

R/V Atlantis

*EM124 & Seapath 380
Sea Acceptance Testing
July 18-21, 2021
AT-43-02-SVC*

APPENDIX

Multibeam Advisory Committee

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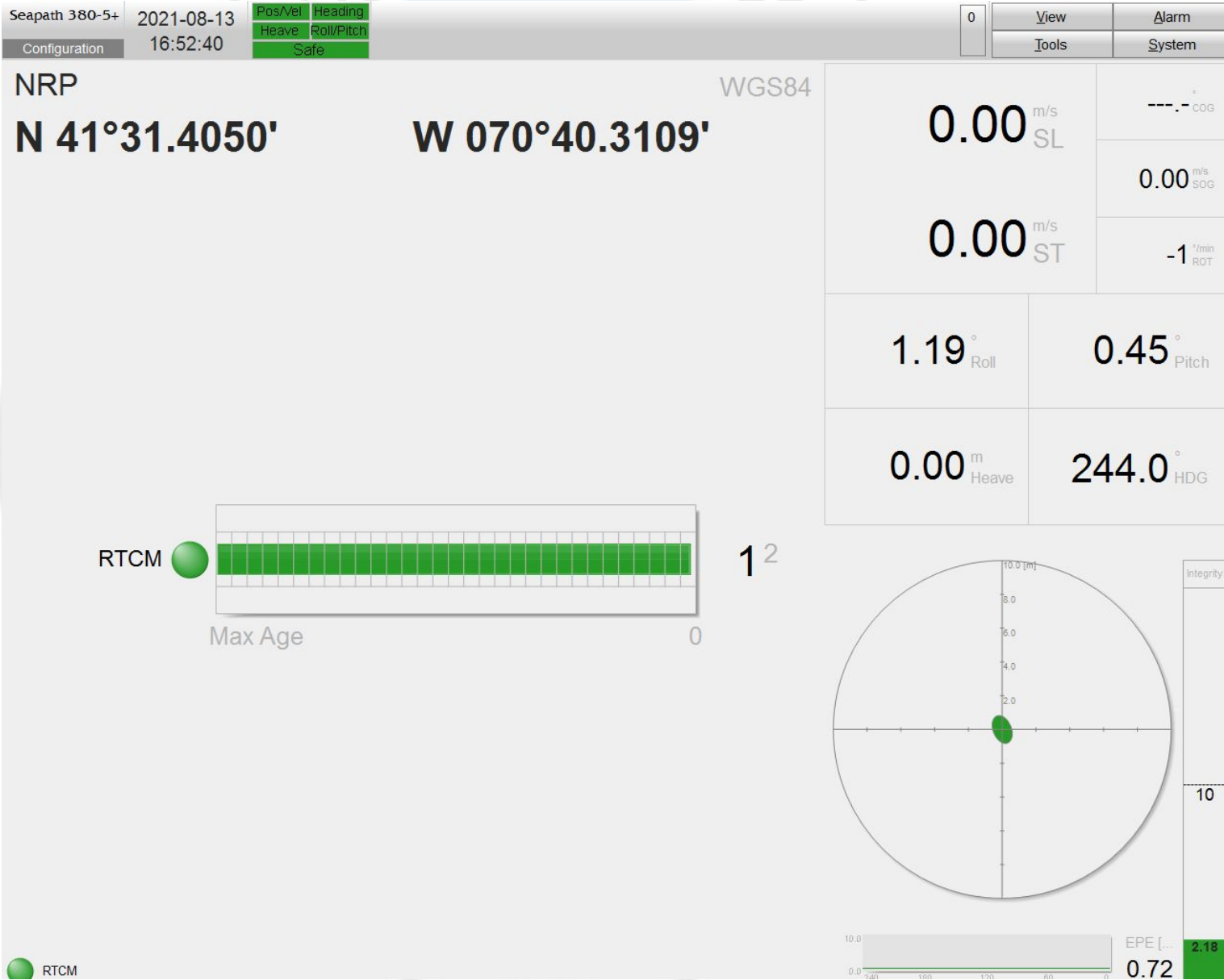
Supported under NSF Grant No. 1933720

photo: WHOI

The logo is a circular emblem with a blue and white color scheme. It features a central pyramid composed of horizontal lines, with a white triangle superimposed on it. The text "SHOBOARD ACCEPTANCE TEAM" is curved along the top left, "ACOUSTIC NOISE TEAM" along the top right, "MULTIBEAM ADVISORY" across the top, and "COMMITTEE" across the bottom. "QUALITY ASSESSMENT TEAM" is curved along the bottom. Small dots separate the top and bottom text.

Appendix 1: Seapath 380 Configuration

Appendix 1: Seapath 380 Configuration



Appendix 1: Seapath 380 Configuration

Seapath 380-5+ 2021-08-13 17:12:30

Pos/Vel Heading
Heave Roll/Pitch
Safe

0 View Alarm
Tools System

NRP

N 41

NAV Engine Configuration

Apply Preview Revert

- Vessel
 - Geometry
 - Description
- Sensors
 - GNSS
 - Geometry
 - Processing
 - Attitude Processing
 - DGNSS
 - SBAS
 - HP/G2/G4
 - RTK
 - MRU
 - Geometry
 - Heave config
 - Monitoring points
 - Geometry
 - Communication interface
 - Input/Output
 - Serial port extender
 - Data Pool
 - Network

Origin NRP X Z

Keel .48° Pitch

4.1° HDG

CL

Origin NRP X Y

☒ Show sensors ☒ Show monitoring points

Shape type
Ship

☐ Use vessel drawing Browse...

Shape dimension

Overall length	78.000 m
Overall width	16.000 m
Overall height	20.000 m

Survey origin

From stern	39.725 m
From CL	0.000 m
From keel	-3.048 m

Navigation reference point (NRP)

Origin to NRP	X	0.000 m
	Y	0.000 m
	Z	0.000 m

Connected to Seapath 380+

RTCM

EPE [...]
1.04

2.82

10

Appendix 1: Seapath 380 Configuration

Seapath 380-5+

2021-08-13

Pos/Vel

Heading

0

View

Alarm

Configuration

17:12:39

Heave

Roll/Pitch

Tools

System

NRP

N 41

Vessel

Geometry

Description

Sensors

GNSS

Geometry

Processing

Attitude Processing

DGNSS

SBAS

HP/G2/G4

RTK

MRU

Geometry

Heave config

Monitoring points

Geometry

Communication interface

Input/Output

Serial port extender

Data Pool

Network

NAV Engine Configuration

Apply

Preview

Revert

Vessel description

Vessel name

Atlantis

Vessel owner

WHOI

Country of origin

Vessel ID

MMSI

0

IMO number

0

Connected to Seapath 380+

RTCM

10.0

0.0

0

EPE [...]

