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Introduction

Are you struggling to create meaningful metrics and reports? Is the data you need siloed in various separate applications? Does it feel like reporting is always the "next phase" of your project?

This guide will walk you through how to design a business process with reporting in mind.





Any business process must have a goal in mind. Think about what problem you are trying to solve. For example, the purpose of an invoice review process is to make sure that the invoice is for the correct amount, and that it is paid on time so as not to incur late fees. The purpose of an HR onboarding process is to make sure that an employee is onboarded properly so that he or she can begin work as soon as possible.

A business process is more than just about eliminating email and tracking the approval of documents. That is a task tracker, not a process. A process may involve multiple people, documents and systems, and consist of many different steps and tasks.

Reporting can be a very useful tool to make sure that the business process goals are met, and should be built into the process from the very beginning. Obtaining information through an electronic form makes report creation much easier.



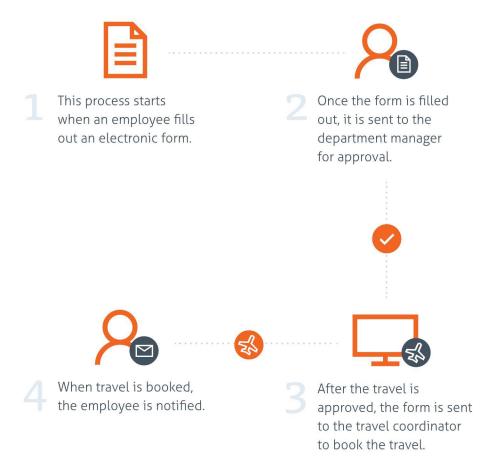


When building a process that will be reportable you want to think about how the process is designed. Have someone wear the business analyst hat and think about reporting during the design of the process. If you think of the process from a data perspective, then you'll avoid having to redesign it later.

Some things to keep in mind when designing the process include:

- Make sure that you're recording what is actually happening. This helps prevent assumptions on how things are done, and helps you see what is actually taking place.
- Split your process into stages. This will ensure that operating reports are easier to understand.
- Delete all test instances before the process goes live. This helps make sure you are reporting on accurate data.

Throughout this guide, we'll be using a travel request process as an example.



Make sure that you're recording exactly what is happening

Business processes are usually more intricate than you think. Make sure to talk to everyone involved in the process to ask what they are really doing. Often, what is actually happening is not what is recorded on paper. An employee might be doing a few things just to accomplish one step. For example, coordinating travel might mean researching the best plane tickets, hotel and rental car rates, booking them, and then sending all that information in an email to the person travelling.

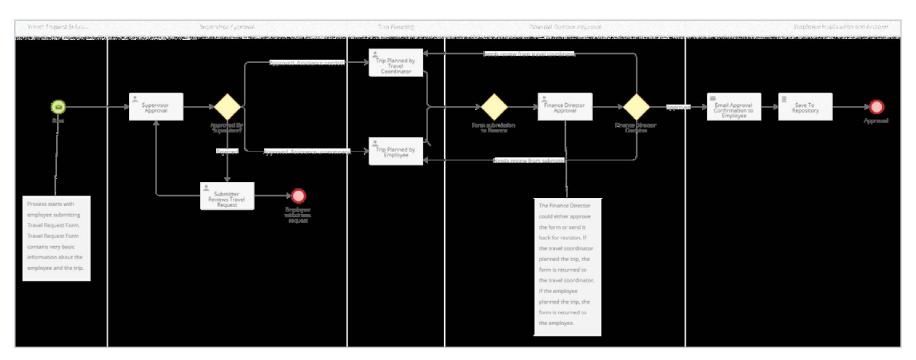
Try not to replicate exactly what is being done but to see where you can cut some steps with automation. Just because something done in one way for years, doesn't mean that it should keep being done this way. Find out what signifies that each step in the process is finished, which will help you determine process stages. Get more in-depth information on process design in this article.

Split your process into stages

Splitting your process into stages based on the specific tasks that are happening will make it much easier to create operational reports. Though it may be useful to see overall process performance, evaluating performance by stage will allow you to quickly identify bottlenecks.

For example, the travel request process can have these stages:

- Submit the travel request.
- Book the travel.
- Review the travel request.
- Notify the requestor.



An example of a travel request process with multiple stages

Delete all test instances before the process goes live

Another way to make sure that you have correct data in your reports is to delete all test data before the process goes live. Including test data can skew the results of both your aggregate and operational reports. That's an easy step to overlook.

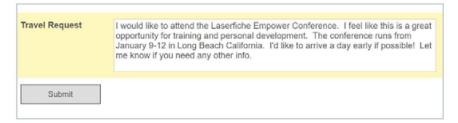
Once you've designed the process, decide what information you would like to obtain from it to report on later on.



