



PIWIK **PRO**

PIWIK **vs.** Google Analytics

The Ultimate Guide to Choosing the Right
Web-Analytics Tool

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Introduction

When looking for the right tool for your organization, you will most likely consider Google Analytics (GA). Used by over 82% of all websites whose traffic analysis tool is known to W3Tech¹, Google Analytics is the unquestionable market leader. Some experts even perceive it as the industry standard.

However, there is also a variety of tools to review before making the final decision. A platform often called the leading GA alternative is Piwik. Started as an open-source project almost a decade ago, Piwik has been gaining momentum, expanding its features, and developing a range of professional services.

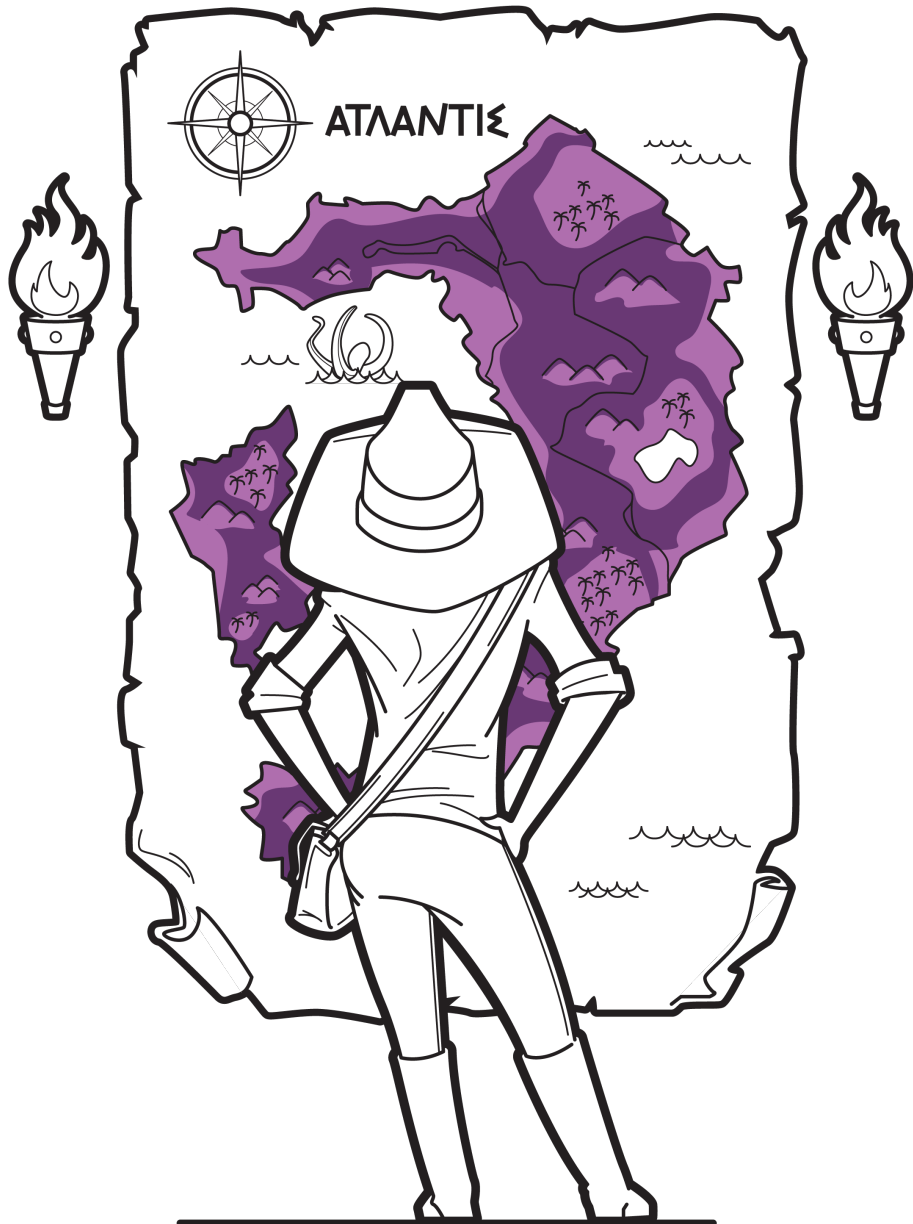
Although Google Analytics and Piwik provide users with very similar reports, their functionalities are organized slightly differently. Both platforms diverge in many ways and it's vital to be aware of these dissimilarities and their potential effect on your digital setup.

With that in mind, we decided to write a whitepaper comparing several aspects of Piwik and Google Analytics. We primarily focus on the needs of IT and procurement managers working at organizations of various sizes, from middle- to enterprise-level. As there is no one-size-fits-all type of solution, what works well for a tiny organization may not be suitable for a large governmental agency.

Of course, we're not going to claim we're 100% impartial — at the end of the day we are Piwik contributors and advocates — but at the same time, we acknowledge Google Analytics comes with many great features and can definitely be a great choice for many users. The question is whether it matches your particular needs and requirements, and that's where it's worth knowing what other options are on offer.

