Magnitude™

How-to Guide

Tips to mitigate risks during upgrade to S/4HANA

Considering an upgrade of your SAP ECC system to a more recent version of ECC or to S/4HANA?

Upgrade and Go-Live: Risks to Mitigate

Regardless the version of your planned upgrade, the word that catches the attention most is 'upgrade', which usually means eliminating the old environment, installing a new environment and teaching business users how to use the upgraded functionality. That decision creates risk, perhaps even a great number of risks, because many things can go wrong in the upgrade/go-live process.

"Maybe not all sales orders will be delivered and billed after go-live." "Will everything be ordered in purchase on time?" "Will we have production hiccups due to the new system." No doubt you've heard these fears expressed. These are common fears experienced by business and IT project managers as well as executives, though the latter might not be responsible for daily activities associated with the project, they will ultimately be held responsible when the problems are serious.

These risks must be mitigated, and you will find useful tips in this white paper to do just that.

The four major tips to get and remain in control:

- Start with clean data, and keep the data clean
- Search and go for pre-upgrade improvements
- Secure the operation after go-live
- Further improve business processes

Magnitude Angles for SAP has proven to be successful in the mitigation of risks during upgrades and go-live projects. Throughout the project Angles for SAP can be used to support activities involved in the preparation, execution and monitoring phases. This white paper highlights where you can use the out-of-the-box Angles functionality to make tasks easier.

Start With Clean Data, and Keep the Data Clean

Data quality is one of the most important and difficult topics when it comes to ERP systems. The importance of reliable data is often underestimated. Yet it has a huge impact on business performance, both in costs and service level. Let's face it, if the company's data is suspect, the decision making likely will be too.

SAP is loaded with master data concerning customers, suppliers, materials, and so forth. Many of these master data parameters control the behavior of the SAP system. For example: if the lead time of a material from a specific supplier is not completed or has a faulty value, then the planning algorithm (e.g., MRP) will draw the wrong conclusion, promising the finished product too soon or on a later date than possible. We all know, that won't make the customer happy. Errors in the data also call for later corrections, and that costs time you would rather have spent on more useful activities.

> " Operational data—open sales orders, production and purchase— can also be polluted. The culprit? Keeping old orders open when they shouldn't be.

We've heard phrases like "We have ample disk space, so why bother getting rid of these old orders; we don't have time anyway". Yet keeping old data causes a lot of trouble. Old open purchase orders for active materials may prevent the planning system from ordering again, because in the system there is still a purchase order waiting to be delivered, assuming it will arrive today. You can imagine the stress when the material is needed in production or sales … manually entered last-minute orders, phone calls, etc. Old open sales orders that probably won't ever be delivered can also be a problem because the planning system reserves stock for these orders. Stock that is just lying in the warehouse, keeping your capital employed at an artificially high level.

Identifying these old orders and closing them is simply the smartest thing to do. And then, when everything is cleaner, it's even easier to keep it clean.

How can Magnitude Angles for SAP help achieve that?

Some of the checks on erroneous master data or old open orders are reasonably straightforward. It isn't that complicated, for example, to make a query to identify whether a specific field is left blank in a master data record. The same goes for the identification of 'old orders' by looking at the document date. However, figuring out the date is not enough. One also must figure out whether the order is still open. As simple as this question may be, it's difficult to actually to get it out of SAP, because SAP doesn't store a field to indicate whether the order is open or closed. Instead the SAP software performs a fairly complicated logical check, involving checking the statuses of the various documents in the document flow to figure out an open or closed status. Angles for SAP comes with out-of-the-box analysis and intelligence to identify this for you.

Angles for SAP provides out-of-the-box intelligence to perform both the easy checks, as well as the complicated validations on transaction data. All order types that can appear in a stock-requirements
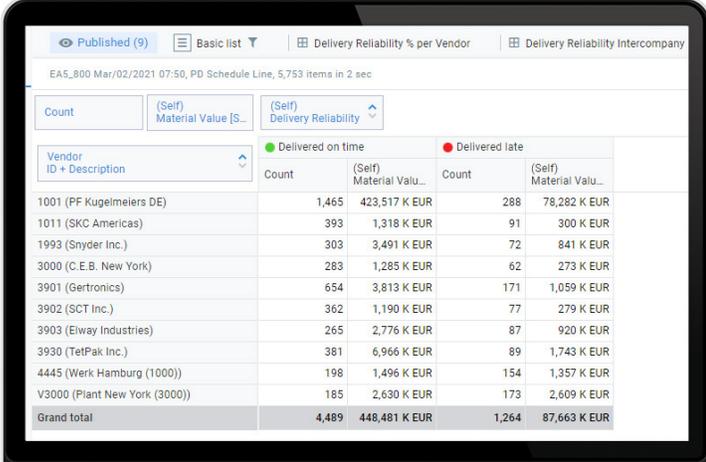
overview are tested on whether they are open, partially open or closed, and whether they are relevant for MRP (Material Requirements Planning) in SAP.

