

sACN Multiple Receivers, Multiple Sources Expected Results

Test Name	Description	Shows	Expected File	Expected Content	Passed
Test-1-Two-Data-Senders	2 senders are created and 1 receiver. The senders each send unsynchronised data on the same universe (but different payloads) and then wait so that a universe discovery packet is sent by both. The receiver receives both data packets and the universe discovery packets.	That a receiver can handle receiving from multiple senders sending on the same universe and also still treat their discovery packets as distinct.	test_1_rcv_out_1.temp	The word 'started' to indicate the receiver started correctly followed by the receiver receiving 2 data packets to universe 1 but the packets should have different values (the numbers 1 - 30 and 200 - 217) the ordering of which packet comes first isn't important. The receiver should have then displayed a WouldBlock or TimedOut error to indicate that no more data was received and then the name ("1" and "2") and universes (1) should be displayed for both senders.	Yes
			test_1_src_out_1.temp test_1_src_out_2.temp	The word 'started' to indicate the senders started up correctly.	
Test-2-Two-Data-Senders-Diff-Uni	Same as test 1 but with different universes for the 2 senders.	That the receiver can handle receiving different universes from multiple senders and also still handle the universe discovery packets correctly.	test_2_rcv_out_1.temp	The word 'started' to indicate the receiver started correctly followed by the receiver receiving 2 data packets, one packet to universe 1 with values 1 - 30 and the other to universe 2 with values 200 - 217. A WouldBlock or TimedOut error should then be shown to show that no more data was received. The 2 sources with names "1" and "2" should then be displayed with source "1" having universe 1 registered and source "2" having universe 2 registered.	Yes
			test_2_src_out_1.temp test_2_src_out_2.temp	The word 'started' to indicate the senders started up correctly.	
Test-3-One-Sender-Two-Receivers	1 sender and 2 receivers are started. Both receivers have identical behaviour and listen to universe 1-4 inclusive and then receive 3 sets of data (2 normal data packets and then 2 synchronised data packets at the same time) and check for universe discovery packets. The sender sends distinct unsynchronised data packets to universe 1 and 2. The sender then sends 2 distinct synchronised (synchronisation address = 4) data packets to universe 3 and 4. The sender then sends a synchronisation packet to universe 4 to trigger the data packets. The sender then waits a period to allow a discovery packet to be sent.	That each receiver with an identical setup receives identical packets from a single sender and handles the packets identically. This shows that the sender can send to multiple receivers on distinct machines simultaneously.	test_3_rcv_out_1.temp test_3_rcv_out_2.temp test_3_src_out_1.temp	The output should be exactly as shown in the file 'test_3_rcv_out_expected.txt' within the test 3 folder. The output should be exactly as shown in the file 'test_3_src_out_expected.txt' within the test 3 folder.	Yes
Test-4-One-Src-Two-Distinct-Rcv	1 sender and 2 receivers are started. The first receiver is listening to universes 1 and 2, the second receiver is listening to universes 3 and 4. The first receiver attempts to receive 3 data packets and then outputs the discovered universes. The second receiver attempts to receive 2 data packets and then outputs the discovered universes. The sender follows the exact same behaviour as in test 3.	That the receivers only receive the universes they are registered to even if other universes are actively being received by other receivers on the same network from the same sender.	test_4_rcv_out_1.temp test_4_rcv_out_2.temp test_4_src_out_1.temp	The first receiver should receive the 2 data packets sent to universe 1 and 2 and then timeout when trying to receive for a third time. The discovered source list for both receivers should show the single source with all 4 universes (1 - 4 inclusive) registered. The second receiver should receive only 1 set of data with both data packet 3 and 4 together, the second receive attempt should timeout. The exact expected output is in files in the Test-4-One-Src-Two-Distinct-Rcv folder, 'test_4_rcv_1_expected.txt' is the expected output from the first receiver, 'test_4_rcv_2_expected.txt' is the expected output from the second receiver, 'test_4_src_1_expected.txt' is the expected output from the sender.	Yes
Test-5-Three-Rcv-Two-Src	2 senders and 3 receivers are started. The first receiver listens to universe 100 and 101. The second receiver listens to universe 101, 102. The third receiver listens to universe 102, 103. The first sender sends an unsynchronised data packet to all 4 universes. The second sender sends 2 data packets to universe 101, 102 which are synchronised to synchronisation address 101. The sender then sends a synchronisation packet to synchronisation address 101.	That multiple receivers listening to different addresses can handle multiple senders on the network which are sending to overlapping universes.	test_5_rcv_out_1.temp	The first receiver should receive the unsynchronised data packets to universe 100 (values 1-30 inclusive) and 101 (89 - 63 inclusive). The receiver should also receive the synchronised data packet to universe 101 (values 50 - 65 inclusive). The receiver should then TimedOut/WouldBlock waiting for another packet (as there is no more data) and then the 2 sources should be displayed (Name 1: Universes [100, 101, 102, 103] and Name 2: Universes [101, 102]).	Yes
			test_5_rcv_out_2.temp	The second receiver should receive the unsynchronised data packets to universe 101 (89 - 63 inclusive) and 102 (100 - 116 inclusive). The receiver should also receive the synchronised data set should include the synchronised data sent to universe 101 (values 50 - 65 inclusive) and universe 102 (values 70 - 85). The receiver should then TimedOut/WouldBlock waiting for another packet (as there is no more data) and then the 2 sources should be displayed (Name 1: Universes [100, 101, 102, 103] and Name 2: Universes [101, 102]).	
			test_5_rcv_out_3.temp	The third receiver should receive the unsynchronised data packets to universe 102 (values 100 - 116 inclusive) and 103 (values 200 - 216 inclusive). The receiver should also receive the synchronised data sent to universe 102 (values 70 - 85 inclusive). The receiver should then TimedOut/WouldBlock waiting for another packet (as there is no more data) and then the 2 sources should be displayed (Name 1: Universes [100, 101, 102, 103] and Name 2: Universes [101, 102]).	
			test_5_src_out_1.temp test_5_src_out_2.temp	The word 'started' to indicate the senders started up correctly.	