The Ultimate Guide to
Ad Hoc Reporting for SaaS

exago

Table of Contents

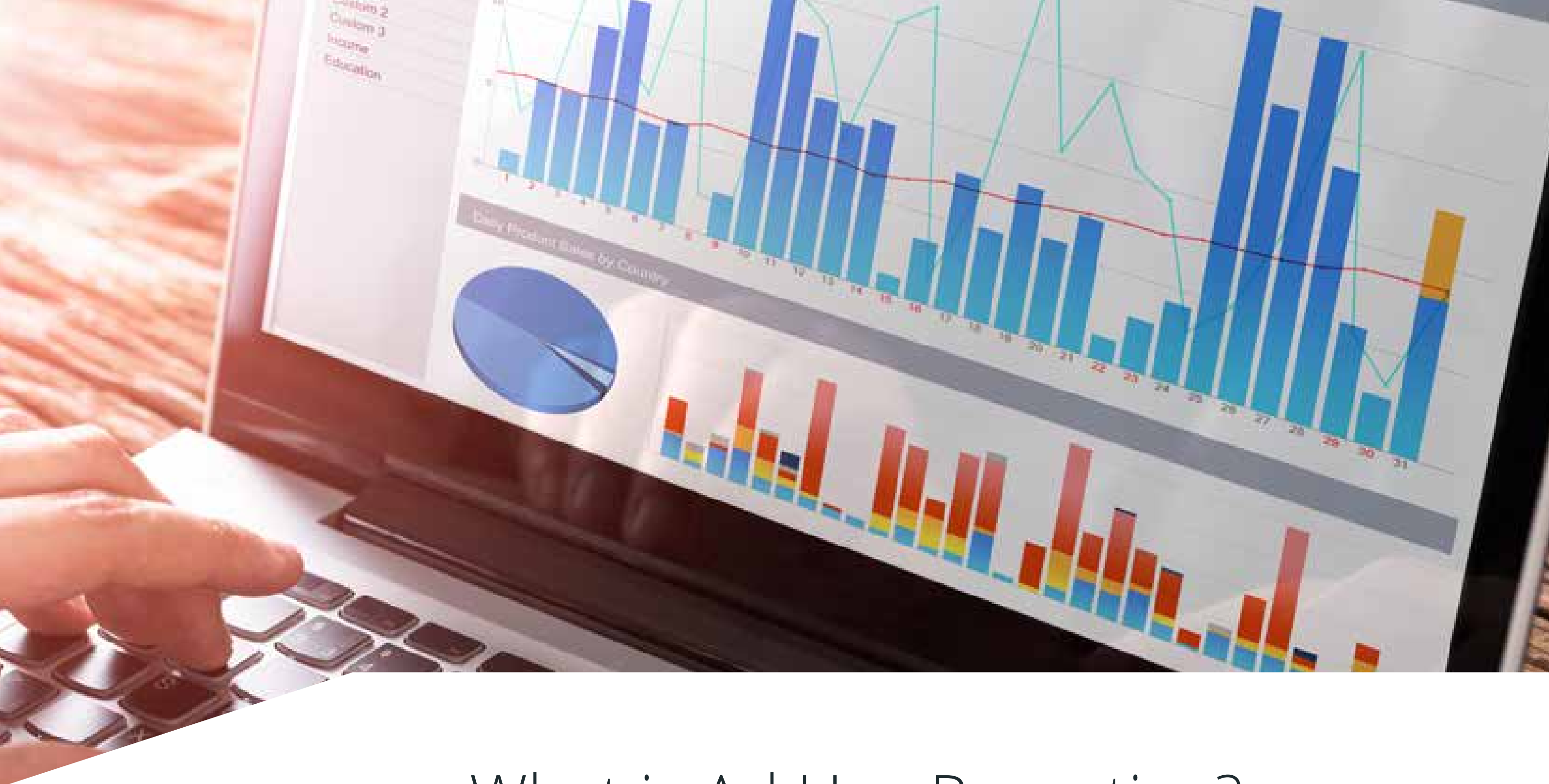
Foreword

Software-as-a-service (SaaS) providers who give their users ad hoc reporting enjoy reduced overhead and improved customer relationships. Their internal IT teams, now unburdened by ad hoc reporting requests, devote more time to their core responsibilities while users delight in getting the insights they need right away. Customer satisfaction goes up, churn rates go down, and all parties enjoy a boost in operational efficiency.

