



While there are many steps to implementing a data management solution, we've identified the top six

This paper boils down the long list to the top six critical steps you need to know to avoid common pitfalls of implementing a data management system. It's our experience that the biggest impediment to a successful data management roll out has as much to do with people and their use and acceptance of the solution as it does with the technology – the technology is not the hard part!

- Create a great team and enlist heroes and engage outliers
- Create the internal alignment and generate the positive buzz essential to success
- Plan ahead to avoid failure to launch
- Know your data, who uses it, and how it's used
- Avoid the most common pitfalls that can crater or forestall your ROI
- Train your workforce effectively to ensure buy in and acceptance



One Step at a Time



The first step is always foundational to the following steps and it's all about people. Engage a great team. Pulling a great team together is crucial so we'll talk about the attributes that make up a great team.



The second step is all about practical ways to break down barriers to change. Although there are complexities in deploying a data management solution, its people that have to change the way they are working today to use the system. In this way, the change is not so much about the technology; it's about the people and their new way of working. The more you can successfully lower the threshold for people to accept, embrace and move forward with change, the greater your chance for overall success.



The third step is planning. And while that sounds obvious, we see time and again that it can be the hardest step to execute. Your successful rollout depends on having a well laid plan and you simply cannot allow this step to be optional. There are some specific points about designing a successful implementation plan that we touch on in this section.



Step number four is all about your data— its quality and quantity. How much related information do you have that describes the data (metadata)? The more you know about your data, the more informed you are about how the system will accommodate users finding and utilizing the correct information – critical as we're sure you agree!



Step five addresses how to deal with business needs that may require more than the "out-of-the-box" solution. Perhaps it's a custom integration with your ERP system, your work order management system, your business system, your contact management system; you need to know that your data management solution can scale to your needs.



The sixth step explains why training is pivotal to success and helps bridge the gap between your newly implemented solution, user confidence and buy in. We share ways that we've seen work well in past implementations.



Engage a Great Team

Get a 360 degree world view

Involve decision-makers

Create your "A" team

Leverage your team members' strengths

Do your homework to stay on target

Communicate. Communicate.



Get a 360 degree world view

Ideally, your project team provides a 360 degree world view of your business and your user community. It will introduce diversity by way of representation. The 360 concept is scalable, whether your project is small—5 to 15 users or it's 100, 200, 500 users—you're going to want diverse representation that spans all the departments involved, from the user community through corporate IT.

Involve decision-makers

Most successful projects have some level of executive sponsorship. And while management may not be part of the actual project team, they can really help set the tone, the expectation, and a sense of direction and vision around the project. We have seen a customer Project Manager record a presentation given by his divisional vice president stating all the reasons why he

supported a data management project and why he believed it was an important investment for the company. He asked people to join him and get on board in supporting the project, which in turn, created a positive impact on the user acceptance and commitment.

Draft your "A" team

Ideally, your project team has an internal lead, who acts as your quarterback. That person serves as a sponsor and process monitor to make sure internally things are going smoothly and that the project is meeting and exceeding your business goals. That same person is often the internal project lead and liaison with your data management business partner/solutions provider project manager. S/he is accountable for the smooth and clear communications between the two groups, for coordinating partner resources, and keeping the overall project on task and target.

"Some folks have an amazing process-based way of thinking about the world. Others have a very conceptual way of thinking."



To achieve team harmony, it's best to incorporate a process for responding to questions and concerns—both 'positive' and 'negative'. You will get (and want) feedback, including fears, concerns, hopes, and desired results for the implementation. Be really conscious and aware of the information you gather as you go through the planning phase and come close to the go live date. The team can help the user community transition to the new system by being responsive to feedback and questions.

Leverage your team members' strengths

Some folks have an amazing process-based way of thinking about the world. Others have a very conceptual way of thinking. You'll have team members who are intimately familiar with your company's data and others who aren't. Diversity also ensures that you're covering the critical bases in your overall scope of work.

Do your homework to stay on target

It's really important that you complete any 'homework' between milestones of the project. The homework we're referring to are simply actionable items for which team members are accountable. Your partner will have actionable

deliverables, and you'll have them as well. They may look something like this:

- What are the files you are going to import into the system
- What folders are they in and where are they located on your network?
- Who are the users?
- Who are the administrators?
- Are the servers requisitioned and on target to be ready by implementation?
- Have you reviewed the data and information provided by the partner in the time frame agreed upon?

It might surprise you to learn that almost all project delays happen when customers don't complete their 'homework' on time.

Communicate. Communicate. Communicate.

Excellent communication is a critical benchmark of a great team. Whatever it takes – an email, a lunch, a long walk – make sure people really understand and have an opportunity to get involved. If anything, err on the side of too much communication.



Break Down Barriers to Change

Invite people to participate and provide education

Heroes positively influence outliers



Invite people to participate and provide education

Involve the people who will be affected throughout the process, early and often. It provides people a real opportunity to become a part of the solution because you've involved them – given them a stake in the outcome.