2.82

0.91

COG

0.00

0

.46

4.1

10

Appendix 1: Seapath 380 Configuration

Seapath 380-5+

2021-08-13

Pos/Vel

Heading

Heave

Roll/Pitch

Safe

0

View

Tools

Alarm

System

Configuration

16:53:08

NRP

N 41°

R

NAV Engine Configuration

Apply

Preview

Revert

Vessel

Geometry

Description

Sensors

GNSS

Geometry

Processing

Attitude Processing

DGNSS

SBAS

HP/G2/G4

RTK

MRU

Geometry

Heave config

Monitoring points

Geometry

Communication interface

Input/Output

Serial port extender

Data Pool

Network

Origin

X

Z

Origin

X

Y

☒ Show sensors

☒ Show monitoring points

Antenna configuration

Type

NovAtel GNSS-850

☐ Antenna beam

Antenna location (from Survey origin)

	Position [m]		
	X	Y	Z
Antenna 1	-24.986	1.517	-13.940
Antenna 2	-21.763	4.049	-13.902

Antenna offset (from antenna 1 to antenna 2)

Baseline length

4.099

m

Heading offset

321.844

°

Height difference

0.038

m

Calibration wizard

Connected to Seapath 380+

RTCM

COG

0.01 m/s SOG

0 °/min ROT

46 ° Pitch

3.8 ° HDG

Integrity

10

EPE [...]

0.71

2.19

0.0

740

1200

1500

2000

0

Appendix 1: Seapath 380 Configuration

Seapath 380-5+

2021-08-13

Pos/Vel

Heading

0

View

Alarm

Configuration

17:12:53

Heave

Roll/Pitch

Tools

System

NRP

N 41

Vessel

Geometry

Description

Sensors

GNSS

Geometry

Processing

Attitude Processing

DGNSS

SBAS

HP/G2/G4

RTK

MRU

Geometry

Heave config

Monitoring points

Geometry

Communication interface

Input/Output

Serial port extender

Data Pool

Network

NAV Engine Configuration

Apply

Preview

Revert

Height aiding

Aid mode

Off

SV masking

Elevation mask

10

°

Integrity

Accuracy level

10.00

m

Ionosphere

Ionosphere activity

Normal

Connected to Seapath 380+

RTCM

10.0

0.0

740

1200

1500

80

0

EPE [...]

2.82

0.91

COG

0.00

m/s

SOG

0

/min

ROT

.47

°

Pitch

4.1

°

HDG

10

Integrity

Appendix 1: Seapath 380 Configuration

Seapath 380-5+

2021-08-13

Pos/Vel

Heading

0

View

Alarm

Configuration

17:12:59

Heave

Roll/Pitch

Tools

System

NRP

N 41

Vessel

Geometry

Description

Sensors

GNSS

Geometry

Processing

Attitude Processing

DGNSS

SBAS

HP/G2/G4

RTK

MRU

Geometry

Heave config

Monitoring points

Geometry

Communication interface

Input/Output

Serial port extender

Data Pool

Network

NAV Engine Configuration

Apply

Preview

Revert

GNSS attitude processing settings

Max pitch and roll angles15° (default 15)

Average pitch and roll angles7° (default 7)

Glonass optionRTK and Float

Connected to Seapath 380+

RTCM

EPE [m]2.82

0.91

COG

0.00 m/s SOG

0°/min ROT

.46° Pitch

4.1° HDG

Integrity

10

Appendix 1: Seapath 380 Configuration

Seapath 380-5+

2021-08-13
17:13:03

Pos/Vel

Heading

Heave

Roll/Pitch

Safe

0

View

Tools

Alarm

System

NRP

N 41

NAV Engine Configuration

Apply

Preview

Revert

Vessel

Geometry

Description

Sensors

GNSS

Geometry

Processing

Attitude Processing

DGNSS

SBAS

HP/G2/G4

RTK

MRU

Geometry

Heave config

Monitoring points

Geometry

Communication interface

Input/Output

Serial port extender

Data Pool

Network

☐ Enabled

☐ Automatic

☐ Manual

EGNOS

☐ 120

☐ 123

☐ 136

WAAS

☐ 133

☐ 135

☐ 138

MSAS

☐ 129

☐ 137

GAGAN

☐ 127

☐ 128

QZSS

☐ 183

☐ 184

☐ 185

☐ 189

☐ Enable SBAS test mode

Connected to Seapath 380+

COG

0.01 m/s SOG

0 /min ROT

.49 ° Pitch

4.1 ° HDG

Integrity

10

EPE [...

2.82

0.90

RTCM

10.0

0.0

7401

1201

1501

801

0

Appendix 1: Seapath 380 Configuration

Seapath 380-5+

2021-08-13

Pos/Vel

Heading

0

View

Alarm

Configuration

17:13:09

Heave

Roll/Pitch

Tools

System

NRP

N 41

NAV Engine Configuration

Apply

Preview

Revert

Vessel

Geometry

Description

Sensors

GNSS

Geometry

Processing

Attitude Processing

DGNSS

SBAS

HP/G2/G4

RTK

MRU

Geometry

Heave config

Monitoring points

Geometry

Communication interface

Input/Output

Serial port extender

Data Pool

Network

XP/G2/G4 processing

☒ Enabled

☒ Use Glonass

☒ Navigation mode

☐ Survey mode

Connected to Seapath 380+

COG

0.01 m/s SOG

-1 °/min ROT

.48 ° Pitch

4.1 ° HDG

Integrity

10

EPE [...

2.82

0.90

RTCM

10.0

0.0

7400

1200

1500

800

0

Appendix 1: Seapath 380 Configuration

Seapath 380-5+ 2021-08-13 17:13:14

Pos/Vel Heading
Heave Roll/Pitch
Safe

0 View Alarm
Tools System

NRP

N 41

NAV Engine Configuration

Apply Preview Revert

RTK
Search mode: **NORMAL** Glonass option: **RTK and Float**

- Vessel
 - Geometry
 - Description
- Sensors
 - GNSS
 - Geometry
 - Processing
 - Attitude Processing
 - DGNSS
 - SBAS
 - HP/G2/G4
 - RTK**
 - MRU
 - Geometry
 - Heave config
 - Monitoring points
 - Geometry
 - Communication interface
 - Input/Output
 - Serial port extender
 - Data Pool
 - Network

Connected to Seapath 380+

RTCM

COG
0.00 m/s SOG
0 /min ROT
.48 ° Pitch
4.0 ° HDG
Integrity
EPE [...] 2.82
0.90

Appendix 1: Seapath 380 Configuration

Seapath 380-5+ 2021-08-13 17:13:19

Pos/Vel Heading
Heave Roll/Pitch
Safe

0 View Alarm
Tools System

NRP
N 41°

NAV Engine Configuration

Apply Preview Revert

☒ Show sensors ☒ Show monitoring points

Sensor location (from Origin)

