



THE PRINT MIS BLUEPRINT

A GUIDE TO SYSTEM
SELECTION AND
INTEGRATION



Powered by
Microsoft® Dynamics

INTRODUCTION

This is a book on implementing an MIS or ERP system in a small business. By small business I mean a company with less than about 100 computers. This is an arbitrary cut-off, but for most manufacturing companies it's not a bad definition.

To be fair, we usually work with companies of 50 or fewer computers – which might be 20 in the office and 20 on the shop floor. Occasionally a customer might only have 10 computers but that's rare.

This book will apply to almost any ERP or MIS system on the market, but I'm really familiar with the PrintVis add-on for Microsoft® Dynamics 365 – so that's what I'll talk about the most if I need to use an example.



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Robert Jolliffe has a combined background in manufacturing engineering, software design, and production and inventory management, allowing him to understand both sides of a Print MIS and ERP implementation.

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BENEFITS OF A PRINT MIS



ACCELERATE YOUR SALES

Rapidly produce estimates and send quotes electronically to customers with a few clicks. Let the system prompt and track follow up by your busy sales team so orders don't slip through the cracks. Automatically convert quotes to orders and schedule and generate shop tickets in seconds.



MAKE BETTER DECISIONS

Visibility of your orders, inventory, fulfillment, estimates, quotes and financial position in real time means you make better decisions as managers. A bad decision made with bad data is incredibly costly.



INCREASE PRODUCTIVITY

According to a survey of printing operations conducted by NAPCO Research, implementing an MIS can result in an average productivity improvement of 28.5%.



COST SAVINGS

According to a survey by the National Association for Printing Leadership, implementing an MIS can result in an average reduction of 25% in labor costs and a 12% increase in sales.

PRINT MIS TIMELINE CHECKLIST

SELECT YOUR MIS

- Build a Selection Team
- Interview candidates and compare them
- Choose an MIS

BEFORE YOU START

- Select the Business Analyst
- Pick the Implementation Team
- Decide who's Coordinating

THE PROJECT

- Discovery process with the MIS vendor
- Intro training for the implementation team
- Setup the system for testing
- Run scenarios through your new system
- Test, refine, and test again until the system is refined
- Train the broader group to use the new MIS

GO LIVE

- Prove the organization is ready
- Pick a Go-Live date
- Migrate data and orders

BE DELIGHTED

- Use your new MIS to save time and cost



WHO IS THIS GUY, ANYWAY?

Some of you may be saying to yourself, “what makes this guy think he could write a book about this?” Let me give you a brief background so you can decide if this is the right book to read.

I started doing ERP consulting when I was 28 years old. This was after working as the IT manager at an Engineer to Order equipment manufacturer in Waterloo, Ontario. I had decided to make a career change from being a production engineer (which is closer to my education) into IT.

I have worked as a production scheduler, buyer, quality engineer, product designer and IT technician, IT manager, and finally an entrepreneur.

I’ve helped hundreds of manufacturing companies ranging from 10 employees to 700 with their ERP systems. I’ve spoken at Microsoft® Dynamics conferences to colleagues and customers about the best tactics to run successful projects. I’ve taught supply chain and MRP fundamentals at Conestoga College in Kitchener, Ontario.

I somewhat know what Debits and Credits are (they aren’t positive and negative numbers for you non-accountants). I know enough to talk to accountants intelligently, but I’m by no means a professional.

Over the years I’ve worked with various trade, packaging, and commercial print companies. Some examples are folding carton and envelope manufacturers. However, I have always found that the ERP system didn’t handle their business very well.

Seven years ago, I began my journey down the path of Print MIS and graphics arts manufacturing. There are a lot of differences between “traditional” cookie-cutter manufacturing and print manufacturing. The automotive stamping plant is only vaguely similar.

That said – there are a lot of similarities between job shop manufacturing (an area I am very knowledgeable in) and print manufacturing. Today I’ve worked with a score of printers implementing MIS or supporting it. I’m starting to get the hang of it. I felt like this would be a good time to put my thoughts down for others who might be interested.

MY BLATANT PLUG

I am writing this book to help prospective customers of my own business, Sabre Limited. I want to get this out in the open. I have spent years taking the ideas in this book and refining them into a system that we use to ensure successful projects, time and time again.

It’s not perfect, but it is pretty damn good. About 95% of our customers remain active with us after their project. That’s an outstanding retention in the Microsoft® Dynamics space.

Microsoft® Dynamics is a great product for customers because you have more flexibility and choices. You can choose to dump your partner at any time — Microsoft® makes this very easy. Implementation partners must do an amazing job to keep you happy, so you stay with us.

We now sell a Print MIS “addon” for Microsoft® Dynamics called PrintVis. Given that PrintVis is a Microsoft® certified product, they follow the same “dealer” model that Microsoft® does. You have a choice of who you purchase PrintVis from. Think of it as being like a Ford dealer. You don’t call Ford and order a truck. You get it from a dealer.

Since I decided to invest in PrintVis and build a practice, more companies have decided to sell and service it in North America. This includes Kodak and several others.

We believe we are still the best – and keeping customers happy with great customer service is how we continue to prove that.

I’m going to teach the methods that Sabre follows in this book that has resulted in many happy customers and partnerships.

By the end of this guide, you’ll have a solid understanding of what it takes to have a successful Print MIS implementation.

