MRPEasy Implementation Guidelines

Let's keep it simple but effective

Foreword

ERP and MRP software implementation has historically been a complex process that requires a lot of effort, resources, and time. Tailor-made software is complicated to implement and takes a lot of time - sometimes years. However, does it have to be like that?

We used to buy cellular phones that came with hefty manuals. Nowadays, you simply buy a smartphone and it is pretty much self-explanatory. Our goal with MRPEasy is to achieve the same. However, being able to take full advantage of your new "smartphone" requires exploring some of the possibilities and perhaps a bit of out-of-the-box thinking. This is where structured project management will help.

Contents

Introduction

Traditional approach

It is not a secret that more than 75% of ERP implementation projects fail. Is it because of exceeded budgets, complexity, or not being able to go live as scheduled? In any case, it is common knowledge that achieving success in this field is a complex task.

The classic waterfall approach does not work best. Requirements do tend to change over time. The need to specify 100% of the desired solution - before delivery - is a key element of failure.

What about a better way?

Agile methodologies, such as SCRUM, have become the industry standard in many areas of software development. The key idea is simple: move forward, step-by-step; see the results in the process and use the software early on. A better way to understand and develop business requirements is to focus on what is important.

Agile in MRP/ERP

What obstacles are there in using an Agile methodology in implementing an ERP solution?

When the software is tailor-made to the customer, it is nearly impossible to implement it early on. When using an on-premise setup, you often need to set up hardware & databases and install & configure everything. This is a complex process and becomes even more difficult when implementing business requirements. Legacy solutions aim very high in the very first iteration, while grossly underestimating the effort required is another key component of failure.

Is Agile in MRP implementation possible?

Yes, when you implement a standardized out-of-the-box MRP software. You can take it step-by-step from day 0, implement in stages and start with the business-critical requirements first. Aim high and proceed to the next stage only when the company is ready.

20% effort, 80% success

We know that when you want 100% of results, you must invest 100% of energy, money and other resources. However, as we have learned, this does not always deliver success - it's rarely possible to get the best cost-benefits ratio when going all in.

What about taking the essential business requirements, which deliver 80% of the success? In almost every case, these can be implemented with only a fraction of effort and time. This will ensure you get the most out of the software as early on as possible and can better plan next steps. Your business success should not depend on lagging software configuration!

Get your hands dirty – NOW!

What? We have not even analyzed all our business requirements! We haven't prepared all the process maps!

You must know what the company needs and then begin testing the software.

If you analyze more, then personal desires and design ideas come up in the forms specific functions, while there might be great many solutions to cover the same business need. Do not limit yourself. You do not need to personally reinvent the wheel, if you step into a car dealership.

With cloud-based SaaS software, you have keys to the kingdom. All the functionality you need is in your fingertips. Just input the data and you are ready to go.

How to be successful in implementing a cloud based MRP solution? We have a couple of ideas and best practices to share.

The Keys to Success

Key strategy

There are two aspects to the key strategy:

1. The most important bit of a smooth and effective implementation process is understanding why the process is set in motion in the first place. It's keeping this in mind and in sight always, so it is possible to make better decisions faster.

    Plus, there is no other way to convince any stakeholder - the CEO or the janitor - to do something differently, especially if it's demanding at first. Why should they accept the new status quo?

2. Equally important is taking the lead and responsibility. No one outside of the company can steer or take ownership of the project.

    This software is for your business's benefit, and for you to use. It's not customer support, consultants or anyone else outside of the company who can take responsibility of the success, or use the software, instead of employees. It's like learning to drive a car: the student drives the car, not the instructor.

The key idea

It's key to understand:
*   Why do we want to implement MRP software?
*   For what do we use MRP software?
*   Why is MRP software necessary in our company?

From the business perspective, it always boils down to two key questions:

- **When will the job get done?**
- **How much will it cost?**

There are many important supporting requirements, nice-to-haves, shiny distractions, or personal agendas. It is easy to lose focus, especially when there are different future users asking for specific requirements. **We should always ask ourselves – are these requirements absolutely necessary to achieve the overall key objectives?**

- How important are they, really?
- Can we work on these requirements in later stages?
- Is it likely that these requirements will soon change?
- How much business value do these requirements produce or affect?
- How would this affect the bottom line – the revenue and profit?

