



# FUSION-SPLICE

## Acoustic and Inertial Data Converter

Fusion-Splice enables real-time direct interfacing of Sonardyne LBL ranges, along with station information into an iXBlue ROVINS\* or PHINS\* inertial system for sparse LBL operations.

### Fusion-Splice has applications in:

Sparse LBL  
Corridor Surveys

Marine Construction  
Out of Straightness Surveys



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Zupt delivers operationally aware inertial technologies to improve the productivity associated with high cost operations for oil and gas exploration and field development. These capabilities are offered and supported worldwide.

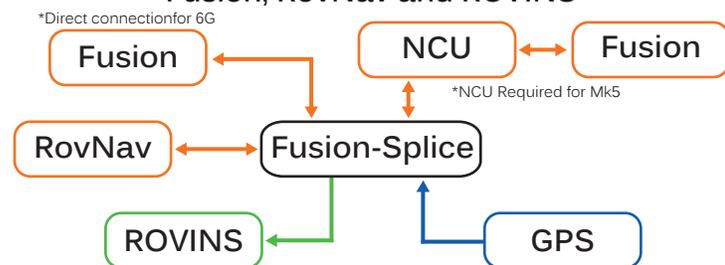
# FUSION-SPLICE

## Acoustic and Inertial Data Converter

Zupt's Fusion-Splice allows real-time, direct interfacing of Sonardyne LBL ranges into an iXBlue ROVINS\* or PHINS\* for sparse LBL operations. This system allows communication between these acoustic and inertial systems, to increase operational efficiency for our customers and expand our sparse LBL capabilities to third party inertial systems.

When using the iXBlue ROVINS\* and either Sonardyne Mk5\* or 6G\* equipment in sparse LBL applications, it had been impossible to parse the required string formats from Sonardyne's Fusion software directly into the ROVINS\* such that it receives the range required in real time. iXBlue has enabled their sparse solution for generic ranges and Nautronix NASNet\* ranges, but had not configured the systems to take raw microsecond range data. Sonardyne does not commonly publish the raw range data with associated transponder station information on any easily accessible interface ports.

### Location for Fusion-Splice in dataflow between Fusion, RovNav and ROVINS



\*ROVINS, PHINS are registered trademarks of iXBlue  
\*Fusion, Mk5 and 6G are registered trademarks of Sonardyne International, Ltd  
\*NasNet is a registered trademark of Nautronix, Ltd  
\*Fusion-Splice is a registered trademark of Zupt, LLC

Within Fusion-Splice, Zupt has enabled the facilities for the storage of all the static information associated with a sparse array operation. This information includes: transponder location, turn around delay, and channel information. The Fusion-Splice uses an onboard FPGA chip to act as an inline "listener" to the range interrogations and replies between Sonardyne's Fusion\* software and their RovNavs\*. The information collected from listening to these communications allows Zupt to configure and provide, in real time, the required LBL range data along with the station information to the iXBlue product in the required format. This "listening" is transparent to normal Fusion\* operations.

Fusion-Splice also accepts 1 PPS and appropriate timing strings (ZDA) from GPS receivers to ensure that all range data is provided with the appropriate GPS time.

Fusion-Splice configuration and array static data is configured using a Zupt-provided application that can be installed on any Windows-enabled laptop or desktop computer.

### STANDARD CONFIGURATION:

Power Supply	110Vac-220Vac, <5W
Comm Ports	RS-232 standard DB9 ports
Comms	RS232 9,600 - 115,200 bps
USB Config	Type B port
Dimensions	2Ux19" rack mount

## Perform sparse LBL operations with existing equipment

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