X 9.538 m Y 0.660 m Z 0.231 m

Mounting angles

Roll -179.688 ° Pitch 0.046 ° Yaw -0.238 °

Physical mount

IMU interface 5th gen MRU

Mounting wizard

Connected to Seapath 380+

0.00 m/s SOG
1 °/min ROT
.47 ° Pitch
4.1 ° HDG

10

EPE [...]
0.89

2.82

Appendix 1: Seapath 380 Configuration

Seapath 380-5+ 2021-08-13 17:13:24

Pos/Vel Heading
Heave Roll/Pitch
Safe

0 View Alarm
Tools System

NRP

N 41

NAV Engine Configuration

Apply Preview Revert

Heave filter: Option

Heave mean level: ☒ Roll/Pitch dependent

- Vessel
 - Geometry
 - Description
- Sensors
 - GNSS
 - Geometry
 - Processing
 - Attitude Processing
 - DGNSS
 - SBAS
 - HP/G2/G4
 - RTK
 - MRU
 - Geometry
 - Heave config
 - Monitoring points
 - Geometry
- Communication interface
 - Input/Output
 - Serial port extender
 - Data Pool
- Network

Connected to Seapath 380+

RTCM

COG

0.00 m/s SOG

0 /min ROT

.47 ° Pitch

4.1 ° HDG

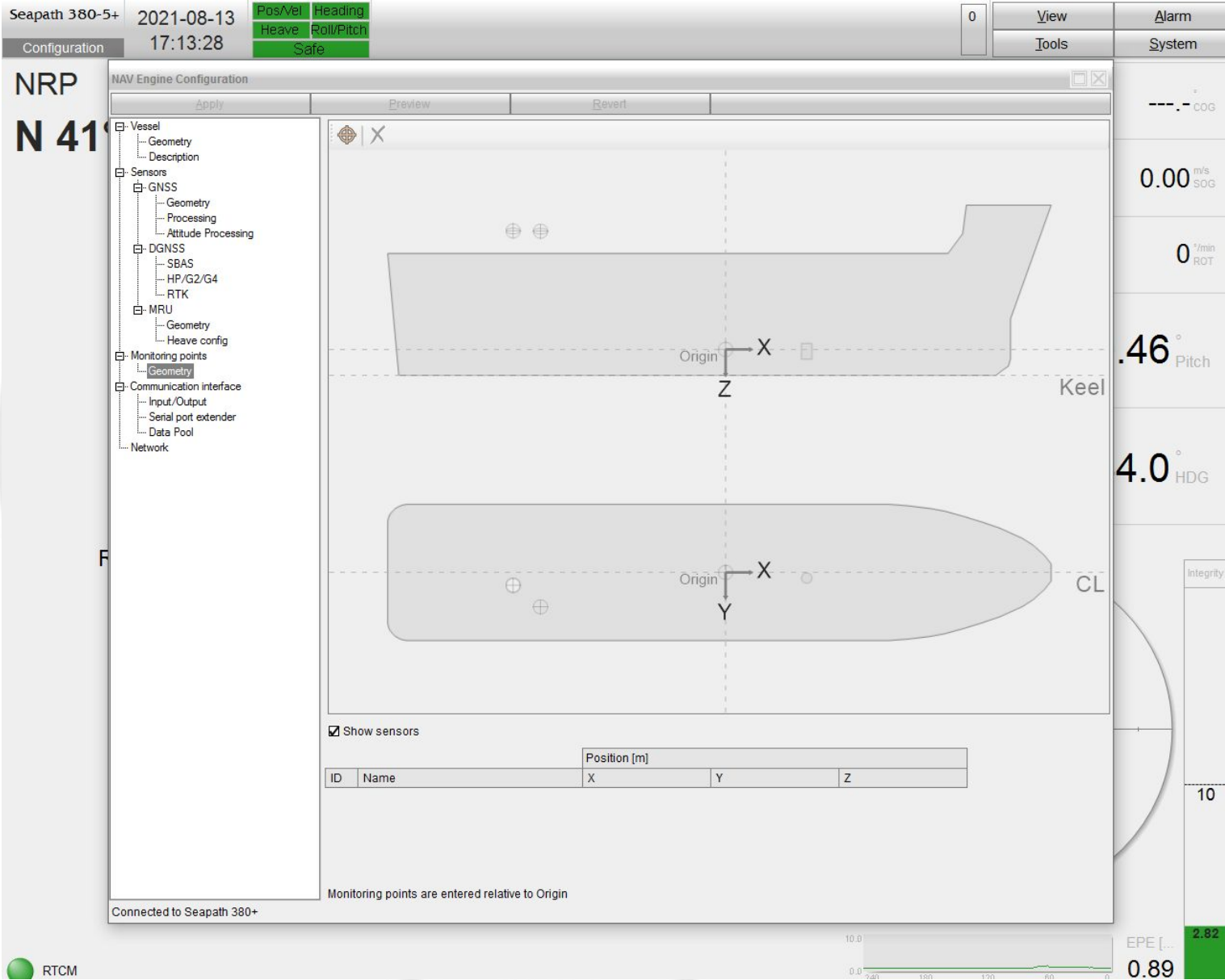
Integrity

10

EPE [...] 2.82

0.89

Appendix 1: Seapath 380 Configuration



Appendix 1: Seapath 380 Configuration

Seapath 380-5+

2021-08-13
17:13:34

Pos/Vel

Heading

Heave

Roll/Pitch

Safe

0

View

Tools

Alarm

System

NRP

N 41

Vessel

Geometry

Description

Sensors

GNSS

Geometry

Processing

Attitude Processing

DGNSS

SBAS

HP/G2/G4

RTK

MRU

Geometry

Heave config

Monitoring points

Geometry

Communication interface

Input/Output

Serial port extender

Data Pool

Network

NAV Engine Configuration

Apply

Preview

Revert

Input/Output list

Interface	Type	Direction	I/O Properties	Description
<input checked="" type="checkbox"/> GnssRec1	Serial	In/Out	GNSSA1 57600 n 8 1	Receiver #1
<input checked="" type="checkbox"/> GnssRec2	Serial	In/Out	GNSSB1 57600 n 8 1	Receiver #2
<input checked="" type="checkbox"/> MRU	Serial	In/Out	MRU 115200 n 8 1 rs-422	IMU #1
<input checked="" type="checkbox"/> Gyro1	Serial	In	COM11 9600 n 8 1 rs-232	Gyro #1
<input checked="" type="checkbox"/> DgnssLink1	Serial	In	COM11 9600 n 8 1 rs-422	CNAV Input
<input type="checkbox"/> DgnssLink2		In	NONE	Link #2
<input type="checkbox"/> DgnssLink3		In	NONE	Link #3
<input type="checkbox"/> DgnssLink4		In	NONE	Link #4
<input type="checkbox"/> CorrectionRadio1			NONE	
<input type="checkbox"/> CorrectionRadio2			NONE	
<input type="checkbox"/> CorrectionRadio3			NONE	
<input type="checkbox"/> CorrectionRadio4			NONE	
<input type="checkbox"/> GnssLink	Ethernet	In/Out	UDP LAN2 31012 31013 BROADCAST	GNSS link server
<input checked="" type="checkbox"/> TelegramOut1	Ethernet	Out	UDP LAN3 3001 BROADCAST	KM Binary to EM124
<input checked="" type="checkbox"/> TelegramOut2	Serial	Out	COM9 19200 n 8 1 rs-232	EM3000 Out
<input checked="" type="checkbox"/> TelegramOut3	Serial	Out	COM10 9600 n 8 1 rs-232	Telegram Out #3
<input checked="" type="checkbox"/> TelegramOut4	Serial	Out	COM13 9600 n 8 1 rs-232	Telegram Out #4
<input checked="" type="checkbox"/> TelegramOut5	Serial	Out	COM12 19200 n 8 1 rs-232	Telegram Out #5
<input checked="" type="checkbox"/> TelegramOut6	Serial	Out	COM14 9600 n 8 1 rs-232	Telegram Out #6
<input type="checkbox"/> TelegramOut7		Out	NONE	Telegram Out #7
<input type="checkbox"/> TelegramOut8		Out	NONE	Telegram Out #8
<input type="checkbox"/> TelegramOut9		Out	NONE	Telegram Out #9
<input type="checkbox"/> TelegramOut10		Out	NONE	Telegram Out #10
<input type="checkbox"/> TelegramOut11		Out	NONE	Telegram Out #11
<input type="checkbox"/> TelegramOut12		Out	NONE	Telegram Out #12