We hope you will find our whitepaper useful in your quest for the right web-analytics tool, and remember, if you have any questions or ideas, you can always ping us on Twitter [@piwikpro](#) or send us a [message](#).

¹ Usage statistics following the [W3Tech Report](#), last accessed 20 March 2016.



I. Introducing Google Analytics and Piwik

Before we delve deeper into discussing the differences between Piwik and Google Analytics, let's meet our contenders. In this section we gather the most important facts about both platforms.

Google Analytics	Piwik
<p>There is no doubt Google Analytics is the market leader. Initially developed by a small web-consultancy team, the tool was previously known as Urchin, and in 2005, was acquired by Google to become the Analytics we know today.</p> <p>According to W3Tech's report on the most frequently used traffic-analysis tools, GA services 54% of all existing websites² — this accounts for 83% market share. It has a freemium model, but that's not the only reason numerous multinationals use it. GA offers a user-friendly interface and a great amount of powerful features and integrations.</p> <p>You can track website traffic with ease, and monitor visitor activity, referring websites, keywords, sales, and much more. Used by both small and large organizations, GA can be easily integrated with CMS systems like WordPress, and of course with Google's own products like Adwords and Adsense.</p> <p>It all comes with a price, however. GA may actually use retained data for its own purposes, so you don't have full control over your information. We discuss why this may be problematic in chapters II.3 and II.4.</p> <p>To access custom functionalities, as well as support, you may need to upgrade to a premium plan. Until the recent change to Google Analytics 360 Suite³, all pricing plans began at \$150K per year. Although it was created with enterprise-level organizations in mind, the premium plan is also offered to every website receiving over 10 million hits per month.</p>	<p>Created in 2007, Piwik has become the world's leading open-source analytics platform. Initially founded by Matthieu Aubry, it is maintained and improved by a community of developers and libre software enthusiasts. In 2015, Piwik was selected as one of the best open-source projects of the year⁴.</p> <p>Piwik provides users with valuable insights into their website traffic, mobile and web apps, visitor activity, and marketing campaigns. Free to download, use, and modify, it's been widely adopted by individuals and organizations obliged to use self-hosted platforms. Piwik is available in over 50 languages and has already been downloaded more than 2.5 million times.</p> <p>One big advantage of Piwik is its approach to data ownership. All information gathered with Piwik stays 100% controlled by the user and is not shared with any third parties. That is the main reason it became so popular among organizations, governments, and other institutions requiring sensitive-data protection and privacy compliance.</p> <p>Enterprise-level organizations can take advantage of Piwik PRO's cloud hosting (Piwik PRO Cloud) and on-premises deployment and support (Piwik PRO On-Premises). Upgraded versions of Piwik give access to numerous premium features such as Funnel Analytics, Metasites, White Labeling, and more.</p>

² http://w3techs.com/technologies/overview/traffic_analysis/all

³ In March 2016 Google Analytics Premium was rebranded to Google Analytics 360 Suite. More details for instance in Brian Clifton's [The New Google Analytics 360 Suite – A Game Changer for the Enterprise...?](#)

⁴ <https://opensource.com/business/15/12/top-10-open-source-projects-2015>



II. General Points to Consider Before Making Up Your Mind

II.1 Open-Source vs. Proprietary Software: 4 Myths Debunked

Google Analytics may come as a free-to-use tool, but it is still based on proprietary technology, meaning you only get reports or features the platform's engineers deem necessary. With Piwik, you are allowed to not only use the tool for free, but also to modify its code to meet your particular requirements, and this is because it is open-source. Continually developed by a community of engineers, since 2013 it has also been backed by the Piwik PRO company, delivering professional services for enterprise clients.

The open-source vs. proprietary dichotomy constitutes an important point for consideration when comparing Google Analytics and Piwik, and although open-source projects have climbed in popularity over the past decade, even being embraced by governments and enterprises, they are still sometimes dismissed as inferior to proprietary ones. That's why in this chapter we're going to debunk four main concerns that persist about open-source — to help you make an informed decision when choosing the right analytics tool for your organization.

Myth 1: Open-Source is Less Secure Than Proprietary Software

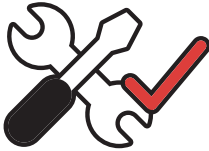


If anything, OSS allows developers to rapidly address security issues, whereas proprietary systems must rely on the software vendor to get around to issuing an update or fix. Piwik's code is openly developed on Github, and before it is added to the repository, the code is tested and verified by core team members. Making the kernel of code available publicly equals more security and transparency, as all potential issues can be discovered and fixed much faster. (More on security in [chapter III.7.](#))

The fact is that it's not just a single vendor investing in product development, but a whole community, thus enabling review from a base of knowledgeable and expert supporters. This is getting recognized by IT professionals, as the Ponemon Institute's Study⁵ demonstrates, with respondents praising commercial OSS for improved security, privacy, and trustworthiness stemming from code transparency.

