PFEP to point-of-use replenishment

Reconcile part identity and packaging data with a real replenishment route, then control the impact of a pack-size change before using it in supply instructions.

The database says twenty; the box holds sixteen

Fictional bracket-supply route: part P42 is consumed at bench B in packs defined as 20 pieces in its part record. Handler Eva finds supplier boxes containing 16. The route replenishes by box count, so the discrepancy changes what the bench receives.

Your role and the reference condition

Material-flow owner with handler, purchasing and the point-of-use operator.
Normal: Part identity, packaging quantity, location and handling data agree with the actual route and approved supply method.
Gap: The route card asks for three boxes, assumed to be 60 pieces, while the new boxes supply only 48.

Work within these conditions

1. The supplied packaging counts are fictional; verify identity before counting or changing records.

2. No handling weight or approved load limit is supplied, so the case does not authorize a new lifting or transport method.

Fictional teaching case. Supplied observations support the exercise; proposed actions are not verified customer results.

See how the method works

A reliable material route depends on reliable item information. Record the part identity, point of use, storage address, consumption, pack size and replenishment timing in fields that have clear owners. Walk one item from storage to consumption and back through its empty-container or signal return. Resolve discrepancies between the record and the actual route before expanding the system. Keep handling restrictions and quality status visible. A clean spreadsheet can still be wrong; the team needs a routine for maintaining it after changes. The aim is dependable supply at the point of use, not transport activity for its own sake.

Read every connection

1. Step 1 > 2
Defines

2. Step 1 > 3
Defines

3. Step 1 > 4
Defines

4. Step 2 > 3
Full container

5. Step 3 > 4
Deliver

6. Step 4 > 3
Empty / signal

7. Step 3 > 2
Refill signal

Connected method map: Owned part record, Storage, Supply route, Point of use. Every authored connection is shown with a numbered arrow and named legend.

Follow the evidence and decisions

Inspect the supplied case inputs

PFEP / route field	Record versus observation
Part identity	P42 bracket; identity agrees
Pack quantity	Record 20 pieces; observed box 16
Route instruction	3 boxes per replenishment
Source / destination	Store S > bench B
Handling data	Weight and container dimensions require confirmation
Change status	Supplier packaging change not yet approved in master data

01 / Verify the discrepancy at its source

Eva checks the part identity and counts a controlled sample with the supplier/receiving owner. She retains the packaging revision and delivery identity.

Why: A count mismatch could represent a packaging change, a short shipment or a wrong item. Updating a number without understanding the cause could normalize an error.

Evidence / check: Confirmed teaching observation: same P42 identity, 16 pieces in the observed package.

02 / Translate the route into pieces

Three recorded 20-piece boxes imply 60 pieces. Three observed 16-piece boxes contain 48, a 12-piece difference. Eva communicates the discrepancy to the consuming bench.

Why: Box counts are meaningful only with the matching pack quantity. The route may look complete while under-supplying its intended piece quantity.

Evidence / check: 3 x 20 = 60; 3 x 16 = 48; difference 12 pieces.

03 / Review all affected part information

Check pack dimensions, weight, source and destination addresses, consumption basis, replenishment trigger, route frequency and any containers/card quantities tied to packaging.

Why: A PFEP connects item data to physical supply. Changing one quantity can leave other records and handling assumptions inconsistent.

Evidence / check: Affected-field review names each dependent instruction and its owner.

04 / Control the interim and approved change

Follow the approved discrepancy response while purchasing and the flow owner decide the valid packaging basis. If 16-piece packs are approved, revise the route's unit definition and quantity logic rather than silently calling a box 20 pieces.

Why: Neither the handler nor the software display should invent stock or authority. Rounding a replacement box count also requires review of stock and handling consequences.

Evidence / check: Interim supply instruction is explicit; approved revision is traceable to the packaging decision.

05 / Walk one replenishment after revision

Trace an authorized replenishment from its signal through pick, conveyance and receipt. Reconcile actual pieces and update the record only through the controlled owner.

Why: A corrected database row is insufficient if the old route card, labels or point-of-use expectations remain in use.

