DESSC
May 2007

# *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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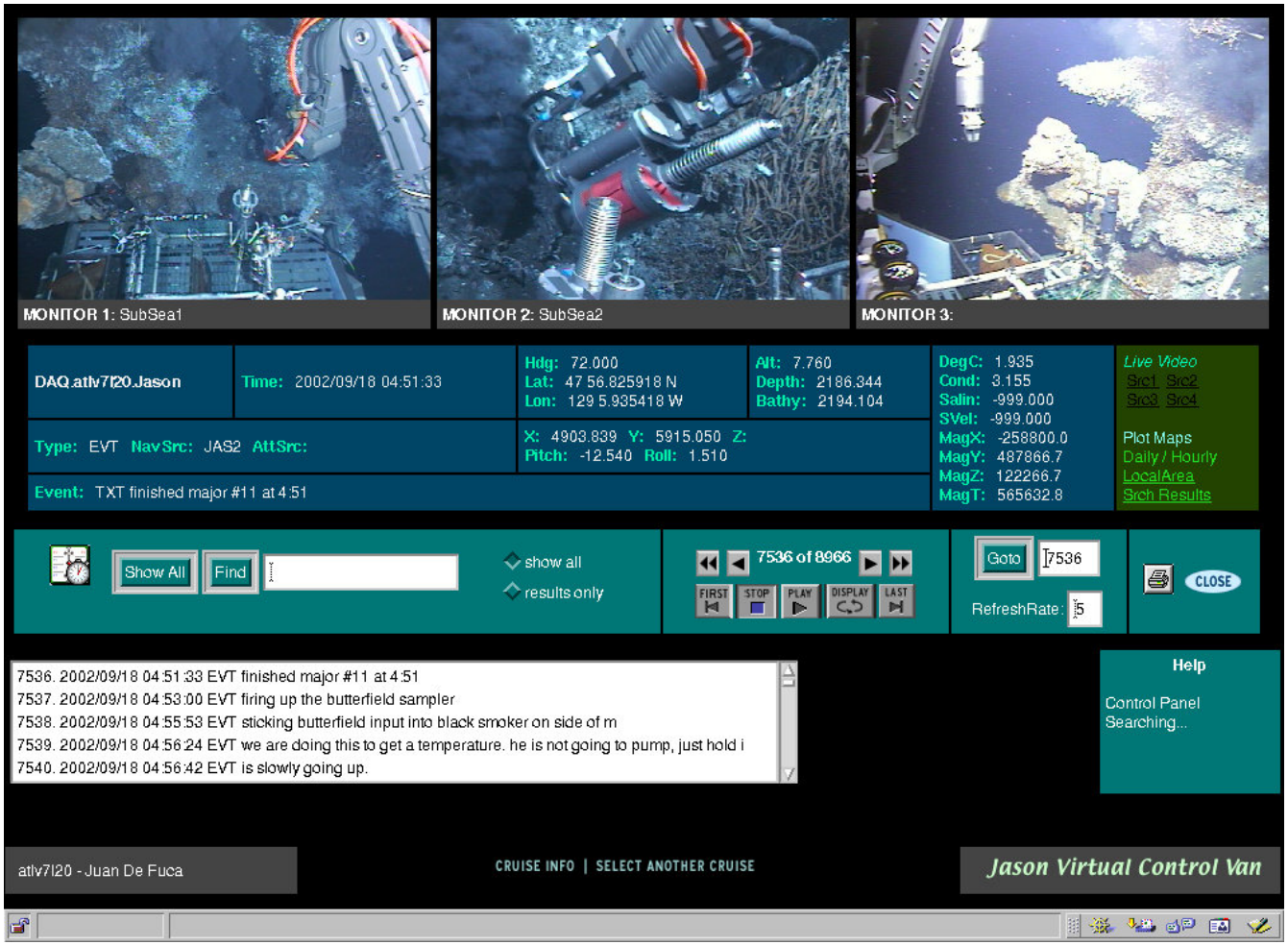
## Functionality & User Interface

