

Adroit ROP Planning

Training & Configuration Guide

Reorder Point & Order Quantity Planning for Microsoft Dynamics 365 Business Central

Adroit North America LLC

Version 1.0 — for Adroit ROP Planning 1.0.0.11

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1. Introduction

Adroit ROP Planning automates reorder-point (ROP) and order-quantity (OQ) planning inside Business Central. Every planned item — finished goods, components, raw materials, MRO, and purchased items — gets a fresh recommendation based on your own demand history. A planner reviews the recommendations on a worksheet and applies the ones they accept; approved values are written back to the standard Reorder Point and Reorder Quantity fields that Business Central already uses for planning.

Everything runs inside Business Central. Demand data never leaves your tenant for the calculation, and there is no external system to integrate.

1.1 Who this guide is for

- Planners and materials managers who review and apply recommendations.
- Administrators who perform the initial setup and schedule the nightly job.
- Functional consultants configuring the app for a customer.

1.2 What you will learn

1. The key concepts behind the recommendations.
2. How to activate your subscription.
3. How to perform the initial setup (ROP Setup).
4. How to enable and fine-tune individual items.
5. How to run the calculation and use the Planning Worksheet.
6. How to interpret and monitor the results.

2. Key concepts

2.1 The unified demand ledger

The app collects actual demand into a single normalized ledger. Collectors read posted transactions — primarily sales shipments and production consumption — so recommendations reflect what really moved, not a forecast.

2.2 Demand cleaning

Before any number is calculated, the weekly demand series is automatically cleaned so anomalies don't distort the result:

- **Negative weeks** (e.g. returns exceeding sales) are floored to zero.
- **One-time load spikes** are detected by a robust median test and excluded.
- **New-item launch spikes** in the first few weeks are excluded.

- **Intermittent items** with many zero-demand weeks are flagged as “understatement-prone” so a planner knows to look closer.

Each excluded week is written to the Exclusion Log so the reasoning is fully auditable.

2.3 The days-of-cover model

Adroit ROP Planning uses a deliberately simple, explainable model driven by two numbers you configure — Safety Days and Target Days of Supply:

The formulas

average daily demand = average weekly demand ÷ 7

Reorder Point (ROP) = (lead-time days + Safety Days) × average daily demand

Order Quantity (OQ) = Target Days of Supply × average daily demand

Both results are rounded up to a whole case/pack (when a case size is set) and to your unit-of-measure policy.

2.4 Where settings resolve from

Safety Days and Target Days of Supply resolve in this order, so you can set a company default and override only where needed:

1. Item override (on the Item Card)
2. Item Category override
3. Company default (ROP Setup)

3. Prerequisites and activation

3.1 Prerequisites

- Business Central (online or on-premises) with Adroit ROP Planning installed from AppSource.
- A user with permission to run planning and edit items.
- **Allow HttpClient Requests** enabled for the extension in Extension Management (an administrator does this once) so the app can verify the license.
- An active subscription, activated by Adroit for your tenant (see below).

3.2 Activating your subscription

The app installs and the nightly calculation runs on any tenant, but the planning pages require an active subscription.

4. Contact Adroit North America to activate your Business Central tenant.
5. Open **ROP Setup** and review the License section — it shows Active, Expiring soon, Could not verify, or Suspended.
6. Use **Check License** to re-verify on demand.

Note

The ROP Setup page is always accessible, even without a license, so an administrator can always see status and run Check License.

If status shows “Could not verify,” confirm the internet connection and that Allow HttpClient Requests is enabled.

Licence		
Licence Status	Active	Last Verified 8/3/2026 10:57 AM
Licence End Date	12/31/2028	

Figure: The License section on ROP Setup shows status, end date, and last-verified time. Use Check License to re-verify.

4. Initial setup — ROP Setup

Search “**ROP Setup**” and review each section once. The engine falls back to sensible defaults, but confirming these values up front gives the best results.

