Project TTC Toronto

Passenger Information System

Software Configuration Items Summary Table (SCIST)

CDRL:	Spec Refs:	
Q307E	TS 24.2	

Prepared:	Christoph Kündig	*(Signature on file)*	signed:	2013-05-23
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	Project Manager	Signature		yyyy-mm-dd

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Revision History

Revision	Date (yyyy-mm-dd)	Initials	Description of Changes
00	2010-06-08	ChKu	First issue
01	2010-07-08	ChKu	Bombardier review comments included (Document Inspection Checklist, dated 2010-06-09)
02	2010-11-04	PaWi	• Document number SDD added • Part Numbers added • SFD reference added
03	2011-01-21	ChKu	Several updates, with focus on PTE and FMS
04	2013-01-15	ChKu	SCIs updated (Signs, PSC, FMS and PTE). The change is related to FMS and PTE. • AXPSC04 deleted • AXDISP02 deleted • AXFMS02 deleted • AXPTE01 deleted • AXBKF01 deleted • AXBKF02 deleted
05	2013-01-15	ChKu	Bombardier review comments included (0701 Annax - Comm System - SCIST rev04 - Checklist v1.pdf)
06	2013-04-10	ChKu	Bombardier review comments included (0701 Annax - Comm System - SCIST rev05 - Checklist v2.pdf)
07	2013-05-23	ChKu	Bombardier review comments included (0701 Annax - Comm System - SCIST rev06 - Checklist v2.pdf)

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List of Figures

There are no figures in this document.

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1 Introduction

1.1 Purpose

This Software Configuration Item Summary Table (SCIST) is applicable to the Passenger Information System (PIS) software development for the TTC Toronto project. The purpose of this SCIST is to describe the details of the PIS Software Configuration Items (SCIs) and the related development environment.

1.2 Abbreviations, Acronyms, and Definitions

The following acronyms and definitions are used within this SCIST

Table 1: List of Acronyms and Definitions

Term/Acronym	Definition
APP	Application
Cat.	Category
CCU	Cab Control Unit
Comm.	Communication
DB	Database
DBDD	Database Design Description
Dev.	Development
FMS	Fleet Management System
FW	Firmware
GPL	General Public License
ICE	In-Circuit Emulator
IDE	Integrated Development Environment
ICD	Interface Control Document
LFLRV	Low Floor Light Rail Vehicle
LRU	Line Replacement Unit
LRV	Light Rail Vehicle
MCG	Mobile Communication Gateway (Interface to WLAN)
OS	Operating System
PASIS	ANNAX Database for Passenger Information Systems
PASIS CE	Customer Edition of the PASIS Database Editing Tool
PIS	Passenger Information System
REC	Railvox Embedded Controller
PN	Part Number

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Term/Acronym	Definition
PCU	Passenger Communication Unit
PSC	PIS Controller
PIS	Passenger Information System
PTE	Portable Test Equipment
SCI	Software Configuration Item
SCIST	Software Configuration Items Summary Table
SCMP	Software Configuration Management Plan
SDD	Software Design Description
SFD	System Functional Description
SIL	Software Integrity Level
SoS	Scope of Supply
SPMP	Software Project Management Plan
SRS	Software Requirements Specification
SW	Software
TS	Technical Specification [TS]
TTC	Toronto Transit Commission

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1.3 References

The following documents are referenced within this SCIST:

Table 2: List of References

Doc ID	Document Description
[ASFD]	ANNAX System Functional Description For Passenger Information System for the TTC Toronto Project
[SRS_PSC]	Software Requirements Specification for PIS Controller, Doc. No. 215260XX
[SRS_PCUB]	Software Requirements Specification for PCU-Box, Doc. No. 215258XX
[SRS_CCU]	Software Requirements Specification for CCU, Doc. No. 215259XX
[SRS_DISP]	Software Requirements Specification for Displays, Doc. No. 215263XX
[SDD_PSC]	Software Design Description for PIS Controller, Doc. No. 215266XX
[SDD_PCUB]	Software Design Description for PCU-Box, Doc. No. 215267XX
[SDD_CCU]	Software Design Description for CCU, Doc. No. 215265XX
[SDD_DISP]	Software Design Description for Displays, Doc. No. 215268XX
[SRS_PTE]	Software Requirements Specification for PTE SW, Doc. No. 215283XX
[SDD_PTE]	Software Design Description for PTE SW, Doc. No. 215284XX

