



# Document Coding and Item Numbering

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DTT S.c.a r.l.

*This document is issued for the execution of the DTT project*

### Project Details

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### Authors & Contributors

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### Distribution List

DTT Project Team / External Organization

### Abstract

*This document explains the procedure and criteria to assign the document number to project documents and tag number to project items*

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Rev.	Summary of Modifications
2.2	Review of numerical range of Project documents (table TABLE 1B - WBS ranges). A new code has been added for the progress report.



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## 1 Introduction

### 1.1 Scope of document

Aim of this procedure is to:

- describe the coding and numbering systems that will be adopted for the preparation, compilation and identification of all type of documents to be issued by all parties (DTT Team, Suppliers, Service Contractors, Construction Contracts, etc.) involved in DTT Project;
- provide also the information about tagging system of Project items;
- provide in Attachments the templates for all main document typologies to be use by internal and external parties.

Official language for the project is the English language that shall be used for all project document. Documents prepared for Italian Authorities approval and for Tender Management (in accordance with D.lgs 50/216) to be in Italian language.

### 1.2 Definitions

DEFINITION	DESCRIPTION
COMPANY	DTT S.c.a r.l.
CONTRACTOR	A person or organization that undertakes responsibility for the performance of a contract.
PARTY / PARTIES	Means all entities involved for the PROJECT both external and internal.
PROJECT	DTT (Divertor Tokamak Test) Facility.
SUBCONTRACTOR	Any organization, distributor, vendor, or firm that furnishes supplies or services to or for a prime CONTRACTOR or another SUBCONTRACTOR.
SUPPLIER / VENDOR	Organization or person that provides a product or services. The terms supplier and vendor shall mean the same and are interchangeable.
WP Manager	Work Package Manager (WBS 1° Level).

### 1.3 Acronyms

ACRONYM	DEFINITION
ASS	Assembly
AUT	Plant Control Safety Security Telecommunication Systems
AUX	Auxiliary Plant Systems
BOP	Balance of Plant
BUI	Building and Layout
CDA	Board Members
CEC	Chief Engineering Coordination
CFO	Chief financial Officer
COD	CODAS
COM	Integrated Commissioning Planning & Coordination
CON	Construction Management
DIA	Diagnostics
ECH	Electron Cyclotron Heating
EDS	Electrical Distribution System
HCD	Heating Current Drive
HSE	Health Safety Environment



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ACRONYM	DEFINITION
ICH	Ion Cyclotron Heating
IGS	ICT & General Services
IVC	In Vessel Components
LEG	Legal
MAG	Magnetic
NBI	Neutral Beam Injectors
NEC	Neutronics Coordination
OVC	Vessel and Out Vessel Components
PCM	Project Control Management
PER	Permitting
PHY	Physics
PMC	Project Management Coordination
PRC	Procurement Management
PRE	President
PRM	Project Requirements Management
PSS	Power Supply Systems
QMS	Quality Management System
RHS	Remote Handling Systems
RPL	Radiation Protection and Licensing
SAM	Safety Management
SEQ	HSEQ Management
SGI	Sistema di Gestione Integrata HSEQ
SIM	System Integration Management
SLE	System Level Engineering
THM	Tokamak Hall Management
TIM	Technical Integration Management
WBS	Work Breakdown Structure

### 1.4 References

ID DOCUMENT	TITLE
PRG-HSEQ-002-DTT	Manuale del Sistema di Gestione Integrato HSEQ del Consorzio DTT S.c.a r.l.
QMS-PRO-20004	Management of Documentation issued by Suppliers/Contractors

## 2 Coding for Management and Technical Documents and Drawing

### 2.1 General requirements

This paragraph provides instructions for the numbering system to be applied for all type of documents prepared for the Project.

In Attachments are included all document template to be used for the Project.

In the early phase, before start of activities, a detailed Project Document List shall be developed and stored in the Document Management System (ALFRESCO) in correspondence of the main folder where the Project document will be located once issued. The Project document List will help DTT personnel to retrieve Project document even if is known only the document title.



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## 2.2 Coding for Technical & Management Document

Here below are included the criteria how to assign the number to a project deliverable. The code relevant to a “deleted” document cannot be used for another document.