But the transition from in-house reporting to ad hoc reporting can nevertheless seem daunting at first. Software providers usually come to us with a whole list of questions, including:

1. **What exactly is ad hoc reporting?**
2. **How can we verify that a tool will be easy enough for our non-technical users?**
3. **Is it possible for an easy tool to also be powerful enough for BI analysts?**
4. **How do we encourage user adoption?**
5. **How should we train and support our users?**

This guide answers these and related ad hoc reporting questions with the goal of helping software providers realize the technology's potential. We've seen SaaS companies flourish as non-technical end users become ad hoc reporting wizards and product champions. Given the right tools and support, your users could do the same.



What is Ad Hoc Reporting?

Ad hoc means ***"for this"*** in Latin and refers to something done for a specific purpose. Ad hoc reporting, then, is the process of creating reports for a specific occasion, as opposed to for general use. In business intelligence (BI), ad hoc reporting supplements canned reporting by enabling end users to either duplicate and edit premade reports or build entirely new ones from scratch without direct assistance from IT.

SaaS providers looking to bolster their applications with an embedded BI solution typically deploy with a library of canned reports they know their users will need. Still, no matter how vast that library, it will not satisfy all customer use cases in perpetuity.

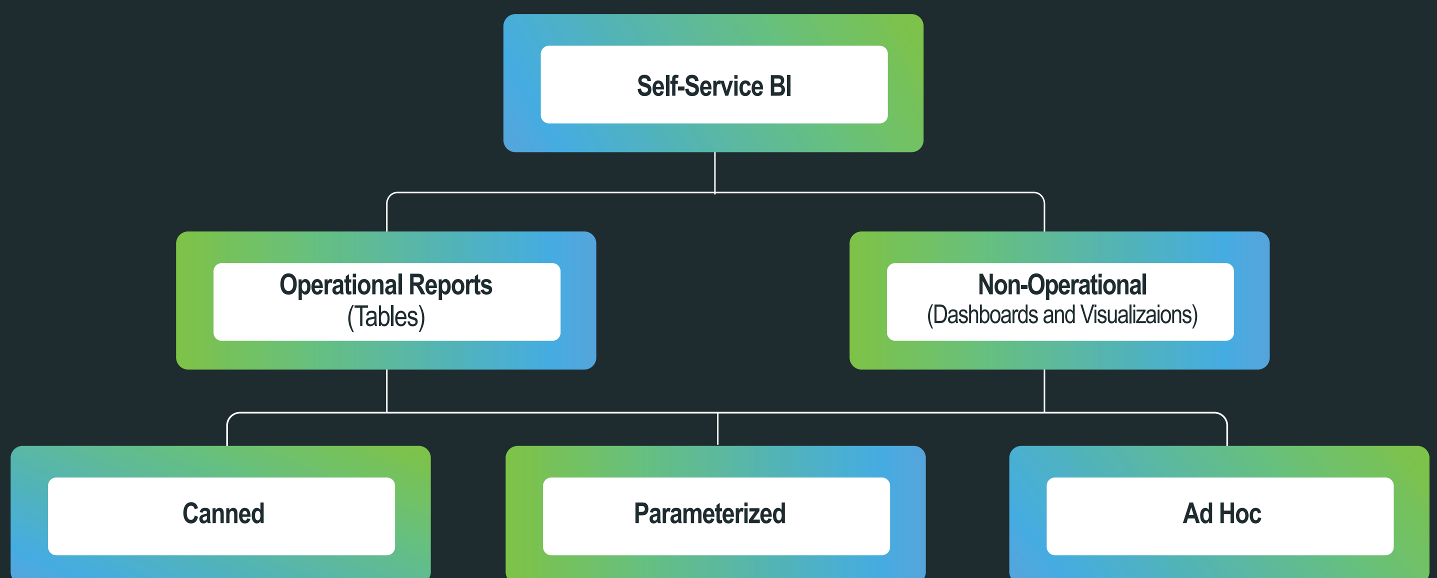
There will always be users with niche requests, so SaaS companies must choose between tasking their IT teams with fulfilling those requests and giving users ad hoc reporting capabilities.

The Relationship Between Ad Hoc and Self-Service

BI vendors will sometimes use ***"ad hoc"*** and ***"self-service"*** interchangeably, but it's important to note that they are not in fact the same thing. Ad hoc reports are an important component of self-service BI, which includes a host of other data presentation types.

The Business Application Research Center (BARC) **defines self-service BI** tasks as "those that business users carry out themselves instead of passing them on to IT for fulfillment." By this logic, self-service BI includes not just ad hoc report creation tools, but any and all tools that enable business users to independently meet their data needs when they arise.

