WWWGridDemo1Mission Report

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Mission Metadata	
AVCL Mission File	WWWGridDemo1.xml
Mission Statement	Test mission for UUV waypoint commands
Identity information	
Location	Monterey Bay California USA
Personnel	Actual underwater UUV operations are allowed in U.S. and are performed regularly by NPS.
Live/virtual	Virtual demonstration test
Environment	
Estimated sea state	0
Estimated current set, drift	0, 0
Test objectives	
Mission	Demonstrate various AVCL commands for UUV missions
Conclusions and recommendations	
Conclusions	This is a good test example.
Recommendations for future work	Continue building interesting tests.

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AVCL Mission Header	
description	Unmanned underwater vehicle (UUV) AVCL mission generated by the AUV Workbench
creator	Duane Davis, Don Brutzman
created	30 October 2008
modified	28 August 2010
title	WWWGridDemo1.xml
mission	WWWGridDemo1.xml
MissionMetadata	WWWGridDemo1.MissionMetadata.xml
generator	AUV Workbench https://savage.nps.edu/AuvWorkbench
identifier	http://xmsf.svn.sourceforge.net/viewvc/xmsf/trunk/AuvWorkbench/MyAuvwProjects/DefaultProject/missions/WWWGridDemo1.xml
missionOriginDeltaNorth	0
missionOriginDeltaEast	0

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AVCL Mission Details	
Vehicle Type	UUV
Vehicle ID	2
Units of Measure	
Angle	degrees
Distance	meters
Mass	kilograms
Time	seconds
Geographic Origin	
Latitude	25.0
Longitude	40.0
Time Units	
Start Time	29 August 2010 2:1:7
Time Zone	7
Sample Time	38
Interval	Seconds

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AVCL Mission Command Table: WWWGridDemo1.xml					
#	Command	X Position	Y Position	Speed	Description
1	SetPositionUUV	275.0	0.0		Start point
2	Thrusters	value="false"			Side thrusters off
3	MakeKnots			2.0	Make turns for 2 knots
4	WaypointUUV	350.0	-25.0		First milestone
5	SendMessage	Sender=0	Recipient=1	InformationRequest	test message 1
6	WaypointUUV	400.0	-25.0		Start small search box
7	SendMessage	Sender=0	Recipient=1	InformationRequest	test message 2
8	WaypointUUV	400.0	50.0		
9	WaypointUUV	325.0	50.0		
10	WaypointUUV	325.0	-25.0		
11	WaypointUUV	425.0	-25.0		
12	WaypointUUV	500.0	75.0		Start mowing the lawn
13	WaypointUUV	500.0	125.0		
14	WaypointUUV	-50.0	125.0		
15	WaypointUUV	-50.0	200.0		
16	WaypointUUV	500.0	200.0		
17	WaypointUUV	500.0	275.0		
18	WaypointUUV	-50.0	275.0		
19	WaypointUUV	-50.0	350.0		
20	WaypointUUV	500.0	350.0		
21	WaypointUUV	500.0	425.0		
22	WaypointUUV	-50.0	425.0		
23	WaypointUUV	-50.0	500.0		Southeast corner
24	WaypointUUV	350.0	500.0		Lawnmower search done, now return
25	WaypointUUV	350.0	150.0		
26	WaypointUUV	400.0	150.0		
27	WaypointUUV	400.0	100.0		
28	WaypointUUV	300.0	100.0		
29	WaypointUUV	275.0	0.0		Finish at start point
30	SetPower				Engines off
31	Quit				Manually generated quit command
Reference: Autonomous Vehicle Control Language (AVCL)					