When automating a business process from which you will be generating reports, it is important to make sure that the data you are gathering is standardized. Reports, especially aggregate ones, will be much more useful if that is the case.

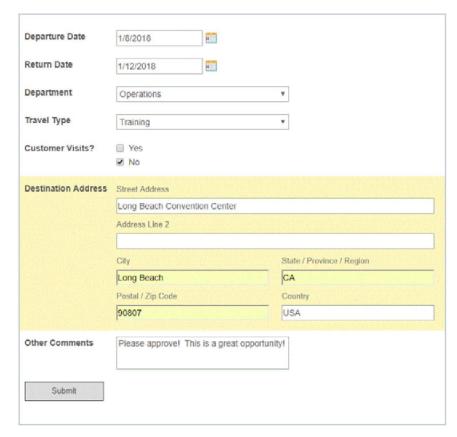
Let's look at two examples of the same form – one that is designed for reporting and one that isn't.

Below you see a travel request form where data is not standardized.



An example of a travel request form with non-standardized data inputs

Below you see an example of a travel request form where the data is standardized.



An example of a travel request form with standardized data inputs

In the first form, all the information is obtained in one, free form field. The other form has each bit of information broken down into a specific, individual question. The first form will not provide you with consistent information, so the data obtained through it will be hard to report on. The second form separates each piece of information into an individual question, making the data easier to aggregate in a report.

Laserfiche Forms allows you to standardize your data entry in many different ways. Some of the ways that you can accomplish this is by doing the following:

- Being specific with the questions you ask.
- Taking advantage of database lookups.
- Using drop-downs, radio buttons and checkboxes.
- Applying field constraints.
- Making certain fields required.

Be specific with the questions you ask

The more specific the question, the easier the response will be to measure. We can break down the question in the first travel expense form above into a series of more specific questions:

- Where would you like to travel?
- When would you like to travel?
- Why would you like to travel?

Each of those questions can be broken down even further. For example, "Where would you like to travel?" can be broken down into the following questions:

- What is the name of your destination?
- What is the address of your destination?

"Why would you like to travel?" can be broken down into these questions:

- What type of event you are travelling for?
- What is the name of the event that you are travelling for?
- What do you hope to accomplish as a result of attending this event?

Many of these questions can be configured as a checkbox, drop-down or radio buttons. For example, the type of event can be a drop-down field.

When designing a form, also give approvers space for comments so that they can voice their thoughts before they approve or reject the request. This type of information will be useful in developing insightful reporting down the line.

Take advantage of database lookups

Laserfiche Forms allows you to pull information straight from a database to populate a field. Adding database lookups into forms will help with standardizing data because you eliminate data discrepancies. For example, populating the employee name in the travel request form directly from a link to the employee database will make sure that both systems stay in sync. You'll also prevent user error that can result from mistyped information.

Simplify database lookups by linking information based on a primary key, such as an employee ID number. Primary keys are a great way to link multiple systems together.

When integrating Laserfiche with another system, be mindful of what system is primary and make sure that it is the one controlling the data. For example, if the HR system is the primary system for employee information, make sure information from there is synced into Laserfiche, not vice versa. Make sure that everyone knows which system is primary, so that people don't update Laserfiche and think that it'll update the HR system, for example.

Use drop-downs, radio buttons and checkboxes

Drop-down fields, radio buttons and checkbox fields force users to select their answer from a specific list. This helps with aggregate reporting on the data, since it simplifies grouping of responses to display in graphs and charts. Some information in a travel request that can be formatted in a list include:

- Employee's department.
- Type of travel.
- Reason for travel

Apply field constraints

In order to help standardize data from text or number fields, you can apply field constraints. Field constraints force the user to type information into the field only in a specified format. For example, you can force users to type in a phone number in the following format: (xxx)xxx-xxxx. This will eliminate different types of phone number entries and simplify reporting on data from that field.

Make certain fields required

Lastly, you can mark certain fields in a form as required. Required fields can be those which you know you'll be including in reporting down the line. Forcing someone to answer these questions before submitting the form will make your reports more complete. In the travel request example, travel dates, travel type, and reason for travel can all be required fields.

Chapter 4

Make Reporting a Priority



Include reporting as part of your process design. Instead of waiting a few months after the process goes live to create reports, create the base reports as you design the process. Make sure you discuss what external users want to see in a report, and use that information to design your process. If you make changes to the process after it ls live, make sure you document them and communicate them to those users who will be looking at the process data.

