

# Quality Improvement and Control System QuIC



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## The QuIC System consist of:

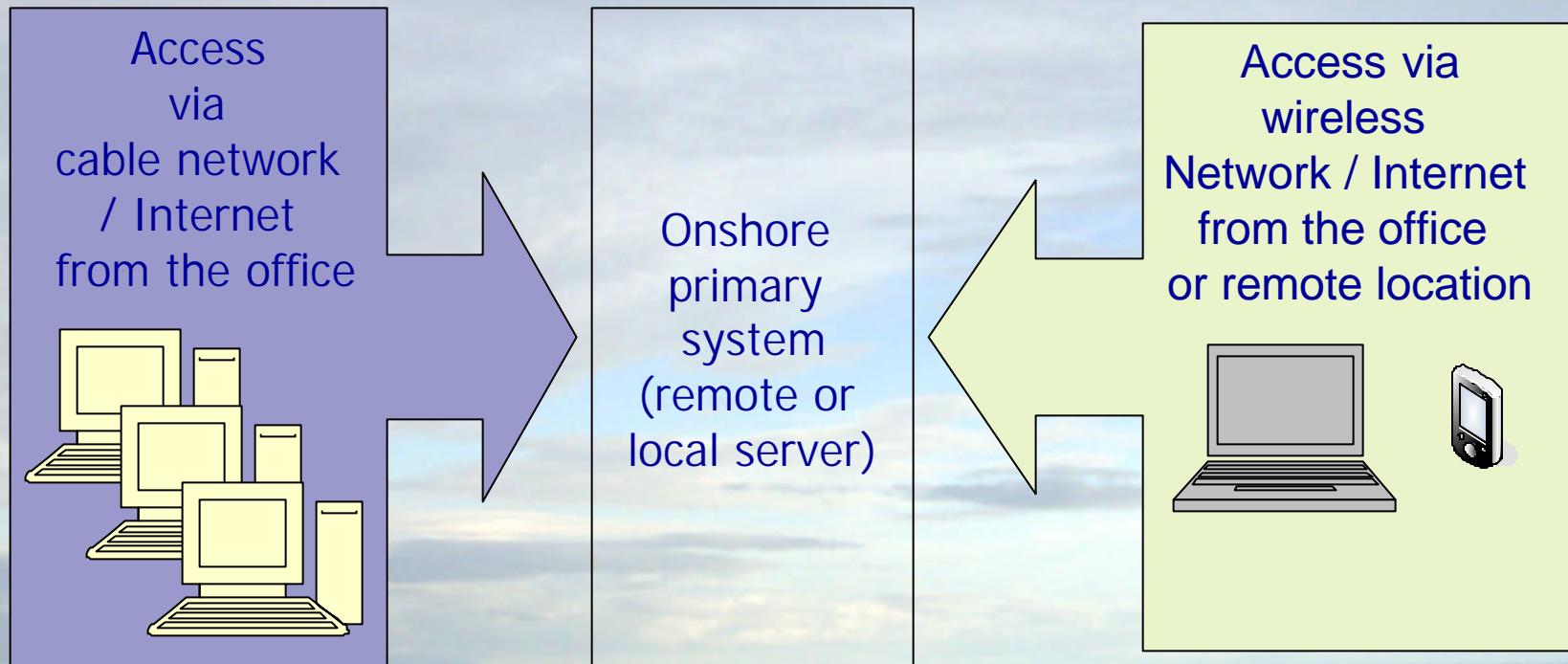
- Onshore primary system.
- Offshore/remote modules.

allows the user to perform the following functions:

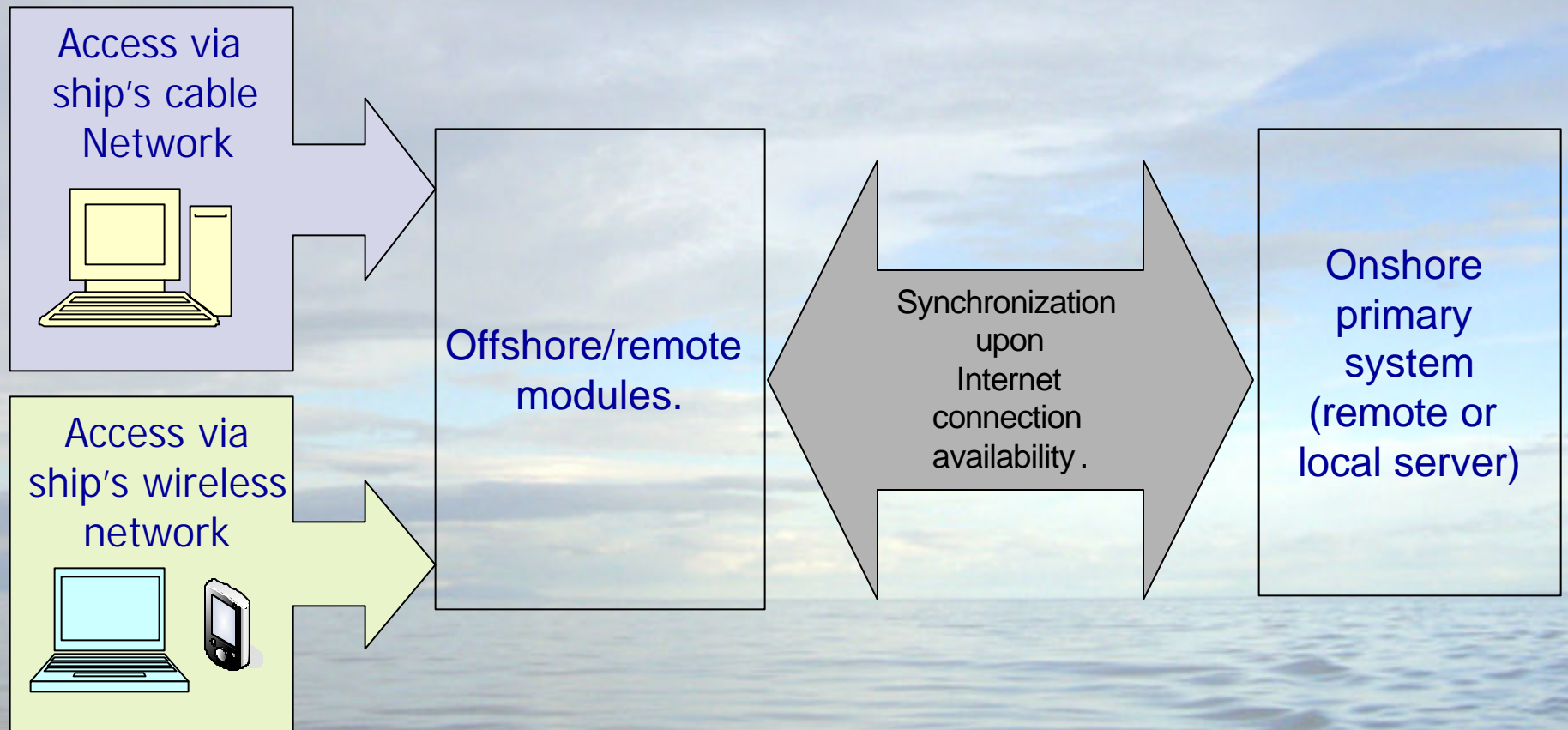
- Inventory monitoring and control
- Access to inventory information
- Creation of the new items into the system
- Procedures and tasks information
- Create and manage manufacturer/vendor information
- Access to the instrumentation history records.
- Documentation management
- Create and implement various tasks/procedures
- Equipment/personnel schedule management
- Create and access instrumentation's history (logbooks)



