

Production Scheduling & APS

The 2026 Buyer's Guide & Vendor Landscape

A practitioner's guide to evaluating, costing, and selecting advanced planning and scheduling (APS) and production scheduling software: what these systems do, how they differ from planning and execution, how the market and vendors stack up in 2026, what they cost, how to run the selection, and how to de-risk the rollout.

Prepared by **Supply Chain Research** · June 2026 · Vendor-neutral: we take no payment from the vendors covered.

Contents

- 1 Executive summary
- 2 What production scheduling software is
- 3 The production scheduling market in 2026
- 4 The vendor landscape
- 5 How to evaluate a scheduling platform
- 6 Cost and pricing
- 7 Implementation: where programs succeed or fail
- 8 Trends shaping 2026
- 9 Segment-specific guidance
- 10 ROI and the business case
- 11 Frequently asked questions
- 12 Recommendations
- 13 Methodology and caveats
- 14 Sources

1. Executive summary

Advanced planning and scheduling software, or APS, decides the detailed sequence in which a factory makes things: which job runs on which machine, in what order, and when, subject to finite capacity, materials, changeovers, and due dates. It is the layer between supply planning, which decides what to make and hold over weeks and months, and manufacturing execution, which runs the shop floor in real time. For years this was a quiet specialist discipline. The pressures of high-mix manufacturing, volatile demand, and the push toward autonomous operations have raised its profile. In 2026 the category is being reshaped by AI applied to scheduling and re-planning, by the structural realignment of analyst coverage, and by a persistent confusion about what APS actually is.

This guide is written for manufacturing, operations, planning, and IT leaders evaluating a scheduling investment, and for the teams who must integrate it with the ERP and the shop floor. It is deliberately vendor-neutral: we accept no payment from the vendors covered, and we name no single best platform, because the right choice depends on whether you run discrete or process manufacturing, how complex your constraints are, and whether you need a focused scheduling engine or a full planning suite. The pages that follow define the category, size the market honestly while flagging a fourfold conflation, profile the specialist, suite, and ERP-embedded tiers, lay out an evaluation framework, and explain why constraint modeling and integration, not the feature list, decide the return.

~4x the gap between narrow detailed-scheduling APS and figures that conflate it with supply planning	No APS MQ there is no standalone Magic Quadrant; APS sits inside Gartner's 2026 SCP quadrants	Discrete vs Process Gartner split the Supply Chain Planning Magic Quadrant in 2026 along industry lines
---	--	--

What the evidence says

APS is the detailed-scheduling layer, not supply planning. It sits between supply planning above and shop-floor execution below, and conflating it with either is the most common and most costly buyer error.

A fourfold sizing gap follows from that confusion. Narrow detailed-scheduling estimates cluster near \$1B to \$1.6B, while the broadest figure conflates APS with the supply-planning layer of SCP and reaches roughly \$4B.

There is no standalone APS Magic Quadrant. Gartner assesses APS inside its Supply Chain Planning quadrants, which it split in 2026 into Discrete Industries and Process Industries, reflecting fundamentally different scheduling problems.

Pure scheduling specialists sit outside that coverage. Vendors like Siemens Opcenter APS, DELMIA Quintiq, and Asprova are not in the SCP quadrants, a real coverage gap for plant-floor scheduling.

Constraints and integration decide success. Whether the platform can model your real constraints and connect cleanly to ERP and MES matters more than the feature list, and is where programs succeed or fail.

2. What production scheduling software is

Production scheduling software turns a supply plan into an executable factory schedule, respecting the real constraints of the plant. The core capabilities are:

- **Finite-capacity scheduling.** Sequencing jobs across machines and resources subject to real capacity limits, rather than assuming infinite capacity as basic planning does.
- **Detailed sequencing.** Ordering operations to minimize changeovers and setup time, honor due dates, and respect material availability at the shift and machine level.
- **Constraint modeling.** Representing the specific rules of the plant, sequence-dependent setups, tooling, labor, tanks, and shelf life, that determine a feasible schedule.
- **What-if and re-scheduling.** Rapidly re-optimizing when a machine goes down, an order changes, or materials slip, so the schedule reflects reality.
- **ERP and shop-floor integration.** Consuming orders and master data from the ERP and feeding the schedule to execution and the shop floor.

