DATA ITEM DESCRIPTION

1. DID NUMBER: -
2. TITLE: mASTER TECHNICAL DATA iNDEX
3. DESCRIPTION and intended use

The Master Technical Data Index (MTDI) is a master list of the Technical Data required to be delivered under the Contract, including the Technical Data required for the purposes identified in this clause 3 and clause 6.2.1.1. The MTDI enables the creation of subordinate lists to address *specific requirements* for individual data items, identified in clause 6.2.1.2, pertaining to particular categories of Technical Data. Delivery or update of a list for a *specific requirement* involves the delivery or update of the relevant data within the MTDI.

The Contractor uses the MTDI to:

document and advise the Commonwealth of the Technical Data to be delivered to the Commonwealth and Associated Parties in relation to the Contract;

in relation to the Mission System, identify the set of specifications, design documentation and associated product data, and identify their associated management information; and

in relation to the Support System, document the outcomes of its Technical Data requirements analysis and inform the Commonwealth of the Technical Data required to enable the Materiel System to be operated and supported through life; and

manage Technical Data rights, including to benefit from those rights and to meet its obligations, including in regards to any restrictions arising under clause 5 of the COC.

The Commonwealth uses the MTDI to:

understand, evaluate and monitor the scope of Technical Data under the Contract;

understand the scope of Technical Data to be used to document the design and undertake the Verification and Validation (V&V) of the Mission System and Support System, including evaluating the Technical Data required to enable the Materiel System to be operated and supported through life;

understand the scope of Technical Data to be delivered to the Commonwealth and Associated Parties, and to identify the actions required with respect to that Technical Data;

understand the scope of Technical Data required to support the Australian Industry Capability (AIC) program; and

benefit from its Technical Data rights and to meet its obligations, including in regards to any restrictions arising under clause 5 of the COC.

1. INTER-RELATIONSHIPS

The MTDI is subordinate to the following data items, where these data items are required under the Contract:

Technical Data Plan (TDP);

Integrated Support Plan (ISP);

Systems Engineering Management Plan (SEMP); and

Configuration Management Plan (CMP).

The MTDI inter-relates with the following data items, where these data items are required under the Contract:

Software List (SWLIST);

all data items required under the AIC clause in the SOW; and

all other data items that identify, list, or which are Technical Data.

The MTDI also inter-relates with:

the Technical Data and Software Rights (TDSR) Schedule; and

the systems used under the Contract for the management of Technical Data, including the Data Management System (DMS), Logistic Support Analysis Record (LSAR) (if applicable) and Configuration Status Accounting (CSA) system.

1. Applicable Documents

The following documents form a part of this DID to the extent specified herein:

|  |  |
| --- | --- |
| 1. DEF(AUST)IPS-5629C | 1. *Production of Military Technical Manuals* |
| 1. DEF(AUST)IPS-5630 | 1. *Automation systems and integration — Product data representation and exchange* |
| 1. DI-IPSC-81431A | 1. *System/Subsystem Specification* (SSS) |
| 1. DI-IPSC-81432A | 1. *System/Subsystem Design Description* (SSDD) |
| 1. DI-IPSC-81433A | 1. *Software Requirements Specification* (SRS) |
| 1. DI-IPSC-81434A | 1. *Interface Requirements Specification* (IRS) |
| 1. DI-IPSC-81435A | 1. *Software Design Description* (SDD) |
| 1. DI-IPSC-81436A | 1. *Interface Design Description* (IDD) |
| 1. DI-IPSC-81437A | 1. *Database Design Description* (DBDD) |
| 1. DI-IPSC-81438A | 1. *Software Test Plan* (STP) |
| 1. DI-IPSC-81439A | 1. *Software Test Description* (STD) |
| 1. DI-IPSC-81440A | 1. *Software Test Report* (STR) |
| 1. DI-IPSC-81441A | 1. *Software Product Specification* (SPS) |
| 1. DI-IPSC-81442A | 1. *Software Version Description* (SVD) |
| 1. DI-SESS-81632 | 1. *Interface Specification* |
| 1. MIL-STD-490A | 1. *Specification Practices* |
| 1. MIL-STD-961E | 1. *Defense and Program-Unique Specifications Format and Content* |
| 1. S1000D™ | 1. *International specification for technical publications using a common source database*, Issue 5.0 |

1. Preparation Instructions
   1. Generic Format and Content

The data item shall comply with the general format, content and preparation instructions contained in the CDRL clause entitled ‘General Requirements for Data Items’.