DON'T HIRE AN ERP SELECTION CONSULTANT

The selection of a print MIS or enterprise resource planning (ERP) system can be a daunting task for any small print manufacturing company.

The hard truth is that ERP selection consultants are not much help.

HOW DO I KNOW THIS?

My background is in science. In science we can't always measure something directly, instead we look for the side effects.

If my theory is ERP selection consultants are not much help, what's the side effect that proves I'm right?

They almost never offer any advice.

I don't know if this is true with large companies, but I can say from a lot of experience that ERP selection consultants don't seem to help small businesses. They are hired for their experience, but they NEVER seem to share any advice about which products are good for small businesses.

If you have hired one of these consultants to find the best ERP program for your business, they would first talk to your team, learn about your products, and see the mountain of spreadsheets. After that, they come back with a list of 100's of features that the new ERP program should have.

They interview you and help you select the features you might need. They don't (usually) come with a list pre-done. Most of them don't say, "these are very expensive features and drive up the price, while these are more common for a business your size."

When they send this feature list to a group of system vendors they research and select. These might include me. All these features are "blank" waiting for feedback.

I fill in these lists. I fill them in even though I filled in the same darn spreadsheet a month before for the same selection consultant. Nothing has changed in a month – but we need to repeat the dance.

WHY IS THIS A PROBLEM?

Every time I get a spreadsheet like this, I roll my eyes. Don't they already KNOW what every ERP can and can't do? Don't they do this as a full-time job? Don't they have a **database of these feature lists** that have been filled in repeatedly by me (and all the other victims of the scam)?

[ASIDE: I encountered one of these guys who DOES keep a database and DOES use it with his customers. Most do not.](#)

I guarantee you from many years of experience, ERP systems never lose features. They only gain new ones.

[ASIDE: It is an entirely pointless exercise to make me or any of my competitors fill in these feature lists. I refuse all requests today. It consumes way too much time. I've even had the same ERP consultant send me the SAME list for 2 customers and insist I fill both in because "something might be different."](#)

Why can't they just **bring out their database of features** and tell the customer (you) which fits best?

I've come to three possible conclusions:

- 1 They know exactly which ERP works well for your business, but **they can't bill for as many hours** by simply giving you the answer. The Kabuki Dance must go on.
- 2 They never follow up with customers to see which ERP worked well or not, so they have no idea which is better. **They don't care if the ERP works or not.**
- 3 They don't want to put their neck on the block and give advice. So long as you make the decision without their input, **you can't hold them accountable.**

Going forward, ask your consultants how they personally rank the success of the ERP partners and implementations **after the customer selects one**. What are their recommendations regarding which products have the best outcomes? Talk to some of their past customers who selected the final two ERP systems you are looking at.

They'll probably make some noise about confidential information. They'll say it's the ERP vendor (my) responsibility to find you references. That seems like a weird answer when you think about it.

They are being hired to reduce your risk of making a bad ERP decision. Why don't you interview the last 2 or 3 clients who purchased an ERP to see if the experience was low risk?

The experience of the ERP consultant counts for nothing if they won't share it with you.

WHY WOULD A SELECTION CONSULTANT DO THIS?

ERP selection consultants are reluctant to tell you which software has been most successful for their past customers.

The reason, they say, is client confidentiality. I think the real reason is that they're either afraid of being blamed if they recommend something that isn't good, or they have to justify the hours they bill for the project.

Gaining an accurate understanding of how other companies have implemented similar solutions is crucial. This will give you a realistic idea of what to expect and help you avoid potential pitfalls.

All of this is not to say there are no good ERP selection consultants out there. The good ones will have no problem sharing their experience with you and helping recommend the right software for your business. The good ones will already have a good summary of what each product does, and which works best.

It is important to get an accurate picture of how the implementation went for other companies. If you think about it, **this should be the number one value they bring**. They recommend MIS systems to other businesses. They should be following up and recording that information and sharing it with each new customer.

If a consultant tries to keep everything under wraps, be wary. You don't want to end up with an MIS system that's a dud.

When it comes to choosing an ERP or Print MIS system, don't be afraid to ask to talk to past clients. If a consultant won't give you straight answers, find someone who will – or better yet – do it on your own.

SELECTING AND IMPLEMENTING A PRINT MIS

From this point forward in the book I'm going to focus on the steps you need to select and implement the MIS system on your own.

In my opinion there are 7 steps to complete this properly.

THE 7 STEPS

- 1 Choose the Right Product
- 2 Find Your Project Leader
- 3 The Project Coordinator
- 4 Choose the Team
- 5 Execute the Project (Pitfalls and Warnings)
- 6 Test the System Thoroughly
- 7 Listen to the Experts

The first step is often pretty scary for most customers, but it is actually fairly easy. This is what you pay an ERP or MIS selection consultant to do. The other steps are executed by you and the MIS vendor and is what I have found (over 25 years) works the best.

It is not by any means perfect, and I've changed the approach a number of times over the years. That said, I've been changing it less and less as we've refined and improved.

The tips, tricks, and ideas I present here are the most likely way to execute an MIS system successfully.

At least that's my \$.25 worth of advice.

STEP 1

CHOOSE THE RIGHT PRODUCT

In this section I'll walk you through a simple process to make a selection on your own.

