

Connect your systems. Keep the record clear.

For operations, finance, quality, supply chain and IT teams connecting shop-floor records to an ERP, trading partners and suppliers.



Agree who owns each record

Items, stock, costs, quality status and shipments.

Prove it before go-live

Mappings reviewed, dry run, exceptions tested.

Reconcile, don't assume

A message received is not a business acceptance.

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Who this is for

Operations and plant managers, finance and ERP owners, warehouse and logistics, quality and supplier quality, and IT in batch, process and packaging manufacturing.

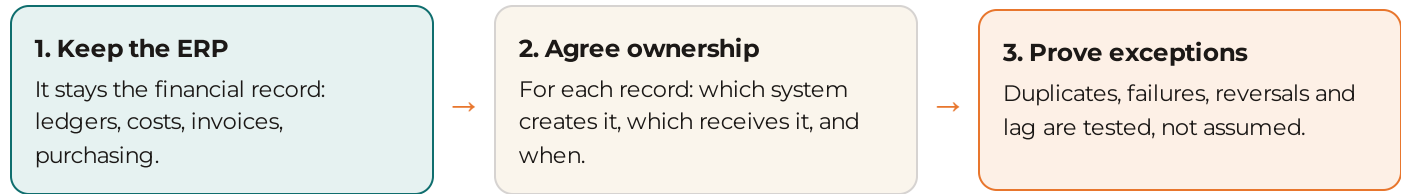
Important. Connections move records between systems that each have rules. No integration is "plug and play" for every ERP, partner or supplier. Each one is scoped, mapped, tested and signed off by people at your company.

How to use it. Fill in page 4 with finance and operations first. Use pages 6–13 as the demonstration script with your own items, a real partner order and a real supplier certificate. Score suppliers on page 15.

1 • DECIDE FIRST

Three choices before any connection

Most connection projects that go wrong skipped one of three decisions. Make them in writing before anyone builds a map.



SYMPTOM AFTER GO-LIVE	USUAL CAUSE	PREVENTED BY
Stock differs between systems	Both systems edit the same record	One owner per record (page 4)
Cases ordered, eaches shipped	Unit conversion never agreed	Unit mapping review (page 5)
A receipt posted twice	Retry behaviour never tested	Exception tests (page 8)
Partner rejects ship notices	Map tested with only one example	Partner test cycle (page 10)
Supplier says 'I uploaded it'	Upload treated as approval	Human review step (page 12)
Nobody can explain a difference	No reconciliation routine	Reconciliation sheet (page 9)

The outcome to buy. For any lot, order or shipment: where the record started, where it went, when, and who resolved any difference.

Watch for "seamless" and "real-time". Ask what is sent, how often, what happens on failure and who sees it. Timing is a configuration choice with trade-offs.

2 • OWNERSHIP

Record ownership matrix

Write one owner per record. "Both" is not an answer. Direction and timing come from that decision.

RECORD	TYPICAL OWNER	DIRECTION	TIMING TO AGREE	WHO APPROVES CHANGES
Items and descriptions	ERP	ERP → floor	On change	Master data
Units and conversions	ERP	ERP → floor	On change, reviewed	Master data + operations
BOMs / formulas and revisions	Agree: ERP or floor	One way only	On approval	Technical / engineering
Work orders	ERP or planning	Into floor; status back	On release / completion	Planning
Purchase orders	ERP	ERP → floor	On approval	Purchasing
Receipts and lots	Floor system	Floor → ERP	Per receipt or batch	Warehouse
Consumption and scrap	Floor system	Floor → ERP	Agreed schedule	Operations
Quality status (hold/release)	Quality system	Shown to ERP	On decision	Quality
Costs and valuation	ERP	Stays in ERP	Period close	Finance
Shipments	Floor / warehouse	Floor → ERP	On dispatch	Logistics

Your version. Copy this table, replace "typical" with your actual answer, and have finance, operations and quality initial it.

Quality status. Releasing or holding material is a quality decision. A connection can carry the status; it should never make the decision.

3 • MAPPING

Items, units and revisions

The commonest mapping error is units. The ERP buys in boxes; the floor counts single units or kilograms.