4.1 Calculation

Field	What it controls	Typical
Default Safety Days	Days of demand held as safety stock (company default).	7
Default Target Days Supply	Days of demand a single order should cover.	30
History Window Weeks	How many weeks of history to consider.	52
Min History Weeks	Below this an item is Do-Not-Recommend (too little history).	26
Default Lead Days	Lead time used when an item has none defined.	your avg
Sanity Weeks	Guardrail window used in validation.	—
Whole-Number Rounding	Master switch for unit-of-measure rounding after case rounding.	On
Allow Rounding Override	If off, a planner edit that breaks the whole-unit rule for a discrete UOM is rejected.	Off

ROP Setup

Actions Automate

Calculation

Default Safety Days	2	Default Lead Days	0
Default Target Days of Supply	0	Sanity Weeks	0.00
History Window Weeks	52	Whole-Number Rounding	☒
Min History Weeks	26	Allow Rounding Override	☐

Calculation Focus

Calculation Focus: Item

Collectors

Collect Sales	☒	Collect Transfer Out	☐
Collect Consumption	☒	Collect Sales History	☒
Collect Negative Adjustment	☒	Sales Require Completely Invoiced	☐

Figure: The ROP Setup page — Calculation defaults (Safety Days, Target Days, rounding), Calculation Focus, and the Collectors.

4.2 Calculation Focus

Choose the planning grain: **Item** (one recommendation per item) or **Item + Location** (one per item per location).

4.3 Collectors

Turn demand sources on or off. Sales and Consumption are the primary sources.

Setting	Effect
Collect Sales	Include demand from posted sales shipments.
Collect Consumption	Include demand from production consumption.
Collect Negative Adjustment	Include negative inventory adjustments as demand.
Collect Transfer Out / Sales History	Additional demand sources (enable as needed).
Sales Require Completely Inv.	On: count only completely-invoiced shipments. Off: count all posted shipments at ship time.

4.4 Orchestration

Field	What it controls
Allow Stale Calc	Let the worksheet show yesterday's numbers if today's run hasn't finished.
Max Sync Wait Minutes	How long a manual recalculation waits for collectors.
Retention Years	How long calculation history is retained.

4.5 License

Shows the current license status, end date, and last-verified time, and hosts the Check License action. See section 3.2.