The MTDI shall be provided in soft copy as a structured data file (eg, one or more databases, spreadsheets or other structured data format) that enables the MTDI content to be accessed, queried, read, printed, and used to generate soft copy tabulated text reports.

When records from the MTDI are to be provided to meet the *specific requirements* of an individual data item, the Commonwealth’s expectation is that either:

the data item will be delivered, with the records being derived from a filtered set of current data from the MTDI; or

the MTDI will be delivered, and the records for the required data item can be easily filtered from the other records within the MTDI.

Except where the soft copy data file is compatible with a standard Software application defined elsewhere in the Contract, or otherwise agreed in advance and in writing by the Commonwealth Representative, the MTDI shall be accompanied by any Software and Technical Data required to enable those functions identified in clause 6.1.2.

The MTDI shall be updated as the Contractor’s Materiel System solution matures, so as to keep track of the status of Technical Data during the period of the Contract.

* 1. Specific Content
     1. General

The MTDI shall identify all of the Technical Data:

delivered, or required to be delivered, to the Commonwealth or an Associated Party in relation to the Contract;

required to enable the Commonwealth to undertake Contract governance, to meet its obligations and exercise its rights under the Contract, and to use and support the Supplies as described in the Contract and Contract (Support) (if applicable);

required to enable the Materiel System to be operated and supported through life;

required to inform decision-making by the Commonwealth in relation to the Contract and the Materiel System, including in relation to Capability, cost (including Life Cycle Cost), schedule, operational and/or Maintenance considerations, Defects, and Configuration Changes including Deviations;

related to the Software identified in the SWLIST, when a SWLIST is required under the Contract, including Software Design Data, Source Code, and Software test plans, procedures and reports;

required for obtaining and maintaining product certification, including satisfying government and Defence regulatory and assurance requirements; and

that is used (or required to be used) by the Commonwealth in meeting its broader obligations (eg, in relation to financial accountability, security, safety and environmental protection).

When a data item for Technical Data is required to be derived from the MTDI under the Contract, the data item shall meet the *common requirements* of clause 6.2.2 and the *specific requirement* being requested, which may include:

a Mission System Technical Documentation Tree (MSTDT), detailed in clause 6.2.3;

a Drawing List, detailed in clause 6.2.4;

a Support System Technical Data List (SSTDL), detailed in clause 6.2.5;

a Publication Tree (PUBTREE), detailed in clause 6.2.6;

a Training Materials List (TML), detailed in clause 6.2.7; and

standalone DIDs for particular categories of Technical Data (eg, product certification data, Codification item list, and manufacturing and assembly data).

* + 1. Common Requirements

Each list of Technical Data, derived from the MTDI, shall include the following *common information* requirements for each item of Technical Data:

the unique item reference number, document number, drawing number or S1000D Data Management List (DML) control number, as applicable;

the name or title of the item of Technical Data;

the version (eg, draft, final);

the revision number / amendment status and release / issue date, as applicable;

a brief description of the item of Technical Data (or the amendment to an existing item of Technical Data), including its purpose or use;

the unique product identifier for the system / sub-system / Configuration Item (CI) / end-product (including hardware and Software) to which the item of Technical Data relates;

the name of the system / sub-system / CI / end-product (including hardware and Software) to which the item of Technical Data relates;

the source (eg, name of the Subcontractor / supplier that created or provided it);

if Commonwealth rights to the Technical Data, as defined through clause 5 of the COC (eg, Intellectual Property rights), are restricted:

cross-reference to the ‘Unique Line Item Description’ of any line item in the TDSR Schedule that applies to the item of Technical Data;

whether the item of Technical Data is Commercial TD; and

if the item of Technical Data is Commercial TD that is not related to a Key Commercial Item, cross-reference to the terms on which the item of Technical Data is licensed to the Commonwealth;

if Commonwealth rights to the Technical Data are restricted for reasons other than those defined through clause 5 of the COC (eg, Export Approvals), a cross-reference to the applicable licence or agreement (eg, a Technical Assistance Agreement);

any applicable Australian or foreign security classification;

the Technical Data category (eg, manual, specification, drawing, presentation for a system review, Software Source Code, etc), as identified in the Approved TDP or the Approved ISP, whichever is the governing plan under the Contract;

the standards to which the item of Technical Data will be, or has been, prepared (eg, a data item description, S1000D™, or DEF(AUST)5629C);

the schedule requirements for update and/or maintenance;

delivery details, including:

if the item of Technical Data is to be delivered to the Commonwealth;

details of the recipient (which includes the Commonwealth, Subcontractors, regulatory authorities / assurance agencies, Escrow Agent (if applicable), Associated Parties, and other support organisation(s)), including (or cross-referencing) the location, organisation, and position of the recipient; and

the delivery date, and any milestone to which delivery relates (eg, a System Review that uses the Technical Data);

the intended end user (ie, Commonwealth, Contractor, Subcontractors, and in-service support organisations such as the Contractor (Support) and Subcontractors (Support) where these organisations may include the Contractor and related entities involved in the provision of support); and

if a current or intended end-user of the Technical Data is an ANZ Subcontractor:

the activities to be performed by the ANZ Subcontractor to which the TD relates;

if Australian Industry Activities (AIAs) are applicable to the Contract, the AIA to which the item of TD relates;

if rights to the TD are restricted due to IP, patents, or similar, details of or cross-references to the licenses or other arrangements to allow the ANZ Subcontractor to perform the work allocated to it under the Contract; and

if the use of TD is restricted for reasons other those defined for clause 6.2.2.1q(iii) (eg, Export Controls), details of the applicable approvals (eg, Technical Assistance Agreements) required to allow the Subcontractor to perform the work allocated to it under the Contract.

* + 1. Specific Requirements – Mission System Technical Documentation Tree

Note: The CDRL may specify individual delivery requirements for this element of the MTDI.

* + - 1. Mission System Technical Documentation Tree

The MTDI shall, pursuant to clauses 6.1.2 and 6.1.3, enable a subset of the MTDI to be derived representing a hierarchical list of all of the specifications and design documentation for the Mission System, with this hierarchical list to be structured in accordance with the product breakdown structure (or the system breakdown structure) for the Mission System (‘**Mission System Technical Documentation Tree (MSTDT)**’).

When this DID is invoked under the Contract to define a MSTDT, the data item shall include, for each item of Technical Data, the *common information* required by clause 6.2.2.1 and:

the current document control authority (ie, the organisation responsible for content of the document and the only authority that can effect changes to it); and

the Commonwealth’s action period and required action (eg, Review or Approve) in accordance with clause 6.2.3.2.

The MSTDT shall define, for the set of documents:

the hierarchical (parent-child) relationships between all specifications that define the system, from the Commonwealth’s contractual input specifications through to the lowest level CI specifications; and

the relationships between the documents in the Contractor’s program.

For system elements that have not been defined, due to the limited maturity of the design when the MSTDT is produced, the MSTDT shall define generic elements (eg, a generic subsystem) and the associated design documentation that is expected for that element (eg, subsystem specification, interface specification, subsystem design document).

* + - 1. MSTDT Specific Commonwealth Management Requirements

When the MSTDT includes documents that are explicitly listed in the CDRL, it shall refer to the CDRL to define the obligations with respect to those documents.

Except where otherwise defined in this DID, the SOW or CDRL, the MSTDT shall identify all specifications and design documentation for the Mission System as subject to Review by the Commonwealth Representative.