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Screen Snapshots

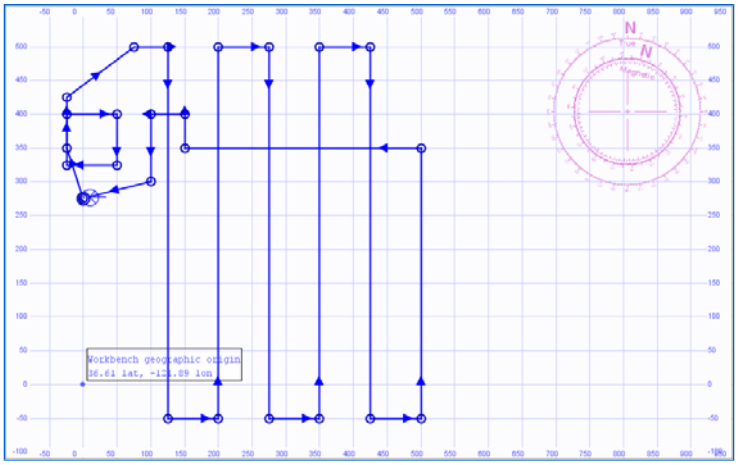

Figure 1: Resulting mission image from 2DMissionView

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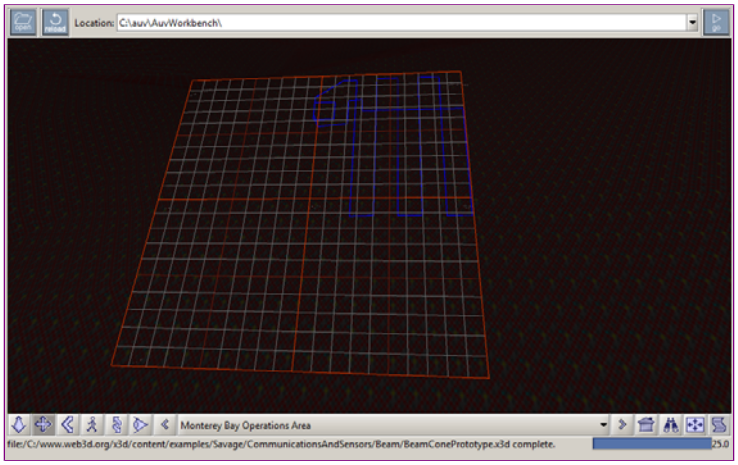

Figure 2: Resulting mission image from 3DSceneView

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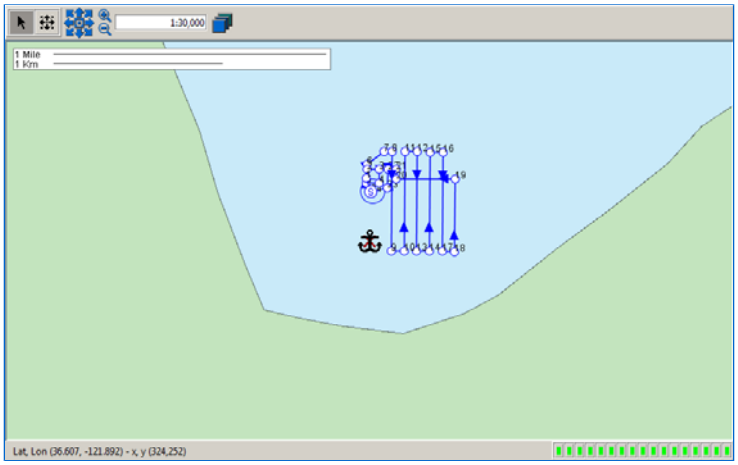

Figure 3: Resulting mission image from OpenMapView

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Mission Telemetry Plot Charts

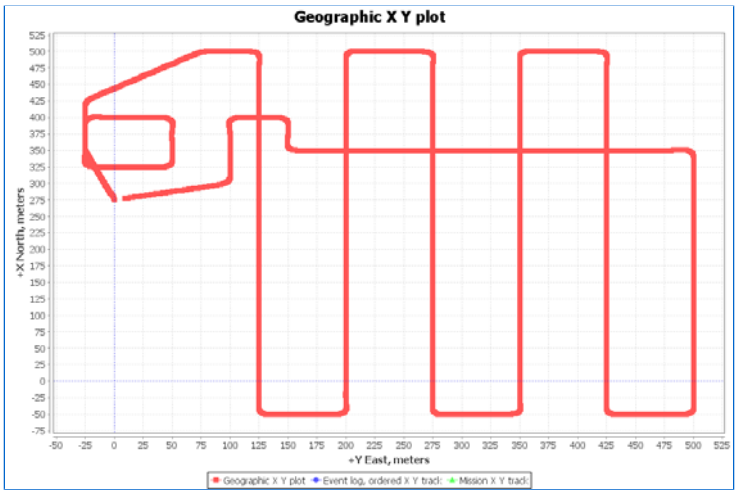

Figure 4: Resulting telemetry plot from chartXy

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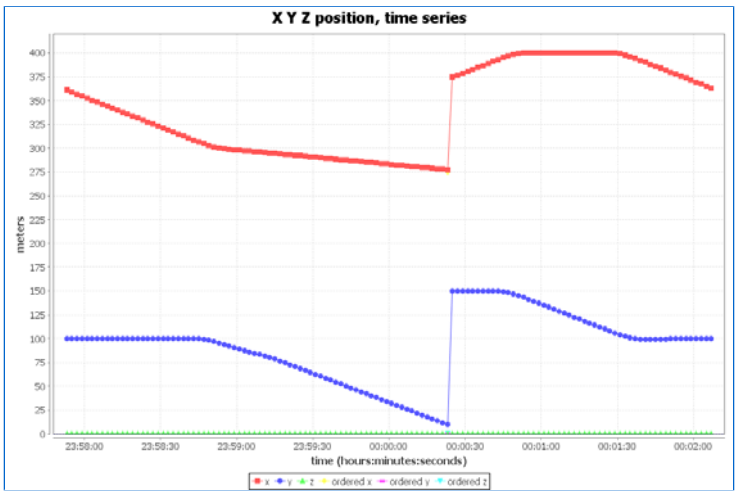

Figure 5: Resulting telemetry plot from chartXyz

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Figure 6: Resulting telemetry plot from chartOrientations

