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| **Software Version Description**  **(SVD)** |
| ***for the***  ***BSP CSCI***  ***of***  ***T-X DTU System***  CDRL SEQUENCE NO. 5889A01-02  Prepared for:  Elbit Systems Ltd.  Prepared by:  Comm-IT ,20 Hamagshimim St. Petach Tikva 49348, ISRAEL |

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# SCOPE

The Software Version Description (SVD) identifies and describes the released version of the BSP CSCI of the T-X DTU System.

## Identification

System name: T-X Data Transfer Unit

System abbreviation: T-X DTU

CSCI number: 5889A01-02

CSCI Name: Board Support Package

CSCI abbreviation: BSP

CSCI version number:01-02

CSCI version issue date: 04.04.16

Software checksum: not required

## System Overview

The DTU is part of the "T-X mission system" for the next generation of trainer jet.

It provides fast Ethernet communication between the aft/fwd intercom units and also other units which are external to the mission system (e.g. VSMC). The DTU also provides a 1Gigabit ETH link to the MMP.

In the following figure, the T-X system is illustrated:



The major functions of the DTU within T-X are:

* Provide Ethernet switch for the system.
* Provide network attached mass memory for data storage

## Document Overview

The SVD identifies and describes the released version of the BSP.

The documentation listed in paragraph 2.2 provides a detailed description of the software.

This SVD was developed in conformance with and structured to follow Data Item Description (DID) DI‑IPSC-81442.

This SVD is structured as follows:

| Section | Contents |
| --- | --- |
| Section 1 | Scope of this document |
| Section 2 | All documents referenced by this SVD |
| Section 3 | Version description |
| Section 4 | Notes and Acronyms |
| Appendix A | Lists the files for this CSCI |
| Appendix B | Contain the environment defines |
| Appendix C | Filesystem creation script |

# Referenced Documents

## Government Documents

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Title** | **Description** | **Date** |
|  | DI-IPSC-81442 | SOFTWARE VERSION DESCRIPTION (SVD) | 05/12/1994 |

## Project Documents

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Doc. ID** | **Title** | **Revision** | **Date** |
|  | 036751E-00 | DTU PIDS | B |  |
|  | 037247E-00 | SQUID2 HSID | 01 |  |
|  | 022565E-00 | SNOWRUNNER HSID | C |  |

## Other Documents

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Doc. ID** | **Title** | **Revision** | **Date** |
|  |  |  |  |  |
|  |  |  |  |  |

# Version Description

## Inventory of Materials Released

None materials release

## Inventory of Software Contents

The release contains the following files:

|  |  |  |  |
| --- | --- | --- | --- |
| **File Name** | **Size** | **Date** | **Comment** |
| TX\_DTU\_BSP\_BIN\_01\_02.zip | 16,903,640 bytes | 14.04.16 |  |
| TX\_DTU\_BSP\_SRC\_01\_02.zip | 140,807,166 bytes | 14.04.16 |  |
|  |  |  |  |

The released version contains the CSCI’s files listed in appendix A.

## Changes Installed

## Class I Changes Installed

NA

## Class II Changes Installed

NA

## Changes Effects

NA

## Adaptation data

No adaptation is required

## Related Documents

The following table lists the associated documentation that makes up the new version, and the operation and support documents that are not a part of the delivered package, but required to operate, load, or regenerate the CSCI.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Doc. ID** | **Title** | **Revision\*** | **Date** |
|  | 039188E-00 | DTU SRS | 01 | 18.06.16 |
|  | 041576E-01 | DTU PR | 01 | 14.04.16 |

\* The referenced documents' revision estate the applicable revisions relevant for this SW version on its release date.

CLASS II changes for these documents will not accompanied with new SVD revision.

Other SW versions relevant for the proper functionality of this CSCI version are listed in the following table:

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **SW Name** | **SVD/VDD Revision (in PLM)** | **Remarks** |
|  | UBOOT DTU | 5888A01-01 |  |
|  |  |  |  |

## Installation instructions

## Prerequisites

The BSPCSCI installation for use requires the following items have to be installed prior  
to installation of the CSCI:

* Operating system Linux Ubuntu distribution version 14.04 (via Virtual Box or directly)
* TFTP server application

Installation for development and maintenance required also the following development tools:

* PPC toolchain, with gcc version 4.8.2
* mkfs.ubifs, ubinize, ubiformat tools for UBI

## Installation instructions

To install the software for use, perform the following instructions:

1. Extract the approved version from the released TX\_DTU\_BSP\_BIN\_01\_02.zip file
2. Refer to the released SW PR document for detailed installation procedures.

## Installation instructions for development

To install for development and maintenance purposes, perform the following instructions:

1. Extract the sources from the released TX\_DTU\_BSP\_SRC\_01\_02.zip file
2. Put kernel\_dev at the same location
3. Edit kernel\_dev to use the location of the installed toolchain path of toolchain at
4. On shell run:  
   source kernel\_dev
5. For changing kernel configuration (if required) run:

make menuconfig

1. For kernel build run:

make uImage

1. modules build run:

make modules

1. For device tree build run:

make dtbs

1. For ubifs filesystem creation run the attached ubi\_fs.sh script in up directory of the targetfs
2. BITManager:

* Import the existing projects in BITManager folder to Eclipse on NetBeans environment
* Update the install cross compile path and build the project.

## Possible problems and known errors

none

# NOTES

## Acronyms and Abbreviations

|  |  |
| --- | --- |
| ATP | Acceptance Test Procedure |
| BSP | Board Support Package |
| CM | Configuration Management |
| CSCI | Computer Software Configuration Item |
| DTU | Data Transfer Unit |
| ECO | Engineering Change Order |
| ECP | Engineering Change Proposal |
| NA | Not Applicable |
| VDD | Version Description Document |
| UBOOT | Universal Boot |

# APPENDIX A - Contents of CSCI directories

## 5.1 Contents BITManager.tar.gz

Refer to BITManager\_Dir\_List.txt

## 5.2 Contents targetfs\_v01\_02.tar.gz

Refer to targetfs\_Dir\_List.txt

## 5.3 Contents v01\_02\_linux-3.14.25.tar.gz

Refer to kernel\_Dir\_List.txt

# APPENDIX B – Environment Defines

Kernel\_dev – for Linux kernel compilation

# APPENDIX C – File system creation script

ubi\_fs.sh

# 