Except where otherwise agreed by the Commonwealth Representative, the MSTDT shall identify the following types of documents for the Mission System as subject to Approval by the Commonwealth Representative:

specifications and design documentation for all external interfaces (ie, those elements of each Mission System that interface to other Commonwealth systems and equipment);

specifications and design documentation for human-system interfaces; and

if the Mission System is a system-of-systems, specifications and design documentation for the internal interfaces between the component systems, including the internal interfaces to any control system and/or management system (eg, mission management system or combat management system).

Except where otherwise agreed by the Commonwealth Representative, the MSTDT shall identify that a draft of all specifications at the first level below the Mission System level (ie, subsystem or segment) will be delivered prior to the System Definition Review (SDR), to enable the finalisation of the Mission System Functional Baseline at the SDR.

Except where otherwise agreed by the Commonwealth Representative, the MSTDT shall identify that the Commonwealth’s action period for all delivered documents is 20 Working Days.

* + - 1. MSTDT Documentation Standards

Although not mandated, the following table provides guidance for the expected level of detail associated with the specifications and design documentation. The Contractor may propose the use of these or similar publicly available standards or, where appropriate, the Contractor’s internal standards. If the Contractor proposes to use an internal standard for a document the standard shall be delivered with the MSTDT.

| Design Element | Document | Expected Level (or equivalent) |
| --- | --- | --- |
| 1. Segments / Subsystem | 1. *Specification* | 1. SSS DI-IPSC-81431A |
| 1. *Interface Specification* | 1. IS DI-SESS-81632 |
| 1. *Design Document* | 1. SSDD DI-IPSC-81432A |
| 1. Hardware | 1. *Specification* | 1. MIL-STD-961E |
| 1. *Interface Control Document* | 1. ICD MIL-STD-961E |
| 1. *Design Document* | 1. SSDD DI-IPSC-81432A |
| 1. Software | 1. *Requirement Specification* | 1. SRS DI-IPSC-81433A |
| 1. *Interface Specification* | 1. IRS DI-IPSC-81434A |
| 1. *Software Design Description* | 1. SDD DI-IPSC-81435A |
| 1. *Interface Design Description* | 1. IDD DI-IPSC-81436A |
| 1. *Software Test Description* | 1. STD DI-IPSC-81439A |
| 1. *Software Test Report* | 1. STR DI-IPSC-81440A |
| 1. *Software Product Specification* | 1. SPS DI-IPSC-81441A |
| 1. *Software Version Description* | 1. SVD DI-IPSC-81442A |

* + 1. Specific Requirements – Drawing List

Note: The CDRL may specify individual delivery requirements for this element of the MTDI. In this DID, engineering drawings includes ‘Engineering Design Data’ as defined in DEF(AUST) 5085C and refers to technical drawings and data sets for physical design data (eg, three-dimensional modelling and computer-aided design data), which represent hardware products of the Materiel System.

The MTDI shall, pursuant to clauses 6.1.2 and 6.1.3, enable a subset of the MTDI to be derived that lists all drawings (both new and existing) that relate to the Mission System and Support System (‘**Drawing List**’).

The Drawing List shall include all drawings:

associated with the installation of Mission System and Support System elements at a Defence site or onto a Defence platform (if applicable);

that are necessary, in conjunction with other Technical Data, to disclose the physical, functional, and performance characteristics of all external interfaces;

that define key internal interfaces to assist with the management of growth, evolution and Obsolescence, including those identified pursuant to clause 6.2.3.2.3c; and

required to enable other requirements of the Contract to be met (eg, in relation to Codification, parts determination, structural integrity, and weight and balance).

When this DID is invoked under the Contract to define a Drawing List, the data item shall include, for each identified drawing, the *common information* required by clause 6.2.2.1 and:

manufacturer’s code (eg, CAGE code or other enterprise identifier);

drawing size (eg, for drawings in aperture card format);

number of sheets, including the identification of the individual sheet numbers;

next higher assembly or ‘used on’; and

details of electronic files including:

the file name and file format; and

if applicable, the storage media (eg, the volume name when stored over multiple media items).