Evidence / check: Record and physical receipt agree for item, packaging, count, location and handling method.

Completed PFEP discrepancy record

Field	Finding	Required action
Part	P42 identity confirmed	Keep identity trace
Pack	20 recorded / 16 observed	Resolve supplier change
Three-box delivery	48 rather than 60 pieces	Communicate 12-piece gap
Dependent instructions	Route/card/location/handling	Review as one change
Closure	Not yet demonstrated	Trace one approved replenishment

The supplier confirms a short shipment instead

Investigation finds the approved package is still 20 pieces; the observed 16-piece boxes were short.

Decision

Use the shortage/nonconformance process and retain the approved 20-piece master record until an authorized packaging change exists.

Reasoning

The same initial observation can lead to a different correction when its cause is known.

What would change the decision?

Supplier response and receipt discrepancy support the decision not to rewrite the pack definition.

Practise with a changed case

A bag-size change for fasteners

Separate fictional route: part F9 has a recorded 25 fasteners per bag. Approved new packaging contains 30. A replenishment instruction still says four bags, intended as 100 pieces.

Input	Value
Old pack	25 pieces/bag
Approved new pack	30 pieces/bag
Old route quantity	4 bags; intended 100 pieces

Your task

1. Calculate what four new bags deliver and the difference from the old intent.
2. List the dependent route fields that need review.
3. Explain why choosing three or four bags is an owner decision rather than an automatic rounding rule.

Use the next page to record your reasoning before reading the answer.

Your practice worksheet

A bag-size change for fasteners

Identity and approval evidence

Old/new pack quantities

Pieces delivered versus intent

Stock/handling/trigger effects

Revised instruction and receipt check

Complete your reasoning before turning to the answer. Use the separate learner workbook for group practice.

Check your reasoning and transfer it

1. Four new bags deliver 120 pieces, 20 more than the old 100-piece intent.

2. Review the pack basis, replenishment trigger, point-of-use capacity, handling data and any signal quantity dependent on the old pack.

3. Three bags deliver 90 and four deliver 120. Neither automatically preserves the intended 100; the owner must approve an appropriate supply rule and practical constraints.

Suggested completed record

Option / control	Calculation / evidence	Conclusion
Four bags	4 x 30	120 pieces; 20 extra
Three bags	3 x 30	90 pieces; 10 short
Decision	Review stock and supply intent	No silent rounding

Plausible wrong turns

1. A box or bag is not a stable quantity when packaging changes.

2. Correcting master data does not automatically correct the physical route.

Evidence of a sound answer

1. Keep packaging and piece units explicit.

2. Distinguish supplier shortage from approved change.

3. Trace the revised instruction to receipt.

Take the learning back to work

Commitment	Agreed follow-through
Owner	PFEP/master-data owner with purchasing and material-flow owner
Record	Controlled packaging change, dependent-field review and receipt trace
Review	At the packaging change and first representative replenishments
Verification evidence	Correct item/count/location and consistent approved handling instructions
If unresolved	Keep the discrepancy visible and use the approved interim supply response until all affected records and actions agree.

Help someone else apply the method

Prepare

1. Part record, supplier package card and route card
2. Piece counters for old and new packs

Minutes	Activity and coaching prompt
4	Establish identity Could this be a wrong part instead of a pack change?
8	Reconcile three boxes What does the bench actually receive?
8	Work the fastener variant What does each rounding choice imply?
5	Define closure Which physical event proves the records agree?

Debrief

1. Require an approval source for the pack change.
2. Ask where an old quantity could persist after the database is corrected.

Individual or remote practice

Translate every package quantity into pieces, then audit the dependent instructions.

Connect the method and check its boundaries

Before application

1. Trusted part identity
2. Handling constraints

Outside this lesson

1. A spreadsheet without ownership becomes stale
2. Fast transport alone does not create pull

LEI: Plan For Every Part

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Part-specific usage, locations, pack size, transit and handling data

Method reference; original OPEX scenario and diagram are synthetic teaching content, not source case results.

Open this lesson and its visual aids