GUIDE

How to use AIP for capital planning, budgeting, and asset management

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Budgeting is challenging for most educational administrators and operational department leaders, especially when it involves large infrastructure and asset purchasing, repairs, or replacement.

Decisions must be made to balance the priorities of the students, staff, and community, as well as the needs of school grounds and facilities.

There are varied budgeting approaches, ranging from manual assessments to advanced methods, reflecting different technological maturity levels. Today, we're exploring how Asset Investment Planning (AIP) can assist educational institutions of all sizes to budget and plan more effectively to ensure a safe and successful future.

This guide will cover:

- **The 101 on Asset Investment Planning.**
- **Challenges with a manual approach and how to overcome them.**
- **Pros and cons of outsourced engineering firms in the AIP process.**
- **How software can make AIP easier and more cost-effective.**

Section 1:
The 101 on asset investment planning (AIP)

Schools need a tactical and usable approach to address the challenges of assessing facilities, machinery, and buildings. One effective approach is AIP.

AIP: What it is and why your school needs it

Asset Investment Planning (AIP) optimizes investments in facilities, machinery, and buildings for maximum value and efficiency through data-driven prioritization and decision-making.

AIP helps streamline the assessment process while providing the right data to make effective decisions. Schools can optimize budget allocation for maintenance and improvements by identifying critical assets and potential risks. Keep in mind, this process is based on factors like condition assessments, budget considerations, and long-term goals.

Systematic planning helps schools avoid reactive and costly measures, ensuring efficient resource utilization, prolonged asset lifespan, and enhanced overall facility management. Additionally, it aligns with financial transparency and accountability — two of the most critical aspects for educational institutions and the boards and administrators who determine where money is allocated. Basically, it prevents unpleasant surprises, and makes your budgets more accurate.

How AIP works

Implementing AIP requires collecting and analyzing data about the condition and criticality of existing assets. Through risk assessments and prioritization, educational administrators and facilities leaders can identify key assets requiring immediate attention or investment.

Let's not forget about financial modeling, which helps with a very important task — estimating costs — enabling schools to create a strategic, long-term plan for optimal asset investments aligned with their goals. Then, add in continuous monitoring and adjustments to ensure the plan remains adaptive and efficient over time.

Sounds tough without the right tools, doesn't it?

The power of AIP software

An effective AIP solution can optimize the process of automating data collection, utilizing predictive analytics, and facilitating centralized asset management — a powerful benefit, as many schools have limited personnel resources to manage these tall tasks.

AIP software can also streamline risk assessments to provide real-time insights into asset conditions. A solution, such as **Origin**, can offer your school strategic insight into facilities, assets, and resources that help determine where to focus limited funding.

Section 2:
Challenges with a manual AIP approach and how to overcome them

A manual process is time-consuming and requires significant labor to conduct comprehensive assessments — and for education (and really, most industries), labor can be more expensive than school supplies.

The many tasks of AIP

Without software, a manual AIP approach may have many inefficient tasks, such as:

Data collection

Someone will need to visit each facility personally to assess the condition of assets, noting their age, maintenance history, and potential issues.

Documentation

It will also require the creation of detailed spreadsheets or physical records for each asset to track key information such as installation dates, service records, and expected lifespans.

Risk prioritization

Schools must prioritize assets based on perceived criticality and potential risks, considering factors like safety concerns and regulatory compliance may be more subjective than objective.

Budgeting

If you're estimating costs for maintenance and replacements based on historical data and vendor quotes or relying on manual calculations and traditional budgeting methods, you might not have all the current data.

Periodic updates

After your first round is complete, you'll still need someone to periodically conduct manual updates to asset records — often during budget planning cycles when workloads are already high — and adjust priorities based on changes in asset conditions or your school's priorities.

Top challenge with a manual AIP approach? Human error

When performed by humans without AIP software, the manual approach is prone to human errors, potentially leading to inaccurate data and inefficient decision-making. Manual processes also lack real-time updates, making it challenging to keep asset information current. And if you rely on vendor guidance, you're left vulnerable to overcharging, unnecessary work, or inaccurate risk assessments.

