**The
Defense Installation Spatial Data Infrastructure Group (DISDIG)**

Guidance for the Adaptation
of SDSFIE 3.0

Version 1.0

Office of the Deputy Under Secretary of
Defense (Installations & Environment)

Business Enterprise Integration Directorate

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Document Revision History

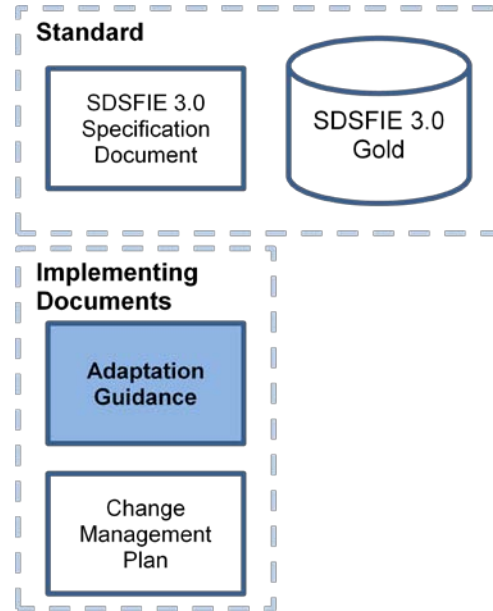| Release	Date	Revision Description	File Name
Working Draft	1 November 2010	First Draft of the guidance for adapting SDSFIE 3.0, for review by DISDI Group. Incorporates applicable portions of the DISDIG Implementation Strategy for SDSFIE 3.0, version 1.0 dated 14 October, 2009.	
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1. Overview

The Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE) is a dictionary of geospatial data types commonly used by the installations and environment (I&E), test and training range, and civil works mission areas in DoD. Version 3.0 ("Gold") of SDSFIE was released November 15, 2010. As shown in Figure 1, SDSFIE Gold is defined by a specification document and a logical data model (LDM) schema. Users of SDSFIE are urged to review these key artifacts before implementing SDSFIE Gold.

SDSFIE Gold is intended as a community standard. Each organization within the Defense Installation Spatial Data Infrastructure (DISDI) Community of Interest (COI) will need to adapt the standard to its mission. To maintain interoperability, each organization must follow common guidance to execute the adaptation. This document provides that guidance, organized as follows:

Figure 1. SDSFIE 3.0 Standard and Implementing Documents

- **Rules for governing adaptation of SDSFIE**
  Components must develop SDSFIE implementation plans to detail how Adaptations will be governed. Once completed and approved, all Adaptations will be shared with the DISDI Group (DISDIG) member organizations.

- **Guidelines for preparing and implementing an Adaptation**
  Adaptations consist of a Platform Independent Model (PIM) and supporting documentation. These artifacts will be stored in the SDSFIE Registry after review and approval.

- **Rules for developing Adaptations**
  These rules provide the constraints necessary to ensure the interoperability of Adaptations.

2. Rules for Governing Adaptation of SDSFIE

The DISDIG shall govern the development and registration of SDSFIE Gold Adaptations in accordance with these rules:

Rule 2-1: All DoD organizations which implement SDSFIE must conform to this Adaptation Guidance. Only DoD-developed Adaptations will be stored in the SDSFIE Registry.

Rule 2-2: Components must develop SDSFIE implementation plans which detail how they will govern Adaptations within the Component. Component plans or guidance shall conform to the DISDI Group Strategy for Development and Implementation of SDSFIE 3.0, and this Adaptation Guidance. In the case of conflicting guidance between these two documents, the Adaptation Guidance shall take precedence.

Rule 2-3: The DISDIG Chair will review Component level implementation plans to validate that the provisions for Adaptation governance conform to this Adaptation Guidance. After first informing the Component and allowing time for their response, the DISDIG Chair shall inform the DISDIG of the results of this review in a timely manner.