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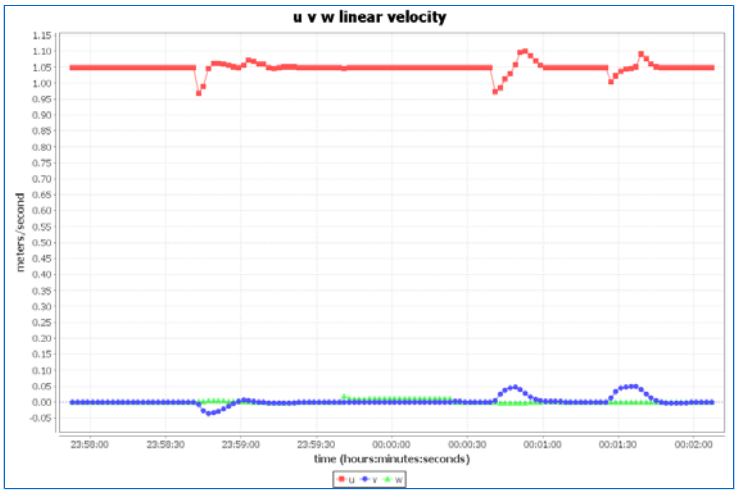

Figure 7: Resulting telemetry plot from chartLinearVelocities

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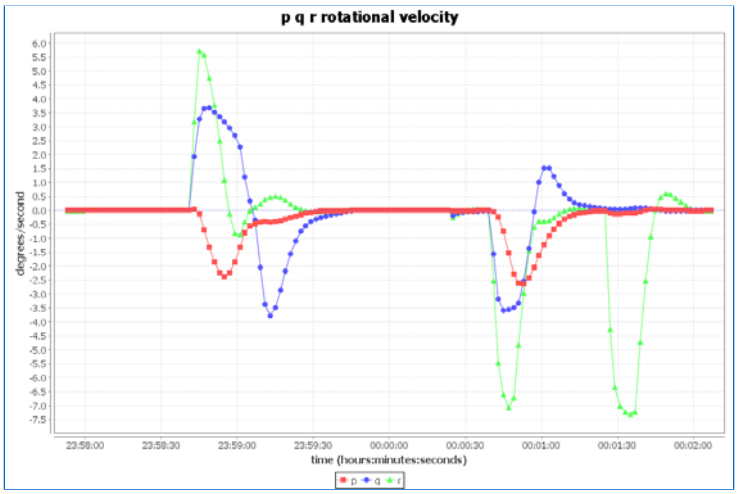

Figure 8: Resulting telemetry plot from chartRotationalVelocities

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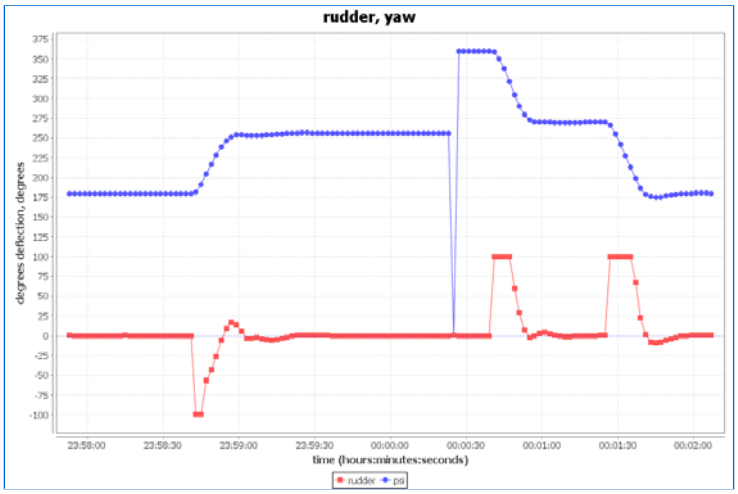

Figure 9: Resulting telemetry plot from chartRudder

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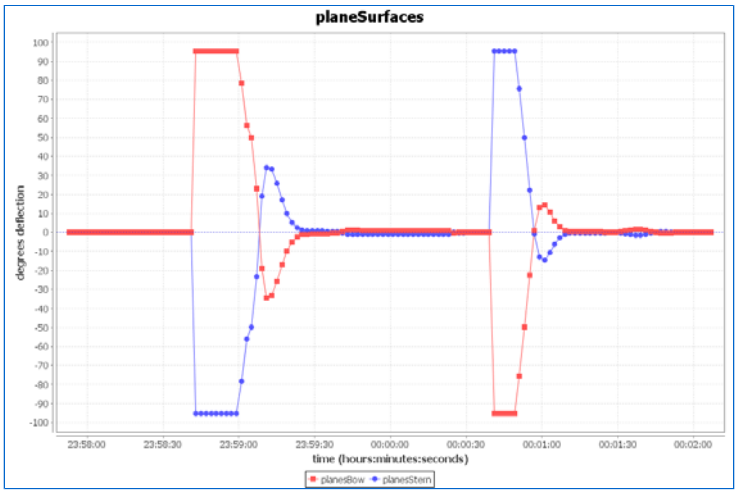

Figure 10: Resulting telemetry plot from chartPlaneSurfaces

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This report was generated by the Autonomous Unmanned Vehicle (AUV) Workbench, an open-source tool for robot-mission planning, rehearsal, execution, and playback visualization.
Available online at https://savage.nps.edu/AuvWorkbench.

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