Data isn't gonna sort itself

The thing about AIP is it's all based on data. The absence of a centralized system makes data management cumbersome, hindering collaboration and communication between departments. Not to mention, tracking asset performance, predicting maintenance needs, or prioritizing investments is complicated without the aid of integrated technology.

And double check your timing if you're not using software. Manually determining optimal maintenance frequencies can be risky and lead to potential over-maintenance.

Auditing is a documentation-heavy process

Schools are subject to annual audits, which necessitate detailed documentation. If you're managing all your documentation without a system, or worse, storing it across several filing systems or folders, you're in for a headache come audit time.

Tips for schools that aren't ready for AIP software

Though a manual AIP process may impede your school from achieving optimal efficiency, cost-effectiveness, and proactive asset management, there are a few tips for improving your process:

- → **Establish standardized documentation** practices to ensure accurate and consistent recording of asset information. We're talking about maintaining detailed records of asset conditions, historical performance, and maintenance activities.
- → **Perform ongoing education.** Regular training programs for staff involved in AIP can enhance their skills in assessing and prioritizing assets effectively.
- → **Emphasize collaboration** (amongst everyone involved). Collaboration and communication are essential, so fostering cross-departmental communication is vital. This can be extra challenging as oftentimes, facilities professionals and other decision makers "don't speak the same language."
- → **Follow best practices.** Developing a structured preventive maintenance schedule based on industry best practices and historical data can also help proactively address your school's asset needs.

Section 3:
The pros and cons of the FCA

A Facilities Condition Assessment (FCA) helps school administrators make informed decisions about prioritizing and budgeting for facility improvements, ensuring the safety, functionality, and efficiency of the school's physical assets.

Remind me, what's an FCA?

Typically conducted by engineering professionals, (aka not cheap), an FCA is a thorough examination of a school's physical infrastructure to evaluate the current condition and functionality of various components such as structural elements, HVAC systems, plumbing, electrical systems, and more.

The findings are used to create a comprehensive report with cost estimates for necessary repairs and upgrades. Then, your school can use this data to estimate the remaining useful life of assets, check for compliance with building codes and safety standards, and examine energy efficiency. It's great to have this data…but once the FCA is complete, your information is only as good as this one snapshot in time.

Note: Some states require periodic FCAs, so you're stuck with the pros and the cons, but it's helpful to go into the process knowing its advantages and limitations.

Superpower your FCA with AIP software from Siemens

Sometimes, you need the best of both worlds. Tools like Origin can considerably improve upon an FCA through:

- → **Maintaining your asset condition data.** Origin simplifies updating asset age or condition to a few clicks using your existing resources to do the updating.
- → **Leveraging your history.** Origin connects with your CMMS data, including work order history, to create preventive maintenance schedules that integrate with current asset condition.
- → **Offering insights.** Origin provides analysis about your assets such as costs, end-of-life projections, risk score protocol, and preventative maintenance standards.
- → **Helping prove funding requests.** Origin pairs visuals and metrics to clearly outline the budget needed (up to 30 years) to maintain facilities and depict the long-term cost of deferring funding.

A firm? Maybe...

Engaging an engineering firm for an FCA in schools presents both benefits and challenges.

Pros: Engineering firms bring specialized knowledge, enabling comprehensive assessments covering structural, mechanical, and electrical aspects of assets.

- ➜ Their reports offer detailed insights, aiding in informed decision-making, complying with regulations, and proactively mitigating risks.
- ➜ In some states, these are required (not necessarily a pro, but if you have to, you have to).

Cons: Drawbacks include the potentially high cost, time-consuming nature of the process, and a focus on technical aspects that may not always align with broader institutional goals.

- ➜ Like driving a new car off a lot, data depreciates almost immediately since pricing, asset condition, and other factors change constantly.
- ➜ Periodic assessments may lead to outdated data.
- ➜ There might be a lack of continuous monitoring for ongoing asset performance trends.

While engineering firms contribute valuable expertise, schools must carefully balance the advantages with considerations of cost, time, and the need for continuous monitoring and manual updating.