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Key objectives and goals

Key issues

Choose your 3 most important key issues to solve (yes, only 3!):
- No clear inventory overview
- Difficult and laborious to gather information
- Difficult to estimate lead-time or costs
- Difficult to reliably schedule production operations and load machines
- Ineffective or slow communication
- Reoccurring mistakes; things overlooked
- Stock outs or excess inventory

- Regulatory demand for traceability and transparency
- Inventory valuation incorrect or missing
- Other

If your company does not have any issues or problems to solve – if there is nothing stopping business growth - that's great! However, are you certain? If yes, then why should you invest in MRP?

Key incentives

Choose the 3 most important key incentives for your project, what does your company require?
- Accurate operation planning
- Accurate material planning
- Easier quoting
- Better communication and overview (including live production reporting)
- Real-time accurate inventory overview
- Automated stock balance calculation and product costing
- Meeting regulatory demand
- Enforcing quality
- Other

Try to always look at the big picture; what's most important for the business. It's difficult to be objective, but thinking outside of your role will help.

Key Business KPI

Choose your 3 most important Key Performance Indicators (KPI) to improve:
- On-time delivery
- Customer satisfaction
- Lead time reduction
- Loading/Effectiveness increase
- Decrease overhead

- Smaller inventory
- Other

Revenue and profit are important indicators, but since these are not controllable, these are poor measures for the project's success. Instead, you should choose those KPI that will have the greatest positive impact on revenue and profit in the long run.

The bottom line – revenue and profit

Describe how key issues, incentives and KPI affect the bottom line of your company, the revenue and profit.

For example, better production scheduling could improve lead-time by 25%, and equipment load by 10%, which could be translated into a 10% increase in revenue and 15% increase in profit.

Key functionality

Watch out, this is a trap! Functionality is never a goal; a function is only a tool!

A function, or a system, is something that provides a lever to solve key problems, relieve key incentives, improve KPI and grow the business's bottom line. If you do not know what these are and how they relate, and you start describing technical solutions, then, before doing anything else, you should take a step back and a time out to figure out what's important.

Project management

It's a formal project

Choosing and implementing manufacturing software are both projects that take time. Progress can be difficult, but weekly

progress is a must and needs to be enforced. Otherwise, the project will bleed out slowly and suffer a long, painful death.

It might be comfortable to keep it informal, to give orders orally and have a flexible time frame, but that will not bear fruit.

Take it as the most serious project ever – as most likely it is for your company! Prepare the project meticulously. Start by documenting your company's current processes and situations. Set SMART goals, decide on key stages, set the timeline, dedicate the time, get authorization and get all stakeholders (and their signatures) on the same page.

Dedicate the resources

On average, we've seen that companies can go-live with MRPEasy in 1 to 3 months. Of this time, it already takes between 80-200 hours from the project manager personally to deeply analyze the company, to test MRPEasy and to understand how to use it in the business.

The project needs to be a priority and it needs daily, focused efforts, for which an upfront dedication of time and other resources is required (including fees for consultations and testing licenses).

Change management

The situation in which a company finds itself is the result of its habits and its current processes and procedures. The reality is that the issues that need to be addressed are not caused by lack of manufacturing software. Instead, they are caused by the lack of procedures, which manufacturing software can support.

There will be change. There will be resistance.

Manufacturing software is just a tool, and most likely this tool will need to be used differently than the previous tool it replaces. In turn, this means that people's responsibilities will change, and new procedures will need to be taught.

Make sure to openly communicate to everyone the goals of this project, help everyone understand how it will be to their benefit and let everyone know that some old ways of doing things might change, and that is good.

MRPEasy implementation project plan

MRPEasy has developed guidelines for a successful implementation. This requires the following steps:

Stage I: General Acceptance Testing:
1. Choosing the project manager-analyst
2. Preparing the test task
3. Performing the test task

Stage II: Implementation:
1. Preparing the implementation plan
2. Fulfilling the implementation plan

1. Choosing the project manager-analyst and the team

Since acceptance testing of the software requires at least 40–100 hours of work, it is necessary to appoint a dedicated project manager-analyst and to allocate this person enough time to work on the project (this is at least two full days a week).

The project manager, as a rule, should not to be the managing director (MD/CEO/GM), because the MRP project must be the number one priority project for the project manager. The managing director will have conflicts of interests (putting out fires vs. leading a project), which will keep the MRP project from making adequate progress.

Still, the project manager should have authority, a solid position, and special rights; in most cases, he/she should not be chosen from office managers or assistants, positions which are unrelated to production and hence lack specific knowledge and experience.

