

# Sample Distribution Requirements Plan

Item: Any item sold through this distribution center, and/or a DC that this DC replenishes.

Lot size: 50                      Allocations: 5                      Lead time: 3 periods

On hand: 140                      Safety stock: 8

Planning period	Past due	1	2	3	4	5	6	7
Gross Requirements	40	10	30	50	50	20	30	40
Scheduled Receipts			50					
Projected On Hand	95	85	105	55	5	-15	-45	-85
Projected Available	95	85	105	55	55	35	55	15
Net Requirement					3		3	
Planned Order Receipt					50		50	
Planned Order Release		50		50				

## Definitions

**Lot size:** The normal quantity to order per batch.

**Allocations:** Quantity earmarked to fulfill specific demand orders. (Some software packages allow "hard allocations" and others don't. If there is a shortage of an item during a time period, the demand orders with "hard allocations" will not be at risk of "not having a chair when the music stops".)

**Safety stock:** DRP will recommend always keeping at least this much available for emergencies.

**Lead time:** DRP will plan to release orders this many periods before the needed period.

**Past due:** Some DRP packages lump all past due requirements into the current planning period. The better ones provide clearer visibility.

**Gross Requirements:** Requirements from all sources of demand. Some packages have three separate lines for:

- Unconsumed Forecast Demands
- Independent Demands (e.g. sales orders and marketing samples for this Distribution Center...)
- Dependent Demands (demands from other Distribution Centers)

**Scheduled Receipts:** Open order quantities due to be received. (i.e. In Transit, or soon to be in transit. Does not include Planned Order Receipts.)

**Projected On-hand:** "What would happen if we didn't place any more new orders?" Previous period on-hand - gross requirements + scheduled receipts. In the first period, you also subtract allocations.

**Projected Available:** "What will be available assuming that our planned orders arrive on time?" Previous period projected available - gross requirements + scheduled receipts + **planned order receipts**. In the first period, you start with on-hand minus allocations.

**Net Requirement:** The minimum quantity required in a period. (Also considers safety stock.)

**Planned Order Receipt:** The net requirement adjusted for lot size. (Does not include Scheduled Receipts.)

**Planned Order Release:** Planned order receipt offset by lead time. If the human Planner changes the suggested Planned Order Release, (by creating a Firm Planned Order), then everything gets recalculated to display the expected results of the decision.