Tips for working with engineering firms on your FCA

Whether it's because your state mandates that you have to or your decision makers elect to, the following tips can help ensure a smoother FCA process:

Establish clear communication channels and expectations from the outset. Regular and transparent communication helps address any issues promptly and ensures the project stays on track. Ask for industry best practices and insights that can enhance the AIP process. Utilizing a feedback loop and incorporating lessons learned from previous projects can contribute to continuous improvement.

Get on the same page. Clearly define project goals, timelines, and desired outcomes, ensuring a shared understanding between your school and the engineering firm.

Cover your assets. Insisting on a well-defined contract that outlines responsibilities, deliverables, and potential contingencies can provide a solid foundation for a successful partnership.

Section 4:

How software can make AIP easier and more cost-effective

If manual just isn't cutting it, and you want real-time data to help you better manage your planning, the right software solution can provide the centralized platform you need to assess facilities, manage assets, and streamline the entire budgeting process.

Trade scattered, manual AIP for centralized and automated

An AIP solution can help overcome manual challenges by providing a structured and efficient way to handle data related to your school's facilities conditions, maintenance records, and budget planning. Automation features assist in alleviating the burden of manual data entry and enable proactive maintenance scheduling. (i.e., addresses concerns about over-maintenance, ensuring that tasks are performed at optimal intervals.).

Bring analytics to the table

Simply put, software can do things that humans can't (or if humans can do it, software can accomplish it in significantly less time). An AIP solution's analytical capabilities can contribute to data-driven decision-making, helping your school to prioritize and allocate resources effectively.

A game-changer for communication

Facilities professionals can feel confident with what they bring to administrative conversations. The right solution can use data to create a common language and facilitate collaboration between finance and facilities teams. When the correct information is available, creating a unified and strategic asset management and budgeting approach is significantly more straightforward.

Ultimately, a solution can improve the AIP process for your school by enhancing data accuracy, saving time, and supporting well-informed decisions for the long-term maintenance and improvement of educational facilities.

Tips for picking the right AIP solution

Here are a few considerations as you assess your AIP software options:

1. **Look for comprehensive data integration.** Choose an AIP solution that seamlessly integrates with existing data sources and systems, such as your CMMS, to ensure a unified and accurate representation of asset information. Origin can pull work order and preventive maintenance data in real-time, so you always have an accurate picture of your asset portfolio.
2. **Consider predictive analytics capabilities.** Opt for a solution that incorporates predictive analytics to allow your school to anticipate asset failures, prioritize maintenance efforts, and make informed decisions for long-term planning. Predictor can help schools visualize the impact of decision making across various criteria and asset types, including assets, asset classes, facilities, and infrastructure.
3. **Insist on a user-friendly interface.** Prioritize solutions with intuitive interfaces and user-friendly dashboards, facilitating easy adoption and navigation for school staff involved in AIP processes. Bonus points for an equally easy-to-use mobile app.
4. **Remember scalability and adaptability.** Make sure to select a solution that can scale with your school's evolving needs, accommodating changes in asset portfolios, technology advancements, and budgetary requirements over time.

Siemens: Shining a light on your AIP

Over 20 years ago, we started out by helping schools solve some of their toughest asset management challenges. That's why implementing technology such as Orgin, our next-gen asset management and asset health solution, offers a more strategic, efficient, and data-driven approach that can truly help your institution.

Know the true health of your assets

Origin provides insights into your facilities, assets, and resources. Leveraging Siemens, your school can move away from manual, time-consuming processes and embrace an efficient, data-driven approach to AIP. Origin uses your existing CMMS data to provide real-time, asset health updates so you know exactly where in your asset portfolio to focus your maintenance budget. By knowing the true cost of deferred maintenance, you can prove funding requests with powerful visuals and metrics and plan for a brighter future.