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2 Software Configuration Items Summary Table

Table 3: Software Configuration Items Summary Table

SCI #	SCI Identification	SIL	Cat.	Operation Environment	Requirements & Functional Description (References)	Line Replacement Unit (LRU)	Host Component Identification	Upload Method	Deliverable Medium
PSC									
AXPSC01	PSC OS Operating System **License:** NO	1	C	**OS:** N/A **License:** N/A	**SFD:** [ASFD] **SRS:** [SRS_PSC] **SDD:** [SDD_PSC]	**LRU Name:** PSC **PN:** 54010103S	CPU: MPC885CVR133, Freescale DSP56303 **Chip PN**: N/A **Board PN:** N/A	Through PTE	FTP-Server / ANNAX Cloud
AXPSC02	PSC APP Application **License:** NO	1	B	**OS:** Linux (DENX), version: 2.6.22.6 **License:** YES (GPL)	**SFD:** [ASFD] **SRS:** [SRS_PSC] **SDD:** [SDD_PSC]	**LRU Name:** PSC **PN:** 54010103S	CPU: MPC885CVR133 **Chip PN**: N/A **Board PN:** N/A	Through PTE	FTP-Server / ANNAX Cloud
AXPSC03	PSC DB Database **License:** NO	1	A	**OS:** Linux (DENX), version: 2.6.22.6 **License:** YES (GPL)	**SFD:** [ASFD] **SRS:** [SRS_PSC] **SDD:** [SDD_PSC]	**LRU Name:** PSC **PN:** 54010103S	CPU: MPC885CVR133 **Chip PN**: N/A **Board PN:** N/A	Through PTE and FMS/MCG	FTP-Server / ANNAX Cloud
PCU-Box									
AXPCU01	PCU-Box OS Operating System **License:** NO	1	C	**OS:** N/A **License:** N/A	**SFD:** [ASFD] **SRS:** [SRS_PCUB] **SDD:** [SDD_PCUB]	**LRU Name:** PCU-Box **PN:** 53050130S	CPU: ARM 926 EJ, 210 MHz **Chip PN**: N/A **Board PN:** N/A	Through PTE	FTP-Server / ANNAX Cloud
AXPCU02	PCU-Box APP Application **License:** NO	1	A	**OS:** Linux (Emlix), version: 2.6.27 **License:** YES (GPL)	**SFD:** [ASFD] **SRS:** [SRS_PCUB] **SDD:** [SDD_PCUB]	**LRU Name:** PCU-Box **PN:** 53050130S	CPU: ARM 926 EJ, 210 MHz **Chip PN**: N/A **Board PN:** N/A	Through PTE	FTP-Server / ANNAX Cloud