When you've asked them for their participation, and you've educated them, and you've really listened and taken the feedback into account, you then have the right to ask them for their commitment to your project's success. Getting that commitment absolutely decreases your timeto value positively affects your ROI.

Another good tact is to ask your users to take ownership of their part of the project. The reality is when solution goes live; they're going to be using a system that's new to them, so asking them to own it in advance is helps them and it helps the project.

Heroes win back outliers

You've given people an opportunity to be a part of the change, and you've enlisted their feedback, but there are always a few outliers that just don't buy into the new plan. Then what do you do? Simple. Find a hero – often referred to as a 'champion' and involve them to influence people who don't yet buy into the plan – from a respected colleagues perspective. Nowadays heroes look a lot like you do. They come in many forms and many different titles. Some of the most avid champions don't have titles, but they're well respected by their peers and they're passionate about what they do, how the company succeeds, and they want great results for the project. They can really help lower and even remove barriers late to accept the new plan.



Planning is Not an Option

Assessing the situation

Be clear what winning means

Implementation planning and design (IPD)



Assessing the situation

Planning starts with a data management assessment, a process that helps you get very clear about the project scope. The assessment also informs your business partner/solutions provider about your project goals and desired outcomes. Remember: You're experts in your business. Your business partner/solutions provider is an expert in the data management solution you've selected. So the assessment becomes a meeting of the minds and a documented process of how to get from the starting line to the checkered flag – and beyond.

The assessment also documents the baseline, as-is situation. It's going to capture goals, objectives, hopes and concerns about the "to-be environment". The deliverable at the end of the assessment is a clearly written statement of work. It also captures requirements that clarify the project intent. By documenting the goals and the "intent" upfront, it's easier to measure the success

and to ensure that the outcome is exactly what you intended to accomplish.

As part of the assessment, these questions are asked and answered, in addition to others like them:

- Who are the project business owners and the technical owners?
- What are the specific problems you are trying to solve?
- What do you envision the value is going to be?
- What are the intended benefits?
- Who is supporting the initiative at various levels in the organization? (This is going to help you formulate your communication plan which will be an important part of the project obviously, but this is done early on)
- What data will be managed, for whom, across which continents? These days it's rare that our implementations are just on one continent or in one location.

 Which data and departments will not be included and why? Knowing this will positively affect ROI.

On complex projects, you may choose a phased implementation approach. Perhaps you address the most critical project requirements in phase one and then separate out the remaining tasks into a phase two. But understanding what's in and what's out of each phase—and having project team alignment as to why you agreed to go forward in phases —will help the team more clearly communicate the project's intent. It's better to communicate potential risks to your stakeholders and users so that they can be aware of the risks to potentially avert them from happening or at the least, lessening the impact.

Know what winning means

Defining what a successful implementation is going to look like in advance helps you measure and adjust as the project unfolds. How will you communicate to your business partner/solutions provider when they've done a good job, and how will you measure that? Also, of course, you'll want to define and manage your stakeholders' and users' expectations. These measures may change if the scope and intent change. What you want to have as early as you can is clarity of how the business defines success and how the project team defines success as part of the assessment process. It's best to start early and iterate as often as you need to be clear about defining and setting expectations.

Next up: Implementation planning and design

After the assessment, you have a clear scope of work and an agreement on how the project is going to unfold. The next critical piece of planning is what we call implementation plan and design, or IPD. The IPD is executed after the assessment and after you have the scope of work. It's where the actual technical solution is designed, modeled, tested and validated in your organization. During the IPD:

- a data model to support your business processes is designed
- specific workflows are identified
- document naming schemes are created
- transmittals are designed
- and much more

The IPD applies the high level project goals to the technology solution – it's when use cases and processes are designed and configured in the 'new world' moving forward.

We find that an important best practice is to have your data management administrator and any key support personnel trained in advance of the IPD. When your key people are trained before you design the system, they can apply their smarts about your company's business processes to the way the actual data management solution works—and vice versa. When key people understand how the software works before the IPD, the better the outcome.



Which data is current, work in process or archive?

How's it used and who relies on it?

How clean is it now?



Here's an interesting observation from years of working with customers...

Excepting small implementations, it's rare for one person to know all about the data that will ultimately reside in the document management system. The key to knowing your data is to know who the people are who know a lot about your company's data and how it's used. These people are invaluable to the project early, so it's a best practice to enlist their help. In many companies, it's a community knowledge—that's OK and common. The critical take away from step four is to get the knowledge into project purview, wherever it may currently reside.

Once you start to survey your data, there's potential for a lot of "gotchas". For example, someone might say, "we have these hundred spreadsheets over here" and "five thousand

paper drawings there". Data will "come out of the woodworks" and suddenly you'll discover another 250,000 documents that need to be imported. These types of data gotchas can affect your scope and push the timelines out if discovered late. So it's important to tow the line about what data is really critical to bring into the data management system, especially if new data are found late in the project timeline.