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Pave the way for a Siemens future

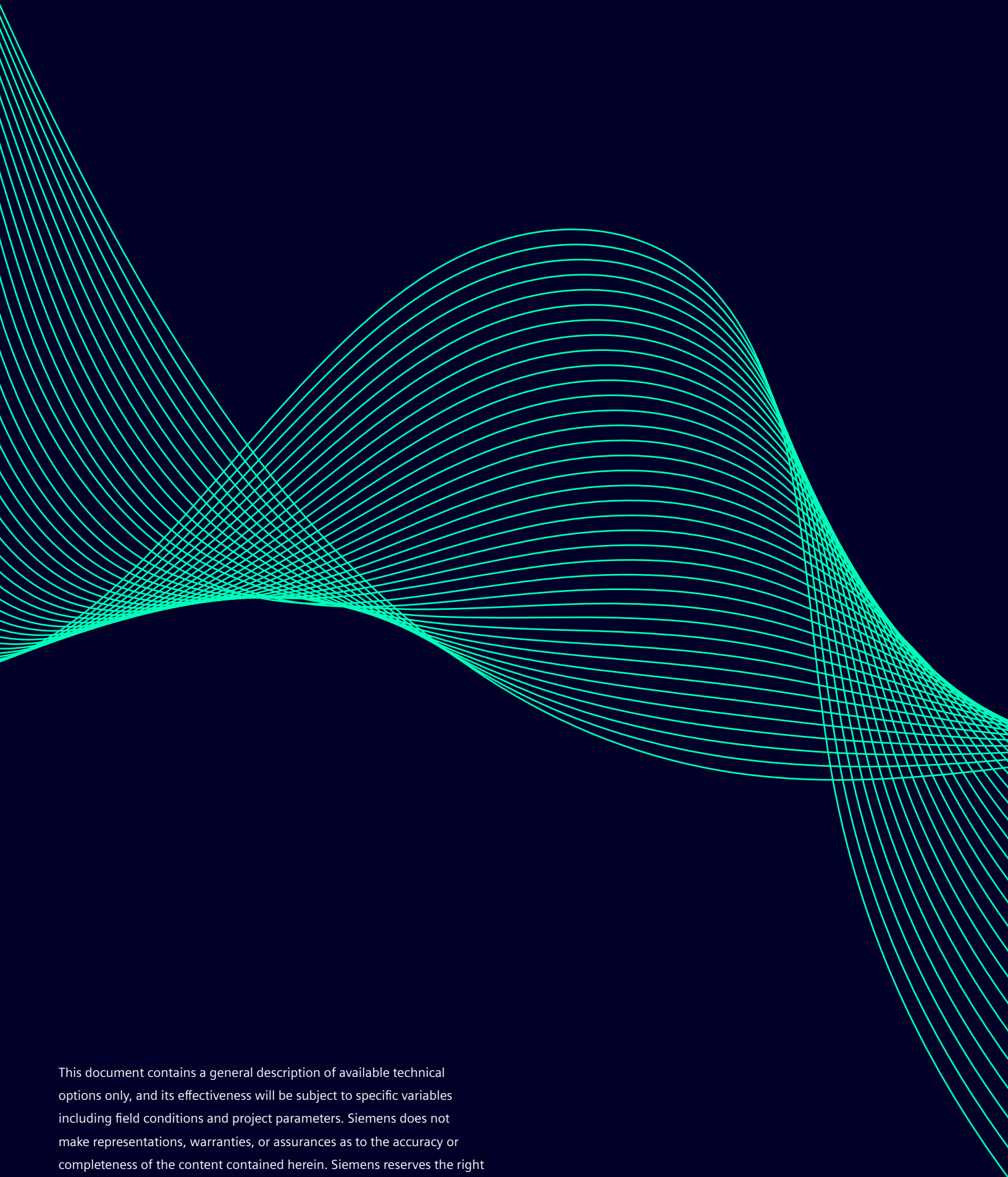
With Siemens, you get a centralized system for storing and managing crucial information related to facilities, including condition assessments, maintenance records, and asset lifecycle data.

With a holistic view of your school's infrastructure, you can:

- ➜ Prioritize projects based on the actual condition of assets
- ➜ Leverage automation features to help schedule and track maintenance tasks, reducing the risk of over-maintenance or missed critical updates
- ➜ Understand the impact associated with aging assets for a data-driven, strategic approach to asset management
- ➜ Facilitate capital projects by promoting collaboration between finance and facilities teams for a unified, strategic approach to asset management

We can also help you understand how your organization stacks up in your industry by using Origin's detailed reporting options, including KPIs and benchmarking, to help mitigate risk and optimize labor resources.

Learn more: assetmanagement.siemens.com



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