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SCI #	SCI Identification	SIL	Cat.	Operation Environment	Requirements & Functional Description (References)	Line Replacement Unit (LRU)	Host Component Identification	Upload Method	Deliverable Medium
CCU									
AXCCU01	CCU OS Operating System **License:** NO	1	C	**OS:** N/A **License:** N/A	**SFD:** [ASFD] **SRS:** [SRS_CCU] **SDD:** [SDD_CCU]	**LRU Name:** CCU **PN:** 84100290S	CPU: LPC3240 **Chip PN**: N/A **Board PN:** N/A	Through PTE	FTP-Server / ANNAX Cloud
AXCCU02	CCU APP Application **License:** NO	1	A	**OS:** Linux (NXP), version: 2.6.27.8 **License:** YES (GPL)	**SFD:** [ASFD] **SRS:** [SRS_CCU] **SDD:** [SDD_CCU]	**LRU Name:** CCU **PN:** 84100290S	CPU: LPC3240 **Chip PN**: N/A **Board PN:** N/A	Through PTE	FTP-Server / ANNAX Cloud
Displays									
AXDISP01	DISP Image **License:** NO	1	B	**OS:** N/A **License:** N/A	**SFD:** [ASFD] **SRS:** [SRS_DISP] **SRS:** [SDD_DISP]	**LRU Name:** Display **PN:** 84170281S, 84170282S, 84170283S, 84170284S	CPU: ARM 926 **Chip PN**: N/A **Board PN:** N/A	Through PTE	FTP-Server / ANNAX Cloud
Comm./PIS PTE									
AXPTE01	PTE Image Application **License:** YES	1	A	**OS:** Windows XP, version: SP2 or higher **License:** YES	**SFD:** [ASFD] **SRS:** [SRS_PTE] **SDD:** [SDD_PTE]	**LRU Name:** (Bombardier SoS) **PN:** (Bombardier SoS)	CPU: Intel Core 2 Duo **Chip PN**: N/A **Board PN:** N/A	Installation from CD ROM	FTP-Server / ANNAX Cloud
FMS									
AXFMS01	FMS Image **License:** YES	1	C	**OS:** Windows XP Server, version: SP2 or higher **License:** YES	**SFD:** [ASFD] **SRS:** N/A **SDD:** N/A	**LRU Name:** (TTC SoS) **PN:** (TTC SoS)	CPU: (TTC SoS) **Chip PN**: (TTC SoS) **Board PN:** (TTC SoS)	Through FMS	FTP-Server / ANNAX Cloud

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3 Software Configuration Items Development Environment Summary Table

Table 4: Software Configuration Items Development Environment Summary Table

SCI No.	SW Dev. Platform	IDE	Prog. Lang.	Compiler	Linker	Libraries	ICE	Build Proc.	Simulation Tools	Special Tools	Programming Tools
AXPSC01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AXPSC02	Windows XP Version 2002 Service Pack 3 **License:** YES	Eclipse **License:** YES (GPL)	C++/C	GCC Suite 4.3.2 **License:** YES (GPL)	GCC Suite 4.3.2 **License:** YES (GPL)	N/A	N/A	Makefile	N/A	N/A	N/A
AXPSC03	Windows XP Version 2002 Service Pack 3 **License:** YES	PASIS CE **License:** YES	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AXPCU01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AXPCU02	Windows XP Version 2002 Service Pack 3 **License:** YES	Eclipse **License:** YES (GPL)	C++/C	GCC Suite 4.3.2 **License:** YES (GPL)	GCC Suite 4.3.2 **License:** YES (GPL)	N/A	N/A	Makefile	N/A	N/A	N/A
AXCCU01	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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SCI No.	SW Dev. Platform	IDE	Prog. Lang.	Compiler	Linker	Libraries	ICE	Build Proc.	Simulation Tools	Special Tools	Programming Tools
AXCCU02	Windows XP Version 2002 Service Pack 3 **License:** YES	Eclipse **License:** YES (GPL)	C++/C	GCC Suite 4.3.2 **License:** YES (GPL)	GCC Suite 4.3.2 **License:** YES (GPL)	N/A	N/A	Makefile	N/A	N/A	N/A
AXDIP01	Linux Fedora10 **License:** YES (GPL)	ptxdist 1.0.0 (1.0.0 based) **License:** YES (GPL)	C++/C	GCC 4.1.2 (gnueabi) **License:** YES (GPL)	LD 2.1 (gnueabi) **License:** YES (GPL)	Boost, FreeType	N/A	Makefile	N/A	N/A	N/A
AXPTE01	Windows XP Version 2002 Service Pack 3 **License:** YES	Eclipse **License:** YES (GPL)	C++/C	GCC Suite 4.3.2 **License:** YES (GPL)	GCC Suite 4.3.2 **License:** YES (GPL)	N/A	N/A	Included in IDE	N/A	N/A	N/A
AXFMS01	Windows XP Version 2002 Service Pack 3 **License:** YES	Microsoft Visual Studio 2008 **License:** YES	C++	Included in IDE	Included in IDE	N/A	N/A	Included in IDE	N/A	N/A	N/A

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4 Licenses

The following licenses are required:

- Microsoft Windows (not in ANNAX scope of supply)
- Microsoft XP Server (not in ANNAX scope of supply)
- GPL
- Microsoft Visual Studio (not in ANNAX scope of supply)
- Eclipse Public License