

# *Jason Virtual Van & Alvin FrameGrabber*

- **Brief Overview/Functionality of the Systems**
- **Current Status**
- **Recent Updates**
- **Plans/Status**



# ***Jason Virtual Van & Alvin FrameGrabber***

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## **Brief Overview – Virtual Van**

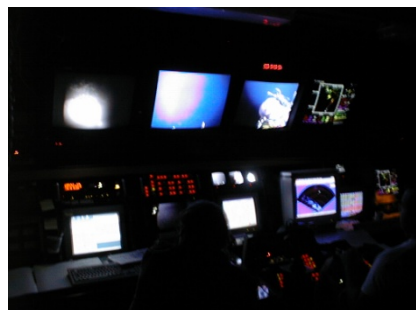
- **Developed and built by Steven Lerner, Andrew Maffei, Danielle Fino in Sep 2000; funded by Keck Foundation**
- **Goal is to snapshot all the information happening in the control van in real-time and give easy web browser access to the integrated information on ship and on shore (for post-cruise work)**
- **System consists of an acquisition system, video capture system, 4dGeoBrowser server, web-based user-interface, and web-based event logger**
- **Runs on Linux; software: Perl, cgi-scripts, Apache**
- **Shore server runs on a Linux computer**
- **NB: Not completely stand-alone - requires Internet connection**



# Jason Virtual Van

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## Functionality & User Interface



Control Van

### Snapshot

Video Displays

Navigation

Vehicle Telemetry

Science Instruments

User Events

DAQ: atlv7120.Jason	Time: 2002/09/18 04:51:33	Hdg: 72.000 Lat: 47 56.825918 N Lon: 129 5.935418 W	Alt: 7.760 Depth: 2186.344 Bathy: 2194.104	DegC: 1.935 Cond: 3.155 Salin: -999.000 SVel: -999.000 MagX: -258800.0 MagY: 487866.7 MagZ: 122266.7 MagT: 565632.8	<a href="#">Live Video</a> <a href="#">Src1</a> <a href="#">Src2</a> <a href="#">Src3</a> <a href="#">Src4</a> <a href="#">Plot Maps</a> <a href="#">Daily / Hourly</a> <a href="#">Local Area</a> <a href="#">Rich Results</a>
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Type: EVT NavSrc: JAS2 AttSrc:

Event: TXT finished major #11 at 4:51

7536. 2002/09/18 04:51:33 EVT finished major #11 at 4:51  
7537. 2002/09/18 04:53:00 EVT firing up the butterfield sampler  
7538. 2002/09/18 04:55:53 EVT sticking butterfield input into black smoker on side of m  
7539. 2002/09/18 04:56:24 EVT we are doing this to get a temperature. he is not going to pump, just hold i  
7540. 2002/09/18 04:56:42 EVT is slowly going up.

atlv7120 - Juan De Fuca

CRUISE INFO | SELECT ANOTHER CRUISE

Jason Virtual Control Van

### Virtual Van Web-browser Interface



# ***Jason Virtual Van & Alvin* FrameGrabber**

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## **Brief Overview – FrameGrabber**

- **Developed by Steven Lerner, Barrie Walden, Dan Fornari; prototype Linux laptop built May 2002 (NSF funded) and Windows' production system built and installed April 2003 (NDSF funded)**
- **Goal is to snapshot all the information in the submarine in real-time and give easy web browser access to the integrated information on ship for pre- and post-dive synopsis and for onshore post-cruise work**
- **System consists of an acquisition system, video capture system, web-based user-interface and capability to process historical cruises**
- **Runs on Windows; software: Internet Explorer, Perl, cgi-scripts, Apache; shore server is Linux-based**