Rule 2-4: Once Components have a reviewed, conformal plan or guidance for SDSFIE Adaptation, they shall be empowered to review and approve Adaptations developed below Component HQ level. In other words, subordinate level Adaptations need only to be reviewed/ approved by that Component's Installation Geospatial Information and Services (IGI&S) Program Manager (DISDIG principal member).

Rule 2-5: Regardless of what organization approved them, all Adaptations and supporting documentation will be made available to all DISDIG member organizations via the SDSFIE Registry and Web site. Components may at their discretion limit the Adaptations which can be seen or used by members of their organization (on the SDSFIE Web site) using access control lists or similar methods.

These SDSFIE Adaptation governance rules should result in two major paths (component internal and Component HQ/enterprise) and several distinct levels of Adaptation review within each as illustrated in Figure 2.

Figure 2. SDSFIE Adaptation Governance Activity Flow
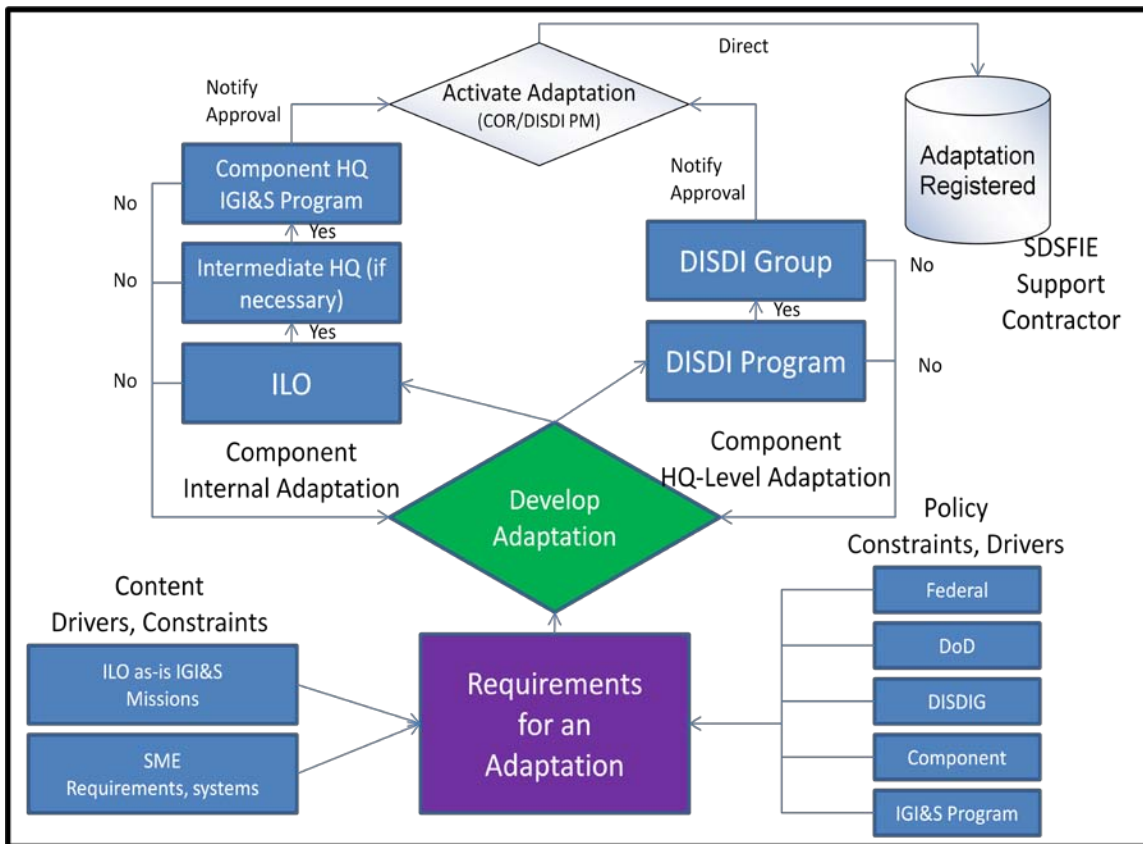
Rule 2-6: Component Level Governance is the responsibility of the DISDIG member representing the Component in question. A key element of the Component level governance is the existence of a written Component level adaptation guidance plan (may be part of the Component's SDSFIE implementation plan or other guidance) which has been reviewed and validated by the DISDIG Chair (aka the DISDI PM). Component-level governance <u>must</u> perform a review of lower level proposed Adaptations and assert approval before they can be registered and implemented. Component level reviews must:

- Check for compliance with all DISDIG Adaptation Guidance and rules (e.g., this document).