Where APS sits: the planning stack

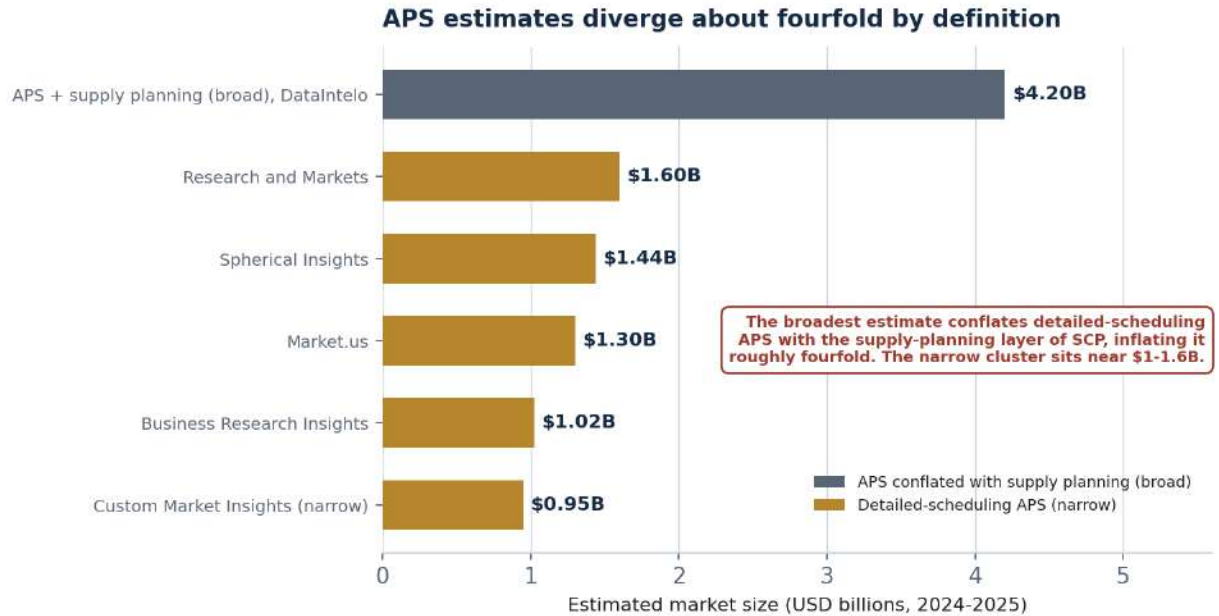
The single most important thing to understand about APS is where it sits, because that is the source of nearly all the confusion in the category. Above it is supply chain planning, which decides what to make, source, and hold over weeks and months. Below it is manufacturing execution, which runs and records work on the shop floor in real time. APS is the detailed-scheduling layer in between, working over hours and days at the shift and machine level, illustrated in Figure 3 later in this guide. A platform that does supply planning is not a scheduling tool, and a shop-floor execution system is not either. Knowing which layer you are buying is the first and most consequential decision.

Layer	What it decides	Time horizon
Supply chain planning	What to make, source, and hold	Weeks to months
APS / scheduling	Detailed sequence on finite capacity	Hours to days
Manufacturing execution	Execute and record on the floor	Real time

APS is distinct from the supply-planning layer of supply chain planning suites and from manufacturing execution systems, though several vendors offer more than one layer. The boundary matters because the markets, the vendors, and the evaluation criteria differ, and buying the wrong layer is a costly, multi-year mistake.