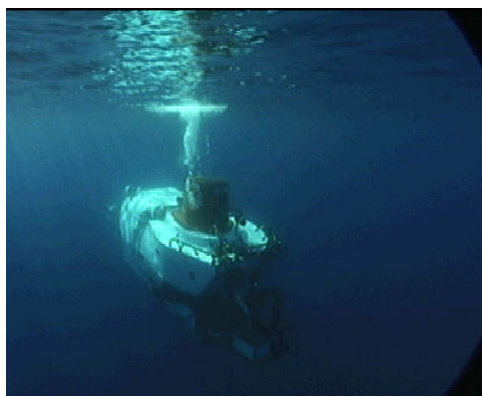


# Alvin FrameGrabber

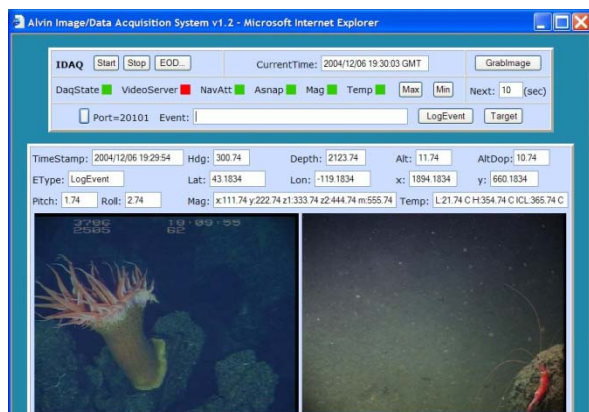
## Functionality & User Interface

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DSV Alvin



User Interface (web browser)



Acquisition System

Features Include: Scrolling/clickable map, image highlight/annotation, interactive time-bar, summary icons (proof-sheets, time-series plots), VCR-style navigation buttons



# ***Jason Virtual Van & Alvin FrameGrabber***

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## **Current Status**

### ***Jason Virtual Van***

- **Operational since September 2000**
- **33 cruises**
- **2,369,738 images**

### ***Alvin FrameGrabber***

- **Operational since April 2003**
- **51 cruises**
- **518 dives**
- **647, 486 images**



# Jason Virtual Van & Alvin FrameGrabber

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## Recent Updates

### Jason Virtual Van

- Renav capability (operational)
- Four *Jason* cruises (39 lowerings) of renavigated data in database, 2 cruises worth of lowerings in VVan, three further cruises worth of data ready to be processed

### Alvin FrameGrabber

- Renav capability (in testing phase)
- Ten *Alvin* cruises (136 dives) of renav processed & ready...