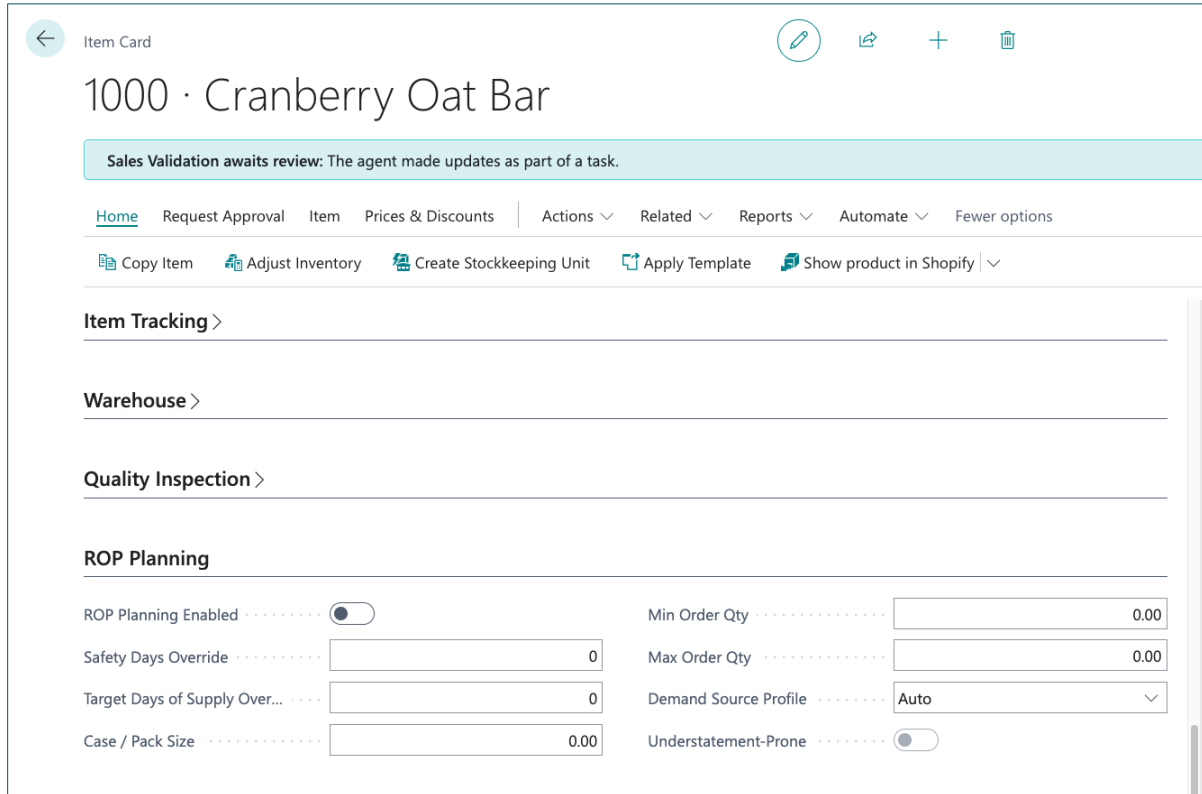
5. Configuring items for planning

5.1 Item Card

Open an **Item Card** and use the ROP Planning section:

Field	Purpose
ROP Planning Enabled	Turn on for items you want planned.
Case / Pack Size	Proposals round up to a whole multiple of this.
Min / Max Order Qty	Constrain the order quantity.
Safety Days Override	Per-item safety days (0 = inherit category, then company default).
Target Days Sup. Ovr.	Per-item target days of supply (0 = inherit).

Field	Purpose
Demand Source Profile	Auto (default), Sales, or Consumption — forces which demand drives this item.
Understatement-Prone	Flag (set automatically) marking items with sparse demand for closer review.



Item Card

1000 · Cranberry Oat Bar

Sales Validation awaits review: The agent made updates as part of a task.

Home Request Approval Item Prices & Discounts Actions Related Reports Automate Fewer options

Copy Item Adjust Inventory Create Stockkeeping Unit Apply Template Show product in Shopify