IT nevertheless plays a critical role in facilitating self-service BI systems. If we were to liken self-service BI to a buffet restaurant, IT would be analogous to the kitchen staff, who are always behind the scenes working to ensure that customers will find the meal they're looking for and not have to wait to eat it



The foundation of this BI buffet is the canned report. In our metaphor, we might compare canned reports to "complete" dishes like chicken cordon bleu. SaaS IT teams typically build these on their users' behalf as a means of satisfying common or predictable business needs.

Some of these **canned reports** will be fully static; all end users can do is select the report and run it — hence the term "canned." Others, however, may be parameterized, giving end users the ability to customize one or more variables affecting the report's output.

> *"You don't need a programming background to develop complex reports/dashboards."* **- Tim K**

Parameterized reports are a form of canned report in which end users can alter a few superficial details. A parameterized inventory report, for example, might permit end users to select a date range and product type but would otherwise disallow changes. Parameterized reports are like a buffet pasta bar that lets you pick a sauce to pair with your noodles.

And then, finally, there are **ad hoc reports**, which business users build from scratch the way they might build salads at a salad bar. IT prepares and maintains the data; SaaS users report off it.

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Any of the above report types can be either operational or non-operational. **Operational reports** are tabular in nature and are the workhorses of the business world. They are responsible for covering day-to-day operations in granular detail. Although a robust BI solution will allow users to supplement tabular reports with visualizations and dashboards with tables, visualizations are not generally considered part of operational reporting. Operational reports get their name from being used heavily in daily operations.

Non-operational reports, sometimes simply referred to as “analytics,” consist of charts, visualizations, and dashboards. Their utility in summarizing data make them crucial tools in trend analysis, status updates, and predictions but not granular enough to play a critical role in day-to-day operations.

Full-featured ad hoc reporting solutions allow end users to build both operational and non-operational reports from scratch. Not only that — they maintain a low skillset barrier such that non-technical business users can furnish their teams with the insights they need to make informed decisions.

The Value of Ad Hoc

To better understand how ad hoc capabilities make SaaS BI more efficient, consider this fictitious example. Bob is the regional sales manager for a magazine company, and he uses a SaaS application called MagZone to keep track of his team's ad sales. MagZone's reporting suite includes a premade parameterized sales report that will show him how much each member of his team has sold into which publications over a given period of time, but he needs more detailed information this month.

This month, some of his company's magazines have introduced a new type of print ad called an advertorial, and he wants to see how many of these new ads his agents have sold and to whom. With ad hoc reporting, he could either make a copy of the original sales report and add the newly pertinent data fields (such as AdType and Client), or he could build a brand-new report expressly for that purpose. Either ad hoc method gets him up-to-date information on the new ad campaign without help from IT.

It is in this manner that SaaS applications offering ad hoc BI reap the following business benefits:

1. **Reduced Overhead.**
   Less ancillary work for IT means more technical bandwidth on mission-critical projects.

2. **Increased Customer Satisfaction.**
   A smooth user experience coupled with meaningful, easily-obtained insights leads to happy customers.

3. **Increased Product Stickiness.**
   The more value customers get from your application, the less inclined they will be to churn away.

4. **Competitive Advantage.**
   The strength of your operational reporting and BI can give you an edge in the market.

5. **Monetizable Features.**
   It's common for SaaS providers to offer canned reports to all customers and charge extra for ad hoc reporting.

The following case studies illustrate how valuable ad hoc reporting can become to customers and, by extension, to the SaaS companies who serve them.

Ad Hoc Reporting Case Studies

Pest Control Company Saves Big with Ad Hoc Reporting

McCloud Services, a pest management company operating in nine US states, saved tens of thousands of dollars by adopting ad hoc reporting tools and establishing a business analytics department. McCloud was managing its fleet and operations using a web-based application called PestPac when the platform introduced Report Writer, its ad hoc BI suite.

A member of McCloud's management team returned from a **PestPac** conference with just enough information about Report Writer to give one of the company's junior accountants, **Forrest Gordon**, a foothold. As Gordon became more experienced with the application, he started taking on requests from other departments, eventually becoming McCloud's first data analyst. His 750+ reports uncovered workflow inefficiencies and clerical errors that, once corrected, saved the company tens of thousands of dollars over the course of a single year.