### Shore web server updated

- <http://4dgeo.who.edu/jason>
- <http://4dgeo.who.edu/alvin>

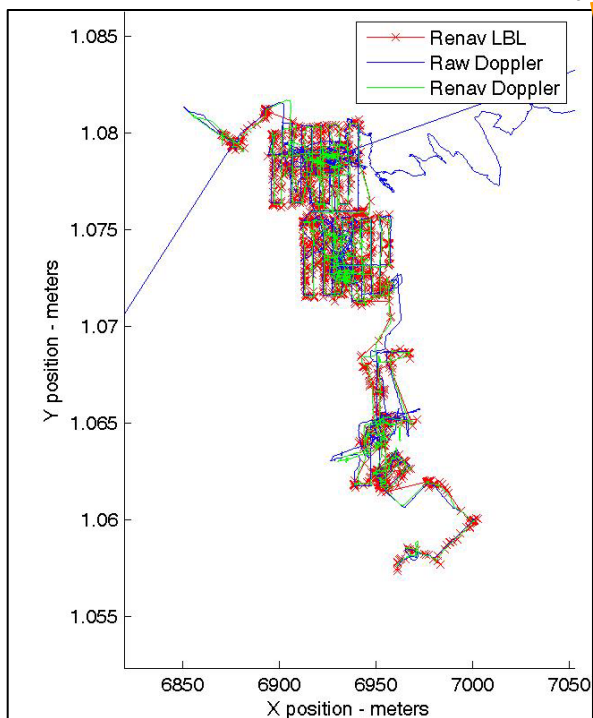


# Jason Virtual Van & Alvin FrameGrabber

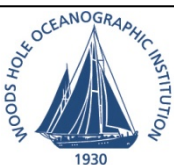
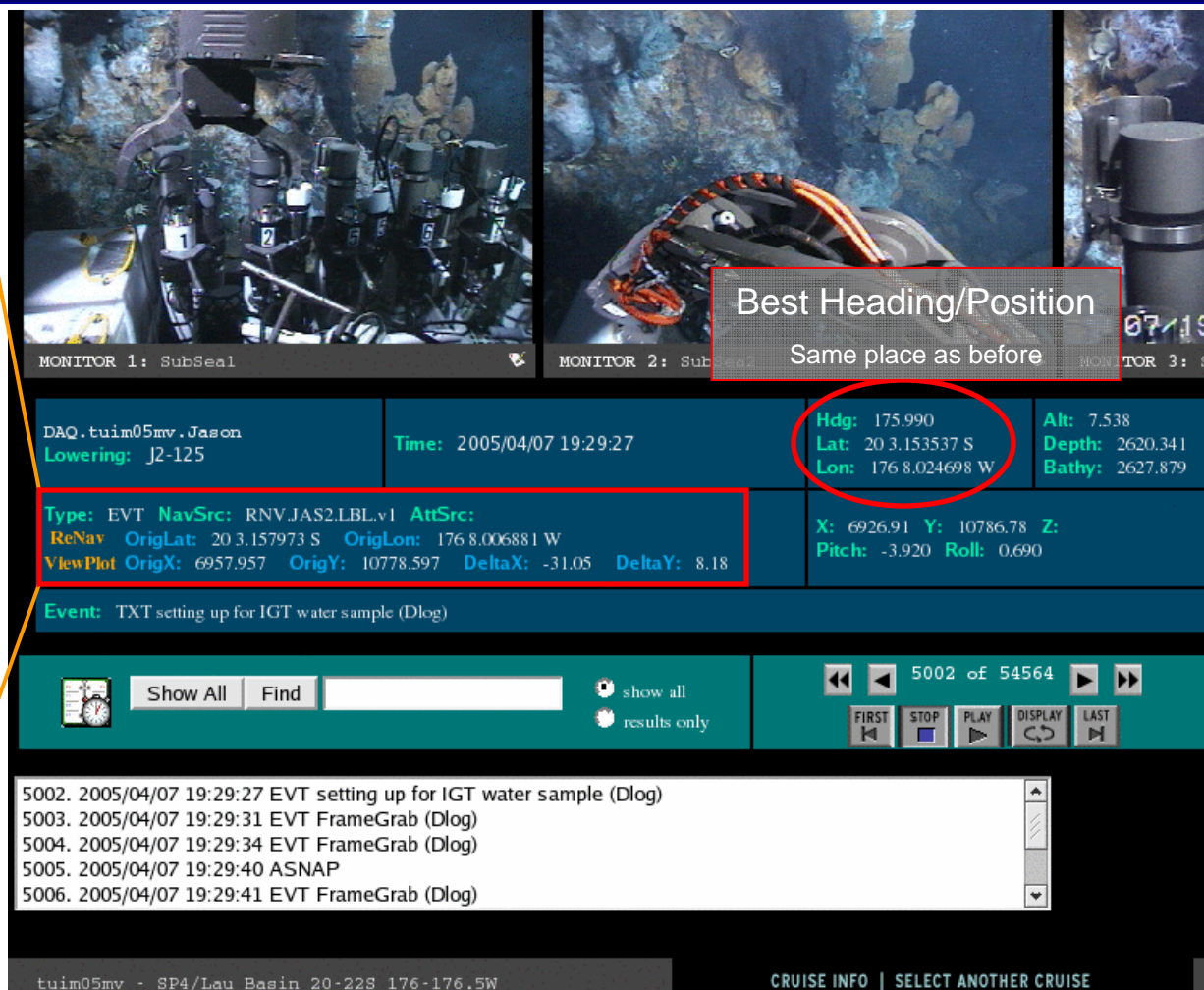
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## Recent Updates

### Virtual Van Renav Capability



With renav capability, original real-time lat/lon is displayed along with calculated delta x/y. Clicking on 'View Plot' shows track differences.







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## Where Next?

### Jason Virtual Van

- Update event viewing/export capability (design complete)

### Alvin FrameGrabber

- Complete renav capability (testing phase)

### ABE/Sentry

- Build FrameGrabber system (design phase)

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But - what is the *really* smart way forward?

&

How to make data accessible through multiple interfaces?