Control Van

Snapshot

- Video Displays
- Navigation
- Vehicle Telemetry
- Science Instruments
- User Events




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

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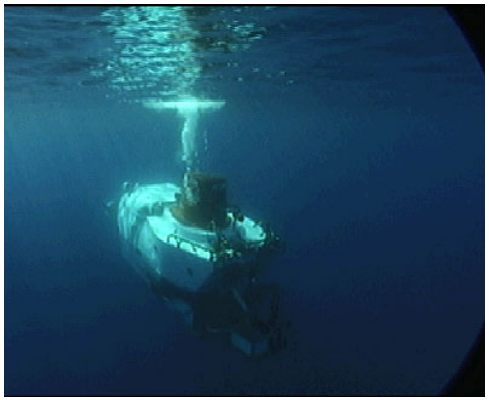
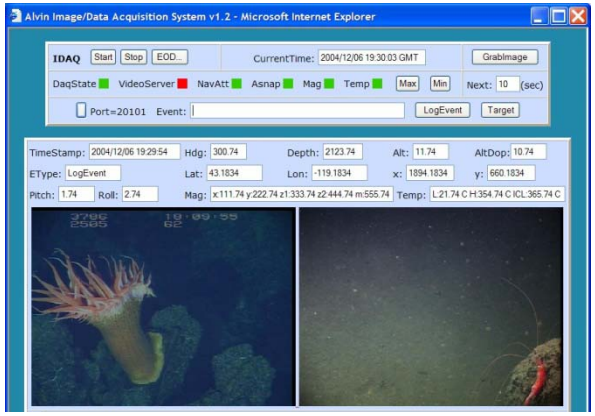
## Functionality & User Interface