⁵ [The Open-Source Collaboration Study: Viewpoints on Security & Privacy in the US & EMEA](#)

Myth 2: Open-Source Offers No Continuity and is Harder to Maintain



Quite the contrary. Most OSS can live after the relationship with the original creator or vendor has ended, which may not be the case for proprietary software. Although withdrawal of Google Analytics seems unlikely, should such a situation happen, its source code is not available publicly, so further development by a community wouldn't be possible.

On the contrary, Piwik is maintained and constantly improved by independent developers interested specifically in that particular solution. All code and product roadmaps are available publicly, and discussions on the directions of software development are held in open. The Piwik community announced a long-term support program: after version 3.0.0 is released, the team will fully support users on Piwik 2.X.

Myth 3: There is Less Support for Open-Source Software



When your software doesn't seem to be working as expected, you may need more of a professional service than just DIY advice, tutorials, or community help. With serious incidents, it's good to have reaction times guaranteed in a service-level agreement and telephone support line, ideally provided by platform experts. In the case of free Google Analytics, you have access to a wide pool of resources, but you'd have to upgrade to an Analytics 360 plan (previously GA Premium) to get dedicated support.

Piwik's library of guides and documents is steadily growing, while many issues are solved on a daily basis on the [community forum](#). Professional, dedicated support is available to all users upgrading to Piwik PRO plans. Help is provided by platform experts and vital contributors who know all the ins and outs of Piwik, and rates are far more attainable than with Google Analytics 360.

Myth 4: Open-Source is Not Enterprise-Grade



False again. Piwik, in its out-of-the-box version, is already used by large companies, governments, and corporations. According to a W3Tech Survey, 1.3% of all websites are tracked with Piwik⁶, that list including the Government of Canada, Aldi, and Hewlett-Packard. Traditionally, driving

⁶ [W3 Tech Traffic Analysis Tools Report: Piwik](#)

costs down was the main reason government agencies or enterprises looked into open-source, yet according to the Ponemon Institute’s findings, those days are gone. A growing number of IT professionals prefer commercial, open-source products exactly because they allow more room for modification to suit their particular business goals.

II.2 Hosted vs. Self-Hosted

One of the main differences between Google Analytics and Piwik is related to the way they are deployed; the first one comes as a cloud-hosted service, whereas the latter is on-premises.

Choosing between SaaS (software-as-a-service) and self-hosting may be a big, if not the biggest, decision for your organization, with long-lasting consequences. We won’t try to argue that any of these two types of implementation is better. Instead, we will present the most important points of consideration for both options to help you assess whether cloud-hosted or self-hosted analytics is better for you.

Cloud-hosted Solutions	
Google Analytics / Piwik PRO Cloud	
Benefits	Limitations
<p>There are numerous reasons SaaS offerings are ubiquitous. In a nutshell, it’s about convenience, cost efficiency, and scalability. With a hosted solution, your organization doesn’t need to purchase or maintain additional infrastructure for new software. This is especially important for companies with small, or even nonexistent, IT departments, and thus a lack of ability to handle installation, upgrades, and updates for new software.</p> <p>Cloud-hosted products typically include these services while also providing necessary server space and maintenance. You can also access your data from anywhere with an Internet connection. Cloud-hosted software comes in paid and free options, but keep in mind possible data limits and other potential issues.</p>	<p>Would you trust your personal data with others? Probably not, but that’s exactly what you may be doing when choosing a cloud-hosted solution. Your software tracks users on your website and sends this data off to a remote server. That’s where your data is collected, organized, and stored for retrieval.</p> <p>Google’s server and data center could be anywhere in the world, and where the product appears to be free, very often it may come at a high price of losing control of your data. Can your keywords, traffic volume, or any other action reports be leaked to advertisers or your competitors? Yes. Thus, it’s better to avoid any possibilities of having it passed on to third parties without your consent.</p> <p>We recommend paying attention to the terms of service and picking solutions that won’t compromise your data ownership. For a detailed discussion, see chapter II.4.</p>

Self-hosted Solutions	
Piwik Community / Piwik PRO On-Premises	
Benefits	Limitations
<p>Going for on-premises solutions like Piwik means you own and control your data at all times. Since it stays on your servers, there is no risk of accidental data leaks or security threats. For many governments and enterprises, having such a guarantee is key.</p> <p>As all data collection is done locally on your own infrastructure, there is no need to wait for a remote server's response to track and analyze that data. Therefore, the whole process is much faster.</p> <p>Having an on-premises web-analytics tool such as Piwik provides companies with a way to tweak, customize, and configure specific elements. This is possible due to its open API, and with it your organization can create bespoke product tailored precisely to your needs.</p>	<p>You will need a certain amount of technical know-how to set up a self-hosted platform. However, it is fairly easy to maintain, update, and upgrade once setup is complete. All detailed instructions and user guides are available online. Once it's installed on your infrastructure, updates can be as easy as a single click.</p> <p>You will also have to take care of software updates and maintenance of the server on which your installation will reside. Self-hosted platforms sometimes may require additional hardware to set up as well. It is therefore advisable to have an IT department to handle all backups, updates, monitoring, and upgrades — or try to outsource it, for instance by enlisting the Piwik PRO Team.</p>

So which type of software will be best for my organization?