If the project manager is an external consultant, then this person must first become aware of the manufacturing process, which can only be achieved with a thorough analysis of all the processes. All heads of departments that will use the system should be included in the implementation project team, plus the management and representatives of the company's board.

2. Preparing the test task

It is only possible to decide if software fits through actual testing by the project manager. Literally, there is no other way, or you would be buying a pig in a poke.

The project manager's preparation of the test task takes place in the following stages:

1. Describing the objectives that the company seeks to achieve with the help of MRPEasy.
2. Preparing a simplified test task that covers these objectives (you may send the objectives and the test task description to MRPEasy support for review and feedback).

What does a simple test task mean? It means defining as minimal a dataset as possible to test the important requirements. The goal is just to test the functions - the data (number of articles, BOM, vendors, etc.) is kept to a minimum to avoid the risk of mistakes in seed data entry.

The following information is part of the test task:
1. Key problems to solve, key incentives and key KPI to improve.
2. Description of current processes and descriptions of what should be improved.
3. List of procedures, by importance, which should be supported by the software.
4. A testing dataset must contain the following information:
   - List of items (articles, SKUs) and their descriptions.
   - Starting inventory levels and costs of items in stock.
   - Purchase terms for purchased items.
   - BOM and routings for manufactured items.
   - Work stations and work station types.
   - List of vendors.
   - List of customers.
5. Usage cases and scenarios to test, including expected outcomes.

3. Performing the test task

As a result of performing the test task:
1. The company learns whether the program does what is required;
2. It's understood if it's easy to use;
3. The implementation difficulty can be estimated;
4. It is possible to weigh the costs and benefits.

The project manager explicitly should be given the authority and time to perform the test task, which could involve recruiting a limited number of employees to run a limited-pilot, where these employees use MRPEasy in parallel with their current planning and reporting tools and documents.

Should any questions or issues arise while performing the test task, the project manager-analyst will contact the provider or supporting consultants to receive more information.

Based on the result, the management decides whether the system is suitable for implementation.

4. Preparing the implementation plan

The aim of the implementation plan is to set:
- The strategy for implementing the software;
- The date when use of the program begins;
- The timeframe of each implementation stage;
- The detailed description of each stage;
- The necessary preparatory activities;
- The circle of people who are involved in the implementation of the system.

The implementation plan must therefore be a proper project with a header, containing the full name of the project, the project deadline, the person responsible and the date.

The implementation plan must contain a list of activities assigned to specific people, together with the signed consent of the executors and written approval from the management. For example:

Activity number	Description of the activity	Expected result of the activity	Executor	Deadline	Executor's consent
# 1	Analysis of requirements	Overview of the core issues that need solving	Person	Date 1	Signature
# 2	Preparation of test data	Test dataset and clear scenarios	Person	Date 2	Signature
# 3	Testing	Clear overview of software capabilities	Person	Date 3	Signature
# 4	Implementation planning	Detailed implementation plan	Person	Date 4	Signature
# 5	Data preparation	Seed data prepared	Person	Date 5	Signature
# 6	Implementing critical functions	Limited functions or departments implemented	Person	Date 6	Signature
# 7	Implementing all functions	All functions or departments implemented	Person	Date 7	Signature
# 8	Developing integrations and customizations	Integrations to accounting software; e-commerce	Person	Date 8	Signature
# 9	Performance review	Overview of realized benefits; project closed	Person	Date 9	Signature
Approved by: *Signature of CEO/GM/MD*					

Implement in stages for faster results

While traditional solutions can mostly go live with a big bang, you don't need and shouldn't do that with MRPEasy. Why? Because this is a guaranteed headache and also a key element of failure.

Instead, put in order your priorities and these will be your guiding implementation stages. The most important key issues to resolve will bring the most results - get these implemented as soon as possible.

It is possible to stage your implementation in two dimensions:
1. Organizational dimension - the lines of product, production lines and/or departments.
2. Functional dimension - the functions of the MRP software.

Generally, these functions can be implemented separately, in different stages:
1. Inventory control (including sales and procurement activities)
2. Material planning
3. Capacity planning
4. Live production reporting
5. Integrations

The order presented above is the most logical order for a typical implementation; however, depending on needs, the importance of "material planning" or "capacity planning" could be different. "Integrations" must always remain the last stage, when it's clear how everything should be working together.

5. Fulfilling the implementation plan

While previous steps were necessary to plan the work, now, in this stage, it is necessary to stay focused and work the plan.

Here are some tips for fulfilling the project.