The Drawing List shall also include the *common information* (as required by clause 6.2.2.1) for the following types of documents, when applicable:

‘interpretation documents’, used to facilitate interpretation of each applicable Contractor and Subcontractor drawing system; and

‘associated lists’, which tabulate the engineering information pertaining to items depicted on an engineering drawing or a set of drawings (eg, parts list, data list, and index list).

* + 1. Specific Requirements – Support System Technical Data List
       1. Support System Technical Data List

Note: The CDRL may specify individual delivery requirements for this element of the MTDI.

The SSTDL shall, pursuant to clauses 6.1.2 and 6.1.3, enable a subset of the MTDI to be derived that represents the complete list of Technical Data required to enable the Materiel System to be operated and supported through life, and shall be based upon:

the CDRL;

the support-related elements under clause 6.2.1.1 (including in relation to product evolution through life) and clause 6.2.5.2.1;

the Technical Data requirements analysis conducted by the Contractor in accordance with the Approved TDP or the Approved ISP, whichever is the governing plan under the Contract;

updates to the Technical Data requirements, as the developmental status of the Mission System and the Support System matures; and

the data that comprises a Configuration Baseline for the Supplies, including in relation to the Mission System, Support System Components, and for Training.

When particular Technical Data does not currently exist, but will be created as an outcome of a particular activity under the Contract or the Contract (Support), the SSTDL shall identify the Technical Data generically.

When this DID is invoked under the Contract to define a SSTDL the data item shall include, for each item of Technical Data, the *common information* required by clause 6.2.2.1 and:

if applicable, the title of the related AIAs required for the in-service phase and the associated contractor and/or subcontractors;

the native format of the item of Technical Data and:

if digital, the file name and type and, for Technical Data other than Commercial TD, the authoring application, the document / data type definition and translator files (if applicable), and the standards that have been applied and that will be applied for any subsequent development under the Contract; or

if not digital, the type of hard copy format (eg, paper, microfilm, aperture card) and, for Technical Data other than Commercial TD, the standards that have been applied and that will be applied for any subsequent development under the Contract;

the quantity (ie, number of copies) to be delivered and the method of delivery (eg, hard copy or electronic form (ie, soft copy or transfer via a Data Management System, if applicable, or to an agreed information system));

for items of Technical Data to be delivered to the Commonwealth, the CDRL reference (if applicable); and

if not included in the Technical Data category, the developmental status of the item of Technical Data (eg, existing and not to be modified, existing and to be modified, or new).

The SSTDL shall enable items of Technical Data to be listed and sorted, including by:

the applicable Support System Constituent Capability (SSCC);

the applicable system, sub-system, CI or end-product (including both hardware and software CIs or end-products), with the breakdown structure being consistent with the Contract Work Breakdown Structure (CWBS);

the source of the Technical Data;

the intended end-user (including the Contractor and related entities involved in the provision of support);

if applicable, the AIAs to which the Technical Data relates; and

data attributes that identify an item of Technical Data as being included in one or more Technical Data categories, types and sub-types assigned by the Contractor (eg, if an item of Technical Data is part of a particular System Review package).

* + - 1. Support System Technical Data to be Delivered to the Commonwealth

Without limiting any other requirement in the SOW or this DID, the SSTDL shall identify, as a minimum, the following Technical Data as required to be delivered to the Commonwealth in accordance with clause 5.12 of the COC:

all Technical Data explicitly identified in the SOW for delivery to the Commonwealth (including Technical Data identified in the SSTDL generically), and elated (ie, supporting) Technical Data, required to enable the support of the Supplies, such as:

all data items that are or that contain Technical Data (eg, Hazard Analysis Reports, the Hazard Log, Software Support Plan (SWSP), and Learning Management Packages (LMPs)); and