WORKED EXAMPLE • ITEM 40-118 FRUIT CUPS	ERP	FLOOR RECORD	AGREED RULE
Purchase unit	Box	—	1 box = 24 cups
Stock unit	Box	Cup	Floor records cups; ERP receives boxes ÷ 24
Receipt of 10 boxes	10	240	Matches after conversion
Issue of 30 cups to WO-6120	1.25 boxes	30	Decimals allowed? Agree rounding
Revision	Rev C	Rev C	Rev must match before posting

Mismatches to resolve before go-live

MISMATCH	RESOLVED WHEN	OK
Unit of measure differs	Conversion written down, tested both ways, rounding agreed	☐
Item exists in one system only	Created in the owner system, then mapped	☐
Revision differs	Owner decides which is current; the other is updated	☐
Lot or expiry format differs	Format agreed; sample lots tested	☐
Location codes differ	Location map approved by the warehouse	☐
Duplicate items	Merged or retired in the owner system	☐

Who resolves. Mapping suggestions can save time; a named person still accepts each one. Record who accepted it and when.

4 • COMMISSIONING

Commissioning a connection safely

A safe go-live reads before it writes, and writes to a test first. Keep evidence from each step.

1	Connect Credentials and connection test	RECORDED Connection test result	WHO DECIDES IT
2	Discover Read what records exist; nothing written	RECORDED Counts of items, BOMs, orders	WHO DECIDES System
3	Apply preset Starting field mappings for the ERP type	RECORDED Draft mapping	WHO DECIDES System
4	Review People accept, change or reject each mapping	RECORDED Approved mapping, who and when	WHO DECIDES Owners
5	Dry run Run sample records without committing	RECORDED Dry-run results and differences	WHO DECIDES IT + owners
6	Go-live Agreed records start flowing on the agreed timing	RECORDED Go-live sign-off	WHO DECIDES Project lead

EVIDENCE TO KEEP	EXAMPLE
Scope statement	Which records, which direction, which sites
Approved mapping version	Mapping v1.2 accepted by master data, 14 Oct
Dry-run report	50 items, 6 BOMs, 4 POs; 2 unit differences fixed
Reconciliation after first week	Stock compared for 20 lots; differences explained
Sign-off	Finance, operations, quality, IT

In V5. The ERP bridge wizard follows these six steps: Connect, Discover, Apply preset, Review, Dry-run, Go-live, with suggested field mappings that people review.

5 • LIVE INVENTORY

Live inventory and ERP posting

Keep two questions apart: what happened on the floor, and has the ERP received it yet.

LOT S-77 • FLOOR LEDGER	KG	POSTING STATE	STATUS
Opening	1,200	Dispense 410 kg	Posted
Dispensed to WO- 6120	-410	Scrap 6 kg	Posted
Scrap (reason entered)	-6	Receipt 500 kg	Pending — next run
Receipt	+500	ERP shows now	784 kg
On hand now	1,284	After next run	1,284 kg
1,200 - 410 - 6 + 500 = 1,284 kg		1,200 - 410 - 6 = 784 kg until the receipt posts	

That difference is expected. For a while the ERP shows 784 kg and the floor shows 1,284 kg. Planning must know which figure it is reading and how old it is.

QUESTIONS TO AGREE	WHY
How often does each record post?	Every movement, every few minutes, or per shift each has a cost
What is the acceptable lag?	Planning and purchasing need to know
Where is the backlog shown?	Pending items must be visible, not hidden
Who clears a failed post?	A named role, with a time to resolve
What if the ERP is down?	Your requirement: agree what the floor may record while the ERP is down, and how queued posts are replayed. Ask the vendor to show it; do not assume it

6 • EXCEPTIONS

Exceptions to prove

Happy-path demos prove little. Ask to see each of these, with your records, before you sign.