Company size matters

Not every company is ready to implement an ERP/MRP system anytime. This is especially true for micro-companies (up to 10 employees). Such companies may not have enough resources and competence for ERP/MRP system installation and operation. Also, the outcome of using ERP software in such a company can be less than expected, since the greatest benefits are derived from better (i.e. automated) internal communication among many employees in various departments.

Avoid micro-tasking

An ERP/MRP system solves major problems associated with manufacturing, so try to identify important tasks, since they will have the most impact, while focusing on micro-automation will lead to more complexity of the implementation project.

Set a limited number of major implementation project goals, which should be closely related to the business processes and problems that you want to solve. Don't waste time and energy on tasks that look nice but have minor impact. Goals should relate to the business, not to the automation itself.

Allocate enough resources

The ERP/MRP system implementation process is one-time, but quite a big project, so allocate resources accordingly. Make sure the

project manager, for the implementation process, has enough time resources and is experienced in ERP/MRP software. All heads of departments that will use the system should be included in the implementation project team.

ERP implementation step by step

Depending on your company's size and structure, you can implement the system by module, by functionality, by production line, or by personnel; for example, when the managers, in the beginning stages, report finished manufacturing orders on their own before passing this function to line workers.

Data classification

Think carefully about data classification and categorization. Name and code the articles logically. Create logical product groups. Structure your workstations, bills of materials and routings effectively. It is nearly impossible to change data classification after go-live.

Keep testing and implementation separate

Have a clear understanding - are you testing, or are you implementing the ERP with real data? Using real data during the testing period will make the process over-complicated and will lengthen testing:

- **Functionality testing is data-agnostic.**
  Functions do not care if there is real or made up data, and neither should you when you are testing how it works.
- **More data points lengthen the testing phase exponentially.**
  More data points create more confusion, because everything is related, and if you don't yet understand how, you'll spend more and more time on figuring out how things are connected. And you're

likely going to make more mistakes in initial seed data entry before getting it right.
- **Test functions separately, then together.**
  Clear the database often while testing, to keep focus and clarity.
- **If real data is mixed with test data, then cleaning the database might be problematic.**
  It almost always is, due to limitations set by keeping data consistency and history - an MRP system is not an Excel spreadsheet. Implementation should start from an empty sheet, no remnants of testing should remain, or it'll sneak up on you when you least expect it.

Customization is not the only way

It is practically impossible to find a standard ERP solution that would suit all the needs and align perfectly with your existing business processes and documents. In most cases, you have to adapt or customize. Though customization might seem the simplest solution, in practice, adapting your business processes and documents could be more effective, and may deliver better results in the long run.

Keep future users informed about the goals and project schedule

Make sure that all users that will be interacting with the ERP system have a clear understanding of the implementation goals and schedule. This means that a general meeting should be held at the beginning of the implementation, with periodic communication to follow up.

Users must be trained

Every person interacting with the ERP software should be aware of what everyone is doing. Usually, the first one or two trained users pass the knowledge to others. Another option would be software vendor's trainings.

Experience with ERP/MRP systems helps

The implementation project team leader should have prior experience with using and/or implementing ERP systems in your specific industry. If you don't have such a person, then it is a good idea to find a partner consulting company with such experience.

No rush – test, and test again

Test intensively prior to using an ERP system in production mode. It is much easier to fix errors and change procedures during the testing period than during operating with real data.

Keep the old system working

It is better to use the old system in parallel with the new one for at least 1-2 months after having implemented the new ERP software. This helps to make sure that the new solution has been configured and is being used properly; for example, the reports in old and new systems are identical.

Also, in case of any major issues with the new system, you will be able to roll back to the old one.

General Knowledge of MRPEasy

Help resources

- User Manual: https://www.mrpeasy.com/documentation
  When inside MRPEasy, the "Quick Help" at the top right will always display the description of the page and related information.
- Help Center: https://www.mrpeasy.com/faq
- MRPEasy tutorials: https://www.mrpeasy.com/files/testing_manual_mrpeasy.pdf
- A printable detailed outline of MRPEasy functionality: https://www.mrpeasy.com/files/MRPEasy_features_by_plan.pdf
- MRPEasy customer support is here for you.
  Open a support ticket or order live trainings from **Settings -> Support**

Tips and tricks

- You should start from the **Getting Started page**: https://www.mrpeasy.com/documentation/getting-started
- In the section **Demo data and videos**, it is possible to re-upload the demo data, clear the database fully or partially for easier testing.
- Users can be freely added during the free trial at **Settings -> Human resources.**