## Access layout for onshore system



## Access layout for offshore system



## Onshore system user access.

The screenshot displays the user interface of the Quality Improvement and Control (QuIC) System. At the top, a navigation bar includes links for Home, Inventory, Documents, Log Books, News, Cruise, Actions, Forms, Message Board, and Admin. The user is logged in as 'Admin' with a 'Log Off' option. The main content area is divided into several sections:

- Welcome to the Quality Improvement and Control (QuIC) System**  
To access the system, please select one of the menu items
- Administration Links**
  - [Create a New User](#): Add a new user to the system
  - [Edit User By Name](#): Edit user information
  - [Remote Data Update](#): Synchronize current system with the remote system
  - [View a System Log](#): View a system log information
  - [View Active Users](#): View currently active users
  - [View Other Admin Actions](#)
- Log Books Links**
  - [New Record](#): Create a new log books record
  - [Records By Item ID](#): View an inventory item records
  - [Find Record](#): Find a log book record in the system
  - [Settings](#): Modify log books search settings
- Document Links**
  - [New Document](#): Create a new document
  - [Documents By Item ID](#): View an inventory item documents
  - [Find Document](#): Find a document in the system
  - [Settings](#): Modify document search settings
- Inventory Links**
  - [New Item](#): Create a new inventory item
  - [View Item](#): View an inventory item by item id
  - [Find Item](#): Find an inventory item in the system
  - [Setup](#): View or modify manufacturers, vendors, models and locations
  - [Settings](#): Modify inventory settings
- Inventory Action Links**
  - [Change Location](#): Change the location of inventory items
  - [Delete Item\(s\)](#): Delete inventory item(s)
  - [Underwater Unit Assembly](#): Create / Modify the Underwater Assembly
  - [CTD Assembly](#): Create / Modify the CTD Assembly





Administration

- Add New User
- View Users
- Add New Group
- Users By Group
- Groups By User
- Group Permissions
- User Permissions
- Remote Updates

System Users



UserID	User Name	First Name	Last Name	Email	Password	Last Login
1	Admin	System	Administrator	admin@localhost	<SET>	4/19/2006 4:14:55 PM
23	astele	Aubri	Steele	astele@hboi.edu	<SET>	4/25/2006 8:05:03 PM
24	Dima	Dmitri	Kobzarenko	dkobz@cfl.rr.com	<SET>	4/19/2006 4:30:17 PM
25	ebruce	Elizabeth	Bruce	ebruce@hboi.edu	<SET>	4/22/2006 4:24:40 PM
26	ilovin	Jim	Lovin	ilovin@hboi.edu	<SET>	4/18/2006 7:48:06 PM
28	findley	Rich	Findley	findley@hboi.edu	<SET>	4/18/2006 5:03:55 PM
30	kmartin	Keith	Martin	kmartin@rsmas.miami.edu	<SET>	4/20/2006 4:38:10 PM
31	dilias	Denis	Ilias	dilias@rsmas.miami.edu	<SET>	2/22/2006 9:40:11 PM
32	inikanorov	Ilya	Nikanorov	inikanorov@hboi.edu	<SET>	4/27/2006 12:40:41 PM
33					<SET>	12/13/2005 5:45:51 PM
34					<SET>	12/15/2005 12:50:57 A
36					<SET>	
38					<SET>	12/15/2005 1:11:51 AM
39					<SET>	2/7/2006 3:48:17 PM
40					<SET>	
41					<SET>	4/19/2006 4:14:40 PM
42					<SET>	2/28/2006 2:02:17 PM
43					<SET>	3/15/2006 1:55:15 PM
45					<SET>	
49					<SET>	
50					<SET>	
51					<SET>	
52					<SET>	4/17/2006 3:36:34 PM
53					<SET>	4/26/2006 1:35:54 PM

http://www.marinetechologygroup.org - Create New User - Mi...