There is no one-size-fits-all answer to this question. It really depends on your needs.

Cloud-hosted may be most suitable for...	Self-hosted may be most suitable for ...
<p>Small- to medium-sized organizations with no resources for maintenance and updates on their own infrastructure. However, we strongly suggest being weary about exchanging your personal information for free Google Analytics software. Full data ownership does not come with the freemium version.</p> <p>Depending on your traffic volume, you could try one of the Piwik PRO Cloud plans. It provides versatile hosted analytics and full data ownership. Plus, you know where your data is stored (centers in Frankfurt, Germany, and Washington, DC).</p>	<p>All organizations dealing with sensitive data on a daily basis, especially within the healthcare, finance, telecommunications, or public sector.</p> <p>We encourage you to give Piwik a go if you have resources for self-hosting. It's free, easy to modify, and suitable for enterprise-level organizations.</p> <p>Organizations in need of support and setup assistance can obtain professional services with an upgrade to Piwik PRO On-Premises.</p>

II.3 Approaches to Privacy

With so much time spent on the Internet, our online activity logs can reveal a lot of information. Tools such as Google Analytics provide great service free of charge, accessing information on your traffic or visitors. However, the service is limited to those statistics, and what works for an individual blogger or small website owner will be problematic for enterprises or governments. They simply cannot compromise data privacy.

That's why in this chapter we will compare ways Piwik and Google Analytics approach this issue. For actionable steps and a discussion of privacy settings, please see [chapter III.6](#).

Why Worry About Privacy?

Privacy awareness is on the rise, and Internet users around the world are concerned with how online service providers collect and protect their personal information.

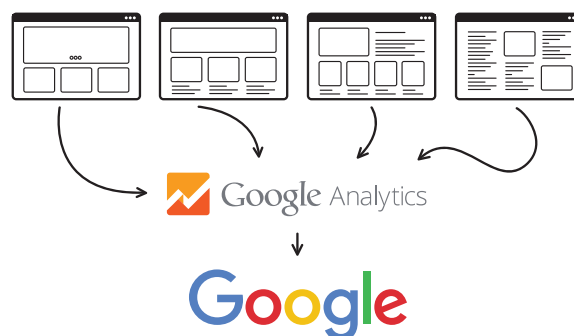


A [recent study by Forrester](#) confirms privacy can no longer be just an afterthought. On the contrary, it will constitute a real game-changer for businesses wanting to succeed in the battle to win and retain customers.

Just as enterprises have to adapt and address data security in their strategy, the same lesson may soon apply to governments as well. The Privacy Commissioner of New Zealand, John Edwards, predicts people will have similar privacy expectations, both across the private and public sectors, and with the renouncement of the Safe Harbor agreement in autumn 2015, transfer of personal data by businesses and governments from the EU to the US "without a legal basis" now constitutes an offense and may incur high fines. When the General Data Privacy Regulation comes into force in the EU, lack of privacy compliance may cost even €20 million.

Privacy in Google Analytics: Beware the Small Print

Using Google Analytics means your data is tracked and stored by one company, and while the free tool may seem excellent at first, Google can also reuse the visitor-log data tracked on your website to enrich existing profiles for a given user or IP address. Read their [Privacy Policy](#) to learn how they may combine personal information from one service with personal data from other Google services. Considering how ubiquitous Google products are, even without actively using any of them, the probability of providing data to the giant when visiting five random websites exceeds 99%.



Google is thus able to build a very accurate picture of most websites' users and their demographics, giving them knowledge about you and your web visitors, how you use their products, and how you interact with their ads.

To draw on an excerpt from [Google's Privacy Policy](#):

"Our Google Analytics product helps businesses and site owners analyze the traffic to their websites and apps. When used in conjunction with our advertising services, such as those using the DoubleClick cookie, Google Analytics information is linked, by the Google Analytics customer or by Google, using Google technology, with information about visits to multiple sites."

Officially, this data is used primarily for the ongoing improvement and maintenance of their products, but this knowledge can also be used in other ways — think state surveillance, or maximizing advertising revenue. This is by no means to say Google Analytics is evil, but with unrestricted access to such a vast pool of data, it is powerful enough to use the information to its advantage.