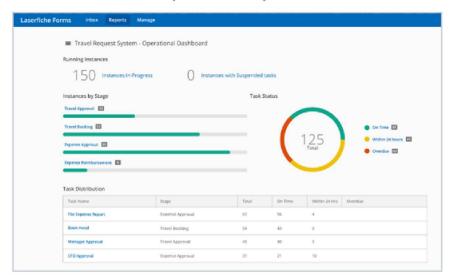
There are two primary types of reports:

Aggregate Reports



Aggregate reports show what happened, when it happened and who did it. Data in an aggregate report can be displayed on a graph or plot.

Operational Reports



Operational reports show how quickly things are happening. They are useful for displaying process efficiency and resource allocation.

While aggregate reports focus on the actual information processed, operational reports focus on the actual process of managing that information.

When designing reports keep the different types of people who will be accessing them in mind. There are three major types of users who access reports:





Managers



Executives

These user roles are not correlated with job titles. For example, an executive in one process can be an end user in a different process. These user roles are used to demonstrate the different roles people play when interacting with reports.



End users are worried about their particular part in the process. They want to use reports to answer questions such as:

- What have I already completed?
- How long is each task taking me?
- How do I stand in relation to others when it comes to performance?
- Am I doing well or falling behind?

Using the travel request example, some reports that the end user might find useful include:

- A list of upcoming and past trips.
- Status of their submitted travel requests.
- The types of trips that they are taking.
- How often they are travelling.



Managers are interested in the whole process and overall performance. They have questions such as:

- Are things getting done?
- How quickly are they getting done?
- Are there any process bottlenecks that need to be addressed?

Using the travel request example, some reports that a manager may find useful include:

- How much money is spent on different types of travel.
- How often employees are travelling.
- How efficient the travel request process is.
- Which employees are travelling more often than others.

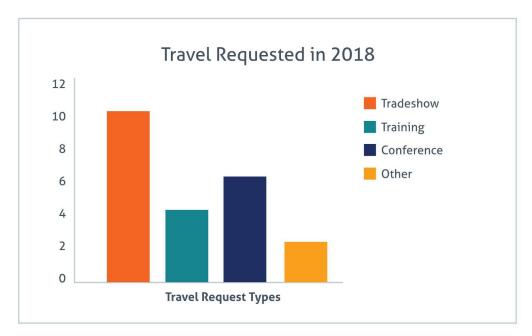


Executives are interested in a more aggregate type of report. They're interested in seeing how things are going across the company and over time. They're also interested in predictive reporting.

Executives might find the following types of reports useful:

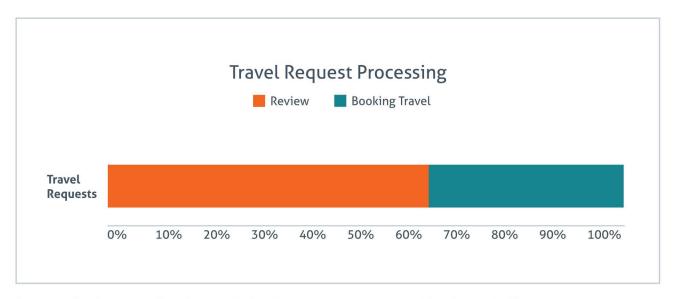
- Overall travel expenditures across the company.
- Company-wide travel trends.

Below is an example of an aggregate report generated from this travel request process. We can see that the most frequently requested type of travel is for trade shows, followed by conferences and training.



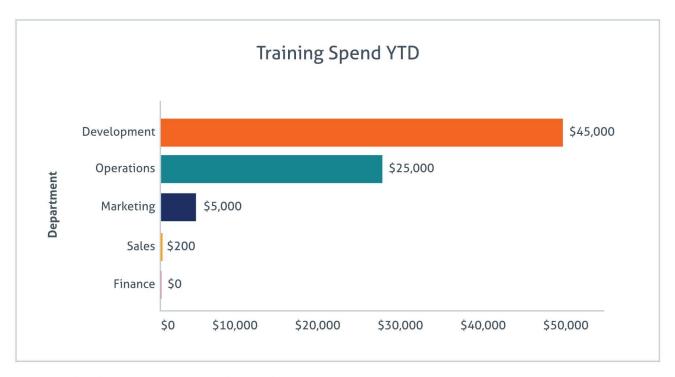
An example of an aggregate report that a department manager would be interested in

Below is an example of an operational report for this travel request process. We can see that reviewing a travel request took longer than booking travel.



An example of an operational report that a department manager would be interested in

Below is an example of an aggregate report that might interest an executive. We can see that the development department has spent the most money on travel related to training since the beginning of the year.



An example of an aggregate report that might interest an executive

Now that you have these reports you can use them to obtain key information. For example, and end user can easily check to see if their travel has been approved. A manager can see how many employees are travelling and when. An executive can use the information to see if there is enough people travelling overnight in order to negotiate a more favorable rate with a particular hotel.

Next Steps

Here are some resources that you can find helpful when designing a process in Laserfiche:













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