New User Information

✓ ✗

User Name:

First Name:

Last Name:

Email:

Organization:  +


Current Location:

Limit IP:

Done Internet

The following actions performed here:

- Add new users
- Add new group
- Set group permissions
- Add users to the groups
- Remote updates
- System Settings



[Home](#)
[Inventory](#)
[Documents](#)
[Log Books](#)
[Cruise](#)

Inventory Search

Any Type

Inventory Search Results

Search 1 (35)

Search 2 (15)

☐ MTGID
 ☐ Serial #
 ☐ Calibration Date

☐ 190
 ☐ 8411
 ☐ 12/11/05

☐ 166
 ☐ 852682
 ☐ 12/11/05

Inventory Search Results

Search 1 (35)

<input type="checkbox"/>	MTGID	Serial #	Calibration Date	Next Calibration Date	Location Name	Manufacturer	Model	Vendor
<input type="checkbox"/>	193	0692	5/11/2005	5/11/2007	MTGHBOI Office	Sea-Bird Electronics	SBE 9P-1	Sea-Bird Electronics
<input type="checkbox"/>	231	0457	2/24/2004	2/8/2007	MTGHBOI Office	Sea-Bird Electronics	SBE 32-24	Sea-Bird Electronics
<input type="checkbox"/>	161	051803	1/7/2005	1/7/2007	MTGHBOI Office	Sea-Bird Electronics	SBE 5T-1	Sea-Bird Electronics
<input type="checkbox"/>	100	051521	12/22/2004	12/22/2006	MTGHBOI Office	Sea-Bird Electronics	SBE 5T-1	Sea-Bird Electronics
<input type="checkbox"/>	191	0468	12/21/2004	12/21/2006	MTGHBOI Office	Sea-Bird Electronics	SBE 9P-1	Sea-Bird Electronics
<input type="checkbox"/>	56	2172	11/10/2005	11/10/2006	MTGHBOI Office	Sea-Bird Electronics	SBE 4C-1	Sea-Bird Electronics
<input type="checkbox"/>	91	0953	6/16/2005	6/16/2006	MTGHBOI Office	Sea-Bird Electronics	SBE 4C-1	Sea-Bird Electronics
<input type="checkbox"/>	67	430053	5/25/2005	5/25/2006	MTGHBOI Office	Sea-Bird Electronics	SBE 43-1	Sea-Bird Electronics
<input type="checkbox"/>	105	032555	5/16/2005	5/16/2006	MTGHBOI Office	Sea-Bird Electronics	SBE 3P-1	Sea-Bird Electronics
<input type="checkbox"/>	174	3P2576	5/16/2005	5/16/2006	MTGHBOI Office	Sea-Bird Electronics	SBE 3P-1	Sea-Bird Electronics
<input type="checkbox"/>	77	4535149-0098	5/13/2005	5/13/2006	MTGHBOI Office	Sea-Bird Electronics	SBE 45	Sea-Bird Electronics
<input type="checkbox"/>	342	3P4373	5/11/2005	5/11/2006	MTGHBOI Office	Sea-Bird Electronics	SBE 3P-1	Sea-Bird Electronics
<input type="checkbox"/>	76	3835149-0224	5/3/2005	5/3/2006	MTGHBOI Office	Sea-Bird Electronics	SBE 38	Sea-Bird Electronics
<input type="checkbox"/>	230	0451	4/24/2003	4/8/2006	MTGHBOI Office	Sea-Bird Electronics	SBE 32-24	Sea-Bird Electronics
<input type="checkbox"/>	417	3838730-0240	3/4/2005	3/4/2006	MTGHBOI Office	Sea-Bird Electronics	SBE 38	Sea-Bird Electronics

The main inventory page has following functions:

- The user can perform various customized searches.
- Found items, if they have expiration date
- Each search result can be displayed as (for example calibration period) have different color code depending on the current status.

ModelId  
MTGID  
Next Calibration Date



# Inventory

http://www.marinetechgroup.org - Item Documents (194) - Micro...

Inventory Documents (Item ID = 194)

View Edit Logs Documents

Name	Description	File Name
2003_05_21	Cal sheet	2003_05_21.pdf
2003_05_21_p ducer	Pressure transducer cal sheet	2003_05_21_p duce
Bottom Contact report.doc	The Report on the bottom contact sensor incident	Bottom Contact repc
Service_Request_Form_RMA 44088R.doc	Service_Request_Form_RMA 44088R	Service_Request_Fo 44088R.doc

Done Internet



## Inventory -

http://www.marinetechgroup.org - New Item - Microsoft Internet ...

Edit Inventory Item

✓ ✗

Tag:

Serial #:

Manufacturer:  ▼

Type:  ▼

Model:  ▼

Vendor:  ▼

Location:  ▼

Sub Location 1:

Sub Location 2:

Account #:

Purchase Order #:

Order #:

Order Date:

Received Date:

Cost:

Status: +  ▼

Picture:

Calibration Date:

Notes:

Done Internet

To achieve data consistency, the information field such as: manufacturer, type and model, Vendor, location comes from pre set source. This source only accessible by users with administration privileges.

Home Inventory Documents Log Books Cruise Actions Tasks Message Board

Inventory Setup

Manufacturers

Locations

Manufacturers

Name	Address	Contact Name
3Com Corporation	5400 Bayfront Plaza Santa Clara, CA 95052-8145	

Adding the device type, model and calibration can be accomplished from the same window.

Home Inventory Documents Log Books Cruise Actions Tasks Message Board

Inventory Setup

Devices

Locations

Manufacturers

Devices

Sea-Bird Electronics

Sea-Bird Electronics

Sea-Gear Corporation

Seagate

Seapoint Sensors, Inc.

Sippican, Inc.

Sipura Technology, Inc.

SMC

Space Science & Engin

Staco Energy Products

Symmetricom, Inc

Systech Corporation

Targus Inc.

Tektronix

Teledyne RD Instrument

Tenma

Tenma Test Equipment

Test Manufacturer

Toshiba USA

Transition Engineering, I

Transition Networks

Manufacturer Name	Device Type	Model Name	Calibration Period	Notes
Sea-Bird Electronics	Thermosalinograph	SBE 21	365	
Sea-Bird Electronics	Dissolved Oxygen	SBE 43-1	365	
Sea-Bird Electronics	Pump	SBE 5T-1	730	
Sea-Bird Electronics	Temperature	SBE 38	365	
Sea-Bird Electronics	Thermosalinograph	SBE 45	365	
Sea-Bird Electronics	Temperature	SBE 3P-1	365	
Sea-Bird Electronics	Conductivity	SBE 4C-1	365	
Sea-Bird Electronics	SeaCat	SBE 19	365	
Sea-Bird Electronics	FastCat	SBE 49	180	
Sea-Bird Electronics	Temperature	SBE 3F-1	365	
Sea-Bird Electronics	Temperature	SBE 3S-2	365	
Sea-Bird Electronics	Temperature	SBE 48	365	
Sea-Bird Electronics	Underwater Unit	SBE 9P-1	730	
Sea-Bird Electronics	Carousel Water Sampler	SBE 32-12	1080	
Sea-Bird Electronics	Carousel Water Sampler	SBE 32-24	1080	
Sea-Bird Electronics	Deck Unit	SBE 11+		
Sea-Bird Electronics	Interface box	90204		
Sea-Bird Electronics	Remote Depth Readout	SBE 14	365	
Sea-Bird Electronics	Remote Depth Readout	SBE 14V2		
Sea-Bird Electronics	SBE 45 Junction box	90402		
Sea-Bird Electronics	Interface box	90158.1		

