

Free for Early Prototyping

Features and Benefits

ECSS / CCSDS Communication Middleware for Space Applications

Special Price

Prototyping is the first phase of the PUSopen® workflow. PUSopen® with prototyping BSP is provided free of charge. Special conditions apply for providing feedback of the prototyping phase.

Upon successful completion of prototype, users may decide to continue to the next phases of the workflow: design, integration, validation and mission support. Contact 12G for more information.

Free Support Hours

12G Flight Systems provides free of charge support for the duration of the prototyping phase. Support is provided in the areas of PUSopen® prototype design, integration support and prototype evaluation. Upon entering following phases of the PUSopen® workflow, professional support service is part of the paid product.

Offer Summary

- Free of charge, no hidden costs
- Six months duration (max)
- At least 16 support hours*

* Decided on per-project basis

```

C:\WINDOWS\system32\cmd.exe
TC 17 1 APID: 1 Payload ( 0 bytes)
TM 5 1 APID: 3 Flags:3 Count: 16 Payload ( 4 bytes) 9f 04 fc d5
TM 17 2 APID: 3 Flags:3 Count: 23 Payload ( 0 bytes)
TM 5 4 APID: 3 Flags:3 Count: 28 Payload ( 2 bytes) 01 2a
TC 17 1 APID: 1 Payload ( 0 bytes)
TM 13 1 APID: 3 Flags:3 Count: 32 Payload (16 bytes) a1 02 0a 04 05
TM 13 2 APID: 3 Flags:3 Count: 33 Payload (16 bytes) d5 cf 3c e1 32
TM 13 2 APID: 3 Flags:3 Count: 34 Payload (16 bytes) 2c 3a 8d f2 29
TM 13 2 APID: 3 Flags:3 Count: 35 Payload (16 bytes) 43 9d a4 f9 d1
TM 5 4 APID: 3 Flags:3 Count: 36 Payload ( 2 bytes) 01 22
TM 13 2 APID: 3 Flags:3 Count: 37 Payload (16 bytes) 02 07 01 2a 05
TM 13 2 APID: 3 Flags:3 Count: 38 Payload (16 bytes) 74 8b 48 98 95
TM 5 4 APID: 3 Flags:3 Count: 39 Payload ( 2 bytes) 01 2a
TM 13 3 APID: 3 Flags:3 Count: 40 Payload ( 5 bytes) 04 0c 0a ff 05
TM 17 2 APID: 3 Flags:3 Count: 41 Payload ( 0 bytes)
TM 5 4 APID: 3 Flags:3 Count: 42 Payload ( 2 bytes) 01 2b
TM 5 1 APID: 3 Flags:3 Count: 43 Payload ( 4 bytes) 9f 04 fc d6
TC 17 1 APID: 1 Payload ( 0 bytes)
TM 17 2 APID: 3 Flags:3 Count: 51 Payload ( 0 bytes)
TM 13 3 APID: 3 Flags:3 Count: 52 Payload ( 5 bytes) 04 0c 0a ff 05
    
```

Figure. Console debug output during prototyping on host PC. TM/TC traffic.

Host Software Prototyping

PUSopen® prototyping phase is realized on the host PC under Microsoft Windows OS. Users may decide the language used for software prototype. Primary APIs are provided for the high-reliability choices like MISRA C. To cut the cost and time of prototyping phase, APIs are also provided for productivity oriented C#.NET.

Any number of on-board or on-ground subsystems can be configured in the prototype. To emulate communication link or data bus, TCP socket communication is provided in the PUSopen® Prototyping BSP, the main adaptation layer to Microsoft Windows host OS.

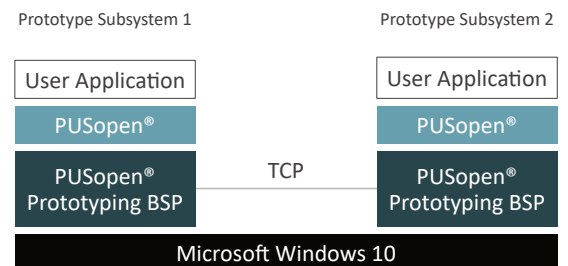


Figure. Prototyping subsystem software communication on host PC.