WHY DO YOU NEED A NEW PRODUCT?

Choosing the right product starts with a bit of self-examination on why you want a new product. There are some common reasons:

1 YOUR CURRENT TECHNOLOGY IS OBSOLETE

This happens when your current MIS or ERP system can't be upgraded. The Windows 7 obsolescence caused this to happen in some companies. The end of Microsoft® GP support is pushing a lot of businesses to look.

2 YOU HAVE OUTGROWN YOUR OLD SYSTEM

This happens when your business: has new customers with new needs; is selling new products; or you've just grown a lot. The old system just can't carry the company any more.

3 YOU NEED SOMETHING YOU CAN'T GET NOW

This is a bit like #2, only it's driven by a specific need. You might need a graphical scheduler, or lot/serial control for products you sell for food contact.

Sit down by yourself or with your team and write out why you are looking for a new MIS, and what the needs are. If you fall into type 1 above, think of new benefits to the company you wish you had.

Try and avoid thinking in terms of features. Features themselves don't do anything but satisfy a need.

You need to consider all the needs you have as a business, even ones your current software supports. Things like "I need the ability to do estimating quickly and easily" or "I need to be able to invoice in multiple different layouts" are examples.

Avoid making lists of features based on what you think your current software needs to have added.

Example: Let's say your current system makes it very hard to purchase. You need to click 10 levels deep to get to screen where you select a material needed on a job.

1 Choose the Right Product

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3 The Project Coordinator

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SCORE THIS NEEDS LIST

If you have done the exercise above, you should have a list of 10 to 20 different “needs” that you have identified.

Now you need to score those needs and categorize them. Pretend you have \$100,000 for a budget. Put how much of that \$100k you would be willing to pay beside each need. If Estimating is the most important, maybe it gets \$20k. If fulfillment is the next, maybe it gets \$15k etc.

You may end up with just \$1k or even \$0 on some low priority needs. This helps you separate “wish list” from “real needs.”

The reason you need to do this exercise is that as an ERP vendor, if you give me a list of 20 items, I can tell you that I can do them all. If you give me a list with priority, and say “if I had \$100K, how many could I get?” I can answer that pretty quickly.

SEND THE LIST TO SOME VENDORS

Now send the list to a group of vendors. I wouldn't recommend more than 6 or 7.

Start by writing a brief intro of your business, about how many staff you have, and what software you use today etc.

It is very helpful to get an idea of your sales volume as well. All vendors will sign confidentiality agreements – so make sure you ask for that.

Send them the list of your needs, with their priority (leave out the \$ value – maybe just classify them with a scale of 1 to 5). Add a spot to write comments on this needs list and ask the vendors to reply.

Interview the vendors you selected and ask them to talk about how they would handle the needs list you sent.

HOW TO PICK 3 TO WORK WITH

I believe this is the part where many businesses make mistakes. Here's my recommendation.

1. Look for vendors that have experience with your type of business.
2. Look for products that are modern. That means that they fully support cloud in the future.

If you don't have an IT background, I recommend you get an IT professional to validate this part.

3. Is it easily customized?
This is quite important. You don't want to customize, but if you must, you don't want it to be prohibitive.
4. Look for billing that is modern. Monthly subscription software tends to be more modern than “buy it once.”
5. Ask them for a rough budget and make sure you say you won't hold them to it.
6. I recommend asking for a fixed fee or not to exceed.

Item 4 is very rare, and you might not find anyone. We are one of very few vendors who offer a fixed fee.

Final thought. Look for Google Reviews, blogs, YouTube or any other source to validate what the vendors say. If something seems too good to be true, the truth is probably on the internet.

CLOSE THE DEAL

Now you'll have selected 3 vendors to work with, ask them to do a demo for you. Offer to let them meet with the team before the demo for a couple of hours if they need.

If you have selected a vendor that knows your business, that is all they really need. Very few small or medium businesses (under 100 computers) are as complicated as they think.

[ASIDE: You are probably not a multi-continent, multi-entity, vertically integrated business. You are likely a single \(or few\) facility business where multi-currency is the most complex part of the finances. MIS or ERP vendors have sold to literally hundreds or thousands of businesses like you.](#)

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When you have held your long form demos and interviewed the vendors, you'll establish a favorite pretty quickly. I recommend calling references at this point. If you have two that feel tied, you can call both.

No vendor is going to give you a reference that is bad. There are two "tells" that a reference might not be the best.

1. They are really new. Someone who purchased the product in the last 3 months is not a good reference. They should be "Live" or very close.
2. They are really old. A reference that's 10+ years old is not running the current system (and maybe didn't work with the current staff).

CHOOSE THE RIGHT PRODUCT CHECKLIST

WHY DO YOU NEED A NEW PRODUCT?

- Determine Why you are Looking for a new MIS
- Brainstorm the "Needs" you want to satisfy in the new MIS system
- Write this list down and prioritize it.
- Use the "assign a value" if that helps
- Write up a business introduction memo
- Add the prioritized list with a place for the vendor to make comments

HOW TO CHOOSE A VENDOR

- Send to 6-7 vendors
- Ask them to have a 45 minute introduction meeting with you
- Evaluate them based on my criteria (see page 15)
- Choose 3 you like and ask for a "bigger demo"
- Choose the one you think most closely aligns with your needs
- Ask for 3 references

CLOSE THE DEAL

- Buy the MIS



STEP 2

FIND YOUR PROJECT LEADER

If you follow our advice, then by this point you've decided on an MIS and purchased it. You are now getting ready to start implementing. This and the next steps are all about the best way to execute a project.