http://www.marinetechologygroup

Edit Device Information

Manufacturer Name: Sea-Bird E

Device Type: + Temperature

Model Name: SBE 38

Calibration Period: 365



# Inventory

Each assembly can be updated easily by user with advanced permissions.

The following example demonstrates the Underwater Unit Assembly (UUA) for CTD. Each sensor displayed with calibration expiration date.

The screenshot shows a web application interface for managing inventory. At the top is a navigation bar with links: Home, Inventory, Documents, Log Books, Cruise, Actions, Tasks, and Message Board. Below this is a 'Procedures List' sidebar with options: Change Location, Delete Item(s), Underwater Unit (selected), and CTD Assembly. The main content area is titled 'Underwater Unit Assembly Procedure' and contains a form for creating or editing an assembly. The form includes fields for Underwater Unit, Assembly Status, Cage, Unit, Temp Sensor 1, Temp Sensor 2, Conduct Sensor 1, Conduct Sensor 2, Oxygen Sensor 1, Oxygen Sensor 2, Altimeter, Custom 1, Custom 2, Pump 1, Pump 2, Fluorometer 1, Fluorometer 2, Underwater Unit, and Bottom Contact. Each field has a dropdown menu. The 'Log Book Comment' field is at the bottom. The form is styled with a light blue header and a white body. The 'Underwater Unit' field is highlighted with a blue background.

Underwater Unit Assembly Procedure	
Underwater Unit:	510 Assembly (Underwater Unit) Sea-Bird Electronics
Assembly Status:	New
Cage:	
Unit:	191 Sea-Bird Electronics - Underwater Unit 046
Temp Sensor 1:	151 R. M. Young Co. - Temperature/Relative Hu
Temp Sensor 2:	
Conduct Sensor 1:	
Conduct Sensor 2:	
Oxygen Sensor 1:	
Oxygen Sensor 2:	
Altimeter:	87 Benthos - Sonar Altimeter 821
Custom 1:	
Custom 2:	
Pump 1:	100 Sea-Bird Electronics - Pump 051521
Pump 2:	
Fluorometer 1:	
Fluorometer 2:	
Underwater Unit:	Not Selected
Fluorometer 1:	
Fluorometer 2:	
Bottom Contact:	Not Selected
Log Book Comment:	207 WET Labs - Transmissometer CST-393DR 208 WET Labs - Transmissometer CST-416DR

# Inventory Item Records (Item ID = 1267)



View Edit **Logs** Documents

Event Name <sup>x</sup>	Date <sup>x</sup>	User Name <sup>x</sup>	Event Action <sup>x</sup>	Description <sup>x</sup>
Underwater Unit	8/25/2006	<a href="#">diliias</a>	Assembly updated.	<a href="#">Fluorometer1: 203 SCF S...</a>
Underwater Unit	8/25/2006	<a href="#">diliias</a>	Assembly updated.	<a href="#">No change</a>
Underwater Unit	8/25/2006	<a href="#">diliias</a>	Assembly updated.	<a href="#">OxygenSensor2: 66 Disso...</a>
Location Change	8/25/2006	<a href="#">diliias</a>	Location changed to 'RVWS'.	
Underwater Unit	8/22/2006	<a href="#">inikanorov</a>	Assembly updated.	<a href="#">OxygenSensor2: Not Sele...</a>
Underwater Unit	8/22/2006	<a href="#">diliias</a>	Assembly updated.	<a href="#">UnderwaterPar: 109 Unde...</a>
Underwater Unit	8/22/2006	<a href="#">diliias</a>	Assembly updated.	<a href="#">No change</a>
Underwater Unit	8/22/2006	<a href="#">diliias</a>	Assembly updated.	<a href="#">Pump1: 167 Pump SBE 5T-...</a>
Underwater Unit	8/22/2006	<a href="#">diliias</a>	Assembly updated.	<a href="#">Unit: 190 Underwater Un...</a>
Create Inventory Item	8/21/2006	<a href="#">diliias</a>	Item created	

QulC System keeps track of user's activities. In addition to that, the user can write the logbooks records for specific item in the QulC System.



# Documentation

User can attach a file to single item in the QuIC system.

http://www.marinetechologygroup.org - New Document - Micr...

New Document

✓ ✗

Name:

Description:

Assigned To:

Document Type: +

Manufacturer:

Type:

Model:

Serial #:

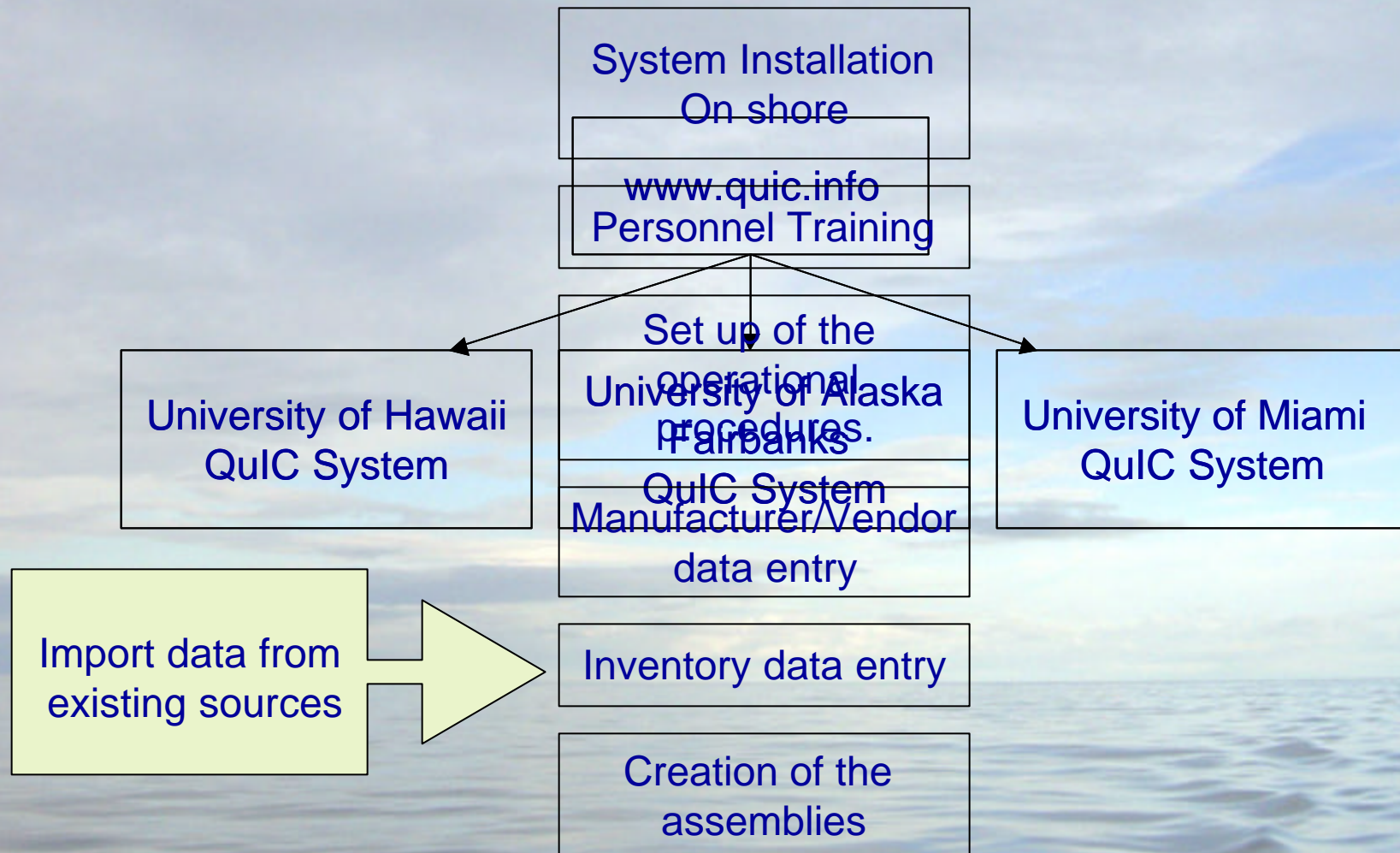
File Name:

Done	Internet
2002_01_31	Cal report 2002_01_31.pdf
2002_09_23	Cal report 2002_09_23.pdf
2004_03_31	Cal report 2004_03_31.pdf
2004_12_22	Cal report 2004_12_22.pdf
2002_09_18	Pressure Test 2002_09_18.pdf
2004_12_13	Pressure Test 2004_12_13.pdf
2005_02_02_37906	Service Report 2005_02_02_37906.pdf
2002_09_24_30224R	service report 2002_09_24_30224R.pdf
2002_02_26_28292RC	Service report 2002_02_26_28292RC.pdf
2001_03_12_25642R	service report 2001_03_12_25642R.pdf
1999_01_14_19988R	Service report 1999_01_14_19988R.pdf

It is possible to attach the same file to multiple items currently present in QuIC System or the ones which will be added in the future.

