Data Integration Made Easy

Five steps to making a difference in your growing business by connecting all the applications you use together into a seamlessly integrated system

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It is silly to think of a business person saying that the main reason they got into business was to manage the overhead of running the day to day operations. Sure, it's necessary. Many people are actually great at management, but it's never the main purpose of the business itself.

100% of the time, the opposite is actually true. People hate the busy work that comes with running operations. A salesperson sells something, so they enter it into the CRM, like all good sales reps do. Operations or fulfillment needs to prepare the goods or services for delivery, which needs to be tracked. Accounting needs to invoice or collect payment and make sure that Uncle Sam gets his cut. All the while, everyone needs to be kept in the know, changes recorded, updates made, customers communicated with, and bosses happy. Growing businesses do this simultaneously with many transactions happening at the same time. Sometimes hundreds. Sometimes hundreds per day!

It all adds up to overhead and mistakes.

We built Autofy to solve this problem. It's our gift to make your business run smoother and with less typos. We've been doing it for years for companies who use QuickBooks Desktop and QuickBooks Online and want to integrate with Salesforce, Shopify, databases, e-commerce systems and other apps. No more data entry errors. Or better yet, no more data entry!

What follows are the five steps to data integration bliss. These steps will transform your business and help you automate all the needed tasks to run your business, all the while under budget and before things get out of hand (i.e. ahead of schedule).

Step 1: Select the Right Data

How do you know what data should be automated and what shouldn't? In a business, there are three types of data that should always be automated. Sales transactions, customers, and inventory. Most business applications have some notion of these three types of data since all businesses require them to be in business in the first place.

But let's go a bit deeper. Selecting the right data means determining which customers or transactions need to be synchronized with other apps that are used. To do this, most databases, applications, and systems, store the date/time of the last modification made to any record. For example, QuickBooks always stores the last modified time of every piece of data found in it. Knowing this means that when it comes time to perform the data sync operation, the actual operation can knowingly pull only the data that has been modified since the last time the sync happened. This greatly helps optimize the time and amount of data that needs to be synchronized and sent to the other applications.

How Autofy does it

Autofy always pulls data that has been modified since the last time it ran. It keeps an accurate record of every time it runs and records the exact time. Because Autofy always performs an incremental sync, it knows how far back in time to go to retrieve data. It will pick up all records that have been created or edited and then will begin to process them.

Moreover, Autofy goes one step further. It can be configured to also filter out records by looking at specific fields and filtering them out. For example, in Salesforce, if an Opportunity should be filtered out because it is in a specific stage, that can be configured directly in Autofy. This way, Autofy always delivers only the data that is desired by the end user to the destination.

Step 2: Validate Everything

More than just moving raw data from point A to point B, it's vitally important in synchronizing business class data to validate it just right. This means when sending sales transactions to QuickBooks from Salesforce, that the right customer is found and it matches the one on the order. It means finding the proper products, sales tax, and other look-up information to make sure that the order is placed correctly. After all, there is nothing worse than automated data entry that does not do the job well.

So, validation of data is vitally important. However, doing so is different for each business. For companies where their data matches exactly between the two systems, it might be as simple as looking up a customer by name. But, in most cases, it means looking up a customer by other various information such as an email address, or by name and postal code. It can be complex, but thinking through this up front when designing a data integration project can save lots of time and headaches in the long run.

How Autofy does it

Autofy has two built-in mechanisms to validate data. First, if Autofy has ever previously synchronized the record, it will have the internal source and destination ID stored inside its database. This identifier will always make sure that Autofy updates the correct record and does not create duplicates. Autofy then goes a step further. If a sales transaction is being synchronized, then Autofy knows that a transaction consists of a customer, line items, sales tax, etc. So, it knows to validate all of those pieces in addition to validating the invoice itself for insertion into QuickBooks.