<input type="checkbox"/> TelegramOut13		Out	NONE	Telegram Out #13
<input type="checkbox"/> TelegramOut14		Out	NONE	Telegram Out #14
<input type="checkbox"/> TelegramOut15		Out	NONE	Telegram Out #15
<input type="checkbox"/> TelegramOut16		Out	NONE	Telegram Out #16
<input type="checkbox"/> AnalogOut1	Analog	Out	Gain: 0.0000, offset: 3.0000	Analog Out #1
<input type="checkbox"/> AnalogOut2	Analog	Out	Gain: 0.0000, offset: -5.0000	Analog Out #2
<input type="checkbox"/> AnalogOut3	Analog	Out	Gain: 0.0000, offset: 7.0000	Analog Out #3

Disabled

OK

Warning

Error

Connected to Seapath 380+

RTCM

10.0

0.0

0 240 120 180 60 0

COG

0.00 m/s SOG

-1 °/min ROT

.45 ° Pitch

4.0 ° HDG

Integrity

10

EPE [...

2.82

0.89

Appendix 1: Seapath 380 Configuration

Seapath 380-5+

2021-08-13
17:13:40

Pos/Vel

Heading

Heave

Roll/Pitch

Safe

0

View

Tools

Alarm

System

NRP

N 41

NAV Engine Configuration

Apply

Preview

Revert

Address

192.168.1.150

Open configuration

Type

Disabled

Vessel

Geometry

Description

Sensors

GNSS

Geometry

Processing

Attitude Processing

DGNSS

SBAS

HP/G2/G4

RTK

MRU

Geometry

Heave config

Monitoring points

Geometry

Communication interface

Input/Output

Serial port extender

Data Pool

Network

Connected to Seapath 380+

COG

0.01 m/s SOG

1 °/min ROT

.46 ° Pitch

4.1 ° HDG

Integrity

10

EPE [m]

2.82

0.89

RTCM

0.0

10.0

0

Appendix 1: Seapath 380 Configuration

Seapath 380-5+

2021-08-13

Pos/Vel

Heading

0

View

Alarm

Configuration

17:13:46

Heave

Roll/Pitch

Tools

System

NRP

N 41

NAV Engine Configuration

Apply

Preview

Revert

Vessel

Geometry

Description

Sensors

GNSS

Geometry

Processing

Attitude Processing

DGNSS

SBAS

HP/G2/G4

RTK

MRU

Geometry

Heave config

Monitoring points

Geometry

Communication interface

Input/Output

Serial port extender

Data Pool

Network

Data pool parameters

Processing unit name

Unit#1

Network interface name

LAN2 (192.168.1.10)

UDP address

239.255.0.3

UDP port

31000

Connected to Seapath 380+

RTCM

10.0

0.0

740

1200

1700

2200

2700

3200

EPE [...

2.82

0.88

COG

0.00

m/s

SOG

0

/min

ROT

.48

°

Pitch

4.1

°

HDG

Integrity

10

Appendix 1: Seapath 380 Configuration

Seapath 380-5+

2021-08-13
17:13:55

Pos/Vel

Heading

Heave

Roll/Pitch

Safe

0

View

Tools

Alarm

System

NRP

N 41

NAV Engine Configuration

Apply

Preview

Revert

Vessel

Geometry

Description

Sensors

GNSS

Geometry

Processing

Attitude Processing

DGNSS

SBAS

HP/G2/G4

RTK

MRU

Geometry

Heave config

Monitoring points

Geometry

Communication interface

Input/Output

Serial port extender

Data Pool

Network

Interface settings

Interface

LAN1

☐ DHCP

IP address

0 . 0 . 0 . 0

Subnet mask

0 . 0 . 0 . 0

Default gateway

0 . 0 . 0 . 0

This is a PU internal interface

Apply

Restore

Connected to Seapath 380+

RTCM

EPE [...]

2.33

1.26

COG

0.00 m/s SOG

0 /min ROT

.47 ° Pitch

4.1 ° HDG

Integrity

10

The seal of the Multibeam Advisory Committee is a circular emblem. It features a central blue pyramid composed of horizontal lines, set against a light blue background. The pyramid is surrounded by a circular band containing the text "MULTIBEAM ADVISORY COMMITTEE" in white capital letters. The outermost ring of the seal contains the text "SHIPBOARD ACCEPTANCE TEAM" at the top and "ACOUSTIC NOISE TEAM" at the bottom, separated by small white dots.