# System implementation

## Implementation phases - UNOLS

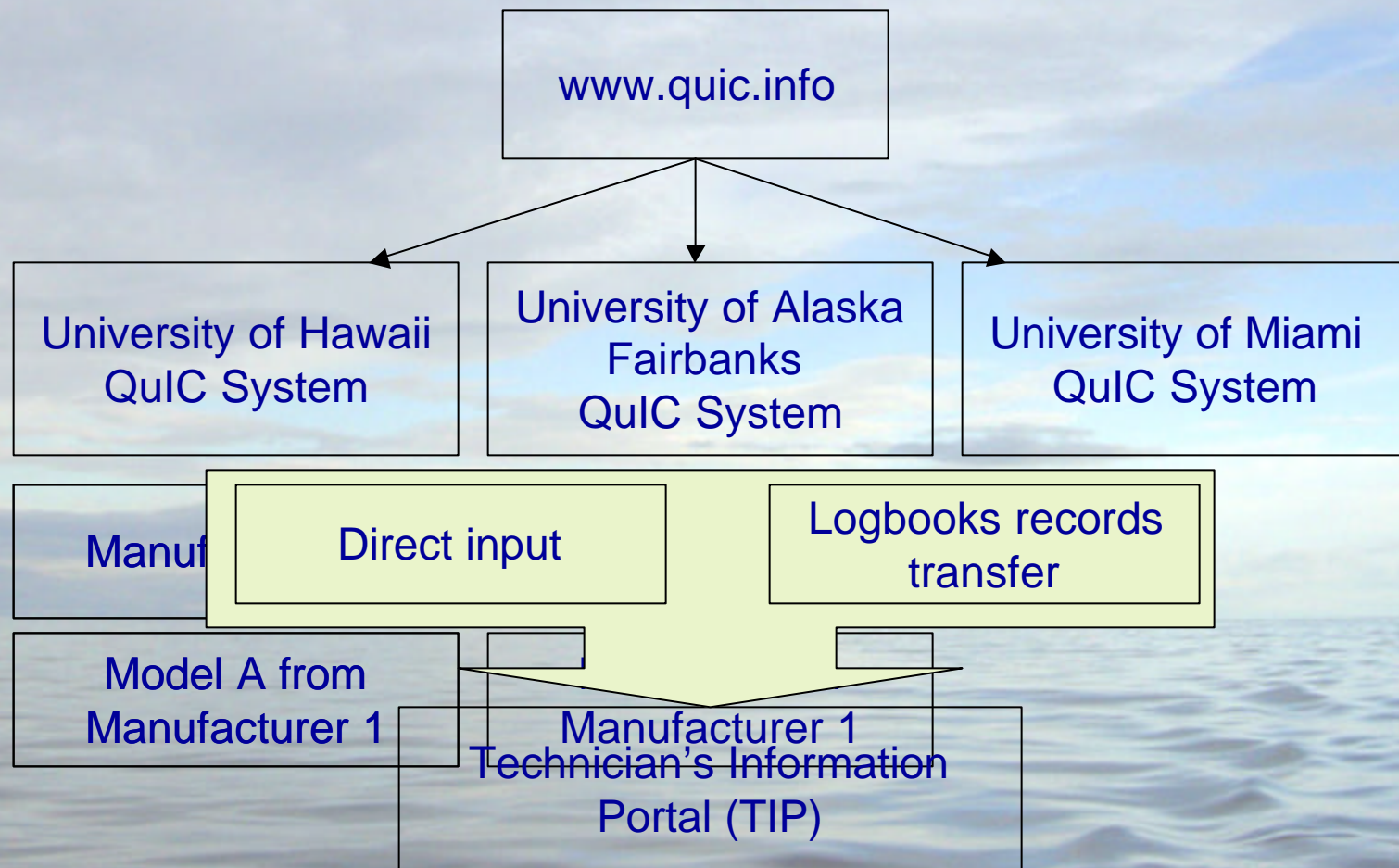




## Shared information

Manufacturer / product information

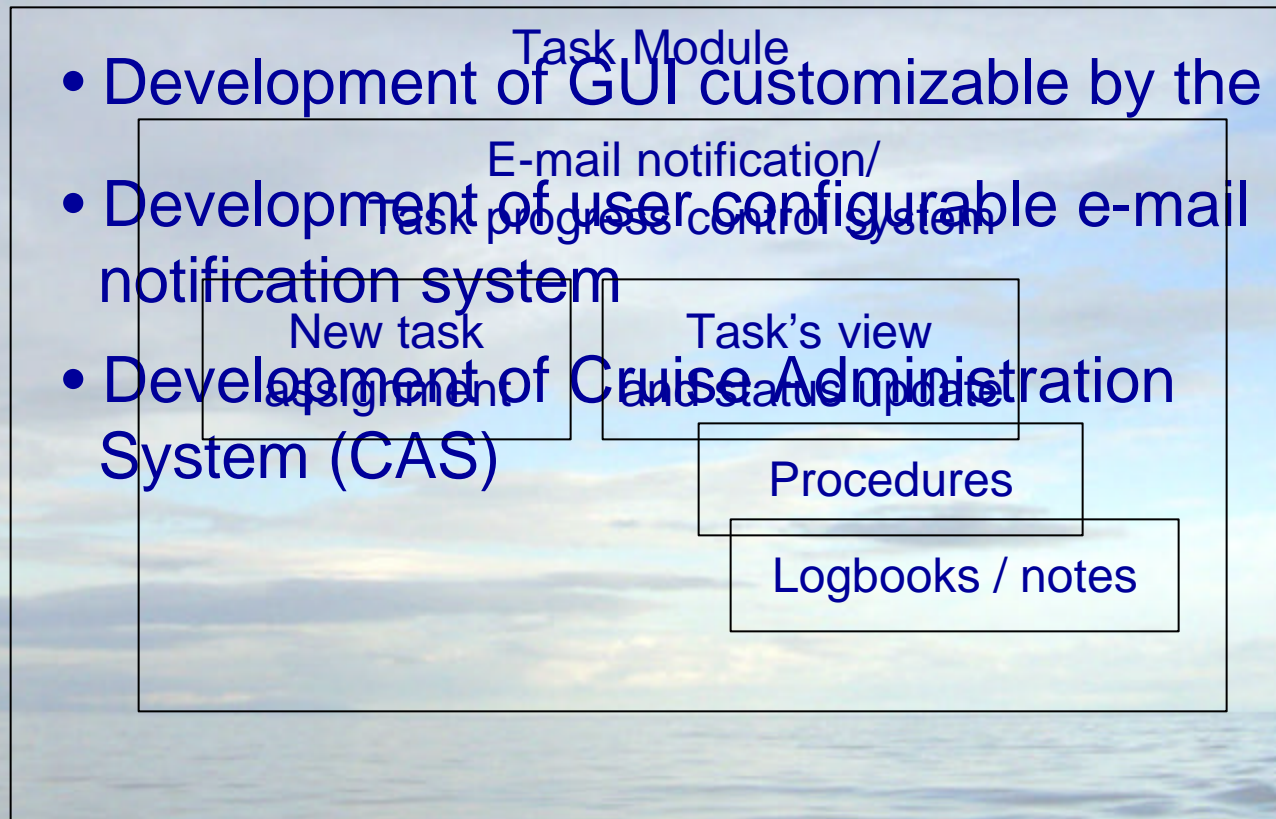
Knowledge base information



## Future development

- Completion of the task module

- Development of GUI customizable by the user
- Development of user configurable e-mail notification system
- Development of Cruise Administration System (CAS)