Item Tracking >

Warehouse >

Quality Inspection >

ROP Planning

ROP Planning Enabled ☒

Safety Days Override

Target Days of Supply Override

Case / Pack Size

Min Order Qty

Max Order Qty

Demand Source Profile

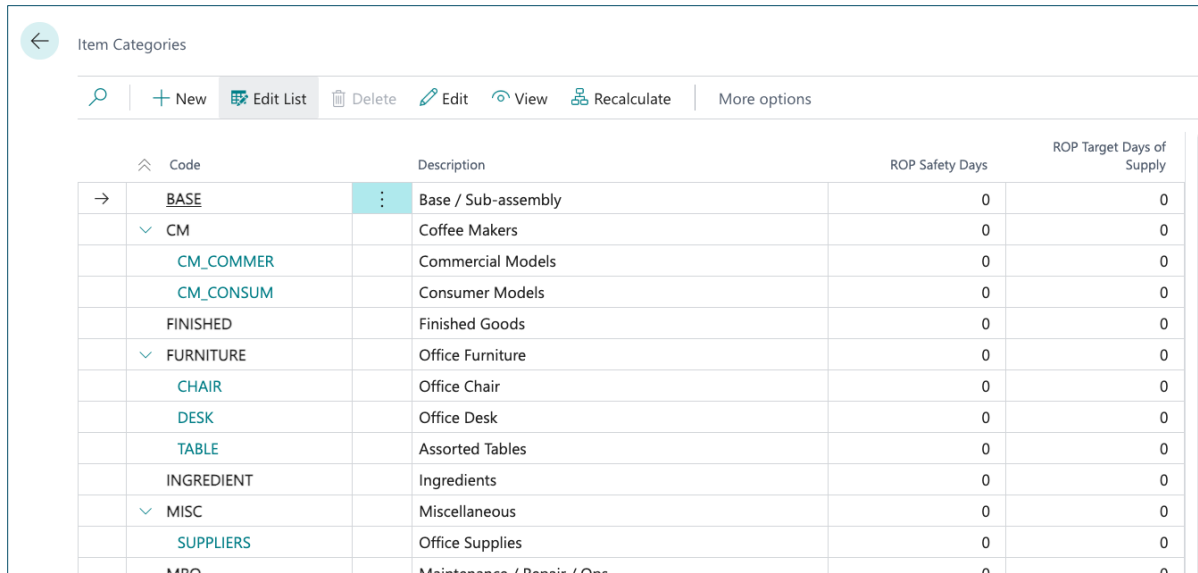
Understatement-Prone ☒

Figure: The ROP Planning section on the Item Card — enable planning and set per-item case size, order limits, and overrides.

5.2 Item Categories (optional category-level override)

Search **“Item Categories”** and use the two columns that appear after Description on the **list** page — **“ROP Safety Days”** and **“ROP Target Days of Supply.”** Enter a value once per category and every item in it inherits it, unless the item has its own override.

Note: these are edited inline on the Item Categories list, not on the individual category card. They are optional — if left at 0, categories inherit the ROP Setup company defaults (section 4.1). Use them when a whole category needs different cover than the company default, e.g. raw materials vs. finished goods.



	Code	Description	ROP Safety Days	ROP Target Days of Supply
→	BASE	Base / Sub-assembly	0	0
▼	CM	Coffee Makers	0	0
	CM_COMMER	Commercial Models	0	0
	CM_CONSUM	Consumer Models	0	0
	FINISHED	Finished Goods	0	0
▼	FURNITURE	Office Furniture	0	0
	CHAIR	Office Chair	0	0
	DESK	Office Desk	0	0
	TABLE	Assorted Tables	0	0
	INGREDIENT	Ingredients	0	0
▼	MISC	Miscellaneous	0	0
	SUPPLIERS	Office Supplies	0	0
	MRO	Maintenance / Repair / Oper	0	0

Figure: The ROP Safety Days and ROP Target Days of Supply columns on the Item Categories list. Blank (0) means the category inherits the Setup defaults.

6. Running the calculation

6.1 Scheduled (recommended)

Schedule the daily job through the standard **Job Queue**. Add a Job Queue Entry that runs the ROP daily job overnight, and the worksheet is fresh every morning.

6.2 On demand

From the ROP Planning Worksheet:

- **Recalculate** — recompute the selected lines now.
- **Refresh & Recalculate** — recompute everything now.
- **Rebuild Demand Ledger** — re-collect demand history from scratch, then recalculate (use after a large historical correction).

7. Using the Planning Worksheet

Search “**ROP Planning Worksheet**”. Each line is one recommendation.