TEST	SET IT UP	PASS WHEN
Duplicate message	Send the same receipt twice	Posted once; duplicate visible and explained
Partial failure	One line of a five-line receipt fails	Failed line visible; others posted or held as agreed
Out of order	Consumption arrives before its receipt	Held or rejected with a clear reason
Missing response	ERP never answers	Shown as pending, not as posted
Outage	ERP offline for a shift	Buyer pass criterion (not a stated V5 behaviour): floor recording continues as agreed; queued posts replay in order, visibly, once each
Reversal	A receipt is corrected after posting	Correction posted; original kept
Unit change	Conversion edited mid-month	Change approved; history unchanged

"Idempotent" is not a guarantee. In HTTP (RFC 9110), an idempotent method can be repeated with the same intended effect. That alone does not prove a business record posts exactly once. Ask for the replay test.

Who decides. When a post fails, a person decides whether to retry, correct or cancel. Record that decision.

7 • RECONCILIATION

Reconciliation sheet

Reconcile weekly at first, then monthly. Each line is one record that should exist in both systems.

SOURCE EVENT	BUSINESS KEY	QTY / UNIT	LOT · STATUS	ACK	ERP RESULT	OWNER
RCV-2201	PO 7741 line 1	500 kg	S-77 · released	Received	Posted	Warehouse
ISS-8830	WO-6120	410 kg	S-77 · released	Received	Posted	Operations
SCR-0192	WO-6120 scrap	6 kg	S-77	Received	Posted	Operations
RCV-2207	PO 7752 line 2	240 cup	F-12 · on hold	Received	Rejected: unit	Master data
SHP-4410	SO-2210	96 case	L-5521/24	None	Pending	Logistics

Physical receipt ≠ message acknowledgement.

Goods on the dock, a message received by the ERP, and the ERP accepting the posting are three different facts. Track them separately.

Close each line. Every "Rejected" or "Pending" line gets an owner and a resolution note. RCV-2207 here needs the box/cup conversion fixed, then re-posted.

Monthly close checklist

CHECK	WHAT GOOD LOOKS LIKE	OK
Pending posts	None older than the agreed lag	☐
Rejected posts	Each resolved with a note	☐
Stock sample	20 lots match after conversion	☐
Mapping changes	Each approved and dated	☐

8 • TRADING PARTNERS

Order to dispatch, in plain words

Electronic data interchange (EDI) replaces emailed orders and ship notices with structured messages. Each partner has its own implementation rules.

1	Order in Partner sends a purchase order	RECORDED 850 → sales order	WHO DECIDES Partner
2	Acknowledge You confirm, change or reject lines	RECORDED 855 order acknowledgement	WHO DECIDES Customer service
3	Pick and pack Lots and pallets scanned	RECORDED Pallet contents	WHO DECIDES Warehouse
4	Ship notice Built from what was scanned	RECORDED 856 advance ship notice	WHO DECIDES System, from scans
5	Invoice Billed from what shipped	RECORDED 810 invoice	WHO DECIDES Finance

CODE	PLAIN MEANING
850	Purchase order
855	Purchase order acknowledgement (a business answer)
856	Ship notice / manifest (ASN)
810	Invoice
940 / 945	Warehouse shipping order / shipping advice
943 / 944	Warehouse stock transfer shipment / receipt advice
947	Warehouse inventory adjustment advice

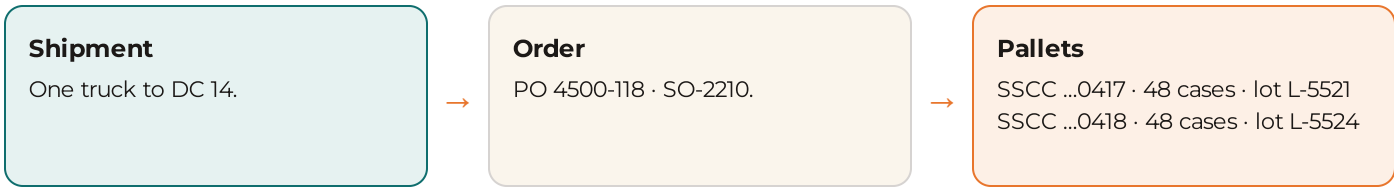
Protocol ack ≠ business acceptance. A functional acknowledgement only says a message arrived and was readable. An 855 is your business answer. A partner can still dispute a shipment.