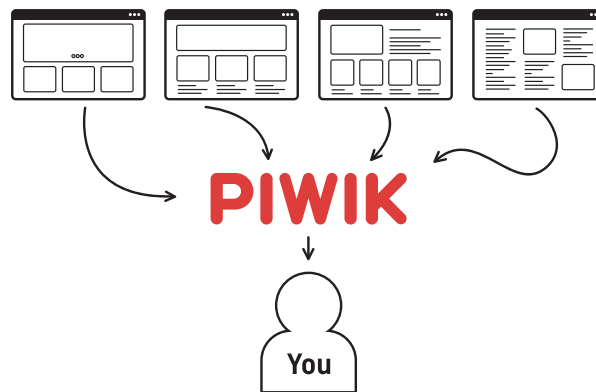
All GA data is classified as confidential information and is subject to the confidentiality provisions of Google's Privacy Policy. However, its terms of service also prohibits customers from sending personally identifiable information (PII) to Google Analytics. PII includes any data that can be used to reasonably identify an individual, including email addresses or billing information. That means you will need to make sure you pay attention to what you actually measure using Google Analytics and if it contains the forbidden PII's.

Privacy in Piwik: By Design

Unlike Google Analytics, Piwik is a tool you install and store on your infrastructure using your own MySQL database. Piwik's source code was analyzed and proved to respect the requirements of European data-protection regulations.



With Piwik, your logs or analytics data are never sent to third-party servers, so you can rest assured insights on your website will not be sold to advertisers or used in a way that would infringe on your visitors' right to privacy.



That's why Piwik is recommended by many privacy experts and advocates, such as the German Center for Privacy Protection ([ULD](#)), the French Center for Data-Privacy Protection in France ([CNIL](#)), and the [Privacy Commissioner](#) of New Zealand. It is also trusted and deployed by numerous government agencies around the world. In Germany, where privacy laws are particularly strict and actively enforced on every level, Piwik has already reached 16% market share of websites using .de domains, including popular organizations such as Oxfam Deutschland, Wikimedia.de, and T-Mobile.de.

For a detailed discussion of privacy settings in Piwik and Google Analytics, [please see chapter III.6.](#)

Final Thoughts:

- Google Analytics may come free of charge, but the real cost may be your data privacy.
- Piwik is recommended by leading European privacy advocates due to its approach to data security.

II.4 Thinking About Data Ownership

Data security and ownership is one of the most important issues faced by enterprise IT departments. An increasing number of companies are turning towards data warehouses or self-hosting to keep all their data within their own domain instead of exposing it to third parties. However, there are still organizations ready to give their web-tracking data away without hesitation in exchange for a free analytics tool.

In this chapter we will focus on explaining why data ownership matters, and how Piwik and Google Analytics diverge in their approaches.

Why Data Ownership Matters

Data ownership refers to exercising legal rights and control over a given set of information, including the ability to create, edit, modify, share, and restrict access. As a concept, data ownership is usually implemented in medium to large enterprises that rely on data processing in some form.

With consumer insights pouring in from everywhere, many businesses outsource the management and analysis of that data to external agents. Performance metrics are crucial indeed, but the ownership of the data that informs business intelligence is just as critical, as lack thereof could hurt your business.

Your organization probably wouldn't wish to sell all CRM information to an advertising agency, especially one that happens to serve your competitors as well, and that's exactly what's at stake when using some of the cloud-hosted tools.

Google Analytics: The Small Print

When you use Google Analytics, you do not really know where your data is stored and processed, nor who can access it. That's why you should pay attention to the legal section — the "small print." Two clauses may give you pause for concern: *2. Fees and Services* (which we will cover in the chapter on data limits) and *6. Information Rights and Publicity*.

Let's focus on the parts about data ownership. The following excerpt certainly resonates with inauspicious tones:

6. Information Rights and Publicity.

Google and its wholly owned subsidiaries may retain and use, subject to the terms of its privacy policy (located at www.google.com/privacy.html), information collected in Your use of the Service.

In a nutshell, this means Google claims the right to use your information. Gone are the days when software providers charged you for using their product, but kept it under strict IP control and didn't try to make any use of your data.



Google is happy to give away their services for free, as long as you hand them your data, and while this type of exchange may be swallowed by small businesses, it certainly cannot be accepted by governments or enterprises.

If you violate their TOS, Google can terminate your Analytics account and you can lose all your data in a short period of time.

The enterprise client can, of course, consider signing up for GA 360, which offers you full ownership of your data. The new pricing plans are not yet widely available, but GA Premium previously began at \$150,000 a year — can you afford it?

For a discussion of premium plans, please [see chapter IV.5](#).

Piwik: 100% Data Ownership

Piwik is self-hosted, so you store the software on your infrastructure and all data is tracked inside your MySQL database. You keep full data ownership and can control who has access. Piwik provides companies with greater flexibility, as they are able collect and store PII (personally identifiable information) and other sensitive data that cannot usually be stored outside of a company's systems. It is never shared with third parties, so you stay the sole owner of the data tracked by your platform. Unlike Google, Piwik PRO doesn't run any advertising activities, so it doesn't need to access to your data.