Appendix 2: EM124 Configuration

Appendix 2: EM124 Configuration

Sensor setup

EM124_60

Position system 1

Position system name

Serial port 1

GGA

ACTIVE-OK

Name: Position system name

Forward, X

Starboard, Y

Downward, Z

Location offset (XYZ)

0.000

0.000

0.000

Position motion correction

Position delay (s)

0.000

Quality indicators

Off

Time to use

Datagram

Datum

WGS84

Format

GGA

Input

Serial port 1

Interface 1:

RS232

Baud rate:

9600

Data bit:

8

Stop bit:

1

Parity:

None

+	Position system 2	Position system name	No	GGA	OFF
+	Position system 3	Position system name	No	GGA	OFF
+	Attitude system 1	Attitude system name	Net port 1	KM Binary	ACTIVE-OK
+	Attitude system 2	Attitude system name	No	EM Attitude	OFF
+	Depth/pressure	Depth system name	No	Depth pressure	OFF
+	Sound velocity probe	Sound velocity name	Serial port 3	AML SV	ACTIVE-OK
+	Time system	Clock name	Serial port 1	ZDA	OK OK

Set active systems

Active position system

Position system 1

Active attitude system

Attitude system 1

Appendix 2: EM124 Configuration

Sensor setup EM124_60

+	Position system 1	Position system name	Serial port 1	GGA	ACTIVE-OK
-	Position system 2	Position system name	No	GGA	OFF

Name:

Forward, X Starboard, Y Downward, Z

Location offset (XYZ)

Position motion correction ☐

Position delay (s)

Quality indicators

Time to use

Datum

Format

Input

+	Position system 3	Position system name	No	GGA	OFF
+	Attitude system 1	Attitude system name	Net port 1	KM Binary	ACTIVE-OK
+	Attitude system 2	Attitude system name	No	EM Attitude	OFF
+	Depth/pressure	Depth system name	No	Depth pressure	OFF
+	Sound velocity probe	Sound velocity name	Serial port 3	AML SV	ACTIVE-OK
+	Time system	Clock name	Serial port 1	ZDA	OK OK


Set active systems

Active position system

Active attitude system

Appendix 2: EM124 Configuration

Sensor setup EM124_60



+	Position system 1	Position system name	Serial port 1	GGA	ACTIVE-OK
+	Position system 2	Position system name	No	GGA	OFF
-	Position system 3	Position system name	No	GGA	OFF

Name:

Forward, X Starboard, Y Downward, Z

Location offset (XYZ)

Position motion correction ☐

Position delay (s)

Quality indicators

Time to use

Datum

Format

Input

+	Attitude system 1	Attitude system name	Net port 1	KM Binary	ACTIVE-OK
+	Attitude system 2	Attitude system name	No	EM Attitude	OFF
+	Depth/pressure	Depth system name	No	Depth pressure	OFF
+	Sound velocity probe	Sound velocity name	Serial port 3	AML SV	ACTIVE-OK
+	Time system	Clock name	Serial port 1	ZDA	OK OK




Set active systems

Active position system

Active attitude system

Appendix 2: EM124 Configuration

Sensor setup

 EM124_60

+	Position system 1	Position system name	Serial port 1	GGA	ACTIVE-OK
+	Position system 2	Position system name	No	GGA	OFF
+	Position system 3	Position system name	No	GGA	OFF
-	Attitude system 1	Attitude system name	Net port 1	KM Binary	ACTIVE-OK

Name:

Attitude system name

Forward, X / Roll

Starboard, Y / Pitch

Downward, Z / Heading

Location offset (XYZ)

0.000

0.000

0.000

Angular offset (RPH)

-0.110

-0.170

-0.050

Attitude delay (s)

0.000

Roll reference plane

Rotation

Format

KM Binary

Input

Net port 1

Ethernet adapter:

Main net

Port:

3001

+	Attitude system 2	Attitude system name	No	EM Attitude	OFF
+	Depth/pressure	Depth system name	No	Depth pressure	OFF
+	Sound velocity probe	Sound velocity name	Serial port 3	AML SV	ACTIVE-OK
+	Time system	Clock name	Serial port 1	ZDA	OK OK

Set active systems

Active position system




Position system 1

Active attitude system

Attitude system 1

Appendix 2: EM124 Configuration

Sensor setup



EM124_60

+	Position system 1	Position system name	Serial port 1	GGA	ACTIVE-OK
+	Position system 2	Position system name	No	GGA	OFF
+	Position system 3	Position system name	No	GGA	OFF
+	Attitude system 1	Attitude system name	Net port 1	KM Binary	ACTIVE-OK
-	Attitude system 2	Attitude system name	No	EM Attitude	OFF

Name:

Attitude system name

Forward, X / Roll

Starboard, Y / Pitch

Downward, Z / Heading

Location offset (XYZ)

0.000

0.000

0.000

Angular offset (RPH)

Attitude delay (s)

0.000

Roll reference plane

Rotation

Format

EM Attitude

Input

No

+	Depth/pressure	Depth system name	No	Depth pressure	OFF
+	Sound velocity probe	Sound velocity name	Serial port 3	AML SV	ACTIVE-OK
+	Time system	Clock name	Serial port 1	ZDA	OK OK

Set active systems

Active position system




Position system 1

Active attitude system

Attitude system 1

Appendix 2: EM124 Configuration

Sensor setup

 EM124_60

+	Position system 1	Position system name	Serial port 1	GGA	ACTIVE-OK
+	Position system 2	Position system name	No	GGA	OFF
+	Position system 3	Position system name	No	GGA	OFF
+	Attitude system 1	Attitude system name	Net port 1	KM Binary	ACTIVE-OK
+	Attitude system 2	Attitude system name	No	EM Attitude	OFF
-	Depth/pressure	Depth system name	No	Depth pressure	OFF

Name:

Depth system name

Forward, X / Roll

Starboard, Y / Pitch

Downward, Z / Heading

Location offset (XYZ)

0.00

0.00

0.00

Depth sensor delay (sec.)

0.00

Disable heave

Format

Depth pressure

Input

No

+	Sound velocity probe	Sound velocity name	Serial port 3	AML SV	ACTIVE-OK
+	Time system	Clock name	Serial port 1	ZDA	OK OK

Set active systems

Active position system

Position system 1

Active attitude system

Attitude system 1

Appendix 2: EM124 Configuration

Sensor setup

EM124_60

+	Position system 1	Position system name	Serial port 1	GGA	ACTIVE-OK
+	Position system 2	Position system name	No	GGA	OFF
+	Position system 3	Position system name	No	GGA	OFF
+	Attitude system 1	Attitude system name	Net port 1	KM Binary	ACTIVE-OK
+	Attitude system 2	Attitude system name	No	EM Attitude	OFF
+	Depth/pressure	Depth system name	No	Depth pressure	OFF
-	Sound velocity probe	Sound velocity name	Serial port 3	AML SV	ACTIVE-OK

Name: Sound velocity name

Format: AML SV

Input: Serial port 3

Interface 3: RS232

Baud rate: 9600

Data bit: 8

Stop bit: 1

Parity: None

+	Time system	Clock name	Serial port 1	ZDA	OK OK
---	-------------	------------	---------------	-----	---------

Set active systems

Active position system: Position system 1

Active attitude system: Attitude system 1

Appendix 2: EM124 Configuration

Sensor setup EM124_60

+	Position system 1	Position system name	Serial port 1	GGA	ACTIVE-OK
+	Position system 2	Position system name	No	GGA	OFF
+	Position system 3	Position system name	No	GGA	OFF
+	Attitude system 1	Attitude system name	Net port 1	KM Binary	ACTIVE-OK
+	Attitude system 2	Attitude system name	No	EM Attitude	OFF
+	Depth/pressure	Depth system name	No	Depth pressure	OFF
+	Sound velocity probe	Sound velocity name	Serial port 3	AML SV	ACTIVE-OK
-	Time system	Clock name	Serial port 1	ZDA	OK OK

