

## ProtoBuf

```
1  syntax = "proto2";
2
3  // import AProduct, UDeliveryLocation
4  import "world_amazon.proto";
5  import "world_ups.proto";
6
7  message Warehouse{
8      required int32 id = 1;
9      required int32 x = 2;
10     required int32 y = 3;
11 }
12
13 // A->U: query updid
14 message AUQueryUpsid {
15     required int64 upsid = 1;
16     required int64 seqnum = 255;
17 }
18
19 message UASendWorldId {
20     required int64 worldid = 1;
21     required int64 seqnum = 255;
22 }
23
24 // A->U: prepare truck
25 message AURequestPickup {
26     repeated AProduct things = 1;
27     required Warehouse wareinfo = 2;
28     optional int64 upsid = 3;
29     required int64 seqnum = 255;
30 }
31
32 message UAPickupResponse{
33     required int64 packageid = 1;
34     required int64 seqnum = 255;
35 }
36
37 // U -> A: car arrive
38 message UAArrived{
39     required int64 truckid = 1;
40     required int64 packageid = 2;
```

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41     required int64 seqnum = 255;
42 }
43
44
45 // loaded
46 message AULoadOver {
47     required int64 packageid = 1;
48     required int32 truckid = 2;
49     required UDeliveryLocation loc = 3;
50     required int64 seqnum = 255;
51 }
52
53 // A->U: change address
54 message AUChangeAddress{
55     required int64 packageid = 1;
56     required UDeliveryLocation loc = 2;
57     required int64 seqnum = 255;
58 }
59
60 // U->A: deliver over
61 message UADeliverOver {
62     required int64 packageid = 1;
63     required int64 seqnum = 255;
64 }
65
66 message AUCommand{
67     repeated AURequestPickup pickup= 1;
68     repeated AULoadOver packloaded= 2;
69     optional AUQueryUpsid queryupsid= 3;
70     repeated AUChangeAddress changeaddr= 3;
71     repeated Err errors = 4;
72     optional int64 seqnum = 255;
73 }
74
75 message UACommand{
76     optional UASendWorldId sendid= 1;
77     repeated UAArrived arrived= 2;
78     repeated UADeliverOver deliverover= 3;
79     repeated Err errors = 4;
80     repeated int64 acks = 5;
81 }
82
83 message UAResponses{
84     repeated UAPickupResponse pickupresp = 1; // 1
85     // base
86     repeated Err errors = 2;
87     repeated int64 acks = 3;
88 }

```

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88  
89  
90 message AUResponses{  
91     // base  
92     repeated Err errors = 1;  
93     repeated int64 acks = 2;  
94 }  
95 // same as brian's version  
96 message Err{  
97     required string err = 1;  
98     required int64 originseqnum = 2;  
99     required int64 seqnum = 3;  
100 }
```