# Production

There are 7 production lines (04-10) which use the line take away message 3M01. The msg 2 is not sent for every msg 3, just for Line Data Correction. When a ulid is created it is moved to the FPDS staging location. The msg 3 is being sent from a control logix processor using station id 0003, Ethernet address 143.40.53.55. Manual id is also done from a fork lift operator and the ulid is placed on the FPDS. Did not see EasyID being used.

# ASRS Input

A message 5 is sent to RTCIS to trigger a msg A8 to the ASRS software. The msg 5 is being sent from an Ethernet PLC using station id 0002, Ethernet address 143.40.55.224. The message 5 is sent with a blank delivery location. The A8 is sent to the ASRS software and the response is always 2 for the input location. The M8 or C8 is not used. The message 6 is then sent to the PLC with a delivery location of 2. Most msg 7s are sent from the PLC with a delivery location of 2, but have seen some with a 4 which is the REJECT1 location. It’s not clear if there are multiple input VTLs or just one since 2 is always used. The D8 is also used to de-announce a ulid that has gone to the REJECT location.

# ASRS Storage

There are HD, QU, and RL unit loads in the ASRS system. HBW uses HQ status for HD and QU ulids. There are approximately 14421 ulids in the HBW location. P class ulids were not in the ASRS.

# ASRS Output

## Shipments

### Staging

# The A21 and B21 messages are used to check for shipments to be dropped to the ASRS. A21 messages get shipments with a plcpal of U (MOT=A), while B21 messages get shipments with a plcpal of B (MOT=B). There are more shipments with MOT=A than B. Shipments are dropped with the default ASRS Disposition of OPEN. The msg A22 is used to indicate a staging location, usually the lowest number of the staging locations used to stage the shipment. Msg A23 is used to indicate a ulid has been moved from HBW to a staging location. Most of the observed shipments were staged to 3 locations, all ending in A (51A-83A,90A,91A). For example, one shipment was staged in locations 65A, 66A, 67A, while another was in 53A, 54A, and 55A. The A22 for the above mentioned shipments had 65 and 53, respectively. Locations 51-83 are listed in actstgmnt as having 1 level, so the assumption is these are side by side staging locations. Only 2 shipments stage at a time. A24 is used to signal completion of shipment staging, with the same staging location as the A22. The A26 message is used to stop staging a shipment, though not frequently, as loading is occurring as the shipment is staging. A20 from SAP is used to cancel an order, but cancelled orders are not automatically unstaged.

### Loading

# An A32 is sent for each of the three staging locations (assuming when signon to truckloading occurs, but need to verify on a mult-slot shipment). There are 21 doors in the ASRS subsite GB78 (DOOR 01-DOOR 20, DOOR999). Shipments are loaded, and order complete, ship complete, trailer move request, and trailer move to droplot are all done immediately after loading. The completed trailer does not sit in the door for very long.

## Manual Withdrawals

### Requesting

Msg 13 is used to request ulids in quantities of 10 or less. Manual withdrawals are not batch processed (MXXX control number dropped through actgetord) until 11 ulids are requested.

### Retrieving

Manual w/d requests go to a VTL location (VTL51-VTL83, VTL90,VTL91). It is not clear why the VTLs are defined in dlvlocmnt as C locations. Batch w/d requests go to a staging location. Haven’t seen a batch manual withdrawal.

# Customization

# Floor Storage

# Case Pick

# Auto-Replenishment