

Match & Merge Rules: Automated Matching of Purchase Orders, Deliveries and Invoices

Match & Merge rules are predefined allocation logics in procurement and accounts payable that automatically reconcile purchase orders, goods receipts and invoices. They form the rule set behind two-way or three-way matching and determine which items may be consolidated and which require manual clarification. In practice, they reduce processing effort, cut payment delays and strengthen compliance in the procurement process.

Key facts

- Match & Merge rules control which documents (purchase order, receipt, invoice) are automatically reconciled.
- Typical matching criteria are purchase order number, supplier number, quantity, unit price, tax code and delivery date.
- Common practical tolerance values are quantity deviations of 0–5% and price deviations of 1–3%, depending on material class.
- The rules prevent duplicate payments and incorrect postings and support the commercial invoice verification.
- Clear rules improve the on-time payment rate and thus the use of early payment discounts as well as supplier relationships.
- Exceptions without a match typically go into a documented deviation analysis with defined approval levels.

Definition: Match & Merge rules

Match & Merge rules are parameterisable logics in ERP, e-procurement or invoice workflow systems that autonomously determine which purchase order belongs to which goods receipt and which invoice. “Match” stands for the allocation of the documents, “Merge” for the consolidation of several partial documents – for example multiple partial deliveries or partial invoices – into a consistent reconciliation. In practice, the term is also used as invoice matching, three-way matching or purchase order reconciliation.

Two-way and three-way matching

In two-way matching, the purchase order and the invoice are compared; this is typical for service and framework orders where a goods receipt cannot meaningfully be measured. Three-way matching additionally includes the goods receipt and is the standard for materials management and production-related procurement. In practice: the more documents are involved, the higher the meaningfulness and process protection, but also the higher the requirements for data quality.

Distinction from classical invoice verification

Commercial invoice verification checks whether an individual invoice is content-correct and can be

posted. Match & Merge rules automate the document comparison behind it and provide the decision template: if everything matches, the invoice automatically proceeds to payment; in the event of deviations, controlled exception handling starts. The rules therefore do not replace the verification but implement it systematically and in an audit-proof manner.

Methods and approach: building Match & Merge rules

A robust rule set is not created at a desk but from the analysis of actual ordering and delivery behaviour. A tiered approach is recommended: classify order and document types, define tolerances per material class, parameterise the rules and then test them with real data flows.

Document and process segmentation

First, order types are separated: direct materials, indirect goods, services, framework order and spot purchase vs. framework agreement require different logics. With framework agreements, matching is typically done against the call-off; for services, against milestones or order confirmations. Special cases such as urgent orders or returns also need their own paths so that they do not block the standard process.

Defining tolerances and matching criteria

The core of the rules are tolerances: common in practice are quantity tolerances of up to 5% and price tolerances between 1% and 3%, depending on the value and criticality of the material. The matching criteria are primarily purchase order number, line item, supplier number, quantity, unit of measure, price and tax code. Sophisticated systems allow weighted scores instead of hard yes/no logics, so that small deviations are automatically accepted and larger ones escalated.

Exception handling and escalation

Every rule needs a defined match and non-match path. Unallocated documents go into a workflow queue with a clarification reason, responsibility and deadline. The subsequent deviation analysis documents the cause – such as an incorrect purchase order number, partial delivery or price change – and feeds the learnings back into ordering processes and supplier communication. Without clean exception handling, the degree of automation rapidly declines.

Key KPIs for Match & Merge rules

The success of the rule set can be measured. Key metrics show which share of documents runs automatically, how quickly payment is made and where deviations occur systematically.

Automation and throughput metrics

The automation rate (share of touchless invoices) typically lies at 70–90% in mature processes; values below this indicate data quality problems or tolerances that are too tight. Additionally relevant: processing time per invoice, share of deviations by cause and the rate of correctly matched quantities. These metrics can be incorporated well into a savings pipeline, because every automated document reduces approval and search costs.

Payment and supplier metrics

Correctly matched invoices lead to timely payment – the on-time payment rate rises, and early payment discounts are actually used. Conversely, matching errors feed into supplier performance evaluation

when a supplier repeatedly provides incorrect invoice references or deviating prices. Document reconciliation thus indirectly becomes a steering instrument for supplier quality as well.

Risks and controls in Match & Merge rules

Incorrectly parameterised rules can cause damage: tolerances that are too generous let overpayments through, tolerances that are too tight create manual burden. Controls, approvals and an audit plan keep the rule set effective and audit-proof.

Typical risks

Common error patterns are duplicate orders that are allocated two valid invoices, invoices without a purchase order reference that remain stuck in an exception queue due to a missing rule, and manipulated or outdated master data. Particularly critical: if prices are changed under a framework agreement without adjusting the matching rules, systematic deviations arise. Retentions and advance payments also require their own rules, otherwise misallocations threaten.

Controls, approvals and audit plan

Changes to tolerances should follow a four-eyes process with documented justification. An audit plan periodically checks whether tolerances are still appropriate and whether exception cases were handled correctly. Sampling of manually approved invoices above defined thresholds as well as regular deviation analysis by supplier and material class are sensible. Revision-relevant changes to the rule set belong in a documentation system.

Contractual anchoring

Matching rules work best when suppliers know them: invoicing guidelines with mandatory data, referencing of the purchase order number and defined response times for queries should be included in supply contracts and framework agreements. When renewing contracts – for example an automatic contract renewal – reviewing the supplier's invoicing and matching processes should be part of the suitability assessment.