Name:

Source:

1PPS:

Format:

Input:

Interface 1:

Baud rate:

Data bit:

Stop bit:

Parity:

Set active systems

Active position system:

Active attitude system:

Appendix 2: EM124 Configuration

Transducer setup

EM124_60

	Forward, X / Roll	Starboard, Y / Pitch	Downward, Z / Heading
TX 1 Location offset (XYZ)	6.399	-0.373	3.688
TX 1 Angular offset (Roll/Pitch/Heading)	-0.194	0.055	0.006
RX 1 Location offset (XYZ)	10.863	0.008	3.695
RX 1 Angular offset (Roll/Pitch/Heading)	-0.098	-0.104	359.911
RX 1 BS offset	0.00		
Water line vertical location			-2.00

Appendix 2: EM124 Configuration

Network setup

EM124_60

Network setup

Multicast address: 224.1.20.40

Multicast port: 6020

Enable UDP/TCP data multiport: ☐

Secondary net address: 192.168.1.10

Secondary net subnet: 255.255.255.0

Processing unit IP: 157.237.14.60

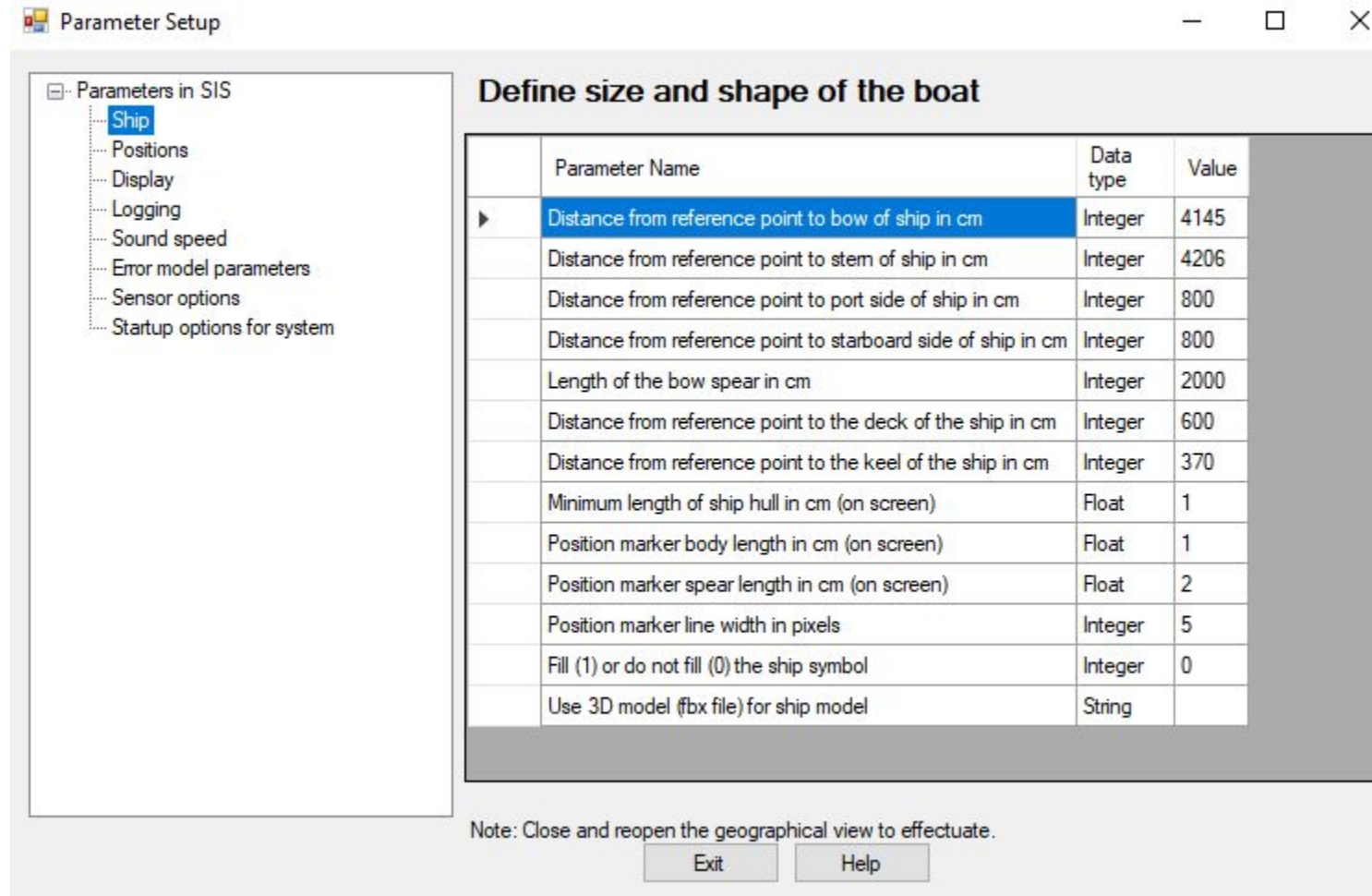
Changes on this page can take up to 20 seconds to propagate in the system.