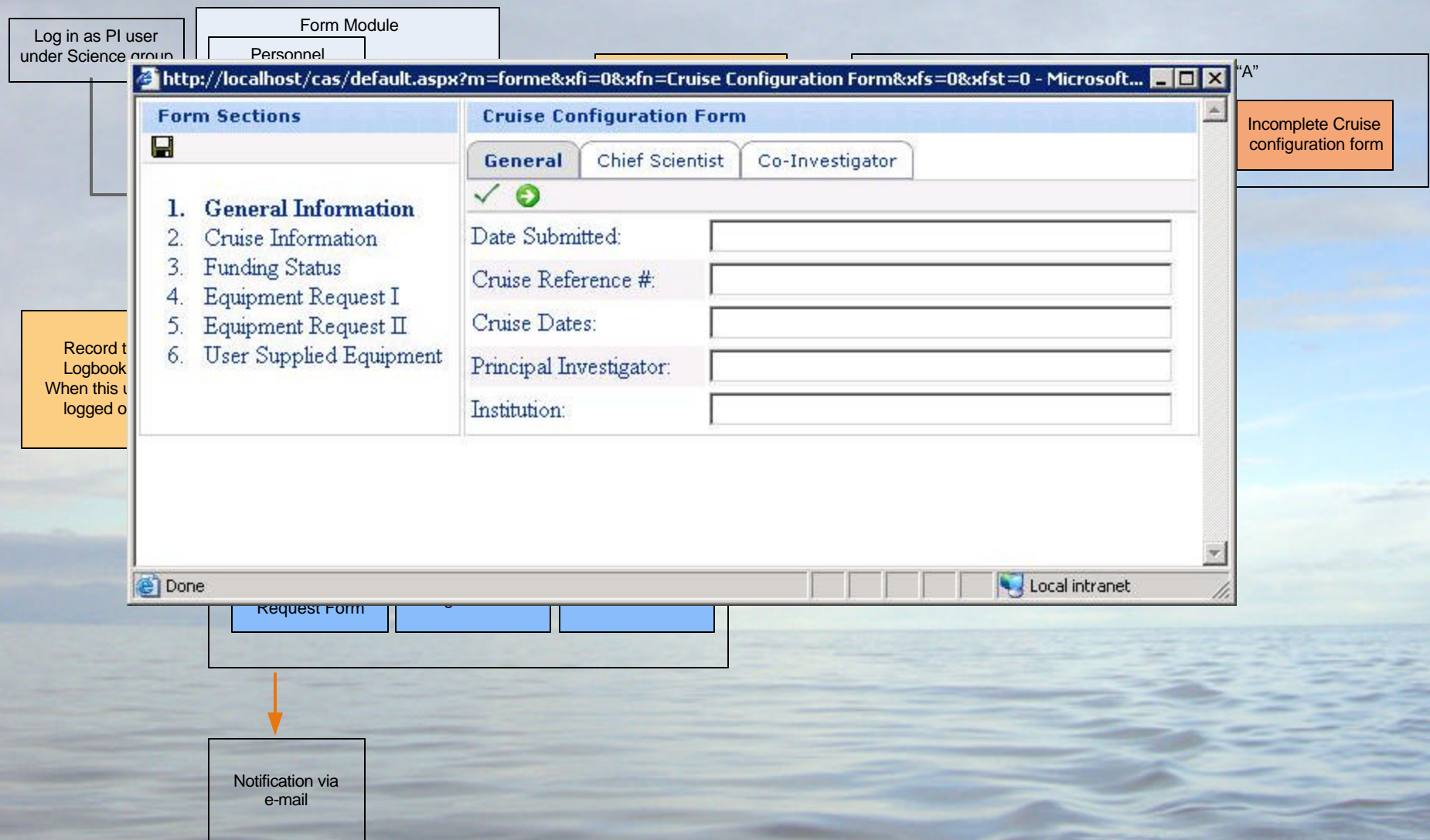




# CAS Client interface

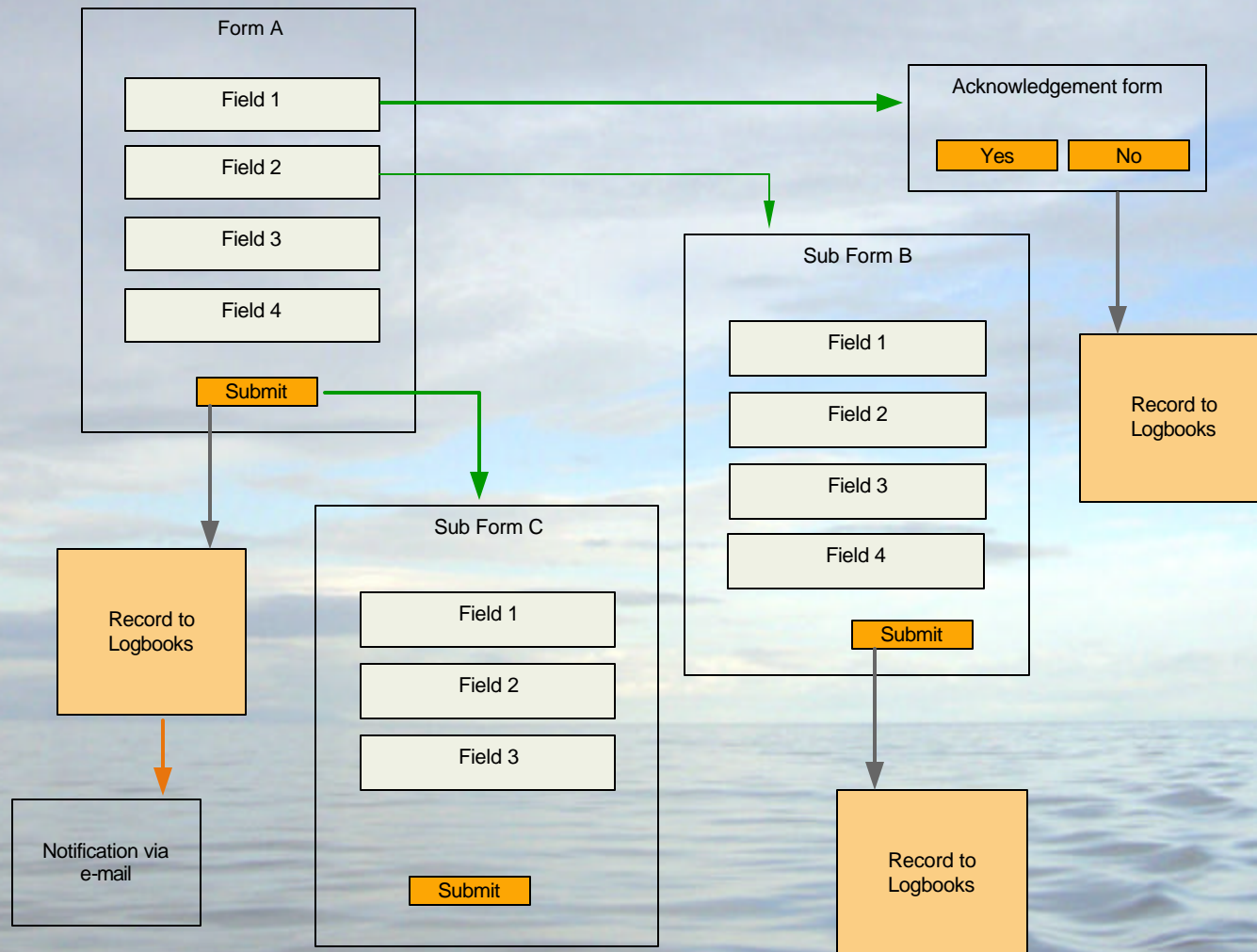
## Form distribution

## Future development



## Form and Sub form relationships.

## Future development





# Example.

Cruise configuration  
Form Page 1

**R/V SEWARD JOHNSON**  
**Configuration Form & Cruise Plan**

Cruise Reference#:   
Cruise Dates (mm/dd/yy):    
Principal Investigator:   
Institution:

**CONTACT INFORMATION**

Chief Scientist:   
Institution:   
Address:   
City:   
State:  Zip Code:   
Office Ph#:  Home Ph#:   
Fax #:  E-Mail:

Co-Investigator:   
Institution:   
Address:   
City:   
State:  Zip Code:   
Office Ph#:  Home Ph#:   
Fax #:  E-Mail:

**General Cruise Information**

Narrative of Cruise Objectives(not Grant Title):

Cruise Itinerary

Port	Dates	Purpose (loading, embarkation, etc.)