WBS Acronym	Type of Document	Sequential Number	Revision
XXX	XXX	NNNNN	N.N

Here following an example:

### MAG-SPT-00001\_1.0

**MAG:** It refers to WBS acronym included in the list of Acronym stored in ALFRESCO (refer to WBS-LST-40000 “WBS List”).

It can be used all WBS acronym listed in WBS-LST-40000, independently of the level (1st, 2nd, 3rd,...)

**SPT:** Type of document Technical Specification (see below the Table 1A)

**00001:** Sequential Number (see below the Table 1B)

**1.0:** Revision

Attachments shall be coded by using the same coding number of the main document adding before the revision number the alphanumerical index A1, A2, A3, etc.

Ex. **MAG-SPT-60000\_A1\_1.0.**

Drawings shall be coded by using the same coding number of the main document adding before the revision number the sheet number.

Ex. **MAG-SPT-60000\_SH 1\_1.0**

For drawing documents, the box “Plant Unit” shall be filled in with the WBS 1st level related to the document. Ex.

Document code: **TFC-DRW-60001\_1.0**

Plant Unit number: **MAG**

TABLE 1A – Type of Documents	
TYPE OF DOCUMENT	ACRONYM
Drawing	DRW
Drawing 3D	D3D
Drawing Layout	LAY
Documentation Schedule	DCS
Inspection datasheet	IDS
List	LST
Plan	PLN
Procedure	PRO
Technical Datasheet	TDS
Technical Report	TEC



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**TABLE 1A – Type of Documents**

TYPE OF DOCUMENT	ACRONYM
Technical Specification	SPT
Test Report	TRP
Wiring Diagram	WDG
General Management Document	GEN
Tender Document	TEN

**TABLE 1B - WBS ranges**

WBS	from	to
Governing Board (PRE-CDA)	00001	00199
Chief Engineering (CEC-NEC-TKM)	00200	00999
CFO	01000	01999
LEG	02000	02999
PMC	03000	03999
PHY	04000	05999
PRC	07000	07999
PCM	08000	08999
IGS	09000	09999
CON	25000	29999
COM	30000	32999
SIM	TIM	41999
SIM	PRM	43999
SIM	SLE	45999
SIM	COD	47999
SIM	PER PER (BSI)	49999 92950
SIM	SLE (LAY)	83000 83199
HCD	ECH	50000 51999
HCD	ICH	52000 53999
HCD	NBI	54000 55999
HCD	HCD	56000 58999
THM	THM	22000 22999
THM	ASS	23000 24999



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THM	PSS	59000	59999
THM	MAG	60000	63999
THM	IVC	64000	65999
THM	OVC	66000	67999
THM	DIA	68000	68999
THM	RHS	76000	76999
BOP	BUI	90000	92949
BOP	AUX (MEC)	70000	70999
BOP	EDS	71000	71999
BOP	AUT	72000	73999
BOP	AUX (PRO)	06000	06999
BOP	AUX (MACH)	36000	36999
BOP	AUX (SAFE)	82000	82499
BOP	AUX (P&L)	83200	83499
SEQ	RPL	81000	81999
SEQ	SAM	85000	85999
SEQ	QMS/SGI	20000	20999

All the electronic files shall be identified by the DTT ID Number followed by the revision index.

Ex. **MAG-SPT-60000\_1.0**

Revision index depend on the impact of revisions within the document.

- Major revision: increase the first index (e.g. from 1.0 to 2.0)
- Minor revision: increase the second index (e.g. from 1.0 to 1.1)

Document Owner is in charge to evaluate and define the impact of revision.

Cover page of each technical document shall include the following information (in bold highlighted the mandatory information):

<b>DTT ID Number</b>	According to the prescription provided in paragraph 2.2
External ID Number	(if any) according to numbering system of external parties
<b>DMS ID Number</b>	Identification code created by ALFRESCO. This number will remain the same for the subsequent revisions
Authors & Contributors	(if any) List of people who provides their contributions in the development of document (e.g applicable in case the document shall be divulgated for presentation or conferences)



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<b>Distribution List</b>	(if any) List of internal and external entities which shall receive the document (independently of their involvement in the review/approval process)
<b>Abstract</b>	To summarize the content of the document

In case some information are not applicable, it shall be marked as "N.A." (Not Applicable).

