



Figure 1 Using Wireshark to test Landas_OpenDisEspduSender_output (10 Packets sent)

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LandasREADME.md x Landas_OpenDisEspduSender.java x Output x
Assignments_MV3500_Homework (run-single) x NetworkedGraphicsMV3500 - C:\Users\Rico\Documents\7_AY18-Q2\MV3500 - Internetwork Comm and Sim\NetBeans Repository\NetworkedGraphicsMV3500 x
ant -f "C:\Users\Rico\Documents\7_AY18-Q2\MV3500 - Internetwork Comm and Sim\NetBeans Repository\NetworkedGraphicsMV3500\projects\Assignments" -Djavac.includes=Landas_OpenDisEspduSender.java -Dnb
init:
Deleting: C:\Users\Rico\Documents\7_AY18-Q2\MV3500 - Internetwork Comm and Sim\NetBeans Repository\NetworkedGraphicsMV3500\projects\Assignments\build\build-jar.properties
deps-jar:
Updating property file: C:\Users\Rico\Documents\7_AY18-Q2\MV3500 - Internetwork Comm and Sim\NetBeans Repository\NetworkedGraphicsMV3500\projects\Assignments\build\build-jar.properties
Compiling 1 source file to C:\Users\Rico\Documents\7_AY18-Q2\MV3500 - Internetwork Comm and Sim\NetBeans Repository\NetworkedGraphicsMV3500\projects\Assignments\build\classes
compile-single:
run-single:
Sending ESPDU packet 0 to /239.1.2.3
lat, lon: 36.585655, -121.87992
DIS coord: -2708059.4030911736, -4354079.805871355, 3780571.639663978
Sending broadcast datagram packet to /127.255.255.255
Sending broadcast datagram packet to /172.20.159.255
Espdu #0 EID=[1,1,2]
DIS coordinates location=[-2708059.4030911736, -4354079.805871355, 3780571.639663978]
Sending ESPDU packet 1 to /239.1.2.3
lat, lon: 36.584854, -121.88003
DIS coord: -2708095.5030737757, -4354119.749075166, 3780500.258375641
Sending broadcast datagram packet to /127.255.255.255
Sending broadcast datagram packet to /172.20.159.255
Espdu #1 EID=[1,1,2]
DIS coordinates location=[-2708095.5030737757, -4354119.749075166, 3780500.258375641]
Sending ESPDU packet 2 to /239.1.2.3
lat, lon: 36.5835, -121.879616
DIS coord: -2708111.4974896084, -4354215.27726299, 3780379.5883445037
Sending broadcast datagram packet to /127.255.255.255
Sending broadcast datagram packet to /172.20.159.255
Espdu #2 EID=[1,1,2]
DIS coordinates location=[-2708111.4974896084, -4354215.27726299, 3780379.5883445037]
Sending ESPDU packet 3 to /239.1.2.3
lat, lon: 36.586308, -121.87458
DIS coord: -2707630.7616586923, -4354295.568079237, 3780629.763887227
Sending broadcast datagram packet to /127.255.255.255
Sending broadcast datagram packet to /172.20.159.255
Espdu #3 EID=[1,1,2]
DIS coordinates location=[-2707630.7616586923, -4354295.568079237, 3780629.763887227]
Sending ESPDU packet 4 to /239.1.2.3
lat, lon: 36.58867, -121.87793
DIS coord: -2707802.810519021, -4354004.654168527, 3780840.1627231464
Sending broadcast datagram packet to /127.255.255.255
Sending broadcast datagram packet to /172.20.159.255
Espdu #4 EID=[1,1,2]
DIS coordinates location=[-2707802.810519021, -4354004.654168527, 3780840.1627231464]
Sending ESPDU packet 5 to /239.1.2.3
lat, lon: 36.591125, -121.88007
DIS coord: -2707879.899965003, -4353765.342772021, 3781059.0523453164
Sending broadcast datagram packet to /127.255.255.255
Sending broadcast datagram packet to /172.20.159.255
Espdu #5 EID=[1,1,2]
DIS coordinates location=[-2707879.899965003, -4353765.342772021, 3781059.0523453164]
Sending ESPDU packet 6 to /239.1.2.3
lat, lon: 36.592827, -121.87715
DIS coord: -2707598.4210930774, -4353807.86592195, 3781210.6395747103
Sending broadcast datagram packet to /127.255.255.255
Sending broadcast datagram packet to /172.20.159.255
Espdu #6 EID=[1,1,2]
DIS coordinates location=[-2707598.4210930774, -4353807.86592195, 3781210.6395747103]
Sending ESPDU packet 7 to /239.1.2.3
lat, lon: 36.59405, -121.87745
DIS coord: -2707578.2518010894, -4353725.016715847, 3781319.7395526352
Sending broadcast datagram packet to /127.255.255.255
Sending broadcast datagram packet to /172.20.159.255
Espdu #7 EID=[1,1,2]
DIS coordinates location=[-2707578.2518010894, -4353725.016715847, 3781319.7395526352]
Sending ESPDU packet 8 to /239.1.2.3
lat, lon: 36.594246, -121.87648
DIS coord: -2707497.828613036, -4353759.874890509, 3781337.0730366767
Sending broadcast datagram packet to /127.255.255.255
Sending broadcast datagram packet to /172.20.159.255
Espdu #8 EID=[1,1,2]
DIS coordinates location=[-2707497.828613036, -4353759.874890509, 3781337.0730366767]
Sending ESPDU packet 9 to /239.1.2.3
lat, lon: 36.59523, -121.87754
DIS coord: -2707544.0272546276, -4353654.471837147, 3781424.7594125434
Sending broadcast datagram packet to /127.255.255.255
Sending broadcast datagram packet to /172.20.159.255
Espdu #9 EID=[1,1,2]
DIS coordinates location=[-2707544.0272546276, -4353654.471837147, 3781424.7594125434]
BUILD SUCCESSFUL (total time: 32 seconds)
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Figure 2 Landas_OpenDisEspduSender_output