THE BUSINESS ANALYST IS YOUR LEADER

Now you need a leader for your project. This is not the project manager, although it can be.

What you need is a Business Analyst.

The business analyst is the most important person on your MIS implementation team. They are the ones who will help you navigate the implementation process and ensure that your project stays on track.

They will work with you to understand your business needs and then develop a plan to implement the ERP system.

It's no secret that successful businesses are built on a foundation of strong goals and vision. Your chosen business analyst will work closely with management to understand the company's goals and objectives, and then develop a plan for how the ERP system can best be used to support those goals.

They also play a key role in testing and troubleshooting the system during implementation, and in helping to train users on how to use the new system effectively. In short, the business analyst is essential for ensuring that an MIS implementation is successful.

For a graphic arts manufacturing company like yours, this person has three major characteristics that are important.

The three critical characteristics are:

- 1 They need to be someone that management and the team trust to make the right decisions and to have good judgement.
- 2 They need to fully understand your business (except financially) so that they can confidently answer any questions correctly and make informed decisions.
- 3 They need to have a good understanding of software and technology. They don't need to be super stars, but they can't be afraid of software.

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[ASIDE: Don't worry about financial knowledge. The Controller or CFO will be the leader on the financial side. If you don't have a controller, it can be a good idea to hire a part time CPA or vCFO \(Virtual CFO\) to help with that part - but you don't need a financial Business Analyst.](#)

A business analyst is someone who looks at a company and understands how all the pieces fit together. They need to have a good understanding of what the company does, how it makes money, and what its goals are.

Someone else in the company, for example a production manager, only has a limited view of the company. They handle a specific part of the business (or task) and do not have the same overview as the business analyst.

This can make it difficult for them to see where improvements can be made or to understand how their part of the company fits into the bigger picture. As a result, business analysts are often better equipped to make suggestions on how to improve a company overall.

HOW TO CHOOSE YOUR BUSINESS ANALYST

Let me run down the typical mistakes people make trying to choose a business analyst.

Don't pick someone because they did an ERP project sometime in the past.

All ERP systems are not alike. Having done an old project in the "pre cloud" days also might be not helpful. This is especially true if the person has experience with BIG ERP projects, in the multiples of millions. This person will bring BAD HABITS with them and probably make the project harder.

Don't hire someone from the outside who has experience with your new MIS or ERP.

There aren't that many of these people, and usually they don't know your business well enough. Also, a lot of people look for an ERP or MIS on a resume. If this was one of our projects and a customer wanted to hire, I'd rather have someone with experience related to a competitor at a similar size or type of company.

People from the outside don't know much about your business.

The Business Analyst has to really, really know YOU. They must know your business better than almost anyone else you can pick. Someone from the outside cannot do this (unless they spend a year or so learning – which should involve a month in each department to learn the jobs of the staff).

WHAT THE BUSINESS ANALYST DOES

The Business Analyst is going to learn the Print MIS and ERP. They don't need to learn accounting (I mentioned that above) but they do need to understand how operational data flows to accounting. They are going to get their hands around the product, and **they are going to make decisions.**

The decisions they make will impact your business.

These are business transformation decisions. These are the choices that will change your internal processes and fit them into the new Print MIS.

They will also break ties.

That means when you have people in your team that disagree, the business analyst needs to be the person who can make a final decision.

They need to be someone that management and the team trusts to make the right decisions and to have good judgement.

STEP 3

THE PROJECT COORDINATOR

Most customers are very concerned with their Project Manager. They feel that they need someone who will guide the project and make decisions. They often ask me about hiring someone from the outside to handle that part of the project.

The most frequent choice is to find someone who's implemented ERP or MIS systems and therefore will guide the company through the process.

Don't do it!!! In a small and medium business Project Managers are a terrible idea. Choose a Project Coordinator instead!

WHY PROJECT MANAGERS ARE A BAD IDEA

In any enterprise sized ERP project (say \$2M or more), Project Managers are necessary. The ERP or MIS vendor can't provide this resource because the business is too large. In these environments, the enterprise has multiple Business Analysts who work with the PM.

The entire project is thousands of hours in duration, with dozens or scores of people working together. A central actor to manage custom programming, complex decisions and often design the implementation is required.

The trouble is that small and medium businesses are not at all the same. It is not apples to apples.

Once you have your own project manager controlling the project – then you need to be responsible for the entire project and its success or failure. The project manager drives the implementation and sets the plan and process in place. Most small businesses don't understand this.

Just like the Highlander, **there can be only one.**

Your small business ERP or MIS vendor will have a project manager of their own. They will have a standard methodology they use. If you hire a professional Project Manager (in my experience) they will replace it, and use their own, which means you're owning the outcome.

For this reason, a small or medium business should think twice before hiring an external project manager.

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If you want to hold the partner accountable, then the relationship needs to be directly between your MIS partner and the Business Analyst. The Business Analyst will be the one who is making all the real decisions.

An external project manager simply becomes an unnecessary intermediary between the implementation partner, who are the true experts in the MIS system, and the Business Analyst who knows best what the business's needs are.