If so, the due date is considered and if this date lies far in the past (for example over 100 days) the order is regarded as polluted.

The following order types are considered to get this done:

- Sales order on Schedule line level (this most detailed level carries the promised date and quantity)

- Purchase order on Schedule line level (this finely detailed level carries the promised date and quantity), both for external suppliers as well as inter-plant or inter-company deliveries

- Planned order

- Purchase requisition

- Reservation

- QI lot (Quality inspection lot)

The field **Delivery Reliability** is used to detect if an order is 'Polluted'. This field can also have values like **'Delivered on time'** and **'Late'**.

A correct investigation of the delivery reliability can only be done at schedule line level and, as said, that is a complicated piece of software logic. At header or item level the delivery reliability is defined by the worst delivery reliability of the subsequent purchase document schedule lines.

Angles for SAP also offers the possibility to build and perform combined checks. Consider this example of a combined master data check on a material:

A material is OK when:

- The product hierarchy (Field MARA-PRDHA) is maintained in the header, on overall or client-level

- The external lead time (Field MARC-PLIFZ) is maintained for each Plant that uses this material and procures it externally (so: not their own produced material but they purchase it).
- There is at least one valid PIR (Purchasing Info Record) for such plants.
- There is at least one valid batch size procedure for such plants (Fields MARC-DISLS and MARC-BSTFE)
- There is a valid Delivering plant (Field MVKE-DWERK) for each Sales Organization that offers this material.
- There is a valid Material Group 1 (Field MVKE-MVGR1) for each Sales Organization that offers this material.

This type of analysis can also be applied on Customer and Vendor data.

To make things easy, you can also use our standard control tower dashboards on data quality and service levels.

Identifying erroneous data is the first step. This erroneous data also has to be corrected (changed or deleted) in SAP. The Angles output with the erroneous entries data can be fed into Magnitude Process Runner, where it can be corrected and mass-uploaded to SAP. That gives you closed loop data cleansing.

Angles for SAP is your solution for cleaning up the data. A health check can be performed to check the data before the migration. Angles comes with out-of-the-box intelligence to perform checks on transaction data. With Angles, the clean-up process is faster, easier and more precise, thanks to the ability to analyze the relationship between master data and transactional data.

Search-and-Go for Pre-Upgrade Process Improvements

You are planning to undertake a major upgrade to S/4HANA, with a significant cost associated, involving all the primary and supporting processes. Have you ever wondered how unnecessary it is to just copy a non-optimal working process into the upgraded environment? What would happen if you optimized the working process first, and then transfer it to the new environment? If that can be done without a major change of the SAP procedures, you'll be ahead of the game. If it cannot be done without a major SAP procedure change, then it is best to postpone that change to be executed during the upgrade process or shortly after.

First, it's important to uncover the non-optimal working processes. There are two ways to do this. The hard way, observing ways of working and interviewing people to figure out who is executing what specific activities in which order, and how orders and information flow through the system. Then document all that in a report. Or, the easier way, using Process Mining software designed to automate this work, provided you can feed it with the needed data in a swift and low-cost way.

Angles Process Mining functionality delivers intelligence on non-optimized processes based on the SAP data and the added intelligence provided by the Angles for SAP server. This enables you to identify not only non-optimal process flows, but also the information, and suggested redesign of these flows. When that is complete, you can decide whether these redesigned flows should be implemented before, during or after the planned upgrade process.

> ## Dramatically reduce your risks at go-live with continuous monitoring of operational processes.

A profound analysis of the current process performance will also give you information for your improvement actions. Angles for SAP also helps with out-of-the-box supply chain performance analysis properties (e.g., delivery reliability, bottleneck type and order statuses), query templates and Control Tower Dashboards.