College Uses Ad Hoc Reporting to Sustain Philanthropic Giving

At **Converse College**, an esteemed women's college in Spartanburg, South Carolina, ad hoc reporting was the difference between an antiquated endowment program and one that would sustain the school's scholarship program by appealing to modern philanthropists. According to **Inside Philanthropy**, endowment donors are becoming increasingly motivated by data on their gifts' impact. Where in the past donors might have been satisfied to know that their contribution helped fund the organization as a whole, today's philanthropists like to know specifics, such as which particular programs their dollars helped fund and what percentage of the costs they covered.

The Advancement Services department at Converse uses **DonorPerfect** by SofterWare to track and manage all of the college's incoming gifts, and the application comes pre-stocked with reports. Those reports satisfy the department's needs 80% of the time, and when it needs something a bit more customized, it uses the application's Easy Reports tool. Neither option satisfied the department's endowment reporting requirements, however, so it upgraded to a plan that includes DonorPerfect's Smart Analytics feature, a full ad hoc reporting suite that allows Converse to merge and manipulate donor information in a way that meets their unique endowment reporting needs.

"We love how Exago has revolutionized the reporting capabilities we can provide our customers. [...] I like how it is powerful enough to provide many things that make their jobs easier and their use of our product more efficient and worthwhile." - **Amanda B**

5 Essential Ad Hoc Reporting Features

Make sure your ad hoc reporting solution meets these basic requirements.

1. **The ability to create reports from scratch.** This might seem obvious, but recall that parameterized reports are a type of canned report and don't qualify as ad hoc. When no canned reports even come close to satisfying an emergent business need, end users should have access to well-groomed data and a blank reporting canvas.

2. **The ability to work with tabular detail.** In other words, users should be able to create full ad hoc operational reports, not just charts, totals, averages, KPIs and other summaries. Granting end users access to tabular detail rows gives them granular control over their data.

3. **The ability to create ad hoc reports from canned reports.** This saves end users a great deal of time. A powerful ad hoc reporting solution makes it possible for end users to duplicate a canned report and make changes to the new copy without affecting the original copy or having to rebuild the report from scratch.

4. **Ease of use.** BI reports can be highly complex, so you want an application that's powerful and feature rich without being overwhelming. Look for solutions that can be tailored to accommodate users at either end of the skill spectrum by giving admins the ability to choose what features are exposed to different user classes. Even the most advanced users will become frustrated with a needlessly complicated application. There is no substitute for a well-designed, user-friendly interface.

5. **Web-based access.** What's the point of being able to answer unanticipated questions if you can only do so at your desktop computer? The nature of SaaS requires its end users to be able to access their data anywhere on any connected device without having to download anything. Without that, their ad hoc reports can't be truly ad hoc.

Transitioning Customers to Ad Hoc Reporting

Users can be reluctant to adopt a new system if their managers and executives aren't committed to it. SaaS providers can support their ad hoc reporting customers in effecting a smooth transition by offering the following top-down plan to business leaders.

Step 1 | **State the Benefits**

Before transitioning your team to a new software application, it's a good idea to explicitly state what they can expect to get out of the change. Communicate these benefits to each department separately, taking each group's priorities into consideration. A new analytics-enabled CRM might be of obvious value to Sales, but Marketing may need help understanding how it will impact their operations.

Step 2 | **Set Expectations**

If transitioning to a new application means abandoning old practices, be explicit about what those old practices are. Not all employees may realize that exporting data to spreadsheets for analysis creates data integrity issues, so identifying these unacceptable processes is the first step to eliminating them from your teams' workflows.

Step 3 | **Provide Training**

Most applications will have documentation, instructional videos, and even on-site training sessions for clients to take advantage of, so be sure to make these available to your employees! Consider making training mandatory for certain groups, and have a plan for familiarizing new hires with the software.

Step 4 | Transition Cleanly

A patchy or staggered transition to new software can tarnish people's first impressions of the application because, as explained earlier, adoption and value are closely linked. Effect a smooth transition by setting a transition date and giving all stakeholders clear instructions for how to prepare. Send reminders as the date draws near. If effecting the transition means users are going to lose access to old resources, make sure there's a grace period in which stragglers can recover any documents or data from those resources even after the official transition date.

Step 5 | Reinforce the Change

Some executives might make software adoption part of employees' end-of-year reviews, but this isn't the only way to reinforce a platform transition. Empowering managers to lead by example is a great first step, as is referring employees to the new application rather than to whatever resource they had used previously. Enforcing a new process might also involve making the old process less convenient, so whether that means refusing a report in spreadsheet form or requiring conversations to be logged in the new CRM application, it's important to discourage knowledge workers from reverting to old practices.