Step 3: Data Mapping

This could be considered the meat and potatoes of any data integration. The mapping of data represents where the data should actually go when it is sent from the data source to the destination. Not only which specific data objects, but also where each individual field should go when it is sent to the destination. Often, this part seems simple and logical at first. But, when the rubber meets the road and the actual integration begins to be tested, it is most often in the data mapping where holes are found in the integration plan. It's here where one sees that specific data is missing or was sent to the wrong location.

Take for example, an integration between a shopping cart such as Shopify and QuickBooks. When a sale is made on the web in Shopify, the desire is to have that sales transaction show up in QuickBooks. The mapping would include the transaction details including the high level info such as the date and order number, but also the details of the transaction such as the customer information, email address, shipping and billing address, as well as the purchased product info like the product, quantity, price of each item, etc. Each of these fields in Shopify would need to be mapped to the appropriate field in QuickBooks. Forgetting a mapped field is typically not discovered until testing begins. This is where it is obvious that specific fields were either not mapped or not mapped correctly.

How Autofy does it

Autofy has a full mapping user interface for setting up the mapping of data during a sync. As part of this feature, Autofy will list out all the data fields that it knows are a part of both the data source and destination, and then allow the user to map each field desired for each object that is being synchronized.

Step 4: Send it to the Destination

Obvious, right? In order to get data from point A to point B, it has to be sent to the destination. This is often the hardest part. Each integration process is slightly different. Whether you are sending Salesforce Opportunities to QuickBooks Desktop, or just wanting to connect your customer records, it can get complex. Should it be inserted as a new record, or update of an existing piece of data?

How Autofy does it

Check to see if the destination record exists by checking unique identifiers in the record with the destination. If Autofy does not have an ID match to use, then it will look up the item using its name to find a match. If either of these are true, then Autofy updates the existing record. Otherwise, it will insert a new record into the destination. Inside of Autofy, a validation field can also be set so that, for example, a customer could be searched or found by their email address instead of just the name of the customer. Validation fields are an important way of keeping your hair on your head and eliminating duplicates and frustration.

Step 5: Be Notified

Notifications are an important part of a business automation workflow. They allows users to be both told of any errors that occur, but they also are a way of validating the current status of a record.

Error notifications, most likely emails, should be sent to the integration administrators to explain any errors happening in real time. They allow for an alert to be given and lets the user know that an action needs to be taken.

Callback results are also super helpful, especially in cases where information can be written back to the data source. For example, a Salesforce.com user might want to see what the actual invoice number is that was created in QuickBooks, or check and see if the invoice was actually paid. These types of notifications are a big bonus for many businesses who want to run smoothly.

Bonus

In addition to synchronizing actual data, it is important to add two features to any integration project. The first is to make sure that any sync process has robust logging of both data and the process itself. Logging each step of the process in a consistent manner enables the user to both see the raw data that is being synchronized, as well as specific issues that might arise as data flows from one source to another.

In addition to logging the process, many businesses love to have their sync process run automatically. Having it run automatically allows you to set it and forget it. It will run at a consistent time day in and day out, over and over again.

How Autofy does it

In Autofy, we handle both these items seamlessly. We log things like crazy. Never the actual raw data, but always the process that Autofy is taking to get data from point A to point B. For example, we've come to realize that it is really nice to know when an invoice synchronizes. Did the customer get an update? Did all of the line items get validated and found? We log this level of information, as well as specific errors that happened in the sync operation.

Autofy also has a scheduler built directly into it. This enables users to set their sync to run every 30 minutes, once per day, or anywhere in between. However preferred, the sync can be set up to run automatically.

What often times starts as an ambiguous goal of automating a company's data, can become achievable and simple. Following the high level steps above enables any company to properly build an integration that can be simple to run and extremely powerful. These steps will enable business owners to focus on the reasons they started their business in the first place, and grow without added overhead that comes with success.

Find out more and let Autofy help make this a reality for your business.

http://www.propelware.com

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