**DSV *Alvin***






**Acquisition System**

**User Interface (web browser)**

**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.whoi.edu/jason**
- **http://4dgeo.whoi.edu/alvin**

# *Jason* Virtual Van & *Alvin* FrameGrabber

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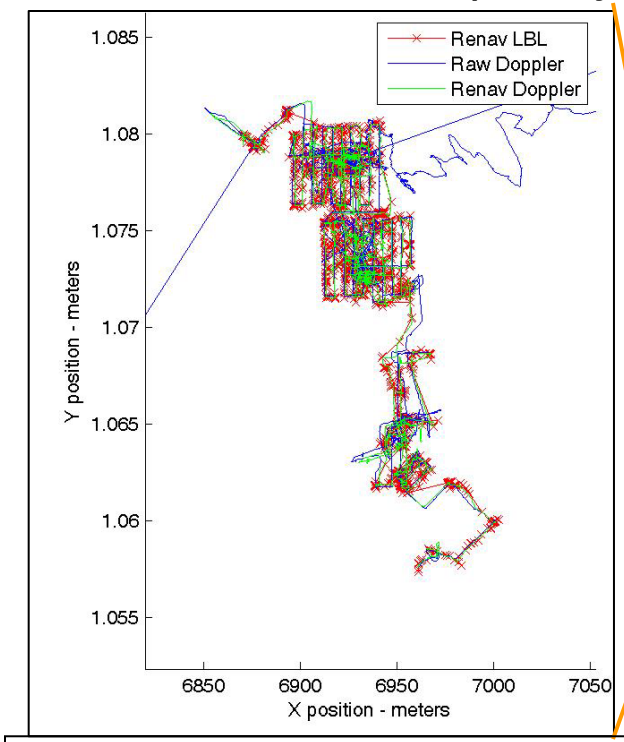
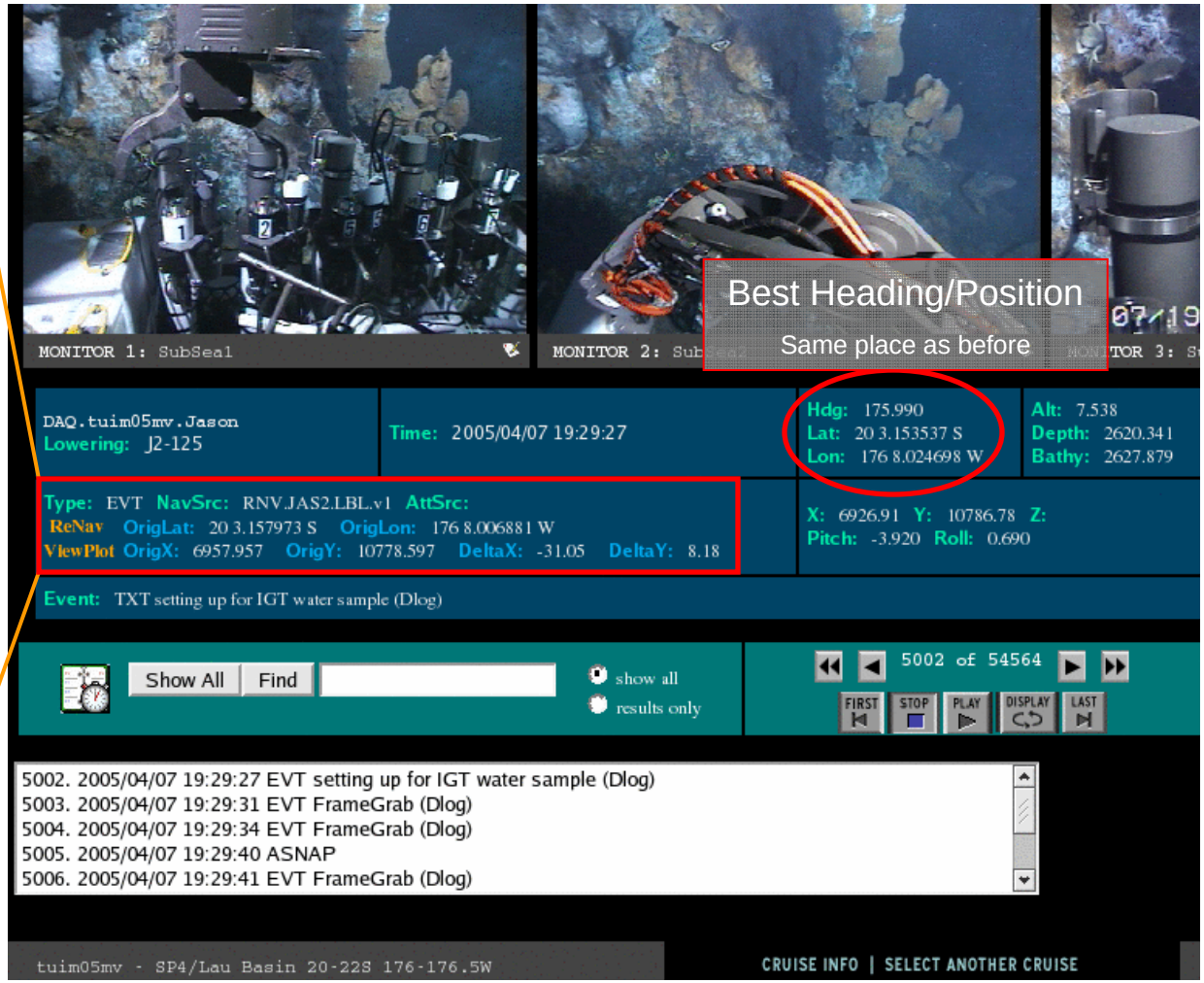
## Recent Updates