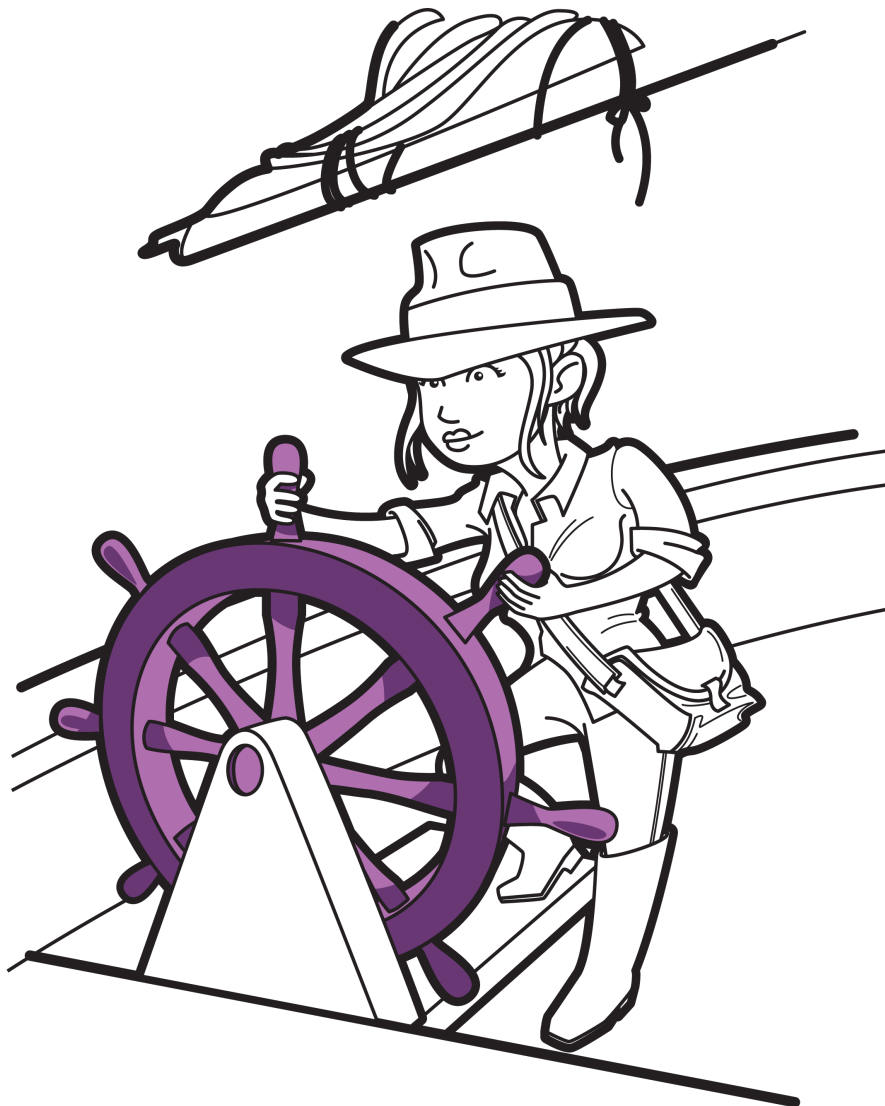


100% data ownership is valid, no matter if you opt for Piwik Community, Piwik PRO On-Premises, or the hosted option, [Piwik PRO Cloud](#).

All your tracked data is treated as confidential and remains fully in your control, unless you decide to make it publicly accessible. When using Piwik PRO Cloud you can request a full raw-data dump at any time; it will be provided within three business days. For these reasons, Piwik PRO Cloud is deployed by companies and governmental agencies such as [the Office of the Privacy Commissioner of New Zealand](#). With plans from 25€ a month, Piwik is a far more affordable option than Google Analytics 360.

Final Thoughts:

- Data is power and can be the downfall for an organization when handled improperly.
- Standard Google Analytics may seem free of charge, but the real price is your data ownership. Is your organization ready to accept it or pay for a premium plan (which used to be more than \$150K)?
- By default, Piwik provides you with 100% data ownership. You can upgrade to Piwik PRO for enterprise support with more affordable rates.



III. From Setup to Data Limits, Key Reports, and Settings

III.1 Setup Comparison

One of the biggest advantages of Google Analytics is that it is very easy to set up, whereas open-source tools like Piwik struggle with the bad reputation of only being accessible to tech-savvy users. But is this really the case?

In this chapter, we will focus on the the installation and setup of GA and Piwik in order to prove that this first impression may be misleading.

Google Analytics: Easy as Pie

In standard Google Analytics, basic tracking can be installed in seconds. Set up an account (as with other Google products, you can use a single sign-in to access your account), enter information for your website, choose a data-sharing option, and save. You will immediately be taken to the screen where you can create a tracking script, including a range of variables you may want to consider adding. The form of the code will depend on the choices you make in this section.