3. The production scheduling market in 2026

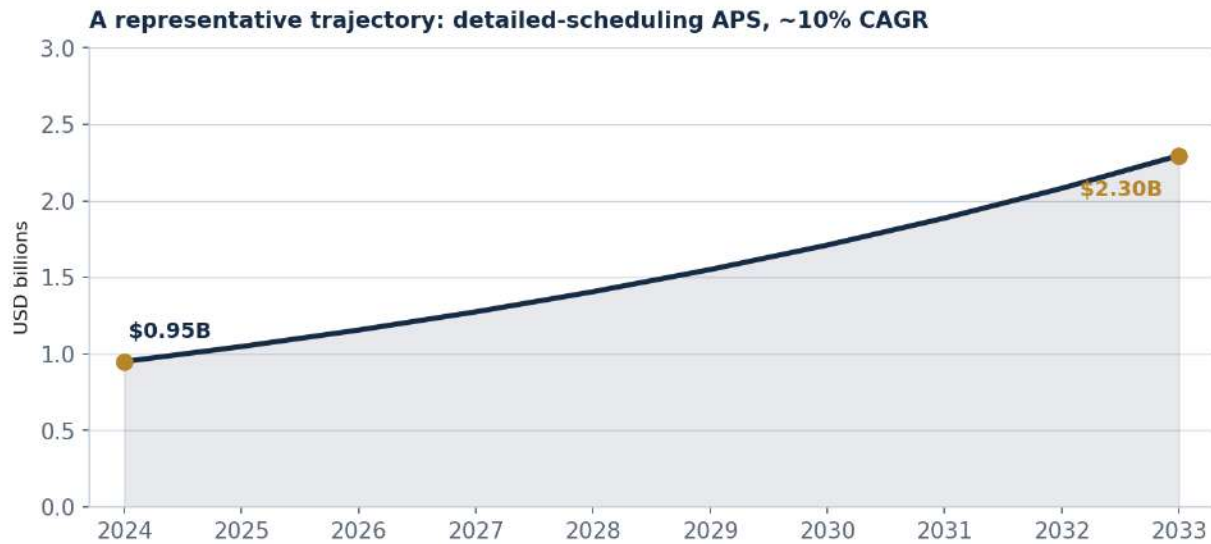
Production scheduling has the widest sizing confusion of any manufacturing software category, and it comes directly from the layer problem. Narrow detailed-scheduling estimates cluster near \$1B to \$1.6B; the broadest figure conflates APS with the supply-planning layer of supply chain planning and reaches roughly \$4B, a fourfold gap. Treat the figures below as directional, and check what each one is counting.



Source: Supply Chain Research analysis of published 2024-2025 estimates. Several sources are SEO-style market-research firms; treat as directional.

Figure 1. Published 2024 to 2025 estimates by definition. The broadest conflates detailed-scheduling APS with the supply-planning layer of SCP.

Source and definition	Size	Forecast	CAGR
DataIntel (APS + supply planning)	\$4.20B (2025)	\$9.80B / 2034	9.9%
Research and Markets	\$1.60B (2025)	\$3.60B / 2034	9.3%
Spherical Insights	\$1.44B (2024)	\$4.23B / 2035	10.3%
Market.us	\$1.30B (2023)	\$3.40B / 2033	10.0%
Business Research Insights	\$1.02B (2025)	\$2.58B / 2034	10.8%
Custom Market Insights (narrow)	\$0.95B (2024)	\$2.60B / 2034	10.3%



Source: Custom Market Insights (narrow APS, 10.3% CAGR). The broad estimates that conflate APS with supply planning run several times higher in absolute terms.

Figure 2. A representative trajectory for detailed-scheduling APS at about 10 percent CAGR (Custom Market Insights). The conflated figures run several times higher.

Why the estimates diverge

The spread is the layer problem made numerical. The narrowest figures count dedicated detailed-scheduling software; the broadest fold in the supply-planning layer of supply chain planning, inflating the number roughly fourfold. Cloud deployment leads at around 62 to 66 percent, large enterprises account for roughly two-thirds of spend, North America holds about 36 to 37 percent with Europe close behind on automotive and aerospace strength, Asia-Pacific is the fastest-growing, and manufacturing is, unsurprisingly, the dominant vertical. For planning, the narrow detailed-scheduling figures of around \$1B in 2025 are the most consistent baseline for the scheduling layer itself.

Why the discrete and process split matters

The defining structural event in this category is Gartner's 2026 decision to split its Supply Chain Planning Magic Quadrant into separate Discrete Industries and Process Industries editions. The reason is that scheduling a discrete plant, automotive or electronics, where products are assembled from bills of material, is a fundamentally different problem from scheduling a process plant, chemicals or food, where production is batch and recipe driven and constrained by yield and shelf life. The split gives buyers better signal about which vendors fit their kind of manufacturing, and it underscores that there is no single scheduling tool that is best for everyone.