Current developments: automation and AI in document reconciliation

Document reconciliation is moving from rigid if-then rules towards learning systems. Increasingly, machine learning methods complement classical parameterisation without replacing it.

AI-supported allocation

Modern systems suggest allocations even if invoice numbers or line item descriptions are phrased atypically, and learn from corrected cases. Automatic disposition and document reconciliation thus converge: both rely on clean master data and historical data. In practice, it has proven worthwhile to use AI suggestions initially only as a recommendation with human approval and to raise the threshold to full automation only after proven accuracy.

Integration into procurement strategy and supplier management

Match & Merge data is increasingly used strategically: frequent price deviations from certain suppliers suggest a new tender or negotiation, recurring partial quantities suggest an adjustment of the safety stock calculation. In contingency planning too, the reconciliation helps because it shows which stocks

were actually delivered and invoiced. Transparency from the reconciliation thus becomes a raw material for supplier development and for early supplier involvement in new projects.

Multiple document sources and platform thinking

With marketplaces, EDI connections and portals, the number of document formats is growing. Modern matching logics normalise data from different sources before reconciliation. Especially in B2B trade with technical components – from standard parts to the OEM/ODM model – the quality of the pre-processing determines how high the degree of automation actually is.

Implementation in your own organisation

Match & Merge rules are not a purely IT topic but an interplay of procurement, materials management, accounts payable and internal auditing. Implementation is most likely to succeed step by step and with clear responsibility.

Piloting and rollout

It has proven effective to start with a limited material class or a few suppliers with high document volume. There, tolerances are calibrated, exception rates measured and responsibilities sharpened. Only then does the rollout follow to further categories, ideally with standard tolerance sets per material class and exceptions only with justification.

Roles and responsibilities

Procurement defines tolerances and negotiates invoicing requirements, materials management provides reliable incoming data, accounts payable operates approval and payment, and internal auditing checks against the audit plan. This division of tasks prevents tolerances from being quietly expanded and keeps the reconciliation intact as a control instrument.

Typical metrics

Invoice automation rate: 70–90%

typical benchmark in mature processes; lower values usually indicate data quality problems

Processing time per invoice: < 5 minutes

for fully automatically matched documents; manual cases are considerably higher

On-Time Payment Rate: > 95%

reliable matching is a central prerequisite for timely payment

Exception rate: < 10%

share of documents not automatically matched; analyse causes by supplier

Practical example

A medium-sized mechanical engineering company with around 12,000 invoices per year had long manual approval loops and a high volume of deviating invoices. The company introduced a tiered Match & Merge rule set: three-way matching for direct materials, two-way matching for services, separate tolerances per material class and a structured exception queue with deviation analysis. Within one year, the automated share of invoices increased significantly, processing time per document fell noticeably, and early payment discounts were used far more frequently. In addition, the exception statistics showed

that two key suppliers repeatedly invoiced with incorrect line item texts – the basis for a targeted supplier address.

- Three-way matching for direct materials, two-way for services
- Tolerances per material class (typical: quantities up to 5%, prices up to 2%)
- Exception queue with clarification reason, responsibility and deadline
- Monthly deviation analysis as input for supplier performance evaluation

Conclusion

Match & Merge rules turn document reconciliation from manual drudgery into a steerable, auditable process. They are only as effective as the data quality of the purchase order, the goods receipt and the supplier master data. Clear tolerances, disciplined exception handling and an audit plan secure effectiveness and audit compliance. Those who additionally use the matching data for supplier evaluation and negotiation steering gain real strategic added value. For technical buyers, clean document reconciliation is thus a foundation both for securing liquidity and for reliable supplier relationships.

Frequently asked questions

What does Match & Merge mean in procurement?

Match & Merge refers to the automated allocation and consolidation of purchase orders, goods receipts and invoices in ERP or workflow systems. The rules determine which documents belong together and whether the matching passes without manual review. In the event of deviations, a defined exception handling process is triggered instead of ad-hoc clarification.

What is the difference between 2-way and 3-way matching?

In 2-way matching, the purchase order and the invoice are compared, for example for services or call-offs under framework agreements. In 3-way matching, the goods receipt is added as a third document, which is the standard for material deliveries. The more documents are involved, the more reliable the match – but also the higher the requirements for data quality and processes.

What tolerances are customary in invoice matching?

In practice, quantity tolerances typically range from 0 to 5% and price tolerances between 1 and 3%, depending on material class and order value. High-volume or critical parts usually receive tighter tolerances than C-parts. The values should be reviewed periodically and documented in the audit plan.

What data is required for Match & Merge rules?

The core data are purchase order number, line item number, supplier number, ordered and delivered quantity, unit of measure, unit price, tax code and delivery or service date. In addition, unique article numbers and well-maintained supplier master data help. Poor master data is the most common cause of low automation rates.

What happens to invoices that cannot be matched?

Unmatched documents go into an exception queue with a documented clarification reason, responsibility and deadline. There they are reviewed, corrected or returned to the supplier. The causes are analysed in a deviation analysis in order to systematically eliminate recurring errors.

Does automatic invoice matching deliver real benefits for procurement?

Yes – in practice, automation rates of mature processes typically reach 70–90%. This reduces processing costs, speeds up payment and improves the on-time payment rate as well as the use of early payment discounts. In addition, the matching data provides valuable insights for supplier evaluation and negotiations.