In fact, it often becomes an excuse for your staff to ignore the project and let it fail. They can blame the project manager. Most project managers do not have the authority (in a small business) to discipline staff. Often the Business Analyst does.

If I had a customer tell me they would have their own experienced external project manager (hired for the purpose of the ERP project) then I'd have to remove all my guarantees and fixed fees.

To be honest, when you have a professional project manager working for you, it creates a lot of conflict with the real project manager that the MIS partner has assigned to the project.

There are two ways that conflict can go:

The MIS partner will take the "the customer is always right" stance and give them exactly what they want, even if it makes no sense. We MIS vendors know our products and know the industry we sell into. What the customer's project manager wants is not always in the customer's best interest.

ONE EXCEPTION TO THIS RULE

There is one exception to this rule. It's when the Project Manager has the experience and knowledge to be a Business Analyst.

When the Project Manager comes from the same industry and has full and complete knowledge of the business, then it can work. The Project Manager in this case is actively participating in the project, not just supervising it. They see why things are done the way they are done.

This is more collaborative and therefore can succeed.

THE PROJECT COORDINATOR: A BETTER CHOICE!

At Sabre Limited, we love project coordinators. This role is quite important, but it is not at all the same as a Project Manager. A project coordinator is responsible for managing the schedule and ensuring that tasks are completed in a timely manner.

They work with the project team and Business Analyst to establish deadlines and milestones, and then follow up to ensure that these are met. They are the ones that get the right people in the room, to have the right meetings, and hopefully do their homework.

Think of a Project Coordinator as the Business Analyst's assistant. Sometimes they are there to keep the BA on track, sometimes they are there to do the grunt work the BA needs done.

In addition to coordinating the project team's work, they provide administrative support, such as preparing meeting materials and taking minutes.

A project coordinator is an essential member of any ERP implementation, and their skills are critical for ensuring the success of the project. They just need to be organized, disciplined, and (usually) a bit bossy. Think of them as the project's executive assistant. They are there to make sure people get stuff done.



STEP 4

CHOOSE THE TEAM

You have your business analyst and project coordinator. Now you need to pick your team who will work on the project.

TIME COMMITMENT: Customers want to know what the time commitment is. It would be different for every MIS vendor, but for Sabre we estimate about 40 hours per week. The Business Analyst spends about 2x the time of the other staff. So, if you have a group of 5 staff working on the project, the BE will spend around 12-14 hours a week, and the rest of the staff should spend 6-7 hours a week.

This is an area where customers make the most mistakes in my experience. I'm going to share with you a few of the most important things I believe you need to understand and remember.

DOING THIS WILL MAXIMIZE YOUR CHANCES OF SUCCESS!

MIS or ERP projects involve three distinct phases (at least this is how we see them).

Theory: This phase typically starts with a discovery and documentation process. Some partners do more of this, some less.

Eventually this leads into some "theory" training. Someone needs to learn enough to make basic decisions (mostly what not to do). The business analyst leads this and is helped by a very small team.

As mentioned, this step has a lot of theory and very introductory training. It isn't particularly practical. Nobody is walking out of the training able to "do their job."

Designing/Setup: Once the theory has been taught, then decisions need to be made. Again, the Business Analyst and his or her small team are on the job. The system gets set up and gradually a larger group begins to run real world examples through to see if they will work, then address any issues.

We are still not training the general day-to-day users.

Pilot: Once the system seems to be working, then end to end run-throughs are held. If they are successful, this ends in adding in day-to-day users to be trained. It is where they are shown how to "do their job" in the new system.

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Last minute adjustments and corrections are caught during this training and fixed before you go-live.

[ASIDE: I have a theory about the “Discovery” process that I think is important to think about. Discovery is when you teach your partner about your business. I recommend that you avoid a MIS or ERP vendor that feels they need a LOT of discovery. That should leave you asking, “don’t they already understand my business?” That said, you do need some discovery to look for the differences and confirm assumptions.](#)

THEORY: START OFF SMALL

Most businesses instinctively think that if they put more people on the project, the faster it’ll get done. That doesn’t work very well, especially in the first phase.

The theory phase is about understanding the new system. You can’t rush understanding by putting more people on the project.

That’s like having 10 people read the same book expecting them to learn it in 10% of the time.

It’s best to pick a good representation of the job functions and pick **decision makers** from your team. You can’t delegate this to low level staff. We’ve seen customers try and put junior staff in at this point, and the decisions that get made are terrible.

The most successful teams (for businesses with 100 employees or less) have around 4-6 people.

DESIGN AND SETUP: BRING IN MORE PEOPLE

Once the theory phase is over, then we design and set up the system.

This doesn’t take a long time, but it requires a lot of decisions. We’ve seen this phase delayed by analysis paralysis. It’s important to remember that decisions made here are not forever. We are going to test them and change them if we got it wrong.

The goal is to setup enough of the system to get into the Test and Debug phase.

Once the basic decisions and setup are done, we should have set up a system that is theoretically right. We need to confirm that it will work in the real world. By this point your original small (4 to 6 people) group is a bit too small to properly test their own work. Now we will add another layer of staff and do some more training, testing, and debugging.

Who do you add?

You add the original group’s most trusted co-workers. So, if you have a purchasing manager on the original team, you bring the most senior buyer in. If you have the controller, you bring in their backup.