Where APS sits: the manufacturing planning stack



APS is the detailed-scheduling layer between supply planning above and shop-floor execution below. Conflating it with either is the most common buyer error.

Figure 3. The manufacturing planning stack. APS is the detailed-scheduling layer between supply planning and shop-floor execution, and conflating it with either is the most common buyer error.

4. The vendor landscape

The production scheduling market spans focused scheduling specialists, broad planning suites that include scheduling, mid-market tools, and ERP-embedded modules. We group vendors into four tiers by what they do best, not by size. No vendor leads every tier, and the most important nuance is that some of the deepest scheduling specialists sit outside the main analyst coverage.

What the analysts say, and where the gap is

This category has no scoreboard of its own, and the analyst picture requires care. The essentials:

- **There is no standalone APS Magic Quadrant.** Gartner assesses scheduling inside its Supply Chain Planning coverage, which it split in 2026 into Magic Quadrants for Discrete Industries and Process Industries, both reflecting different scheduling needs.
- **The SCP quadrants name familiar Leaders.** Kinaxis, o9, Blue Yonder, Oracle, SAP, and OMP feature across the 2026 Discrete and Process quadrants, with Blue Yonder a Leader in Discrete and a Visionary in Process.
- **Pure scheduling specialists are not in those quadrants.** Siemens Opcenter APS, DELMIA Quintiq, and Asprova, among the deepest detailed-scheduling tools, are not evaluated in the SCP quadrants, so buyers must look beyond the analyst grid for plant-floor scheduling.

Production scheduling and APS landscape, 2026



There is no standalone APS Magic Quadrant; APS is assessed inside Gartner's 2026 Supply Chain Planning Magic Quadrants (split into Discrete and Process Industries), and pure scheduling specialists are not in those quadrants. SCR interpretation, not analyst coordinates.

Figure 4. Supply Chain Research's directional map. There is no standalone APS Magic Quadrant; these positions are our interpretation, not analyst coordinates.

Detailed-scheduling specialists

These vendors do finite-capacity, detailed scheduling at depth. Siemens Opcenter APS, formerly Preactor, provides finite-capacity scheduling and what-if planning and integrates with Siemens Opcenter execution and Teamcenter lifecycle software. Dassault's DELMIA Quintiq and DELMIA Ortems offer multi-site solvers with memory-resident architectures for rapid recalculation, and Asprova, of Japanese origin, is strong in high-mix automotive and electronics sequencing. Strengths: depth of constraint modeling and scheduling

sophistication. Limitations: they are scheduling tools rather than full planning suites, and they sit outside the main analyst coverage.

Enterprise planning suites

These vendors provide scheduling within a full supply chain planning suite. Kinaxis, o9 Solutions, SAP, Blue Yonder, Oracle, OMP, and Aspen Technology all include production planning and scheduling alongside demand and supply planning, and most appear in the 2026 SCP quadrants. Strengths: breadth across the planning stack and analyst recognition. Limitations: detailed-scheduling depth can lag the specialists, and the suites are larger commitments than a focused scheduling engine.

Mid-market and ERP-embedded

Two further groups complete the picture. Mid-market scheduling tools, PlanetTogether, Logility from Aptean, RELEX, and GAINS, bring finite-capacity scheduling with faster deployment and lower cost for smaller manufacturers. And ERP-embedded planning, inside Plex from Rockwell Automation, Infor, QAD, and Microsoft Dynamics 365, suits companies whose scheduling needs are secondary to their ERP. Strengths: time-to-value and integration respectively. Limitations: less constraint-modeling depth than the specialists, and ERP modules in particular are basic for complex sequencing.

Vendor summary

Vendor	Tier	Best fit	Notes
Siemens Opcenter APS	Scheduling specialist	Discrete finite-capacity scheduling	Formerly Preactor; ties to Opcenter MES
DELMIA Quintiq / Ortems	Scheduling specialist	Complex multi-site scheduling	Memory-resident rapid recalculation
Asprova	Scheduling specialist	High-mix sequencing	Strong in automotive, electronics
Kinaxis / o9	Planning suite	Scheduling within full planning	SCP MQ Leaders; broad stack
SAP / Blue Yonder / Oracle / OMP	Planning suite	Enterprise planning and scheduling	In the 2026 SCP quadrants
PlanetTogether	Mid-market	Visual finite-capacity scheduling	Faster, lower-cost deployment
Logility (Aptean) / RELEX	Mid-market	Mid-market planning and scheduling	Lower TCO than the suites
Plex / Infor / QAD / Dynamics	ERP-embedded	ERP-standardized manufacturers	Basic scheduling within the ERP

Positions and notes are Supply Chain Research's interpretation from public information and the Gartner Supply Chain Planning quadrants, current to mid-2026. There is no standalone APS Magic Quadrant, and the deepest scheduling specialists sit outside it. Verify current details directly with each vendor.