Multiport

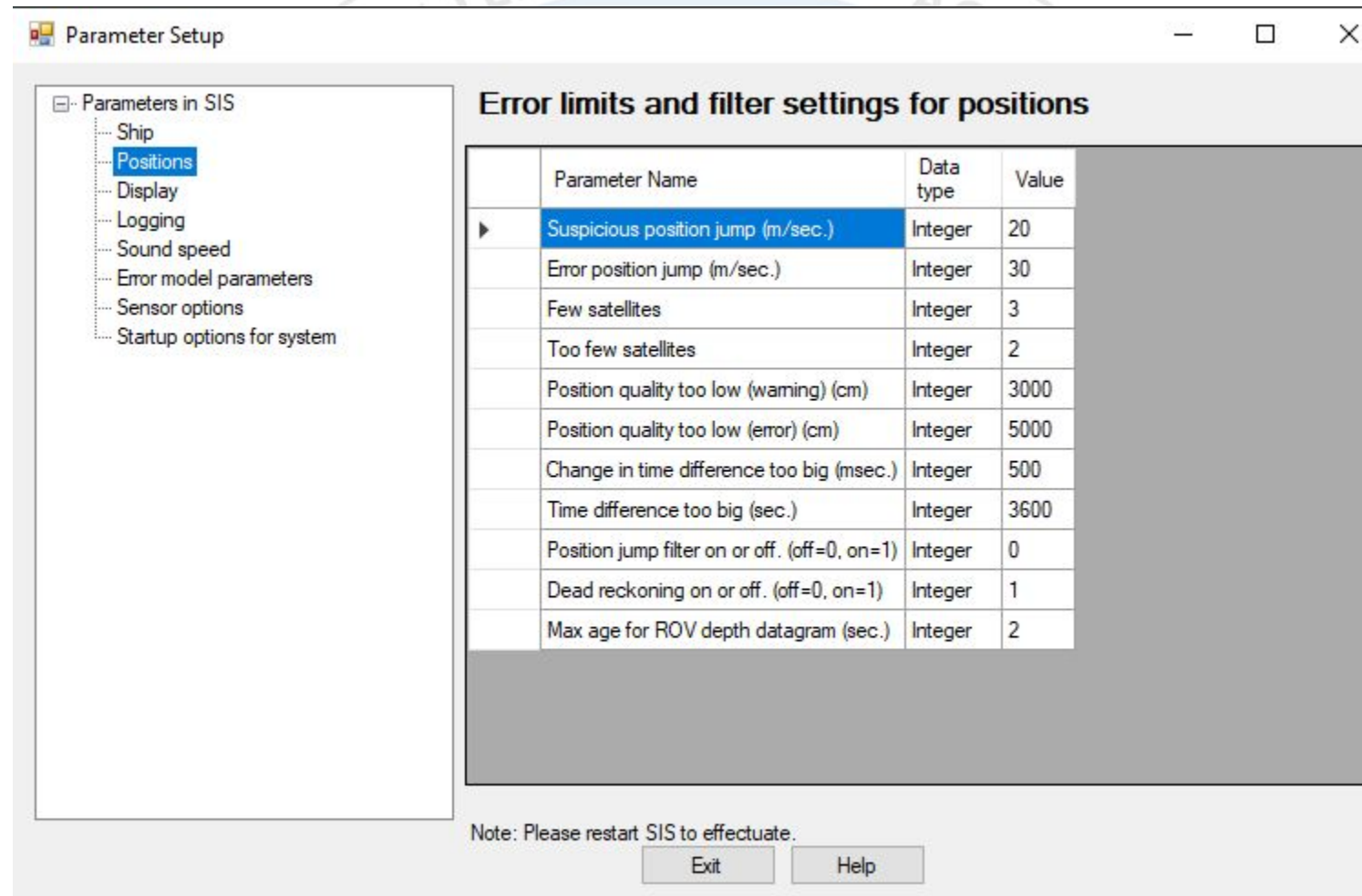
Datagram distribution table

#SCL	#SVP	#SKM	#SVT	#SPO	#CPO	UDP	TCP
-	-	-	-	-	-	6020	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

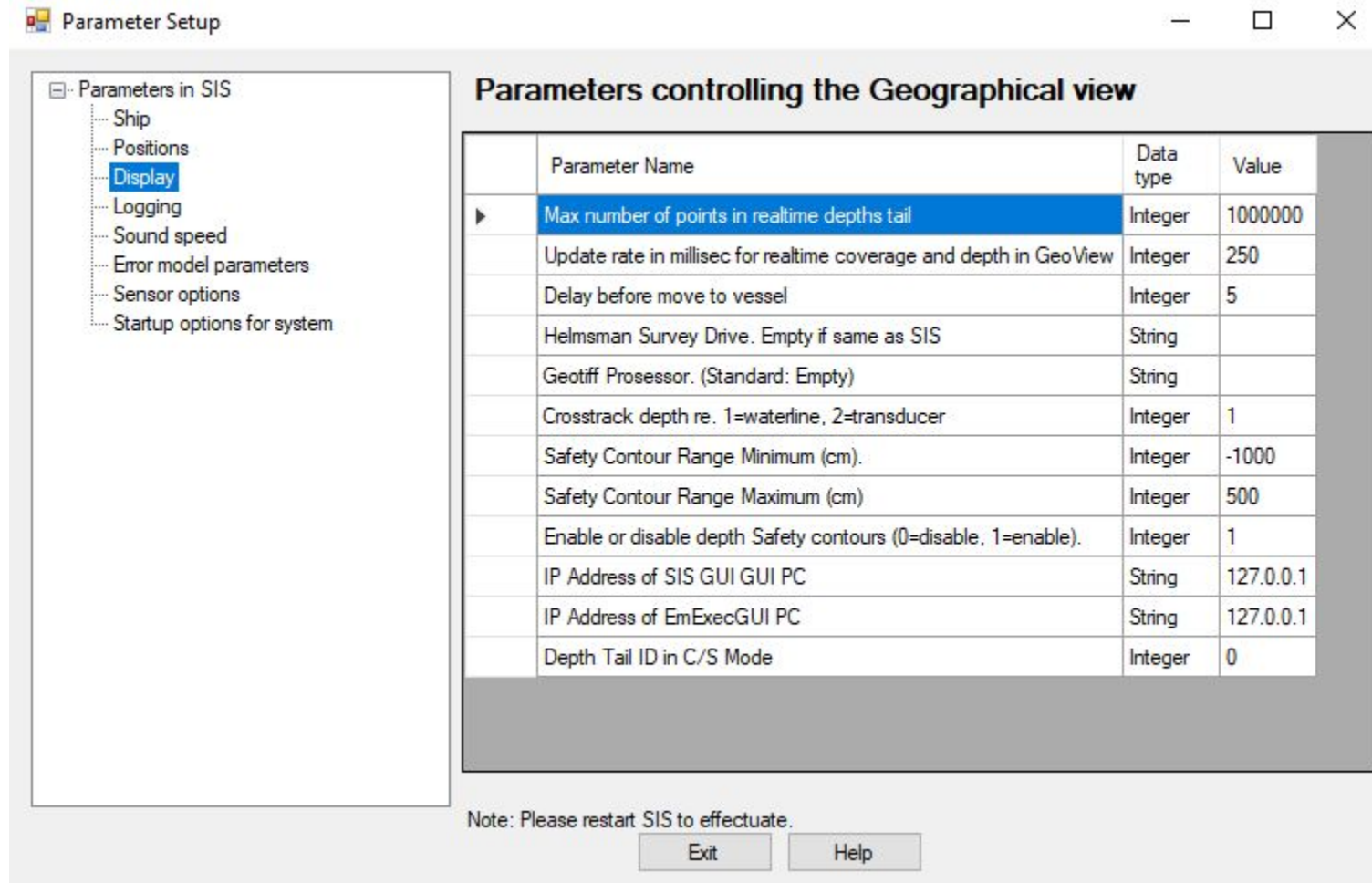
Appendix 2: EM124 Configuration



Appendix 2: EM124 Configuration



Appendix 2: EM124 Configuration



Appendix 2: EM124 Configuration

Parameter Setup

Parameters in SIS

- Ship
- Positions
- Display
- Logging**
- Sound speed
- Error model parameters
- Sensor options
- Startup options for system

Logging control

Parameter Name	Data type	Value
Interval for line counter in sec.	Integer	1800
Put all depths in grid if set to 1, save selected depths if set to 0	Integer	0
Water column disk. (Default: Raw data disk.)	String	
Log watercolumn to separate file	Integer	1
SVP change should generate new logged line (No=0, Yes=1)	Integer	0
Send range and bearing for objects to address (IP:port)	String	
Initial watercolumn logging off or on (0=off, 1=on)	Integer	0
Highest approved swath density in percent of requested density (0=no checking, 110-2500=highest approved density in %).	Integer	0
Lowest approved swath density in percent of requested density (0=no checking, 10-90=lowest approved density in %).	Integer	90
DDS and DDIST shares socket if 1 or DDIST use separate (16800) if 0	Integer	1
Distribute MWC if 1, disabled if 0	Integer	0
Use TCP for data from PU. MULTIPLESOCKET must be enabled on the echo sounder Enabled if 1, disabled if 0	Integer	0

Appendix 2: EM124 Configuration

Parameter Setup

Parameters in SIS

- Ship
- Positions
- Display
- Logging
- Sound speed**
- Error model parameters
- Sensor options
- Startup options for system

Sound speed error limits etc.