ROP Planning Worksheet

Filters

Run & Status

Run Date (as of) 6/1/2025

Change Status All

Flagged for review only

Show skipped

Filter By

Item No. Filter

Location Filter

Item Category Filter

Replen System Filter All

Item No.	Description	Base UOM	Purch UOM	OH Inv.	Replen System	Current ROP	Current OQ	Proposed ROP	Proposed OQ	Avg Weekly Demand	Effective Weeks	Lead Time Weeks	Safety Stock	Rationale
RT-0010	ROP Tes...	EA	EA	300.00	Prod. Order	144.00	264.00	144.00	264.00	60.97	35	2.00	17.42	Reorder at 144 and or
RT-0020	ROP Tes...	EA	EA	10.00	Prod. Order	72.00	96.00	72.00	96.00	20.80	35	3.00	5.94	Reorder at 72 and or
RT-0075	ROP Tes...	EA	EA	80.00	Prod. Order	12.00	36.00	12.00	36.00	8.26	34	1.00	2.36	Reorder at 12 and or
RT-0012	ROP Tes...	KG	KG	100.00	Purchase	0.00	0.00	239.11	797.03	185.97	35	1.00	53.13	Reorder at 239.11 and
RT-0013	ROP Tes...	EA	CASE	160.00	Purchase	0.00	0.00	162.00	303.00	70.49	35	2.00	20.14	Reorder at 162 and or
RT-0014	ROP Tes...	EA	EA	100.00	Purchase	0.00	0.00	66.00	87.00	20.09	35	3.00	5.74	Reorder at 66 and or
RT-0015	ROP Tes...	EA	EA	80.00	Prod. Order	0.00	0.00	12.00	24.00	4.97	34	1.00	1.42	Reorder at 12 and or
RT-0016	ROP Tes...	KG	KG	30.00	Prod. Order	0.00	0.00	147.73	276.98	64.63	35	2.00	18.47	Reorder at 147.73 and
RT-0018	ROP Tes...	EA	CASE	1,000.00	Purchase	0.00	0.00	260.00	867.00	202.11	35	1.00	57.75	Reorder at 260 and or

Figure: The ROP Planning Worksheet — filters at the top, then columns showing Change Status, Current vs. Proposed ROP/OQ, and the demand inputs behind each line.

7.1 Reading a line

Column	Meaning
Change Status	Whether accepting the line changes the item: Update ROP, Update OQ, Update ROP & OQ, OK, or No Recommendation.
Current ROP / Current OQ	The item's (or SKU's) values today.
Proposed ROP / Proposed OQ	The values to apply — the single editable column, pre-filled with the engine's recommendation.
OH Inv.	On-hand inventory across locations.
Base / Purch UOM, Replen System	Item context (base and purchasing unit of measure, Purchase vs. Prod. Order).
Avg Weekly Demand, Effective Weeks, Lead Time Weeks	The inputs behind the recommendation.

7.2 Filtering

- **Change Status** — All (default) or a specific status; great for “show me only what changes.”
- **Flagged for review only** — quick exception filter.
- **Show skipped** — off by default; skipped lines also return after the next recalculation.
- **Item No. / Location / Item Category / Replen System** — narrow the list (Item Category is a pick-from-list lookup).
- **Clear Filters** resets them.

7.3 Acting on lines

7. Select lines with the **Selected** checkbox, or use **Select All / Deselect All**.
8. Optionally edit the **Proposed ROP / OQ** value.
9. **Accept** — writes the proposed value to the item/SKU. If your value still matches the engine's, the line is recorded as Accepted; if you changed it, Adjusted.
10. **Skip** — set the line aside; it returns after the next recalculation.

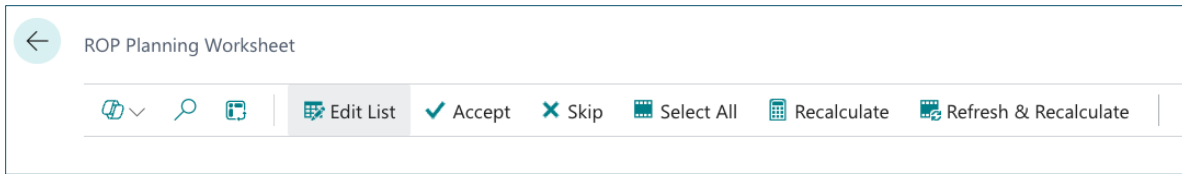


Figure: The worksheet action bar: Accept, Skip, Select All, Recalculate, and Refresh & Recalculate.

8. Understanding a recommendation

From a worksheet line, use the Explainability actions:

- **Demand Ledger** — the individual demand events behind the item's history.
- **Exclusions** — weeks the cleaning step removed or floored, and why.