5. How to evaluate a scheduling platform

The differentiators in production scheduling are constraint-modeling depth, discrete-versus-process fit, and integration, more than the headline feature list. We use five dimensions.

The five evaluation dimensions

1. **Layer fit.** Confirm you are buying detailed scheduling, not supply planning or execution. Buying the wrong layer is the most expensive mistake in this category.
2. **Discrete versus process fit.** Match the platform to your manufacturing type, discrete assembly or process batch and recipe, because the scheduling problems and the strongest vendors differ sharply between them.
3. **Constraint-modeling depth.** Test whether the engine can represent your real constraints, sequence-dependent setups, tooling, labor, tanks, shelf life, because a schedule that ignores them is not feasible.
4. **Integration.** Assess how cleanly it connects to your ERP above and your execution and shop-floor systems below, the three-tier link that determines whether the schedule is real.
5. **Speed, AI, and viability.** Evaluate how fast it re-optimizes at your data volumes, its AI and autonomous re-planning, and the vendor's stability, since this is a long commitment.

Making the decision

Match the platform to your manufacturing and your scope. Complex discrete or process plants with deep constraints reward the scheduling specialists such as Siemens Opcenter APS, DELMIA Quintiq, and Asprova. Companies wanting scheduling as part of a full planning stack reward the suites such as Kinaxis, o9, SAP, Blue Yonder, and OMP. Mid-market manufacturers reward PlanetTogether and Logility, and ERP-standardized firms may reward their embedded module. Then validate constraint modeling and integration on your own plant.

A selection process that works

6. Confirm the layer you need, detailed scheduling, and define your discrete or process profile.
7. Shortlist within the tier that fits, rather than mixing specialists and full-stack suites in one comparison.
8. Model your real constraints in a proof-of-concept, and check whether the resulting schedule is feasible.
9. Probe ERP and shop-floor integration early, with real orders and master data.
10. Measure re-optimization speed at your volumes, assess AI, and check references in your industry.

6. Cost and pricing

Production scheduling pricing ranges widely, from per-user mid-market subscriptions to enterprise licenses and one-time licenses, and constraint complexity drives the implementation effort. The models you will encounter:

Pricing model	Typical basis	Notes
Per-user subscription	Per user, per month	Mid-market, roughly \$200 to \$400 per user
Enterprise license	Per platform or site	Specialists often start in the tens of thousands
One-time license	Perpetual	Some SMB scheduling tools
Implementation	Project fee	Constraint modeling and integration
ERP-embedded	Within ERP cost	Bundled, basic scheduling

What drives the number

Constraint complexity, the number of plants, and the integration burden are the main cost drivers, and the largest implementation effort is modeling the plant's real constraints and connecting the ERP above and execution below. A mid-market visual scheduler is a modest per-user subscription; an enterprise specialist with deep constraints is a substantial license plus a meaningful implementation. A common and costly mistake is mixing a detailed-scheduling-only tool and a full planning suite in the same evaluation, which produces confused requirements on a five-to-eight-year commitment. Model the full cost, including constraint modeling and three-tier integration, not the license alone.

Scheduling pricing is often gated behind a sales process and a scoping exercise, so published figures should be treated as starting points. Build a proof-of-concept on your own constraints and a reference check into the buying process to validate both cost and the throughput and lead-time benefits the vendor projects.

