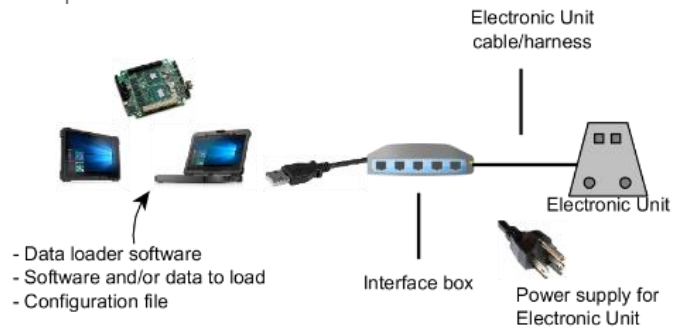# DATA LOADERS

Reprogramming tool for Electronic Units

CS Canada Data Loaders consist of a customizable platform to reprogram an Electronic Unit. It can be used in the field or in the shop, assisting operators by automating reprogramming and limiting actions from them. They meet severe standards and validation criteria. They were successfully deployed within the aerospace industry to support compliance with DO-178C.

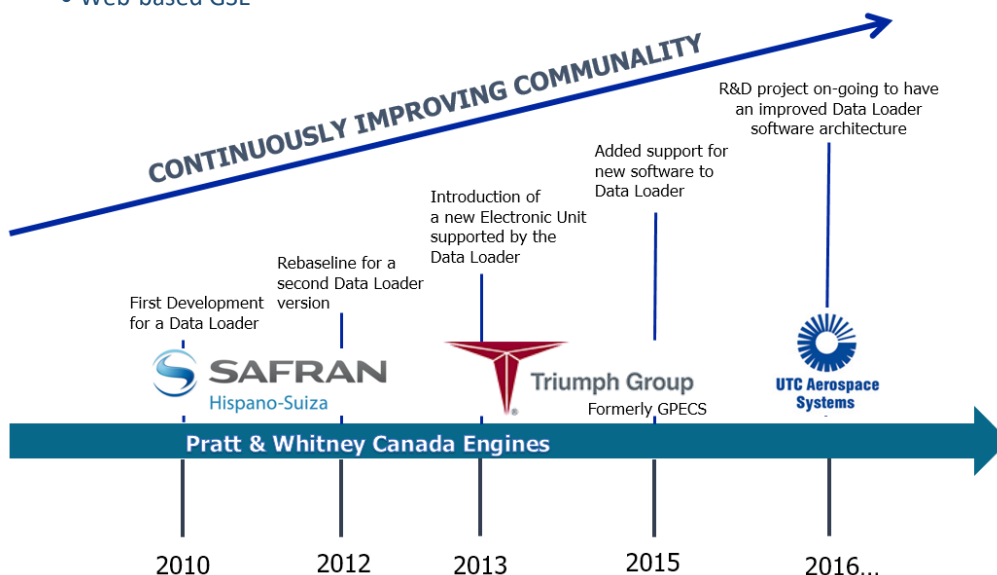|	

Key objectives	• Keep operator interaction to a minimum
	• Lowers the risk of:
	    ○ Operator mistakes
	    ○ Ending up with an inoperative Electronic Unit
	• Data integrity verification
	• Security of data

CS Canada capabilities	• Design, acquisition and assembly of all required GSE Hardware • Design, development and qualification of all GSE Software • First Article Inspection and media production

Historic	• Expertise into delivering data loaders for the avionics industry for different Electronic Unit model/types.
	• Software
	    ○ Implementation of different Electronic Unit communication protocols
	    ○ Successful delivery of data loaders for Safran Electronic Units
	    ○ Ongoing data loader project for the business jet field.
	• Hardware
	    ○ Successful development and delivery of an Electronic Unit H/W interface
	    ○ Production of DVDs, USBs and SD cards

Flexible architecture	• Flexible runtime execution configurability capabilities • Reusable Core architecture • Offers adjustable mechanisms to add and configure operations as required by the Electronic Unit programming sequence scheme • Usability, Extensibility, Reusability: Designed for efficient data loader workflow and for future requirements. • Robustness, Testability: Enforcing a validation process that increases these criteria
Design Options	• Laptop Based GSE • Single Board Computer/COTS Based GSE • Web-based GSE

CONTINUOUSLY IMPROVING COMMUNALITY

First Development for a Data Loader — 2010

Rebaseline for a second Data Loader version — 2012

Introduction of a new Electronic Unit supported by the Data Loader — 2013

Added support for new software to Data Loader — 2015

R&D project on-going to have an improved Data Loader software architecture — 2016...

SAFRAN Hispano-Suiza

Triumph Group — Formerly GPECS

UTC Aerospace Systems

Pratt & Whitney Canada Engines

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