- Check for compliance with all Component level guidance, business rules, etc.

- Ensure that the following types of supporting documentation/business justifications exists for each and every profile and extension of the SDSFIE Gold LDM (as appropriate):

    a) Cite specific laws, policy, or regulations which are driving the format of I&E spatial data elements being adapted.

    b) Cite specific business systems or processes used as a basis for extensions.

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    c) Cite specific guidance or mechanisms to be used to maintain the Adaptation schema at the Implementation Level Organizations (ILO) level.

- All three forms of documentation (a-c, above) must be considered; if one or more are not applicable justifications, the documentation should so state. Like items may be aggregated with like documentation/justifications.

- Resolve issues with the ILO prior to assertion of approval.

- Provide copies of approval and supporting documentation (if needed) to the DISDIG Chair.

Rule 2-7: Enterprise Level Governance is the responsibility of the DISDIG Chair who will review all Component HQ-level Adaptations. DISDI Program staff will perform these reviews in a timely manner, normally within a two week period. Enterprise level reviews will:

- Perform technical review of Adaptation schema.

- Check for compliance with all DISDIG Adaptation Guidance and rules.

- Review supporting documentation and business justifications (see Rule 2-6 for descriptions of the three key types).

- Resolve issues with Component IGI&S programs prior to finalizing a recommendation.

- Provide DISDIG Chair recommendation and supporting documentation (as needed) to the DISDIG.

Rule 2-8: Cross Service Level Governance is the responsibility of the DISDIG. Cross-service level review for Component HQ-level Adaptations will be performed by the DISDIG prior to approval and submission to SDSFIE Registry. The purpose of this review is to ensure Component HQ-level Adaptations conform to enterprise rules and guidance, foster awareness of Adaptations across the Components, and provide a mechanism that encourages collaboration within the DISDIG. Review comments will be provided to the DISDIG Chair; comments may include substantive objections which the DISDIG Chair shall consider and adjudicate with the affected Components, as warranted. Cross-service reviews will:

- Examine Adaptation schema, supporting documentation, and the DISDIG Chair's recommendation, which will be made available for four week review.

- Check a select group of extensions to review for compliance; check overall proposed Adaptation for conflicts with other Component Adaptations.

- Result in agreement between the DISDIG Chair and submitting Component that the HQ-level Adaptation is approved for submission to the SDSFIE Registry.

3. Guidelines for Preparing and Implementing an Adaptation

The general process for developing and approving an SDSFIE Adaptation is illustrated in Figure 2 above. Guidelines for how an implementing level organization should execute each process follow.

3.1 Defining Requirements

The ILO should consult with subject matter experts (SMEs) on geospatial data requirements, and review its geospatial data holdings for comparison to the Component HQ Adaptation(s). Policy constraints, functional (business line) requirements, business system parameters, and data proponent requirements shall be considered when determining the requirements for adapting SDSFIE. See Rules 4-1 to 4-3 for further guidelines. Registered Adaptations shall be consulted before embarking on the development of a new Adaptation.

3.2 Developing an Adaptation

Using the SDSFIE Adaptation Tool, the ILO will draft an Adaptation to address their requirements in the SDSFIE Registry.

3.3 Supporting Documentation

Adaptation Artifacts for Review: All Adaptations must be PIMs and thus should be delivered in machine-readable (e.g., geodatabase or Geographic Markup Language (GML)) as well as human-readable form (e.g., spreadsheet). When the Adaptation is prepared using the SDSFIE tools, the toolset should be able to produce the needed machine-readable artifacts. If a design document is prepared, that should also be provided for review.