7. Implementation: where programs succeed or fail

Production scheduling programs fail in predictable ways, and almost none of the failure modes are about the user interface. They are about constraints, data, and integration. The recurring causes:

- **Constraints modeled incompletely.** If the engine does not capture the plant's real constraints, the schedules it produces are infeasible and the planners stop trusting them.
- **The wrong layer was bought.** Buying a supply-planning suite expecting detailed scheduling, or a scheduling tool expecting full planning, leaves a gap that no configuration can close.
- **Integration with ERP and the shop floor is weak.** If orders and master data do not flow cleanly from the ERP and the schedule does not reach execution, the system runs on stale inputs and produces schedules nobody follows.
- **Data quality on the floor is underestimated.** Inaccurate routings, setup times, and machine status make even a sophisticated scheduler wrong, because the schedule is only as good as the plant data behind it.

Constraints	Integration	Data
a schedule that ignores real constraints is infeasible and quickly distrusted	clean ERP and shop-floor links are what make the schedule real	accurate routings and setup times are the precondition for a good schedule

Three principles that separate success from failure

Model the real constraints first. Prove the engine can represent your sequence-dependent setups, tooling, labor, and shelf life before scaling, because constraint fidelity sets the ceiling on the result.

Buy the right layer. Confirm you are buying detailed scheduling, not supply planning or execution, because the wrong layer leaves a gap no configuration can close.

Integrate the three tiers. Connect the ERP above and execution below so the schedule runs on current orders and reaches the floor, which is where the value is realized.

A phased rollout

Sequence the program to retire risk early. Begin with one plant or production line, modeling its constraints, integrating its ERP and execution feeds, and proving that the schedules are feasible and followed. Then refine the constraint model, improve the underlying plant data, and extend to additional lines, plants, and complexity in waves. Treating these as sequential stages, rather than a single switch, is what separates a smooth rollout from a stalled one.

8. Trends shaping 2026

AI and autonomous re-planning

The dominant trend is AI and machine learning applied to scheduling: learning from outcomes, predicting disruptions, and re-optimizing the schedule automatically when conditions change. Autonomous re-planning, in which the system adjusts the schedule with limited human intervention, is the leading edge, and it shifts scheduling from a periodic exercise toward a continuous one.

The discrete and process split

Gartner's 2026 split of the Supply Chain Planning Magic Quadrant into Discrete and Process editions is itself a structural shift, formalizing that these are different scheduling problems with different strongest vendors. It gives buyers better signal and pushes vendors to be clearer about which kind of manufacturing they serve.

Industry 4.0 and shop-floor data

The spread of industrial IoT and connected machines is feeding real-time shop-floor data, machine status, actual cycle times, and downtime, back into scheduling. This is incremental rather than revolutionary, but better plant data steadily improves schedule quality and makes faster re-scheduling worthwhile.

Cloud scheduling

Scheduling is moving to the cloud, later than supply planning because of its closeness to the shop floor and its latency sensitivity, but steadily. Cloud deployment now leads new buys and brings easier updates and integration, though some manufacturers retain on-premise scheduling for data-sovereignty or latency reasons.

Boundary blur with MES and SCP

The boundaries above and below APS continue to blur, as planning suites add scheduling and execution systems add scheduling-like capabilities. As across supply chain software, agentic AI is an emerging frontier, and buyers should weigh demonstrated capability over roadmap promises, and keep sight of which layer they actually need.

9. Segment-specific guidance

The right approach depends on your manufacturing type and scale. The table summarizes where each segment usually starts; the prose adds the nuance.

Manufacturing profile	What matters most	Where to start
Discrete (auto, electronics)	BOM-driven sequencing, setups	Siemens Opcenter, Asprova, Kinaxis
Process (chem, food, pharma)	Batch, recipe, yield, shelf life	DELMIA Quintiq, OMP, AspenTech
Complex multi-site	Deep constraints, fast recalculation	DELMIA Quintiq, Siemens, o9
Mid-market manufacturer	Time-to-value, lower TCO	PlanetTogether, Logility, RELEX
ERP-standardized firm	Integration, basic scheduling	Plex, Infor, QAD, Dynamics 365

Discrete manufacturers need bill-of-material-driven sequencing and changeover optimization, the strength of the discrete specialists and suites. **Process manufacturers** need batch, recipe, yield, and shelf-life handling, where the process-strong vendors lead. **Complex multi-site operations** need deep constraints and fast recalculation, the domain of the specialists. **Mid-market manufacturers** reward time-to-value and lower cost, and **ERP-standardized firms** may reward an embedded module for integration. The unifying rule is to match the platform to the manufacturing type first, then the scale.