## 2.2.1 Additional requirements for external document

For document provided by External entities (Vendors of materials & services and Contractors), if different templates have been included in the contractual documentation package, the latter prevails (e.g. deviation request form, non conformity form, etc.)

The sequential number range, based on Table 1B, to be used for Project document issued by External Parties will be communicated by RUP/DEC at the Kick of Meeting.

Detailed information and requirements for the management of External entities documentation are provided in the QMS-PRO-20004 "Management of documentation issued by Suppliers/Contractor".

## 2.3 Coding for other document type

All document such as Minute of Meeting, Transmittal ID, Progress Report, Release Note, Deviation request and Non Conformity Report (not included in the type as per paragraph 2.2) shall be coded as follows:

Sender	WBS Acronym	Type of document	Sequential Number	Addressee
XXX	XXX	XX(X)	NNNNN	XXX(X)

Example:

### DTT-BUI-MOM-00001-F4E

DTT: Sender (see below the Table 2A)

BUI: It refers to WBS acronym included in the list of Acronym stored in ALFRESCO (refer to WBS-LST-40000 "WBS List").

It can be used all WBS acronym listed in WBS-LST-40000, independently of the level (1st, 2nd, 3rd,...)

MOM: Type of document (see below the Table 2B)

00001: Sequential number

F4E: Addressee (see below the Table 2A).

In case the MoM is issued within DTT organization, this field shall not be filled-in



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**TABLE 2A – Sender/Addressee**

SENDER/ADDRESSEE	ACRONYM
DTT S.c.a r.l.	DTT
F4E	F4E
Contractor/Supplier	*

\* N.B. Acronym for each External Entities shall be defined at the Kick off Meeting.

**TABLE 2B – Type of Documents**

TYPE OF DOCUMENT	ACRONYM
Administrative Act	AMM
Deviation Request	DR
Document Transmittal	TRN
Minute of Meeting	MOM
Non Conformity Report	NCR
Progress Report	PRR
Release Note	RN
Tender Document	TEN

### 2.4 Coding for Tender Management document (applicable only for document issued internally by DTT organization)

Tender's document "Relazione Tecnica e Quadro Economico" and "Disciplinare di Gara" shall be coded as follows:

#### a) Relazione Tecnica e Quadro Economico

Sequential Number	Contract Type	WBS Acronym	Year reference	Revision
NNN	X	XXX	NNNN	N.N

Here following an example:

#### **001-L-PSS-2021\_1.0**

- 001: Sequential number of DTT Bids (to be provided by Procurement office)
- L: Contract Type (see below)
- PSS: WBS acronym reference of the bid (cfr. WBS-LST-40000 "WBS List")
- 2021: Reference of year when has been start the purchase request
- 1.0: Revision Index

Contract type: L (Lavori), S (Servizi), F (Forniture), A (Altro)



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## b) Disciplinare di gara

Coding of this type of document shall follow the instruction provided for the Technical Document (paragraph 2.2 of this procedure) using the document type "TEN".

## 3 Coding for Project Items and Equipment

### 3.1 Coding for Equipment

WBS Acronym	Train	Equipment Type	Sequential Number	Redundancy (if required)
XXX	N	XX	NNN	(X)

Example:

#### ECH-1-PA-001A

ECH: refer to WBS acronym included in in the list of Acronym stored in ALFRESCO (refer to WBS-LST-40000 "WBS List").

It can be used all WBS acronym listed in WBS-LST-40000, independently of the level (1st, 2nd, 3rd,...)

1: number of the train/cluster (0 if common)

PA: Pump Centrifugal – for the Equipment type refer to SLE-LST-40001 "Equipment Type List".

001: sequential number

A: A/B... for redundancy - If no redundancy, field shall not be filled in

If a motor is connected to an equipment (Pumps, Compressors...), the equipment type tag of Motor will be the same of the equipment with M prefixed.

Example:

#### ECH-0-MPA-001A

For Special items may be used 3 digit (if needed) as specified in Equipment type list (SLE-LST-40001 "Equipment Type List".)

These are the only case where equipment type can have 3 digit.

### 3.2 Coding for Pipe

WBS Acronym	Train	LINE	Fluid Type	Sequential Number	Pipe Size
XXX	N	L	XX	NNNN	N

Example:

#### SLE-1-L-IA-0002-2"

SLE: refer to WBS acronym included in in the list of Acronym stored in ALFRESCO (refer to WBS-LST-40000 "WBS List").