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Hazardous Materials (include type & quantity):  
Radioactive Material:   
Explosives (incl. Gases):   
Other:   
Diving Operations:

Total Number of Scientific Party:   
Total Number of Observers:

# Future development

Cruise configuration  
Form Page 2

**R/V SEWARD JOHNSON**  
**Configuration Form & Cruise Plan**

Total Number of Scientific Party

Name	Gender	Institution	Citizenship
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

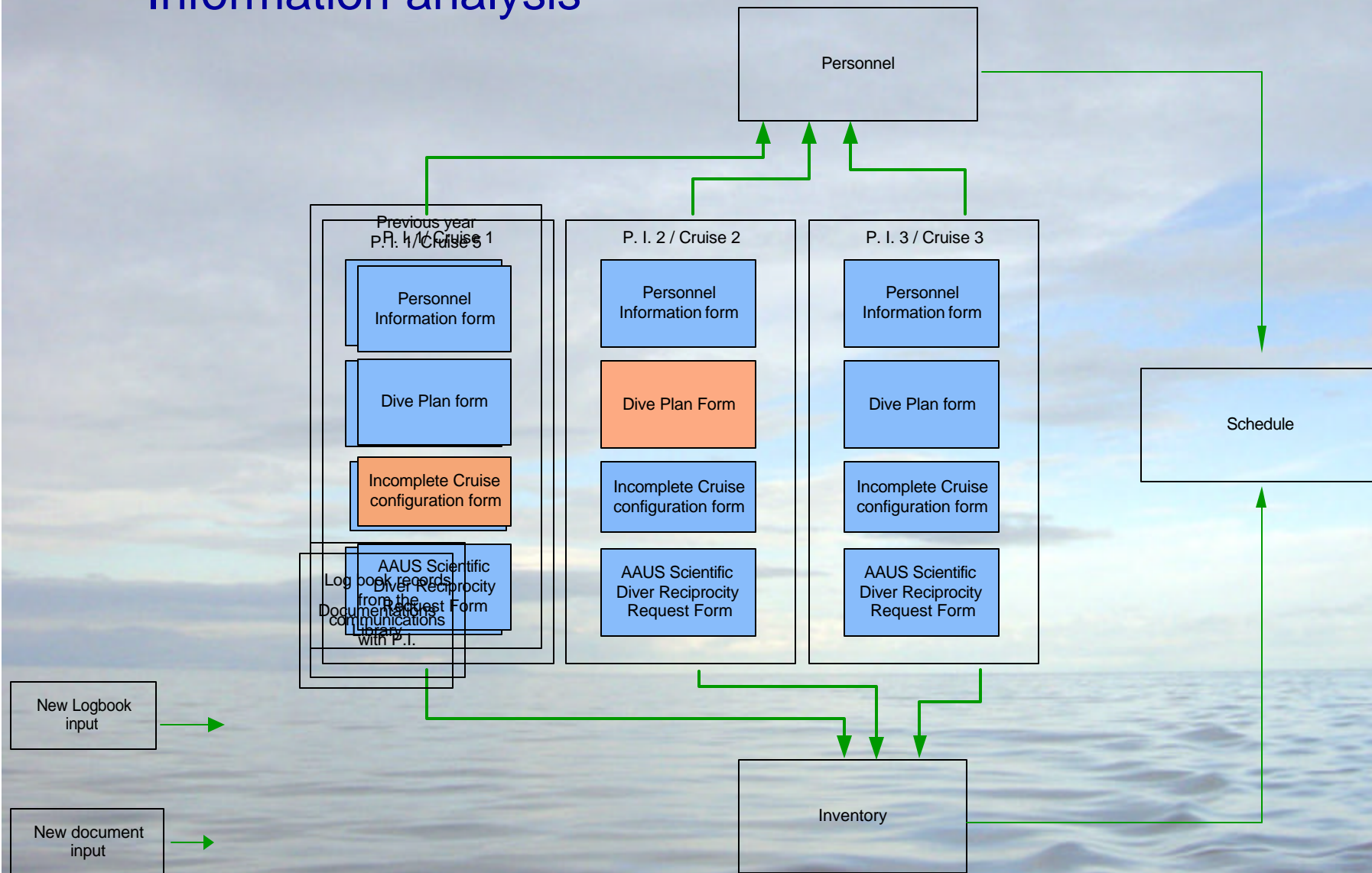
Total Number of Observers

Name	Gender	Institution	Citizenship
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

# Administrator Interface

## Information analysis

## Future development





# QuIC System

Contact information:

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