At this point more people are working, so realistically a bit less time can be spent by each team member.

PILOT: GETTING READY FOR GO-LIVE

After thoroughly testing the Print MIS system with a variety of real-world scenarios, you may decide that it’s ready for implementation. At this point, you’ll conduct a Full Pilot Test, which may involve running the system in parallel with the current process. To do this, you’ll select an old order, or a group of orders, and run it through the Print MIS system from start to finish. This will help you evaluate the system’s performance and identify any remaining issues before fully integrating it into your workflow.

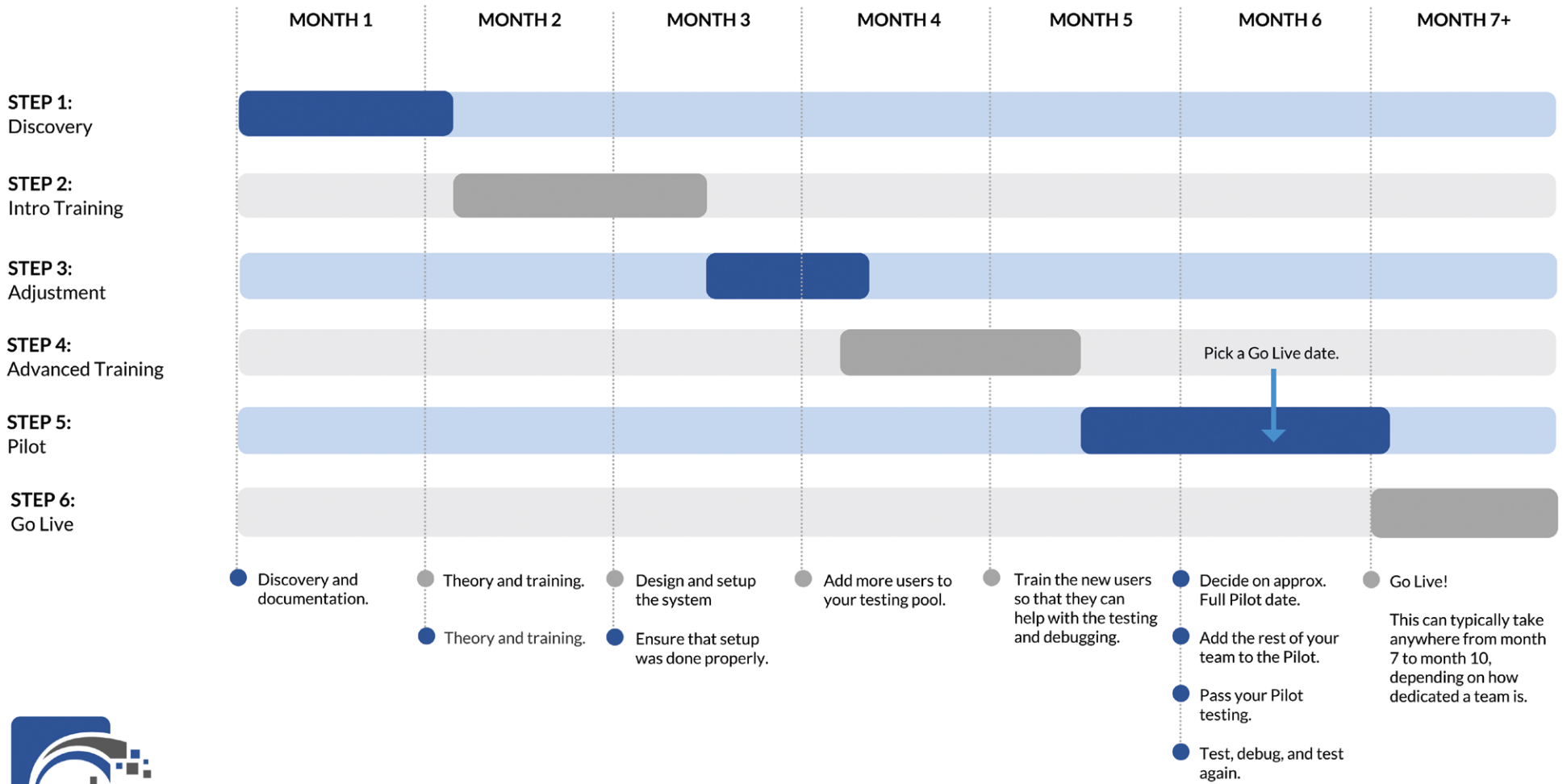
If the mid-sized team signs off that this is fully working, then you pick a go-live date and start training your line worker staff.

The people who have never seen the system will be shown their specific tasks, done their specific way.

We do not want to train anyone in areas they do not need.

This makes the final bit of training very easy. Each extra employee might get a TOTAL of 4 hours of training. They don’t need to spend weeks or months on the project.

PRINT MIS PROJECT TIMELINE WITH SABRE LIMITED





STEP 5

EXECUTE THE PROJECT

PITFALLS AND WARNINGS

Here are some general thoughts of things to avoid during the project. Most of these are entirely generic and apply to any project with any MIS or ERP system.

DON'T LET THE PERFECT BE THE ENEMY OF THE GOOD

REMEMBER: You probably have a bad system that's manual and has many problems. Anything is better than what you currently have.