Step 6 | Check In

Applications are never perfect, and even if they were, business needs change and evolve over time. This means that it's important to check in with application users periodically to make sure they're getting value out of the system and know who to contact with questions. There's no point in enforcing a system that no longer works for your business, so keep tabs on what users are saying about the solution. If your BI application allows you to monitor user activity, keep an eye out for unusual trends suggesting UX problems. This will help you troubleshoot adoption issues as they arise and keep them from snowballing out of control.

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With this process in place, customer companies are much more likely to navigate BI adoption successfully. Clear communication and expectation-setting are crucial, but continued reinforcement is also important if the application is to remain a sustainable solution. Share these tips with your clients to start them off on the right foot and check in periodically to assess their progress.

Training and Supporting Ad Hoc Users

Each SaaS vendor's training program is uniquely suited to its product and user base, but there are a host of strategies to consider as you design yours. Here is a list of tips and ideas sourced from our customers.

1. **Segment your courses.**
Enterprise BI can do a lot, and it's counterproductive to rush through the material, so help ensure that your end users get through all the necessary information by breaking up the training into segments. Matt Smyrl, Manager of Training Services at FM:Systems, divides his course into three half-day segments, which allows him to ramp up the complexity gradually and give his students breaks between segments.

   Lomesh Shah, President of NonProfitEasy, likewise subdivides his training into one-hour drop-in forums. Each forum focuses on a different level of report designer, either basic, intermediate, or advanced.

2. **Hold in-person training sessions whenever possible.**
SIS Product Manager Bryce Lee hosts monthly training webinars for his company's Exago BI implementation, but he also leads in-person regional workshops for whole groups of insurance agencies using PartnerXE. Exago customers generally agree that, if you have the means, in-person classes are preferable to virtual ones because they allow for better communication and more interactivity. It's also easier to observe users as they explore the application.

3. **Start with your data architecture.**
That's right, break out those ERDs. Both DLGL Data Extraction Analyst Jonathan Giles and Smyrl say they begin their training with an introduction to the data itself: what data categories are available, how they are organized, and why

they are organized that way. This gives users a better understanding of what data they can access and might even get them excited to start exploring it! If you have a particularly large data set, consider confinging your introduction to an especially relevant subset of data objects to avoid overwhelming new users with information.

4 **Provide a familiar point of reference.**

One Exago BI client discovered that it was helpful to explain the report designer in terms of a more familiar tool, and that tool ended up being Excel. Exago BI doesn't work quite like Excel does, and explaining how they differ actually helped this product manager get some of the more unfamiliar concepts across. Spreadsheet cells, for example, only hold one piece of information at a time, but some of Exago BI's report designer cells hold whole fields of information that expand to display detail on output. These kinds of comparisons can help users gain a foothold more easily.

5 **Give users an objective toward which to work.**

Smyrl says he's found the most success with individual and group classes wherein attendees describe a report they'd like to make and then spend the session building it. Not only do they learn along the way, but they have something useful to take with them at the end. This is also a great way to get users working through use cases they might realistically encounter in their daily work, giving them a supportive environment in which to work through design challenges.

6 **Leverage canned reports.**

A well-constructed canned report can be as powerful a learning tool as a blank canvas. One product manager said his first step is always getting users comfortable with modifying existing reports for their own purposes, starting with stylistic changes and working up to structural adjustments and new calculations. Giles will tell his end users to take inspiration from the report library and try reverse-engineering the reports or recombining elements to create something new.

7 **Provide refresher courses.**

As one panelist pointed out, there's often a lag between when end users attend training and when they build their first reports. It's easy to forget some of the finer details in the interim, so help your end users get back on track either by providing a refresher course or by making training videos available on demand.

8 **Incentivize**.

In Shah's experience, some end users come to him exasperated because they needed a custom report made yesterday and didn't have the skill set to do it themselves. In the interest of time, Shah's team will typically build the report on the client's behalf and charge for the work unless the client attends a training session, in which case the report would be pro bono. This has proven an effective means of advertising the training program to those who need it most.

"Exago allows us to provide canned reports to address our customers' common reporting needs AND give them the power to create their own reports." **- Harriet J.**

About Exago BI

Exago supports SaaS providers and their users by making it easy for business professionals to access and manipulate their data, no matter their technical qualifications. Exago BI integrates seamlessly with web-based SaaS applications to bring ad hoc reporting and analytics to any multi-tenant environment. Our dedication to customizable integration allows us to prioritize usability without compromising on power.

Learn more at exagobi.com.