing System)
            SYS-APDS-C   (Interfacing System)

            SYS-SIDPERS-2-ASIMS   (Interim Interface)
            SYS-RECBASS   (Interim Interface)
            SYS-STRAMS-E   (Interim Interface)
            SYS-SIDPERS-3-TIER-III-V1   (Interim Interface)

            P03.02-MGE-INFO-RESOURCES   (Supported Process)
            P03.03-CREATE/MAINT-PERS-RCDS   (Supported Process)
            P06.01-FCST-TOT-AR-INIT-TN-RQT   (Supported Process)
            P06.02-DEV-TOT-AR-INIT-TN-PROG   (Supported Process)
            P06.03-MGE-ARMY-INIT-TRNG-PROG   (Supported Process)

System Point-Of-Contact Information

1 SYS-AIMS has ATIC-IMI{GOUGH} as the ARA point-of-contact.

2 SYS-AIMS has ATTG-M{BUTCHER} as the PROPONENT point-of-contact.

1 ATIC-IMI{GOUGH}

    Mailing Address:

        COMMANDER
        U.S. ARMY TRAINING AND DOCTRINE COMMAND
        ATTN: ATTG-M (MR. GOUGH)
        FT MONROE, VA 23651-5000

        AUTOV-PHONE   '680-2751'
        COM-PHONE   '(804)727-2751'
        FAX-PHONE   '(804)727-3614'
        ACTIVITY   'USATRADOC'
        POC-NAME   'MR. DON GOUGH'

2 ATTG-M{BUTCHER}

    Mailing Address:

        COMMANDER
        U.S. ARMY TRAINING AND DOCTRINE COMMAND
        ATTN: ATTTG-M (MAJ BUTCHER)
        FT MONROE, VA 23651-5000

        POC-NAME   'MAJ BUTCHER'
        AUTOV-PHONE   '680-2780'
        COM-PHONE   '(804)727-2780'
        FAX-PHONE   '(804)727-3614'
        ACTIVITY   'USATRADOC'