As the business owner, you know that your team shouldn't bite off more than they can chew. You want to have a perfect system with everything automated, but the reality is, if your staff could do that – **it would have already happened.**

Set your sights at something achievable that is **better than what you started with** and that you can **grow with and keep improving.**

Accept that you won't ever have a system that is perfect. You should have a continuous process improvement mindset, always making small but meaningful improvements. Pick an easily achievable starting point so the team can see a win and is encouraged to keep going!

THERE WILL BE WINNERS AND LOSERS IN THE NEW SYSTEM. BE OK WITH THAT.

By this I mean, there are people who have it easy today. They don't really use their computers for anything that affects other users. In fact, that is a big part of the problem. Someone else "downstream" from them must double check their work and re-enter data.

Those people will now have to use their computer a lot more.

They do this because it's for the common good. They have been letting other staff suffer so they have less work. Often, they'll argue that the new system is "a lot harder to use" and want to "automate" the new system so they have less to do.

They will complain – a lot.

1 Choose the Right Product

2 Find Your Project Leader

3 The Project Coordinator

4 Choose the Team

5 Execute the Project

6 Test the System Thoroughly

7 Listen to the Experts

WATCH OUT FOR THE SQUEAKY WHEEL

Back to the last pitfall – watch out for staff who are very loud and aggressive. They will almost always smother out the rest of the people.

The silent majority is probably fine with what's happening. The squeaky wheel can drown them out. Don't let these people be part of the project if you can avoid it at all.

DON'T TAKE YOUR FOOT OFF THE GAS

During the first half of the project, we are leading you and helping set up the test system. That is on the MIS vendor more than it is on you.

At some point we start to take the training wheels off and you need to start learning the new system by getting your hands into it on your own.

Once we are no longer pushing, we see a lot of customers who don't know what to do next.

I call this the "blank page" syndrome. If you've ever seen a teenager with an essay to write who just stares at the blank page not knowing what to do, you have seen this syndrome.

A lot of your staff may feel this.

This is where the Business Analyst or the Project coordinator comes in. They need to motivate these people and get them working on things.

WEAK PROJECT COORDINATOR/BUSINESS ANALYST

This is hard to help with and is the one time an MIS vendor might tell you to bring someone in from the outside.

If your project coordinator AND business analyst are both below average, you will have a lot of trouble during the second half of the project.

The foot may come all the way off the gas.

This also happens if the team is weak. Even if the one business analyst is strong, it is a LOT of work to do the entire project on your own.

Finding someone who can push the team to do the testing and run the scenarios can be good at this point. An outsider who can work with the MIS vendor can help. Just avoid the person who will want to start over from scratch.

IF YOUR TEAM IS CHECKED OUT, WATCH OUT

Customers who leave the project to one or two people because the rest of their team is checked out will really struggle after they go live.

First, don't let this happen. Force the team to get involved and do not take "No" for an answer.

If you can't get them to buy in (for whatever reason) then there are a few things to keep in mind to mitigate things.

- Do everything you can to keep things simple. Anything that complicates the MIS system is just going to make it more difficult.
- Be prepared for things that were missed and processes that don't work. People will disagree with their choices, which people will then throw blame at the partner.
- Force the team to try the new system before you go live. Watch them. Once they realize it doesn't quite work, hopefully they'll be more interested.

STEP 6

TEST THE SYSTEM THOROUGHLY

I want to really dig into one critical step of the project that a lot of people make shortcuts around.

THE PILOT

If you decide to implement the way I described above, the first sixteen weeks of your time is spent learning the system in training classes, focused on theory and how to set up a system. You would then have worked with the trainers to set up the system with sample data and configurations.

ASIDE: Sixteen weeks depends on a few things. It depends on whether your staff are diligent and available. It also depends on how complete you want your estimating to be. Usually in a Print MIS implementation, the estimating setup and configuration is the most time consuming. This timeline assumes you are OK to have a basic estimating setup. More complicated estimating will require you to run in parallel and complete it as you go.

By the end of four months, you should have something we call a Pilot. The Pilot is an MIS system setup with a good approximation of your “final” go live setup.

Here is where you need to invest most of the additional hours of the project. You need to test everything you can think of in that system.

THIS IS THE CRITICAL POINT OF SUCCESS OR FAILURE

Customers who really take this seriously do the best, by far.

We believe the best approach is to grab several real-world examples. Go to the order desk, pick 10 random orders, and start there. Be careful that you don't pick all the same types of orders.

Some customers have a main product but also sell some less common products or order types. Some sell in different units of measure depending on the customer. Pick examples of these different order types.

With good representations of your orders in hand, you can start testing every aspect of the system.

- 1 Choose the Right Product
- 2 Find Your Project Leader
- 3 The Project Coordinator
- 4 Choose the Team
- 5 Execute the Project
- 6 Test the System Thoroughly**
- 7 Listen to the Experts

DO NOT STOP WHEN SOMETHING DOESN'T WORK

Too many customers will stop testing the entire process when the first thing goes wrong. Avoid doing this at all costs.

The Project Coordinator and Business Analyst need to supervise this process and make sure it proceeds.

I personally believe people stop testing because they don't look at testing as a checklist that can be done out of order. They treat it as if they must run the test in the order the actual real-world task would be done.