### 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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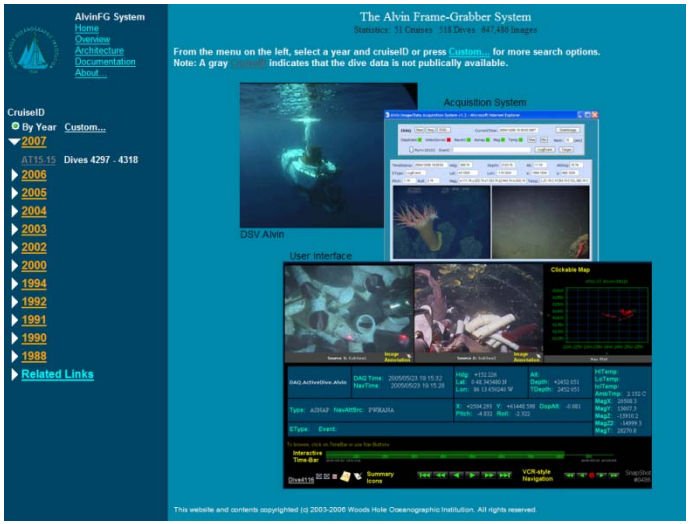
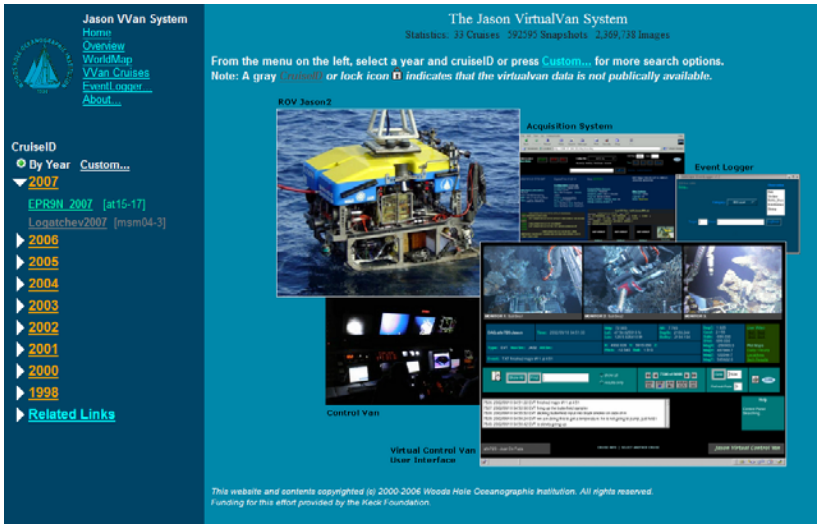
## Recent Updates

Shore Server Web Sites Updated

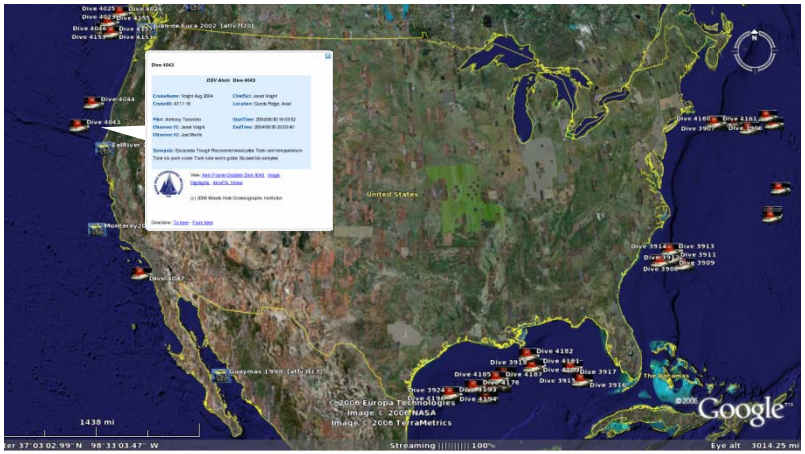



**http://4dgeo.whoi.edu/alvin**




**http://4dgeo.whoi.edu/jason**

GoogleEarth Interface



# *Jason* Virtual Van & *Alvin* FrameGrabber

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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?**