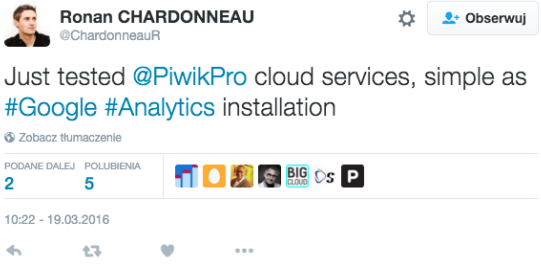
Once you save it, the script is ready; copy and paste it **at the top of the page right before the `</head>` tag**. Google recommends using its Tag Manager or adding it manually. In order to check if your setup works and traffic is measured, you can check out the "Real Time" tracking available within GA. You can also use additional Google tools to verify if GA tags are firing correctly.

Things can get slightly more complicated if you need deeper analysis or to display your data in a way not prescribed by Google. In such cases, you may find yourself in constant need for a custom report.

Piwik: The Choice is Yours

It's true that the community version of Piwik requires more resources and technical know-how. However, due to increasing enterprise interest in the platform, Piwik's creators established professional services for organizations: Piwik PRO On-Premises and Cloud.

Here is a short overview of setup in each option:

Piwik Community	Piwik PRO On-Premises	Piwik PRO
<p>Make sure your web server meets the minimum requirements to run Piwik. If your web host offers one-click software (such as Softaculous), you can install it in one click. If not, download the latest version Piwik, unzip the file on your computer, and upload it to the desired location on your server.</p> <p>Once it's there, open your browser and navigate to the URL where you uploaded Piwik. You should now see the Installation Screen that will guide you through the process. If everything goes correctly, you should be able to complete installation within a few minutes.</p> <p>Piwik will issue a JavaScript tag you will need to include at the bottom of all your pages, just before the </body> tag. Using a CMS such as WordPress or Drupal, you can use a plugin to make sure this tag appears where it needs to. You can also go for a tag manager, such as open-source 7tag. If the Piwik JavaScript tracking tag is properly installed on your website, you'll receive real-time analytics data.</p>	<p>This service is specifically aimed at organizations requiring support with setup, deployment, and customization of the self-hosted Piwik platform. Depending on your needs and requirements, the PRO Team will manage your setup and configuration in order to increase the performance of your server infrastructure. They will also advise on adding the right plugins and functionalities to your instance.</p>	<p>This service is for organizations that require secure analytics with full data ownership, but cannot store and maintain Piwik on their infrastructure. As your instance is hosted on PRO servers, its setup is very similar to Google Analytics.</p> <p>Open a Piwik Cloud account and add all the necessary details related to your website. You will receive a tracking code that will need to be placed on every page before the </body> tag, for instance using the 7tag tool. All settings are grouped in the Admin area.</p>
<div style="text-align: center;">  <p>Image courtesy: Ronan Chardonneau</p> </div>		

Final Thoughts:

- The Google Analytics setup is indeed very easy and quick. However, if you need something more complex than the prescribed options, you may feel it is quite limited.
- Piwik may indeed require some technical know-how and infrastructure before you set it up. With Piwik PRO On-Premises, your setup is assisted. In Piwik PRO Cloud, setup is as easy as Google Analytics.

III.2 Data Usage and Tracking Limit

All software has limits, with Piwik and Google Analytics coming as no exception. They differ in the way they approach data usage and tracking, which shouldn't surprise you when comparing apples (cloud-hosted GA) to oranges (on-premises Piwik). In this chapter, we focus on the elements you need to consider when planning a tool implementation. We compare data caps of the platforms' free versions, referring to their premium offers where applicable.

Google Analytics and Limits

Google Analytics openly admits certain caps in its service were necessary to protect its system from receiving more data than it could process. That's why there are certain limits, such as the number of properties, goals, and transactions you can track. If a user exceeds their daily cap of hits, additional actions will not be processed for that day. For similar reasons, Google performs data sampling. For a full discussion on sampling, please refer to chapter [IV.2](#).

Piwik and Limits



Using self-hosted Piwik, the only limit you will encounter will be your infrastructure capacity. The platform can easily track millions of pages with a guarantee of 100% unsampled data.

For performance reasons, you may want to introduce some limits — for instance, reducing the number of old logs to keep the database more manageable — but in principle, it is up to you how much data you track, analyze, or export, and this applies both to Piwik Community and Piwik PRO On-Premises. When using Piwik Cloud, the number of actions registered by your service is reflected in your monthly payments, with plans ranging between 100,000 (for 25 euros) to 500 million (for 4600 euros) a month.