If something doesn't work that's supposed to (such as the price the system calculates is wrong) then fix it by hand and keep testing. Obviously report that as a problem, but proceed to test releasing to pre-press, production, or shipping.

Someone else will work on the other problem while you do that.

HERE'S ANOTHER EXAMPLE

Let's say (hypothetically) something is wrong with the production module. You're able to enter an order and purchase materials but pre-press has an error and sending it to the press fails.

Just skip pre-press.

Make adjustments in a fake inventory for plates used. Or manually fill in some other piece of information you need. You can create the docket for manufacturing without correctly completing that previous step.

After all – this isn't real life. You won't make anything real anyway. Who cares if the production module didn't exactly work as expected?

TEST ALL YOUR SCENARIOS

They might have customers who buy products in different ways, maybe with different units of measure. The complicated companies might have several product lines they sell which are made differently and with different processes.

If you run a complicated business, then you have more scenarios to test. And if you have more scenarios to test, people will miss a lot of them unless they are careful.

When you ask some people to think about and record all these variations, they can't. It's like asking people what they had for dinner every day last week.

If you let them look in the fridge at the leftovers, or at the boxes in their recycling, they'll suddenly start to remember.

The same thing goes for your staff.

Too often, they try and answer the consultant's questions about the variations of order types without going and looking to double check. They get the answer out quickly, rhyming off the things they remember off the top of their head.

Then they start to run real orders through the system as samples.

And they missed all kinds of combinations.

They will then accuse the consultant of not showing them how to do these things. We have thick skin. We can handle it.

STEP 7

LISTEN TO THE EXPERTS THAT'S US



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One of the biggest mistakes customers make is second guessing their consultants.

Keep in mind that this software works as an interconnected web of data.

ASIDE: I remember one time I was explaining to a customer how he needed to create his work orders for production. He looked at me and was very frustrated. He said “why are you coming in here and telling me how to make parts in my own company?!” To which I replied, “I’m not telling you how to make anything, I’m telling you how to use the software you paid for.”

The way you make things should not change with the implementation of an MIS (unless you want it to).

The way you process data in your business to plan, measure, and record the sales and production process is going to change.

WE ARE EXPERTS IN HOW THESE PIECES ALL CONNECT

Many customers look at one part and start telling their implementation partner how the system “should work.” This is often because they can’t yet see the big picture.

This is why a Business Analyst is so important. The Business Analyst knows the business well enough and is good enough with software that as we pull back the curtain, they get it.

When you second guess whether your implementation partner knows how the system works or how to run it properly, you might start running into issues.

We will miss super important things because we need to pick our battles.

So, when these customers go live and start to use the system, they’ll start to find problem areas. Inevitably these are areas they disagreed with us about.

WE KNOW WHAT WE ARE DOING – WE DO THIS ALL THE TIME

Sometimes things will seem illogical, but you need to trust your MIS implementation partner. There is a logical way to deploy your MIS system — sometimes business owners don’t understand WHY it is the logical way until their MIS is deployed.

APPENDIX

WHAT THE HECK IS PRINTVIS?

I mention PrintVis in this book. It's the Print MIS product we sell, and I think it's a pretty awesome Print MIS.

PrintVis takes the typical requirements of graphic arts manufacturing and adds them to Microsoft®

Dynamics Business Central.

It is not your traditional MIS. Most MIS systems stand alone, aside from the addition of accounting. PrintVis is only available as an integrated part of Microsoft® Dynamics Business Central.

WHAT IS MICROSOFT® DYNAMICS?

Microsoft® Dynamics is almost as much of a programming and development platform as it is an ERP. Think of it as Microsoft® Access or FileMaker with accounting, inventory control, generic manufacturing, fulfillment, warehousing, shipping, invoicing etc.

Microsoft® has made a huge effort to make it easy to create addons for Dynamics because it's just a core ERP system. "Out of the box" it has zero support for specialty manufacturing like Print.

PrintVis adds functionality that is required for graphic arts manufacturing to an ERP system that is already handling all the basics. This has benefits and disadvantages.

It is not a typical MIS.

WE LOOKED AT MICROSOFT® DYNAMICS AND IT SUCKED

Microsoft® Dynamics and the typical reseller doesn't have any idea what ganging, impositions, Pantone® or substrate means. They don't understand web vs sheet presses. They know nothing about laminating or gluing etc.

If you said "we own presses" to a traditional manufacturing salesperson, they would assume a punch press – not a printing press.

Sabre has worked with PrintVis since 2016 and we've sold (or picked up) a score of customers in graphic arts manufacturing. We know what we're talking about.

WHAT IS ERP?

ERP stands for enterprise resource planning. It is a software system that helps organizations manage their business processes, such as inventory and order management, accounting, human resources, customer relationship management, and supply chain operations. ERP systems integrate these various functions into a single, centralized platform, providing a comprehensive view of an organization's operations and facilitating better decision-making. ERP software is often used by large and complex organizations, but it can also be scaled down for smaller businesses.

I sometimes use ERP and MIS interchangeably. Technically any MIS system that has accounting embedded in it is an ERP. Microsoft® Dynamics is an ERP without the PrintVis MIS features.



CONNECT WITH ROBERT JOLLIFFE

Sabre Limited is the leading PrintVis partner in United States and Canada. Reach out to us today with your questions or to request a consulting session to discuss your needs.

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