Knowing your data means a lot of things:

- Which data is current?
- What's work in process?
- What's archive?
- How is it used and who relies on it?
- What are the processes around that?
- How clean is it now?
- Does data need to be scrubbed and cleaned on its way into the system (normalized)?
- Do revisions need to be imported?

"Because you're able to visualize your data in different ways, you're going to know your data in ways that you didn't know before."



Also, plan ahead and have a "me-too mitigation plan". You'll want this when you've gone all the way through the IPD stage and suddenly other people in other departments get excited about the project—these could be former naysayers, or people who were on the periphery of the original project team. Suddenly lights are going off and people are asking for access to the system. Do yourselves as a project team a huge favor - just say no – not now. Or say, "Yes, absolutely, but later, during phase two." Whatever your response, know that you will need a mitigation plan. Folks will want to get on board - they'll be excited, because you've created a positive buzz – this is a great thing for the project and so will your metoo mitigation plan.

Most of the time, your business partner/solutions provider will be able to mock up a system, without actually doing a final data migration. It's a great way to see what your data looks like in the solution. You'll get new ideas and realizations as a result. And that first look is an important step. Because, you're able to visualize your data in different ways, you're going to know your data in ways that you didn't know before.



Train Effectively

Training is Critical

Training Options



It's understood you will need to train your stakeholders on the solution, but how will you train them effectively? You've already trained your administrators and your support personnel, perhaps even your champions early before the IPD, so it's time to train the technical design people and data consumers who will use the system. When the switch gets flipped to 'on', and your data management solution goes live, your technical users are going to be working in a different way than they've worked before. This is why effective training is so important.

You'll also shorten the time to value when you provide effective training, because your technical people know the business and really understanding the solution can help. Good training also makes active architects of a great system.

We have found that hands-on training works better than classroom type lecture training, because people are actually doing as they're hearing. Another best practice is "over the shoulder" training. This is a loosely structured ad hoc, teaching time made available after hands on or classroom training. During training, a data management expert is on-site to work with individuals and answer questions. It's important to provide your users this option, because some people aren't comfortable asking questions in front of groups. And, questions will come up that didn't occur to user during class – another good reason for over-the-shoulder training. This oneon-one time gives them a chance to ask specific questions that they have. Great training helps your project be successful, because it gives the users the confidence they need to do their job well. Greater user confidence decreases time to value and increases ROI.

Training options



Extend Outside the Box

When do you need a custom application?

What problems do you need to solve?

Setting expections and scope of work

When your business has requirements that the data management solution doesn't handle out of the box, you may have to extend it "outside the box". This could be custom integration with your ERP system or your work order management system; your business system; or your contact management system.

You may or may not need to customize your out of the box solution and it's clearly something you're going to want to understand - what is and isn't involved in the process.

So, let's say you want a custom application to connect and integrate a business system to your data management solution. The first thing you will need is a discovery and specification. This is a little bit like an assessment and an implementation planning design, but it's limited in its scope to the custom program you're interested in. The specification includes:

- What the intent is
- What problems it's going to solve.
- How the program is going to function

It's both a best practice and a requirement to have a specification for any customization or data migration you invest in. Once you have a specification, you should also have an estimate for the work and the scope. Whenever you customize, be sure to understand the following:

- what is the investment for me to customize?
- is my customization automatically supported when new versions of the solution are released?
- Is there a separate maintenance charge to keep our customization current?

When it comes to customization, we like to recommend that you try to keep it simple; don't make an automated piece too complex in the beginning if you don't have to. You can always grow and evolve it from the phase one solution as you need to. Customization and automation can be powerful additions to your project and your overall productivity. We encourage you to be clear about both the benefits and the impacts.



So, today we have talked about what we believe are the six critical steps that are really going to help your implementation be successful. You're going to engage a great team. You understand that planning isn't optional. You understand some of the different aspects of planning. We talked about how to get to know your data. It's not just the project team's job. It's everybody's job. You're going to commit to training effectively, because this really needs to be successful, and you want as direct a path to value as possible—you want your company's investment to start being returned on

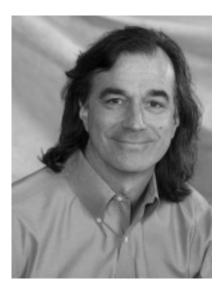
day one. You're going to extend outside the box, and at least think outside the box regardless of whether you need to customize or not.

When you follow these steps, you can feel confident that your data management solution will be hugely successful and you'll have a blueprint for the future to thrive and grow.





About the Author



Todd Cummings is the Vice President of Research and Development at Synergis Software.

He is an avid fan student and evangelist of engineering data management solutions with more than 20 years tenure at the company. Todd has been involved with almost every aspect of data management—from product design, development production and marketing to implementation, training, support, business development, and partner technologies.

About Synergis Software

Synergis Software has been developing, implementing and supporting engineering data management solutions for the past two decades. We work with hundreds of companies around the world in diverse industries. With more than 40,000 users, some of the world's most recognizable brands rely on Adept every day.



www.SynergisSoftware.com | 800.836.5440