Adaptation Supporting Documentation: This will vary based upon the nature of the Adaptation and the level (HQ or lower) of the ILO. When policy documents are referenced, it is only necessary to cite the specific section/paragraph and not a copy of the policy document. See rules in sections 2 and 4 for more details.

3.4 Submitting for Review

When the ILO Adaptation has been created in the SDSFIE Registry, the appropriate managers within the ILO must review. The specifics of how ILO reviews are done should be provided in Component IGI&S policy or guidance documents. When ILO review is complete and approved, the Component IGI&S Program will review and document approval of the Adaptation. In accordance with Section 2 (above), if the Component IGI&S Program has a validated SDSFIE Adaptation guidance document, the Adaptation will be accepted as approved in the SDSFIE Registry (Note: the contracting officer's representative (COR) of the SDSFIE support contractor must be notified of Component level approval of ILO Adaptations).

3.5 Approval and Registry

Once approved by the appropriate higher level (e.g., Component IGI&S or the DISDI Program), the Adaptation will be accepted and marked as approved in the SDSFIE Registry, where it can be used to generate schemas and migrate data.

3.6 Role of the SDSFIE Toolset and Registry

To support rapid, coordinated implementation of SDSFIE Gold an enterprise toolset has been developed and made available on the SDSFIE web site. This toolset consists of five tools: browsing, adaptation, generation, validation, and migration. The tools operate on the SDSFIE Registry containing the SDSFIE Gold PIM and all registered Adapted PIMs. By definition this requires validation and entry of the approved PIM schema (Adaptation) into the SDSFIE Registry. ILOs are responsible for submitting valid Adapted PIMs into the SDSFIE Registry, where they can be used for further validation, generation, and migration of SDSFIE-compliant implementations.

4. Rules for Developing Adaptations

The ability to adapt the SDSFIE 3.0 Gold is the primary mechanism by which the user community can tailor the specification (or schema) to meet implementation-level business requirements. The implementation flexibility afforded by Adaptation, however, needs to be sufficiently constrained in order to ensure the integrity of the standard. This section describes rules and guidelines intended to provide a suitable measure of constraint and as such must be referenced or reflected in Component-level guidance or policy.

4.1 General Adaptation Rules

For the purposes of SDSFIE, an Adaptation is a specific profile (i.e., strict subset of SDSFIE 3.0 Gold) and all the extensions (i.e., additional feature types, attributes, and constraints) that have been added to the SDSFIE Gold PIM to support the unique business requirements of an implementing organization. In general, Adaptations shall conform to the following rules:

Rule 4-1. All Adaptations shall be derived from SDSFIE 3.0 Gold and its standard enterprise Adaptations (e.g., the public works detailed model).

Rule 4-2. All Component HQ-level Adaptations shall be direct descendents of SDSFIE 3.0 Gold. All other Adaptations by a Component shall be derived from the Component Adaptations.

Rule 4-3. All enterprise-level (e.g., Department of Defense, Office of the Secretary of Defense) Adaptations shall be direct descendents of SDSFIE 3.0 Gold. Other Adaptations may be derived from the enterprise Adaptations notwithstanding Rule 4-2, as appropriate.

Rule 4-4. All Adaptations must be reviewed, approved, and then registered using the SDSFIE enterprise toolset before they can be implemented by users in a system or database.

Rule 4-5. Only one Adaptation shall be registered per ILO.

Rule 4-6. Only one Adaptation shall apply per physical data model (PDM).

Rule 4-7. An Adaptation shall consist of no more than one profile, and as many rule-compliant extensions as required.

Rule 4-8. An Adaptation must be reviewed, approved, and registered according to guidelines determined by the DISDIG and IGI&S community governance bodies (see Section 2). These governance bodies shall adjudicate all Adaptation rule interpretations, and shall consider rule changes as part of the SDSFIE change management process[1].