It can be used all WBS acronym listed in WBS-LST-40000, independently of the level (1st, 2nd, 3rd,...)



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- 1: train 1
- L: Line
- IA: Instrument Air – For the Fluid List refer to Attachment A5
- 0002: sequential number
- 2": pipe size (in inch or mm)

### 3.3 Coding for Instrumentation

WBS	Train	INSTRUMENT	Measured Variable Loop	Sequential Number	Redundancy (if required)	Fire Zone (only for F&G)
XXX	N	J	XXXXX	NNNNN	(X)	FNN

Example:

#### SLE-0-J-TT-00001A

- SLE: refer to WBS acronym included in the list of Acronym stored in ALFRESCO (refer to WBS-LST-40000 “WBS List”).  
It can be used all WBS acronym listed in WBS-LST-40000, independently of the level (1st, 2nd, 3rd,...)
- O: no train
- J: Instrument
- TT: Temperature Transmitter – For the Measured Variable refer to Attachment A4
- 00001: sequential number
- A: redundancy

#### SLE-0-J-GDE-00001-F01

- SLE: refer to WBS acronym included in the list of Acronym stored in ALFRESCO (refer to WBS-LST-40000 “WBS List”).  
It can be used all WBS acronym listed in WBS-LST-40000, independently of the level (1st, 2nd, 3rd,...)
- O: no train
- J: Instrument
- GDE: Gas Detector – **For the Measured Variable refer to Attachment A4**
- 00001: sequential number
- F01: Fire Zone 01



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## 3.4 Coding for Electrical and Instrumentation Cables

WBS Acronym	Train	CABLE	Electrical Equipment Instrument	Sequential Number	Redundancy (if required)	Cable/Signal Type
XXX	N	C	XXXXX	NNNNN	(X)	XX

The TAG of the cable is referred to the primary item where it is connected.

Example:

### Electrical Cable

#### EDS-1-C-EP-001-PP

EDS

refer to WBS acronym included in the list of Acronym stored in ALFRESCO (refer to WBS-LST-40000 "WBS List").

It can be used all WBS acronym listed in WBS-LST-40000, independently of the level (1st, 2nd, 3rd,...)

EDS-1-C-EP-001: the primary equipment where the cable is connected

PP: Power Cable – refer to the Table 3A for the cable type

### Instrument Cable

#### AUT-0-C-PT-00001B-AN

AUT

refer to WBS acronym included in the list of Acronym stored in ALFRESCO (refer to WBS-LST-40000 "WBS List").

It can be used all WBS acronym listed in WBS-LST-40000, independently of the level (1st, 2nd, 3rd,...)

AUT-0-C-PT-00001B: the instrument where the cable is connected

AN: Analogue Signal – refer to the Table 3A below for the cable type

Cable Type Code	Table 3A - Cable Type Code Description
	<b>Electrical Cables</b>
CC	Control
DA	DC Positive pole – Single Core - Batteries with more than one connections on positive pole (a=A, B, C, D, E)
DN	DC Negative pole – Single Core
DP	DC Positive pole – Single Core
PE	Protective Earth – Single Core
PN	AC Power cable – Single Core – Phase N
PP	AC/DC Power cable – Multi-core
PR	AC Power cable – Single Core – Phase L1
PS	AC Power cable – Single Core – Phase L2



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Cable Type Code	Table 3A - Cable Type Code Description
PT	AC Power cable – Single Core – Phase L3
SH	Motor Space Heater
	<b><i>Instrumentation Cables</i></b>
AN	ANALOGUE
CX	COAXIAL
DI	DIGITAL
FO	FIBRE OPTICAL
LS	LOUDSPEAKER
QB	BEACON
TC	THERMOCOUPLE (compensated cable)
ET	ETHERNET
SE	SERIAL CABLE

## 4 Attachment

- 4.1 A1 - Word template
- 4.2 A2 - Excel Template (format A3)
- 4.3 A3 - CAD Template (format A0, A1, A3)
- 4.4 A4 - Instrument Type and Measured Variable
- 4.5 A5 - Fluid Code
- 4.6 A6 - Excel Template (format A4)
- 4.7 A7 - Template Relazione Tecnica e Quadro Economico
- 4.8 A8 - Template per Disciplinare di Gara
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