Test every partner. Maps are agreed with each partner, tested with their samples, and versioned. Ask how map changes are approved and retested.

9 · LOGISTIC UNITS

Pallets, labels and lots

A serial shipping container code (SSCC) identifies one pallet or case as it travels. It does not identify the lot inside it. The ship notice links the two.



AT THE DOCK, CHECK	LABEL SAYS	SHIP NOTICE SAYS	MATCH?
Pallet identity	SSCC ...0417	SSCC ...0417	Yes
Contents	48 cases item 40-118	48 cases item 40-118	Yes
Lot	L-5521	L-5521	Yes
Pallet 2 lot	L-5524	L-5521	No — stop and correct before dispatch

Partial pallets. Splitting a pallet means a new SSCC and an updated notice. Ask to see it done.

Identifiers here are shortened. Real SSCCs carry your own GSI company prefix and a check digit. Never reuse another company's prefix.

Worked example · splitting pallet 2

STEP	RECORD
Customer cuts the order to 72 cases	855 change sent
Pallet 2 broken down to 24 cases	Old SSCC ...0418 retired
New label printed	SSCC ...0419 · 24 cases · lot L-5524
Ship notice rebuilt	Pallets ...0417 + ...0419 · 72 cases
Dock scan	Both labels match the notice

GSI General Specifications define the SSCC (AI 00). The GSI Logistic Label Guideline explains label layout; it is guidance, not a legal requirement. Partners may add their own rules.

Supplier documents and corrective actions

A supplier portal saves chasing. It does not replace your review. An upload is not an acceptance.

1	Request You ask for a document against your specification	RECORDED Request with due date	WHO DECIDES Supplier quality
2	Upload Supplier uploads the certificate and expiry	RECORDED Document, awaiting review	WHO DECIDES Supplier
3	Review Your quality team checks it against the spec	RECORDED Accepted or returned, with reason	WHO DECIDES Quality
4	Expiry Expiry dates visible before they lapse	RECORDED Renewal request	WHO DECIDES Supplier quality
5	Corrective action Supplier replies to a SCAR in the portal	RECORDED Reply and evidence	WHO DECIDES Supplier
6	Close Your quality team accepts or asks for more	RECORDED Closed or returned	WHO DECIDES Quality

WORKED EXAMPLE • SUPPLIER B

STATE

Allergen statement, raw material RM-7720	Accepted by quality, 3 Oct
Certificate of analysis, lot 7720-44	Awaiting review
Food safety certificate	Expires in 21 days • renewal requested
SCAR-07 damaged bags	Supplier replied • awaiting quality decision

Holds. Whether material from a supplier with an expired document is held at receiving is set by your procedure. The portal makes the status visible.

Access and change control

Connections and portals widen who can touch your records. Decide the controls, then ask the vendor to demonstrate them.

AREA	DECIDE	ASK TO SEE
Supplier access	Each supplier sees only its own records	Two supplier logins side by side
Partner maps	Changes approved, versioned and retested	Map history with approver
ERP mapping	Changes approved by the record owner	Mapping revision and dry-run evidence
Credentials	Who owns, stores and rotates them	Where they live; who can see them
Users who leave	Access removed on the day	Deactivation and its record
Change procedure	Your change control covers connections	A change raised, tested and approved

Don't take security on trust. Ask for the vendor's security documentation and test the controls that matter to you. This guide makes no security certification claims.

Regulated sites. Validation follows your intended use and risk. In V5, IQ/OQ support is available on Enterprise only.

Change record for a connection

CHECK	WHAT GOOD LOOKS LIKE	OK
Reason and scope	What changes and why	☐
Impact	Which records, partners or suppliers	☐
Test evidence	Dry run or partner test passed	☐
Approval	Owner and quality, dated	☐

Demonstration script

Ninety minutes, with your data. Give the vendor these five scenarios a week ahead.