Item No. ↑	Demand Date	Quantity (Base)	Demand Type	Variant Code	Location Code	Week Date ↑	Month Date	Collector Code	Source Table No.
1005	12/1/2023	5.00	Sales		NORTH	11/27/2023	12/1/2023	SALES	32
1006	10/1/2023	1.00	Sales			9/25/2023	10/1/2023	SALES	32
1008	10/17/2024	1.00	Sales		MAIN	10/14/2024	10/1/2024	SALES	32
1008	10/18/2024	1.00	Sales		MAIN	10/14/2024	10/1/2024	SALES	32
1018	9/25/2025	11.00	Production ...		MAIN	9/22/2025	9/1/2025	CONSUMP...	32
1020	9/25/2025	16.00	Production ...		MAIN	9/22/2025	9/1/2025	CONSUMP...	32
1020	9/25/2025	4.00	Production ...		MAIN	9/22/2025	9/1/2025	CONSUMP...	32
1020	9/25/2025	12.00	Production ...		MAIN	9/22/2025	9/1/2025	CONSUMP...	32
1308	9/26/2024	130.00	Sales			9/23/2024	9/1/2024	ROPTTEST	50600
1308	10/3/2024	130.00	Sales			9/30/2024	10/1/2024	ROPTTEST	50600
1308	10/10/2024	130.00	Sales			10/7/2024	10/1/2024	ROPTTEST	50600
1308	10/17/2024	130.00	Sales			10/14/2024	10/1/2024	ROPTTEST	50600
1308	10/24/2024	130.00	Sales			10/21/2024	10/1/2024	ROPTTEST	50600
1308	10/31/2024	130.00	Sales			10/28/2024	10/1/2024	ROPTTEST	50600
1308	11/7/2024	130.00	Sales			11/4/2024	11/1/2024	ROPTTEST	50600
1308	11/14/2024	130.00	Sales			11/11/2024	11/1/2024	ROPTTEST	50600

Figure: The Demand Ledger — the individual demand events behind an item, tagged by Demand Type and Collector Code.

8.1 Worked example

An item averaging 100 units/week, 21-day lead time, 12-unit case, with Safety Days 7 and Target Days 30:

- $ROP = (21 + 7) \times 100 \div 7 = 400 \rightarrow$ rounded up to a 12-unit case $\rightarrow 408$
- $OQ = 30 \times 100 \div 7 = 428.6 \rightarrow$ rounded up to a 12-unit case $\rightarrow 432$

An item is marked **Do-Not-Recommend** when it has too little history (below Min History Weeks) or no demand in the window.

9. Monitoring and KPIs

- **ROP KPI Dashboard** — four groups: **Stockouts** (items below safety stock, % below, below zero), **Inventory Availability** (availability %), **Process Runs** (runs and failures in the last 7 days, last-run age), and **Recommendation Acceptance** (accepted % and average ROP adjustment).
- **Metrics History** — tracks on-hand vs. safety stock over time.
- **Item Metrics Factbox** — a per-item summary surfaced on the Item Card.