	Parameter Name	Data type	Value
▶	Big difference between sound speed at transducer from profile and probe	Float	3
	Too big difference between sound speed at transducer from profile and probe	Float	5
	Automatic start of Sound Speed Editor. (0=disabled, 1=enabled)	Integer	1
	Max. no. of samples in a sound velocity profile to be used by the new types of echo sounders.	Integer	1000
	Suppress error report of not extended sound speed profiles to be used immediately (0=No, 1=Yes)	Integer	0
	Extend received S00 sound speed profile if necessary (0=No, 1=Yes)	Integer	0
	Probe at HWS. Set to 1 if in use, 0 if not	Integer	0
	SV Probe rate	Integer	10
	Sensor Offset (m/sec.):	Integer	0
	Filter (sec.):	Integer	60

Appendix 2: EM124 Configuration

Parameter Setup

Parameters in SIS

- Ship
- Positions
- Display
- Logging
- Sound speed
- Error model parameters
- Sensor options
- Startup options for system

Parameters for Total Propagation Error (TPE)

Parameter Name	Data type	Value
▶ Error in sound speed if SVP is not present	Float	20
Error estimate in tide (m)	Float	0.03
Error estimate in heave (m)	Float	0.02
Error estimate in roll (deg.)	Float	0.05
Error estimate in pitch (deg.)	Float	0.05
Error estimate in heading (deg.)	Float	0.1
Error estimate in SVP (m/s)	Float	0.05
Send error estimate to LAN address (IP:port)	String	
Log error estimate to file. (0=off, 1=basic format, 2=ext. format)	Integer	0

Appendix 2: EM124 Configuration

Parameter Setup

Parameters in SIS

- Ship
- Positions
- Display
- Logging
- Sound speed
- Error model parameters
- Sensor options**
- Startup options for system

Sensor related settings

Parameter Name	Data type	Value
SSV PU Port	Integer	30032
SSV Raw data to PU, set to 1 to enable	Integer	0
NMEA DPT Talker Identifier. 2 letters	String	
Use NMEA DBS and not DPT	Integer	0
ATH. Expected receiver frequency (Hz) (0=disable):	Integer	90
PPP. Expected receiver frequency (Hz) (0=disable):	Integer	1
SRH. Expected receiver frequency (Hz) (0=disable):	Integer	90
RTCM. Expected receiver frequency (Hz) (0=disable):	Integer	1
Attitude/Velocity. Expected receiver frequency (Hz) (0=disable):	Integer	90
Attitude. Expected receiver frequency (Hz) (0=disable):	Integer	90
Create DPT datagrams for each head. 1=enable	Integer	0
APOS Transponder ID used for positioning	String	B17

Appendix 2: EM124 Configuration

Parameter Setup

Parameters in SIS

- Ship
- Positions
- Display
- Logging
- Sound speed
- Error model parameters
- Sensor options
- Startup options for system

Setup for start of echo sounders and SIS

	Parameter Name	Data type	Value
▶	Perform full range of self tests at startup of echo sounder (0=No, 1=Yes)	Integer	0
	Automatic start of echo sounders (0=off, 1=on)	Integer	0
	Disable RTCM logger (yes=1, no=0).	Integer	1
	Allow swapping of disks used for logging (0=no, 1=yes)	Integer	0
	Basic part of Volume name used by SIS to recognize disks used for logging.	String	RAW

Appendix 2: EM124 Configuration

SIS Data Logger

File Options

PU Log **SIS Log** Generic Logger

Echo Sounder
Select Echo Sounder: 124_60
PU Sensor Port: COM1

Storage
☒ Use Default Storage
Log File: C:\sisdata\common\maintenance\PU_20210813_173437.log

Start Logging

SIS Data Logger

File Options

PU Log **SIS Log** Generic Logger

SIS
Host: 127.0.0.1
Port: 4001

Storage
☒ Use Default Storage
Log File: C:\sisdata\common\maintenance\SIS_20210813_173437.log

Start Logging

SIS Data Logger

File Options

PU Log **SIS Log** Generic Logger

SIS
Port: 1999

Storage
☒ Use Default Storage
Log File: C:\sisdata\common\maintenance\GENERIC_20210813_173437.log

Start Logging

Appendix 2: EM124 Configuration

External Sensors

Input Setup

Surface Sound Velocity Probe

☐ Probe Available Port

Probe Type

Realtime Tide

☐ Realtime Tide Available Port

Output Setup

Auto Pilot

☐ Auto Pilot avail Port

Dyn Pos

☐ Serial Port

☐ LAN IP addr. Port

127.0.0.1 4810

COM port settings

Port: COM1

Baud Rate: 9600

Data Bits: 8

Stop Bits: 1

Parity: None

Applanix

Interval for new line(min.): 30

Source port for ATH data: 5602

ATH log parameters

☐ Start Applanix PosMV TrueHeave logging

C:\sisdata\common\ath

PPP log parameters

☐ Start Applanix PosMV (raw GPS) logging

C:\sisdata\common\ppp

Seapath

Interval for new line(min.): 30

RTCM log parameters

☐ Start Seapath RTCM logging

C:\sisdata\common\terrtec

Source port for Seapath RTCM data: 31103

SRH log parameters


☐ Start Seapath Real Heave logging

C:\sisdata\common\srh

Source port for SRH data: 31102

OK Cancel

Appendix 2: EM124 Configuration


 Data Distribution Configuration

File

Select Echo Sounder EM124_60

Target	Filter	Interval	IIP	IOP	IBE	IBR	IBS	MRZ	MWC	SPO	SKM	SVP	SVT	SCL	SDE	SHI	SHA	DPT	DBS	SRV
10.100.161.15:55601	All	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.100.161.3:55601	All	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
127.0.0.1:16103	All	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Add Remove Help Save Exit

 About

SIS

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Release 5.6
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Using Qt Version 5.12.9

Ok