#	SCENARIO	WATCH FOR
1	Receive two lots of one material against one PO, in a different unit from the ERP	Conversion shown; both lots traceable; ERP receives the right quantity
2	Supplier uploads a revised certificate for one lot	Shown as awaiting review; a person accepts or returns it
3	Ship a partner order with one full and one partial pallet	Ship notice built from scans; partial pallet has its own SSCC
4	Take the ERP offline, record a shift, bring it back	Buyer acceptance test, proven live: does recording continue, and do queued posts replay in order without doubling? Record what actually happens
5	A receipt is found to be wrong after posting	Correction posted; original kept; reconciliation explains it

Bring people. A finance owner, a warehouse lead, a quality reviewer and IT. Each scores their own scenario.

Disposition stays human. In every scenario, check who decides: accept a document, release a lot, retry a post, close a SCAR.

Send the vendor a week ahead

SEND	DETAIL	OK
Ten real items	Including one with a box/unit conversion and one revision change	☐
One partner's sample 850	With that partner's implementation notes	☐
One real supplier certificate	And your specification for that material	☐
Your ownership matrix	Page 4, filled in	☐
Your exception list	Page 8, with your own pass criteria	☐

Acceptance evidence and RFP

ACCEPTANCE ITEM	PASS CRITERION	OWNER	EVIDENCE	
Ownership matrix signed	Every record has one owner	Project lead	Signed page 4	
Mapping approved	All units and revisions resolved	Master data	Mapping version	
Dry run clean	Differences explained and fixed	IT	Dry-run report	
Exception tests	All page 8 tests pass	IT + finance	Test log	
Partner certified by partner	Partner confirms test cycle	Logistics	Partner sign-off	
Protocol vs business ack	Tracked separately	Logistics	Reconciliation sheet	

RACI	OPERATIONS	QUALITY	FINANCE / ERP	IT / VENDOR
Ownership decisions	R	C	A	C
Mapping review	R	C	A	R
Supplier document review	I	R/A	I	C
Partner testing	R	I	C	A
Go-live sign-off	R	R	A	R

AREA	WHAT TO SEE DEMONSTRATED	SYSTEM A	SYSTEM B
Ownership	One owner per record, visible in the tool	_____	_____
Mapping	Suggestions reviewed and accepted by people	_____	_____
Exceptions	Duplicate, failure, outage and reversal demonstrated	_____	_____
Trading partners	Ship notice from scans; maps versioned	_____	_____
Suppliers	Upload, review, expiry and SCAR in one place	_____	_____
Total (0–3 each)		_____	_____

Where V5 fits and sources

- **ERP integration:** your ERP stays the financial record. The ERP bridge wizard runs Connect, Discover, Apply preset, Review, Dry-run, Go-live, with suggested field mappings that people review. Which records move, in which direction and how often is agreed per customer.
- **Live ERP inventory:** consumption, scrap and receipts are recorded in V5 as they happen and passed to the ERP on the configured schedule. Not claimed: real-time posting or no stockouts.
- **EDI & ASN:** X12 850, 855, 856, 810 and warehouse 940/943/944/945/947, with GS1-128 SSCC labels. Each partner map is set up and tested with that partner. Not claimed: partner acceptance or specific transport services.
- **Supplier portal:** document submission against your specification with expiry dates, SCAR replies and scorecards from your receiving and quality records. Your quality team reviews, accepts and closes.
- **Plans:** ERP, accounting, EDI & ASN and the supplier portal are in Professional and Enterprise. IQ/OQ support is Enterprise only.

Standards and descriptions below explain buyer questions; they are not V5 capability claims. Links reviewed 1 October 2026.

Standards

- **GS1 General Specifications (standard; SSCC, AI 00)** — ref.gs1.org/standards/genspecs/
- **GS1 EPCIS 2.0 (standard; interoperability reference only)** — ref.gs1.org/standards/epcis/
- **IETF RFC 9110 HTTP Semantics (standard; idempotent methods)** — www.rfc-editor.org/rfc/rfc9110.html

Guidance and descriptions

- **GS1 Logistic Label Guideline (guidance)** — ref.gs1.org/guidelines/logistic-label/
- **X12 supply chain flow (public description)** — x12.org/flow/supply-chain
- **X12 transaction sets (public list)** — x12.org/products/transaction-sets

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