10. ROI and the business case

The business case for production scheduling is straightforward in structure: a better schedule makes more with the same assets. The levers are higher throughput, shorter lead times, lower inventory, and better on-time delivery. The discipline is refusing to bank the vendor's headline figure before testing it against your own plant.

Throughput optimized sequencing cuts changeover time and lifts output from the same capacity	Lead time feasible, tighter schedules shorten the time from order to completion	On time realistic schedules improve on-time delivery and reduce expediting
---	--	---

Where the value comes from

Most of the return comes from throughput and lead time. Optimized sequencing reduces setup and changeover time, which lifts output from the same machines and people, and tighter, feasible schedules shorten lead times and reduce the work-in-process inventory that long, uncertain schedules require. On-time delivery improves when the schedule is realistic, which reduces expediting and protects customer relationships. Vendor and customer figures cite throughput improvements of roughly 20 to 40 percent from sequence-dependent setup optimization, and one process customer reported around a 30 percent cycle-time reduction, but these are vendor and customer sourced and should be treated as a ceiling. The business case is strongest in high-mix plants with many changeovers, but the gains should be modeled on your own routings, setup times, and order mix, with vendor figures used only to size the opportunity.

11. Frequently asked questions

What is production scheduling and APS software?

Software that turns a supply plan into an executable factory schedule, deciding which job runs on which machine, in what order, and when, subject to finite capacity, materials, changeovers, and due dates. It is the detailed-scheduling layer between supply planning above and shop-floor execution below.

How is APS different from supply chain planning?

Supply chain planning decides what to make, source, and hold over weeks and months; APS decides the detailed sequence on finite capacity over hours and days. A supply-planning suite is not a scheduling tool. Conflating the two is the most common and most costly error in this category.

How is APS different from MES?

A manufacturing execution system runs and records work on the shop floor in real time; APS decides the schedule that execution then follows. APS sits above MES in the stack. Some vendors offer both, but they are different layers with different jobs.

Is there a Gartner Magic Quadrant for APS?

No standalone one. Gartner assesses scheduling inside its Supply Chain Planning quadrants, which it split in 2026 into Discrete Industries and Process Industries. Importantly, the deepest scheduling specialists, Siemens Opcenter APS, DELMIA Quintiq, and Asprova, are not in those quadrants, a real coverage gap.

Who are the leading vendors?

It depends on the tier. Scheduling specialists include Siemens Opcenter APS, DELMIA Quintiq, and Asprova; enterprise planning suites that include scheduling include Kinaxis, o9, SAP, Blue Yonder, Oracle, and OMP; mid-market tools include PlanetTogether and Logility; and ERP-embedded options include Plex, Infor, and QAD.

How big is the market?

It depends on the definition. Narrow detailed-scheduling estimates cluster near \$1B to \$1.6B in 2025, while the broadest figure conflates APS with the supply-planning layer of supply chain planning and reaches roughly \$4B, a fourfold gap. The narrow figures of around \$1B are the most consistent baseline for the scheduling layer.

Why did Gartner split the planning quadrant into discrete and process?

Because scheduling a discrete plant, assembled from bills of material, is a fundamentally different problem from scheduling a process plant, which is batch and recipe driven and constrained by yield and shelf life. The 2026 split gives buyers better signal about which vendors fit their kind of manufacturing.

What does it cost?

It ranges widely. Mid-market visual schedulers run roughly \$200 to \$400 per user per month; enterprise specialists often start in the tens of thousands as a license plus a meaningful implementation; and some SMB tools use a one-time license. Constraint complexity and three-tier integration drive the implementation cost.

Should I buy a specialist or a planning suite?

It depends on your need. Complex plants with deep constraints reward a scheduling specialist; companies that want scheduling as part of a full planning stack reward a suite. The first decision is confirming you need detailed scheduling, then matching discrete or process fit, then choosing the tier.

What is the most common reason these programs fail?

Incompletely modeled constraints, buying the wrong layer, weak ERP and shop-floor integration, and underestimated plant-data quality. Almost none of the common failures are about the interface. Modeling the real constraints first and buying the right layer are the most important steps.