Rule 4-9. Approved and registered Adaptations shall be considered part of the SDSFIE family of standards, and subject to DISDIG governance.

Rule 4-10. Each new release of the SDSFIE shall cascade downward to require a review of all SDSFIE Adaptations from the prior release.

Adaptation Creation Rules

The following rules describe the modification of elements allowed during Adaptation. See Rule 2-6 for supporting documentation requirements necessary for justification of most profiling and extension actions.

Rule 4-11. Feature types may be selectively removed (profiled), subject to any higher authority mandatory restrictions directing the removal of optional elements from SDSFIE Gold to create an Adaptation.

Rule 4-12. Feature types may be added provided they are logically unique from feature types already included in either SDSFIE Gold or the Component HQ Adaptation. The names of newly added feature types shall not duplicate any SDSFIE Gold feature type name.

Rule 4-13. Feature types must contain all SDSFIE Gold foundation attributes.

Rule 4-14. Attributes may be added to a feature type provided their definition does not duplicate or conflict with any existing SDSFIE Gold attribute and their names may not duplicate any existing attribute name.

Rule 4-15. If an SDSFIE Gold attribute is included in an Adaptation, all constraints that apply to that attribute in SDSFIE Gold must apply to the Adaptation.

Rule 4-16. All relationships between feature types extended from SDSFIE Gold must be included in the Adaptation along with necessary foreign key attributes.

4.2 Renaming SDSFIE Element Names

No SDSFIE Adaptation can change the definition or data type of an existing element. Changing SDSFIE feature type or attribute names is highly discouraged because it has

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[1] See SDSFIE Change Management Process v1.0, and "Strategy for the Development and Implementation of SDSFIE 3.0," DUSD(I&E) BEI, February 11, 2009

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very significant interoperability implications, but it may be allowed in special situations with due consideration of these constraints:

> **Rule 4-17.** A specific implementation reason must exist to support the name change such as commercial off-the-shelf (COTS) naming constraints and compatibility with legacy systems where implementation level aliases (described below) are not possible.

> **Rule 4-18.** Written justification must be provided in the Adaptation approval process defending the name change in lieu of correcting SDSFIE naming issues with implementation level aliases (described below).

Implementation Level Aliases

Compatibility of SDSFIE compliant datasets with existing systems or applications may require different feature type and attribute naming. In these cases, the preferred solution is to employ the various technology approaches for aliasing (e.g., views and queries). Aliases may be recorded in the implementing organization's SDSFIE Adaptation in order to facilitate the development of SDSFIE database creation scripts and general ease of implementation.

4.3 Profiles

Implementation level organizations may not need to implement all the feature types of the SDSFIE Gold. Profiling is the process of selectively excluding optional elements (most notably feature types) from the SDSFIE Gold to create a standard SDSFIE LDM Profile for an implementing organization (e.g., installation, major command, or regional command).

Profile Rules

> **Rule 4-19.** An SDSFIE Gold feature type can be excluded for a specific Adaptation if the ILO does not manage or create any spatial data of that particular type. The implementing organization may not eliminate a feature type and collect and manage spatial data of that type in an alternate, nonstandard feature type.

> **Rule 4-20.** All profiled feature types (i.e., all feature types included in the Profile) must include:

> > a. all core feature type attributes designated in the SDSFIE Gold.

> > b. all mandatory SDSFIE feature type attributes must remain mandatory (i.e., they must be collected and managed for the feature type).

4.4 Extensions

The concept of extending the SDSFIE Gold enables implementing organizations to make additions to the standard to better address the specific business requirements of that organization. Before creating an extension, the SDSFIE LDM and all registered Adaptations must be thoroughly reviewed to ensure that the extension(s) being

considered are not already addressed in some portion of the standard. See Rule 2-6 for supporting documentation requirements necessary for justification of most profiling and extension actions.