Technical Data created as an outcome of activities under the Contract including, as applicable, Objective Evidence for System Certification, Engineering Change Proposals (ECPs) / Engineering Change Orders (ECOs) and Deviations (Requests For Variance) related to the build state of ‘as delivered’ Supplies, and Acceptance Test Reports (and supporting information) that verify compliance with a Configuration Baseline for Supplies;

the Technical Data required to be identified in accordance with clause 6.2.5.1.1; and

all Technical Data required to enable the support of the Materiel System by Defence and the performance of the Contract (Support), which can be reasonably derived from the Contract (eg, technical maintenance plans and servicing schedules);

to the extent not covered by subclauses a and b above, the Technical Data required to enable the Commonwealth, or a person on behalf of the Commonwealth, to:

install or configure the Supplies;

integrate the Supplies with other systems;

operate or maintain the Supplies;

identify, isolate, and rectify defects in the Supplies, consistent with the scope of in-service Engineering and Maintenance activities as set out in the Contract and the Contract (Support) (if applicable);

undertake training in relation to the Supplies;

remove or uninstall the Supplies;

decommission or destroy the Supplies; and

modify and upgrade the Supplies as may be required to meet the growth, evolution and Obsolescence management objectives and requirements set out in the Contract and the Contract (Support) (if applicable).

Except where otherwise defined in this DID, the SOW or CDRL or agreed by the Commonwealth Representative, the SSTDL shall identify all Technical Data to be delivered to the Commonwealth as:

subject to Review by the Commonwealth Representative; and

required to be delivered to the Commonwealth within 20 Working Days of the Approval of the SSTDL or an update to the SSTDL.

* + 1. Specific Requirements – Publications Tree

Note: The CDRL may specify individual delivery requirements for this element of the MTDI.

The MTDI shall, pursuant to clauses 6.1.2 and 6.1.3, enable a subset of the MTDI to be derived representing a list of publications (new, existing and amended) that relate to the Mission System and Support System (‘**Publications Tree**’).

The Publications Tree shall:

define the range of publications resulting from the Technical Data requirements analysis;

for publications that are to be delivered as S1000D-compliant source files, include the S1000D DML; or

for publications that are not required to be delivered as S1000D source files:

identify the hierarchy of, and inter-relationships between, all publications including the distribution of information between each publication; and

provide the ability for hard copies to be produced in a logical and hierarchical format that allow quick and easy reference so that either experienced or inexperienced operational or logistics-support personnel can identify the publication reference that they require.

Note: The Publications Tree identifies items of Technical Data (eg, operator and support manuals) that are required to enable the Materiel System to be operated and supported through life and, therefore, is a subset of the items in the SSTDL.

When this DID is invoked under the Contract to define a Publications Tree the data item shall include, for each publication, the information required for the SSTDL by clause 6.2.5.1.3 and the schedule for the development and production of the publication.

* + 1. Specific Requirements – Training Materials List

Note: The CDRL may specify individual delivery requirements for this element of the MTDI.

The MTDI shall, pursuant to clauses 6.1.2 and 6.1.3, enable a subset of the MTDI to be derived representing a list of Training Materials (new and existing) that are required for the Training courses required to be developed under the Contract (‘**Training Materials List**’).

The Training Materials List shall list all of the Training Materials required for the Training courses required to be developed under the Contract, including:

competency standards and/or course graduation requirements, as applicable;

student materials (eg, précis, workbooks, exercise and tutorial materials);

instructor materials including lesson plans, presentations and exercise materials;

all materials used for the assessment of students and related Training records;

documents required for Training course evaluation and reporting;

any other documents that enable Training delivery or administration; and

manuals and handbooks used in the provision of Training but not developed for Training purposes.

When this DID is invoked under the Contract to define a Training Materials List, the data item shall include, for each item of the Training Materials, the information required for the SSTDL by clause 6.2.5.1.3 and:

the unique code for the Training course / Learning Management Package;

the name of the Training course / Learning Management Package; and

if the document was developed specifically for Training purposes.

The Training Materials List shall be capable of being filtered and sorted by the data required under clause 6.2.7.3.