12. Recommendations

A practical path for buyers, drawn from the analysis above:

- 11. Confirm the layer before anything else.** Make sure you are buying detailed scheduling, not supply planning or execution, because buying the wrong layer is the single most expensive mistake in this category.
- 12. Match discrete or process fit.** Use a vendor strong in your manufacturing type, and reference Gartner's 2026 Discrete or Process quadrant accordingly, because the scheduling problems differ sharply.
- 13. Look beyond the analyst grid for specialists.** Remember that the deepest scheduling specialists, Siemens Opcenter APS, DELMIA Quintiq, and Asprova, sit outside the SCP quadrants, so a quadrant alone will miss them.
- 14. Prove the constraints before scaling.** Run a proof-of-concept on your real constraints and confirm the schedule is feasible, because constraint fidelity sets the ceiling on every benefit.
- 15. Integrate the three tiers.** Connect the ERP above and execution below, and resource the plant-data cleanup, because the schedule is only as good as the inputs and only useful if it reaches the floor.
- 16. Treat ROI claims as a ceiling.** Model throughput and lead-time gains on your own routings and order mix, and weigh AI and autonomous-re-planning claims by demonstrated capability, not roadmap.

13. Methodology and caveats

- This guide synthesizes public market-research estimates, the Gartner Supply Chain Planning Magic Quadrants for Discrete and Process Industries, vendor disclosures, and trade reporting, current to mid-2026. Supply Chain Research is independent and accepts no payment from the vendors covered.
- Market-size figures diverge by roughly four times by definition, between narrow detailed-scheduling APS (around \$1B to \$1.6B) and figures that conflate APS with the supply-planning layer of supply chain planning (around \$4B). We present a range and treat the narrow figures as the most consistent baseline. Several sources are SEO-style market-research firms and are directional only.
- There is no standalone APS Magic Quadrant; Gartner assesses scheduling inside its Supply Chain Planning quadrants, which it split in 2026, and the deepest scheduling specialists are not in those quadrants. The landscape map in Figure 4 is our directional interpretation, not analyst coordinates.
- The planning stack in Figure 3 is a conceptual illustration of where APS sits relative to supply planning and execution; the time horizons are typical rather than exact. Throughput and ROI figures are vendor or customer sourced and treated as a ceiling.
- Vendor positioning and ownership change quickly, including Siemens Opcenter APS (formerly Preactor) and the Dassault DELMIA scheduling portfolio. Validate current details directly with vendors before any purchasing decision.

14. Sources

- [1] Gartner (2026). [Magic Quadrant for Supply Chain Planning Solutions, Discrete Industries.](#)
- [2] Gartner (2026). [Magic Quadrant for Supply Chain Planning Solutions, Process Industries.](#)
- [3] Kinaxis (2025). [Gartner Magic Quadrant for Supply Chain Planning Solutions.](#)
- [4] Blue Yonder (2026). [Blue Yonder named a Leader in the Gartner Magic Quadrant for Supply Chain Planning Solutions.](#)
- [5] Custom Market Insights (2025). [Advanced Planning and Scheduling \(APS\) Software Market.](#) \$0.95B (2024), 10.3% CAGR.
- [6] DataIntel (2025). [Advanced Planning and Scheduling Software Market.](#) \$4.2B (2025), conflated with supply planning.
- [7] Business Research Insights (2025). [Advanced Planning and Scheduling Software Market.](#) \$1.02B (2025).
- [8] Siemens (2025). [Opcenter Advanced Planning and Scheduling \(APS\).](#)
- [9] Dassault Systemes (2025). [DELMIA Quintiq production planning and scheduling.](#)

Additional figures drawn from: Research and Markets, Spherical Insights, and Market.us (APS sizing); Horizon Solutions and Jitbase (vendor landscape and the specialist-versus-suite distinction); and vendor disclosures on PlanetTogether, Asprova, and the Aptean and Logility portfolios. Throughput and ROI claims are vendor or customer sourced unless otherwise noted, and there is no standalone APS Magic Quadrant.

Supply Chain Research is an independent, vendor-neutral research platform for supply chain and IT leaders. We accept no payment from the vendors covered. Figures should be validated against your own requirements before any purchasing decision.