Extension Rules

Rule 4-21. Addition of New Feature Types: The creation of new feature types is allowed as part of an SDSFIE LDM Adaptation if a valid business requirement exists to support the need and no SDSFIE LDM Gold standard feature type addresses it. If a feature type is not available, the implementing organization may create it for temporary storage of data and propose it through the governance process for inclusion in the next release of the standard. Only new features that support specific business requirements are allowed so long as these feature types are not redundant with any SDSFIE LDM feature type.

Rule 4-22. Sub-classes of SDSFIE Feature Types: Sub-classes of SDSFIE LDM Gold Standard feature types are allowed, but they must be created in strict conformance to these guidelines:

    a.   A formal, unique definition must be prepared for each sub-class that is created. This definition must be based on policy or business requirements and thoroughly vetted during the approval process.

    b.   Sub-class names will be created by appending an underscore and a single keyword to the end of the SDSFIE feature type that is being sub-classed. During implementation, this convention may need to be modified to constrain name lengths to the limitations of the target geographic information system (GIS).

    c.   The sub-class must retain all the attributes as its parent SDSFIE feature type.

    d.   Attributes may be added to individual sub-classes using Rule 4-24 (below) for feature types.

Rule 4-23. Addition of an Alternate Geometry for a Gold Feature Type: Many Gold feature types offer several permissible geometries (point, polyline, polygon) but only a single default geometry. Alternate geometries may be included in Adaptations provided that the alternate geometry is one of the permissible geometries detailed in the SDSFIE Gold. However, all geometry variations of a feature type refer to the same set of attributes.

Rule 4-24. Addition of New Attributes to a Feature Type: In general, non-spatial (business) feature attributes should be collected into business data tables that are separate but linked to the SDSFIE LDM feature type. In exceptional cases however, new attributes may be added to SDSFIE LDM feature types. New attributes may be added to a feature type under the following guidelines:

    a.   If a foreign key relationship needs to be established with some existing business system or data set managed by the ILO.

b. Non-spatial or "business" attributes may be added to an SDSFIE Gold Standard Feature Class in special situations with due consideration of these guidance constraints:

   i. A business reason must exist to support the addition.

   ii. Written justification must be provided in the Adaptation approval process defending the additional attributes in lieu of collecting them in a separate business table or database.

   iii. The number of attributes being added must be kept to a minimum. The intent is to reduce burden on technicians who may otherwise be required to enter data they do not readily know.

   iv. Enumerations (if used) must be listed with corresponding definitions.

   v. The business line responsible (i.e., the proponent) for the addition should also be directly responsible for the creation and maintenance of the feature type being extended.

4.5 Referential Integrity

Referential integrity establishes the relationships between tables in a database and is defined by the rules that describe the primary and foreign key relationships between the tables in a relational database. Specifically, these primary and foreign key relationships require that any field in a table that is declared a foreign key can contain only values from a parent table's primary key. Referential integrity rules defined by designers and implemented using a relational database ensure users and applications do not enter data that is inconsistent across the tables in the database.

Enumerations

An enumeration is a set of coded values with formal definitions, used to codify a particular group of things. The enumeration's coded values can be thought of as foreign keys in the tables that use these codes to retrieve these detailed definitions. The following rules apply to enumerations:

Rule 4-25. Profiling Enumerations: Adaptations may impose more restrictive enumeration values on SDSFIE Gold elements. For example, if the standard contains five values in the domain of an existing SDSFIE LDM element, an Adaptation may specify that its domain consists of just three of original five domain values.

Rule 4-26. Extending Enumerations: Enumerations may not be extended during Adaptation. If an ILO requires additional values be added to an existing enumeration list, a change request should be submitted using the SDSFIE Change Management Process (to be published June 2011).

Primary Keys

Primary keys are the foundation of referential integrity. They control the integrity of the table that contains them by preventing the entry of records that contain duplicate information. Every feature type table in the SDSFIE has a pre-defined primary key.