Thanks to Angles for SAP, it is possible to check business processes with a 100% sample. It feeds the business blueprint in visualization and data of all processes (both the A and the B routes).

Secure the Operation After Go-Live

There will always be a risky moment during a migration – the go-live. Is all well after the upgrade? Is everybody working according to the new ways of working? Master data has been uploaded, but the quality has not been checked thoroughly. User training has been run, but some users didn't attend. Control reports are a low priority and are not yet in place. And then you go live …

Soon after go-live, it may become evident that not all users are fully aware of all scenarios and processes. That master data may lack quality and content. And no one will know what is going wrong and how to correct it, because the control reports haven't been built. This may lead to a gradual deterioration of the control of the business, and the newly upgraded SAP system may build upon incorrect master and transactional data again. When all that happens and when the backlog grows and the first month-end approaches, panic can take over. No one will have an overview anymore and users will have no visibility into their own processes: as many have done before you, you'll have hit the infamous post go-live dip.

Angles can prevent this situation from happening, providing go-live managers with the control tools to recognize and repair possible errors in the customization, master data and operational data, so that they don't have to sail blindly through the go-live storm.

Angles delivers the functionality and a service package to mitigate the risks of functional reporting gaps exposed during go-live, focusing on:

- Identifying 'laggards' (e.g., users who are apparently entering orders or information at a slower pace than before), so they can be provided with the necessary support
- Quickly building crucial reports
- Preventing explosions of customer requests and loss of confidence
- Avoiding the need for (investment in) customized ABAP reports Measuring and comparing data volume

Providing users with insight and visibility across their processes, especially just after migrating to a new system, reduces the depth and duration of the post live dip. It also prevents the backlog and the frustration of insufficient daily operational reports from growing.

" Angles for SAP can help you see important deviations in your SAP processes.

The ease with which one can rapidly make ad-hoc operational reports and Control Tower dashboards gives you more control over the go-live process.

One more word of advice: train your users well. A lack of training turns out to be a huge factor in the later deterioration of data quality. In the past there were too many 'over budget' implementation projects, where 'cutting the training budget' was used as an initial cost cutting measure. However, in most cases, the decision and subsequent action are short sighted.

Continuous Improvement of Business Processes

There have been many situations where people went for an As-Is upgrade or ERP re-implementation. Most of these people also had to make a business case, showing that the new scenario has the right payback. Yet in case of an As-Is upgrade one spends money to replace a system with a system that does the Is that realistic when it comes to time to ROI and ROI itself? Likely if—and only if—the new hardware/software is significantly less expensive than the previous system … which often is not the case.

It's possible that this payback dilemma is the reason so many business case expectations cannot be realized or were difficult to achieve. It also may be why so many managers don't even look back to see to what extent the business case was realized.

Investments in software solutions can be categorized in three types:

- Defensive investments
- Cost saving investments
- Offensive investments

Defensive investments

A defensive investment can be considered as a 'necessary evil'. If we don't do it, we will lose more money than the money we must spend on the investment. For example, when a software system is no longer supported by the supplier, obliging you to upgrade or to go for another software system. Defensive investments don't have a payback time, so don't try to calculate one. The most relied on strategy in this scenario is to negotiate the best value possible.

Cost saving investments

A cost saving investment has a payback time when the savings amount is larger than the investment. An example of this would be when the cost of ownership of the new environment is significantly lower than the cost of ownership of the old environment.

Offensive investments

The most promising are the offensive investments. For example, changing your processes so that you significantly reduce your lead-times, improve your lead-time reliability or both, to distinguish

your service level from that of the competition. Notice that we are talking about dramatic improvement processes here. Do they have a payback time? You can bet on it; these changes have real measurable results. In addition, they also have a behavioral payback, as they yield positive enthusiasm and a can-do momentum.

As-Is upgrades usually fall in the defensive investment category. Improving your business processes can be cost saving investments or even offensive investments. That's where their payback can be found.

Summary

Prepare an upgrade initiative, control the go-live uncover cost savings and drive ongoing process improvements with Angles for SAP.

With Angles for SAP your migration will have

- ✔ More transparency
- ✔ More efficiency
- ✔ More quality by monitoring data and processes
- ✔ Less risk of disruptions to business operations and business performance
- ✔ A higher probability of meeting the go-live/roll-out objectives
- ✔ More satisfied users

Magnitude™