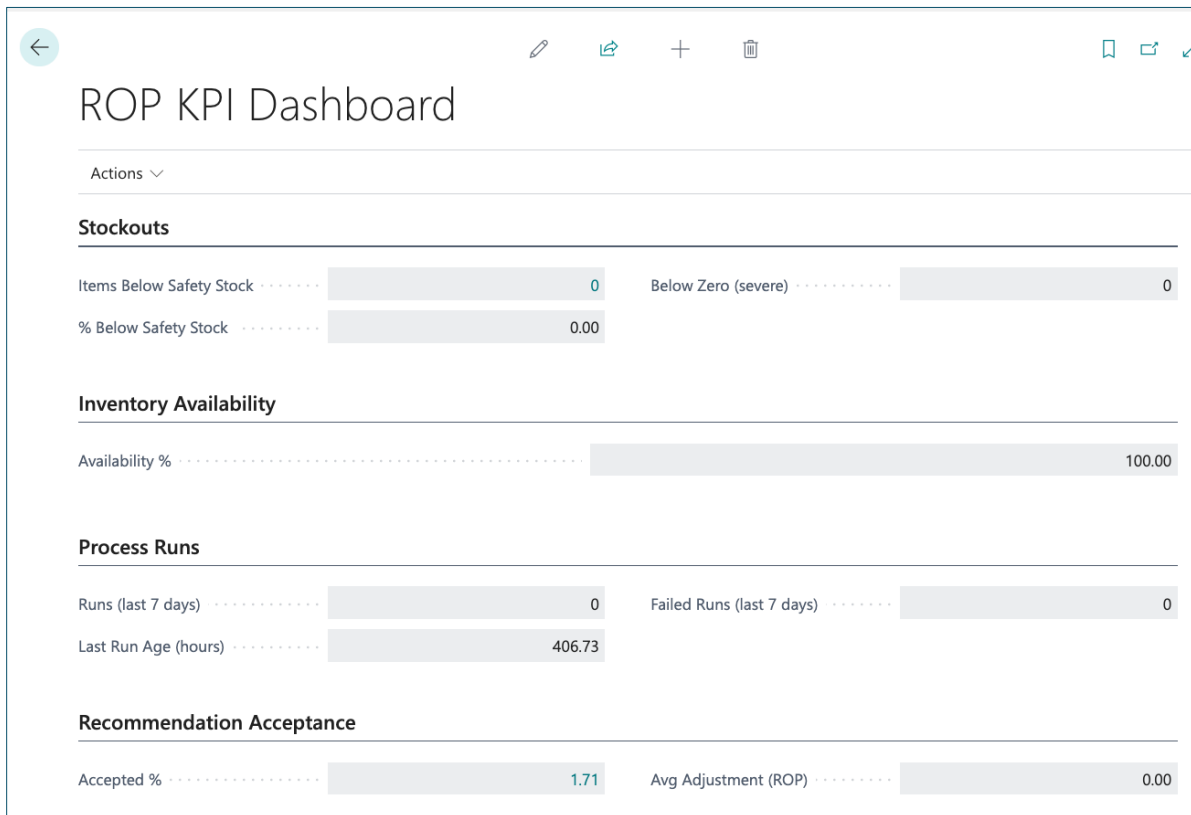


Figure: The ROP KPI Dashboard — Stockouts, Inventory Availability, Process Runs, and Recommendation Acceptance.

10. Recommended workflow

11. Administrator completes ROP Setup and enables items (sections 4–5).
12. Administrator schedules the nightly job (section 6.1).
13. Each morning, the planner opens the Planning Worksheet.
14. Filter Change Status to see only lines that would change.
15. Review flagged/understatement-prone items using the inspector.
16. Accept, adjust, or skip lines; accepted values write back to the item.
17. Review the KPI Dashboard periodically to tune Safety/Target Days.

11. Troubleshooting

Symptom	Likely cause / fix
Planning pages show a license message	Subscription not active, or Allow HttpClient Requests is off (section 3).
An item has no recommendation	Not ROP Planning Enabled, too little history, or no demand in the window.
Numbers look stale	Today's job hasn't run — use Refresh & Recalculate or check the Job Queue.
Proposal isn't a whole case	Set the Case / Pack Size on the Item Card.
A planner edit was rejected	Allow Rounding Override is off and the value broke the whole-unit rule.
Demand looks too low	Item may be understatement-prone — check Exclusions and the Demand Ledger.

12. Glossary

Term	Definition
ROP	Reorder Point — the on-hand level that triggers replenishment.
OQ	Order Quantity — how much to order when replenishing.
Safety Days	Days of demand held as buffer stock.
Target Days of Supply	Days of demand a single order should cover.
Demand Ledger	The normalized store of collected demand events.
Collector	A component that reads posted transactions into the demand ledger.
Change Status	Whether accepting a line would change the item's ROP, OQ, both, or neither.
Understatement-Prone	Flag for items with many zero-demand weeks whose average may understate need.

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