Other tables can use these primary keys to associate information they contain with information in the table using the primary key because they uniquely identifying each record in a table.

> **Rule 4-27. Altering Primary Keys:** Alterations to primary keys are not allowed. If an ILO requires changes to SDSFIE primary keys, a change request should be submitted using the SDSFIE Change Management Process (to be published January, 2011).

Foreign Keys

A foreign key establishes a referential link between the information in the table that contains it with information in another table typically using the other table's primary key. Foreign key can be used to connect information in table maintained by other business lines that does not even have to physically be collocated with the table that contains them. New foreign key relationships can be added during Adaptation (see Rule 4-24.a), but may not conflict with foreign keys contained in the SDSFIE Gold.

> **Rule 4-28. Altering Foreign Keys Specifically Listed in SDSFIE Gold**: Alterations to foreign keys specifically listed in SDSFIE Gold are not allowed. If an ILO requires changes to SDSFIE Gold foreign keys, a change request should be submitted using the SDSFIE Change Management Process (to be published June, 2011).

5. References

The informative documents listed in Table 1 are useful to understanding and using this Adaptation Guidance. For dated references, only the cited edition or version applies.

Table 1 – Informative References

Guidance or Specification Document
Establishment of the DISDI Group, DUSD(I&E) memorandum, 21 March, 2007
DISDIG Strategy for Development and Implementation of SDSFIE 3.0 (12 February, 2009)
Guidance for Installation Geospatial Information and Services (IGI&S), DUSD(I&E) memorandum, 14 April, 2009
SDSFIE Specification Document, Version 3.0 (15 November 2010)
SDSFIE 3.0 Change Management Process (TBP)

6. Terms, Definitions and Acronyms

6.1 Terms and Definitions

The terms and definitions specific to this standard are given in Table 2, below.

Table 2 – Definitions Applicable to this Standard

Term	Definition
Adaptation	A formalized (approved) alteration of the SDSFIE PIM resulting in another PIM which is tailored to the particular business requirements of an implementing organization. An Adaptation consists of a specific **Profile** and/or all the **Extensions** that are required to meet specific user requirements.
Adapted PIM	The result of the Adaptation of another PIM (either SDSFIE Gold PIM or another Adapted PIM) which is subsequently stored in the SDSFIE Registry.
Component	A Military Department, Defense Agency, DoD Field Activity, or organization within the Office of the Secretary of Defense
Configuration	Any set of SDSFIE feature types. Configurations may be Thematic Packages, Disciplines, or Adaptations.
Discipline	A locked, approved Adaptation intended to meet the business needs of a particular function.
Element	Any individual item of the SDSFIE LDM including feature types, feature geometries, attributes, enumeration or domain values, and associations or relationships.
Extension	The addition of a new element (e.g., feature type or attributes) to the SDSFIE PIM provided that element does not conflict with the definitions of elements already defined by higher authority. (see Appendix A for more details)
Feature Type	An abstraction of real world phenomena represented as an information concept that includes geospatially referenced geometric representation(s).
GIS Vendor	A maker and/or seller of geographic information system or similar software that can be used to manage implementations of the SDSFIE.
IGI&S Programs	The DoD Component headquarters level activities responsible for oversight, policy, and guidance pertaining to installation geospatial information and services.
Implementation-Level Organization (ILO)	As defined by each IGI&S program, the lowest level organizations authorized to implement the SDSFIE standard. They develop Adaptations, collect and maintain geospatial data and provide geospatial related services.
Object Type	An information concept, other than a feature type. Object types are used to represent non-geographic information that is related to geographic information (typically through a foreign key relationship in a relational database).
Logical Data Model (LDM)	A structured representation of business data requirements using data abstraction and inheritance techniques and has been validated and approved by business representatives and which contains both entities and relationships of importance within an organized framework, and business textual definitions and examples. It is the basis of physical database design.
Physical Data Model (PDM or Physical Implementation)	The representation of a data design that conforms to the concepts in a logical data model and takes into account the structure and constraints of a given database management system or geographic information system; includes all the database artifacts required to create relationships between tables or achieve performance goals, such as indexes, constraint definitions, linking tables, partitioned tables or clusters. PDMs are generated from approved Adaptations stored in the SDSFIE Registry.