DIS PDU Player-Recorder

0 ENTITY_STATE 0.000s
 1 ENTITY_STATE 0.001s
 2 ENTITY_STATE 3.174s
 3 ENTITY_STATE 3.175s
 4 ENTITY_STATE 6.284s
 5 ENTITY_STATE 6.284s
 6 ENTITY_STATE 9.450s
 7 ENTITY_STATE 9.451s
 8 ENTITY_STATE 12.536s
 9 ENTITY_STATE 12.536s
 10 ENTITY_STATE 15.712s
 11 ENTITY_STATE 15.713s
 12 ENTITY_STATE 18.880s
 13 ENTITY_STATE 18.881s
 14 ENTITY_STATE 22.015s
 15 ENTITY_STATE 22.015s
 16 ENTITY_STATE 25.098s
 17 ENTITY_STATE 25.101s
 18 ENTITY_STATE 28.210s
 19 ENTITY_STATE 28.210s

PDU Header
 time stamp 943553013 exercise ID 1 pdu length 144
 PDU type Entity State protocol family Entity Information/Interaction protocol version IEEE 1278.1A-1998 padding 0

Entity Marking
 marking character set 0 Entity ID site ID 1 application ID 1 entity ID 2

EntityType

kind	domain	country	category	subcategory	specific	extra
Platform	Land	United States	Basic Ground Combat Vehicle	Command Post	3	0

 Alternative Entity Type

kind	domain	country	category	subcategory	specific	extra
Other	Other	Other	Undefined	Other	No headquarters	0

 Entity Location
 -2708059.4030911736 -4354079.805871355 3780571.639663978

Entity Orientation
 psi 0 degrees 0 radians theta 0 degrees 0 radians phi 0 degrees 0 radians

Dead Reckoning Parameters
 algorithm Other other 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 angular velocity 0.0 0.0 0.0 linear acceleration 0.0 0.0 0.0

Entity Linear Velocity
 0.0 0.0 0.0

capabilities 0 entity appearance 0 Force ID Other

Articulation Parameters
 0 attached articulation parameters

...	Type Designator	Change Indicator	Part Attached To	Type	Value (float)	(ascii)	(hex)	(int)
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Network address 239.1.2.3 port 3000

Record Pause Stop Save Load

Display mode: ☒ PDU panel ☐ Hexadecimal bytes ☐ DIS-XML

Operation mode Idle

Begin. R Fast R Step R Play Play Step Fast End Loop

273:44

Figure 3 Recorded Landas_OpenDisEspduSender Entity States (0.001s)

DIS PDU Player-Recorder

0 ENTITY_STATE 0.000s
 1 ENTITY_STATE 0.001s
 2 ENTITY_STATE 3.174s
 3 ENTITY_STATE 3.175s
 4 ENTITY_STATE 6.284s
 5 ENTITY_STATE 6.284s
 6 ENTITY_STATE 9.450s
 7 ENTITY_STATE 9.451s
 8 ENTITY_STATE 12.536s
 9 ENTITY_STATE 12.536s
 10 ENTITY_STATE 15.712s
 11 ENTITY_STATE 15.713s
 12 ENTITY_STATE 18.880s
 13 ENTITY_STATE 18.881s
 14 ENTITY_STATE 22.015s
 15 ENTITY_STATE 22.015s
 16 ENTITY_STATE 25.098s
 17 ENTITY_STATE 25.101s
 18 ENTITY_STATE 28.210s
 19 ENTITY_STATE 28.210s

PDU Header
 time stamp 962163345 exercise ID 1 pdu length 144
 PDU type Entity State protocol family Entity Information/Interaction protocol version IEEE 1278.1A-1998 padding 0

Entity Marking
 marking character set 0 Entity ID site ID 1 application ID 1 entity ID 2

EntityType

kind	domain	country	category	subcategory	specific	extra
Platform	Land	United States	Basic Ground Combat Vehicle	Command Post	3	0

 Alternative Entity Type

kind	domain	country	category	subcategory	specific	extra
Other	Other	Other	Undefined	Other	No headquarters	0

 Entity Location
 -2707879.899965003 -4353765.342772021 3781059.0523453164

Entity Orientation
 psi 0 degrees 0 radians theta 0 degrees 0 radians phi 0 degrees 0 radians

Dead Reckoning Parameters
 algorithm Other other 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 angular velocity 0.0 0.0 0.0 linear acceleration 0.0 0.0 0.0

Entity Linear Velocity
 0.0 0.0 0.0

capabilities 0 entity appearance 0 Force ID Other

Articulation Parameters
 0 attached articulation parameters

...	Type Designator	Change Indicator	Part Attached To	Type	Value (float)	(ascii)	(hex)	(int)
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Network address 239.1.2.3 port 3000

Record Pause Stop Save Load

Display mode: ☒ PDU panel ☐ Hexadecimal bytes ☐ DIS-XML

Operation mode Idle

Begin. R Fast R Step R Play Play Step Fast End Loop

273:44

Figure 4 Recorded Landas_OpenDisEspduSender Entity States (15.712s)