Platform Independent Model (PIM)	An intermediate data representation derived from an LDM that has removed data abstractions and inheritance properties but does not contain restrictions specific to a particular implementation environment. The SDSFIE Registry contains physical representation of the SDSFIE Gold and all Adaptations in the PIM form that is used by the SDSFIE tools. NOTE: This concept is similar to and derived from the Object Management Group (OMG) specified concept of the same name, but it is not identical to that concept in that we are referring to the stored representation of the PIM.
Profile	The result of selective removal of SDSFIE elements subject to any higher authority mandatory restrictions directing the removal of optional elements from SDSFIE Gold to create an Adaptation.
Referential Integrity Rules	Rules defined by designers and administered by the relational database to ensure users and applications don't enter inconsistent data. For example, a foreign key is a referential integrity rule that keeps records from being entered into one of two related tables without also having a corresponding record in the other.
Renaming	The process of altering or replacing SDSFIE Gold Element names (e.g., feature type names or attribute names).
SDSFIE 3.0 Gold; Specification	The sum collection of all elements (defined above) resulting from the SDSFIE modelling efforts and forms an LDM. A representation of this LDM is stored in the SDSFIE Registry as a PIM for use by the SDSFIE Toolset. A printable representation of this can be generated from the SDSFIE Registry in XMI, GML, and spread sheet forms.
SDSFIE Foundation	The SDSFIE Foundation is a subset of the SDSFIE 3.0 Gold that defines the set of general types needed to model the business mission specific feature and object information types.
SDSFIE Registry	The SDSFIE Registry is a relational database management system that stores all PIMs relevant to SDSFIE (including SDSFIE Gold and all Adaptations). The SDSFIE Registry is central to the operation of all tools in the SDSFIE Toolset.
Thematic Package	A grouping of SDSFIE feature types made because the feature types belong to a similar theme, such as Cultural Resources.

6.2 Acronyms

Although not an exhaustive list, the key acronyms used in this standard are listed below.

- ASCII - American Standard Code for Information Interchange

- BEI - Business Enterprise Integration

- CADD - Computer Aided Design and Drafting

- CIO - Chief Information Officer

- DISA - Defense Information Systems Agency

- DISDI - Defense Installation Spatial Data Infrastructure

- DISDI COI - Defense Installation Spatial Data Infrastructure Community of Interest

- DoD - Department of Defense

- DODI - DoD Instruction
- DUSD(I&E) - Deputy Under Secretary of Defense for Installations and Environment
- FGDC - Federal Geographic Data Committee
- GEOINT – Geospatial-Intelligence
- GIS - Geographic Information System
- GML - Geographic Markup Language
- GSIP - GEOINT Structure Implementation Profile
- GUID - Globally Unique Identifier
- HEC - Hydrologic Engineering Center
- HEC-RAS - Hydrologic Engineering Center River Analysis System
- I&E - Installations and Environment
- IENC - Inland Electronic Navigational Chart
- IGI&S - Installation Geospatial Information and Services
- IHO - International Hydrographic Organization
- ILO - Implementing Level Organization
- ISO - International Standards Organization
- LDM - Logical Data Model
- MAX - Maximum
- OASD(NII) - Office of the Assistant Secretary of Defense (Network and Information Integration)
- OMG - Object Management Group
- PDM - Physical Data Model
- PIM - Platform Independent Model
- PM - Program Manager
- RPA - Real Property Assessment
- RPILM - Real Property and Installation Lifecycle Management
- RPIR - Real Property Information Requirement
- SDSFIE - Spatial Data Standards for Facilities, Infrastructure, and Environment
- UUID - Universally Unique Identifier
- XMI - XML Model Interchange
- XML - eXtensible Markup Language

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