Piwik and Google Analytics Data Fact Sheet

Limit	Google Analytics	Piwik
Number of hits per month:	10 million hits per month per account is free of charge. If you regularly exceed this limit, you should either upgrade to GA 360 or set your own sample rate to reduce hits registered and choose between high precision and faster response.	No limits. It is up to you and your infrastructural capacity how many hits you track. Piwik has no data-sampling issues. Piwik Cloud is limited to 500 million actions per month, with pricing depending on recorded traffic. Please refer to the offer for more information.
Number of hits per user per day:	200,000 hits. This limit also applies to GA 360.	No limits.
Number of hits per session:	500 hits per session (not including e-commerce).	No limits.
Number of user accounts:	100 accounts per login. If you reach this limit, you will need to create another Google login and use this for the next accounts. There is no limit to the number of users you can grant access to a particular view.	No limits. You can add as many user accounts as you need.
Data-storage time:	Guaranteed 25 months ; however, many users notice they still have access to data older than this. You cannot migrate historical data from one account to another.	No limits. You can keep your data forever, including all historical visitor data and all reports. You can choose to anonymize the data or purge the old log or report data after a few months. You can import historical visitor data in Piwik.
Number of properties (website, apps, etc.) tracked per account:	Each Analytics account can have up to 50 properties , and for each property, up to 25 views.	No limits. The only limit is the infrastructure on which Piwik is hosted. With the correct setup, it can handle well over 20K websites and can be optimized for even more.
Custom variables:	You can track up to 5 custom variables.	You can track, by default, 5 custom variables per visit and/or 5 custom variables per page view. It is possible to add more custom variable slots.

Limit	Google Analytics	Piwik
Custom dimensions:	In each property, there are 20 indices available for different custom dimensions.	You can track, by default, 5 custom dimensions per visit and/or 5 per action. It is possible to add more custom dimensions and track up to 15 in the visit scope.
Number of goals:	20 goals per reporting view.	No limits.
E-commerce transactions per day:	50,000 transactions.	No limits.
Data export:	5,000 rows	No limits to the number of records you export, but you can configure it to a specified value.

III.3 Dashboards

The dashboard is one of the most important elements of analytics. Providing an overview of metrics and reports, it lets you quickly check the performance of your tracked websites and apps by displaying selected widgets on a single page. It is crucial to be able to adjust the dashboard to your particular requirements to make the process of monitoring as easy as possible. That’s why in this section, we describe the most important aspects of dashboards in Piwik and Google Analytics, focusing on their features, strengths, and possible limitations.

Overview

Google Analytics	Piwik
<ul style="list-style-type: none"> The GA dashboard presents summaries of different reports in the form of widgets. It is highly customizable: you can drag and drop any widget in order to create your own board, with the metrics that matter most to your business. There is also an option to adjust the layout. You can have up to 20 dashboards with 12 widgets in each for every view or property in your Google Analytics account. 	<ul style="list-style-type: none"> The Piwik dashboard is highly customizable and uses widgets. Using the dropdown menu, you can create new dashboards, as well as rename, delete, or reset existing ones to default settings. You can decide on the layout and if you want to view your data in one, two, or more columns. Piwik doesn’t limit the number of dashboards or widgets to display.

The Widgets

Google Analytics	Piwik
<ul style="list-style-type: none"> The default dashboard displays a small number of widgets, such as a timeline for number of users, bounce rate, etc. You can add, customize, and remove new widgets to a dashboard according to your requirements or dedicated to different aspects of your traffic. Each widget can be configured so you can adjust its dimensions, metrics, and other options — these vary depending on the type of widget. You can apply filters to further clarify the data you see. View filters permanently change your data, while report and dashboard filters only limit the data displayed in the report or dashboard. 	<ul style="list-style-type: none"> The default dashboard displays a group of widgets, which you can easily adjust to your needs: add, resize, shift, or remove the default widgets in order to view only the metrics that matter most. Select the report you want to add from the dropdown list and it will appear on your dashboard, where you can resize it, or drag and drop to adjust its position. There are over 30 in total and the majority of widgets give you the option of presenting data in a different form, such as a table, pie chart, etc. You can add more metrics or details to the way your data is visualized without changing your global dashboard settings.

Sharing Dashboards and Reports

Google Analytics	Piwik
<ul style="list-style-type: none"> All dashboards start out private, but you can share dashboards with others via the share menu. There are options to share the dashboards via email or export them as PDF; however, Google Analytics does not allow you to share data outside of its system. 	<ul style="list-style-type: none"> Piwik reports, widgets, or whole dashboards can be embedded into other websites and tools using HTML/Iframe, which may be useful for internal reporting. Each report can be exported in a variety of formats, such as CSV, XML, or JSON, including images in PNG. You can share the dashboard internally within your Piwik instance with other users.

Templates

Google Analytics	Piwik
<p>A very useful feature. You can find many examples created by others to import directly into your own Google Analytics account, saving you time and offering inspiration. For instance, on E-Consultancy's blog you'll find templates tailored for e-commerce, SEO, or social media.</p>	<p>Piwik does not currently support templates.</p>



Example of a customized dashboard in Google Analytics.
 Source: www.econsultancy.com, available from [this](#) blog post.

View and Compare Data From Numerous Properties and Segments

Google Analytics	Piwik
<ul style="list-style-type: none"> Google Analytics doesn't let you easily compare multiple sites' data. You will have to switch back and forth between tracked properties, or even accounts, in order to see this type of data. If you manage many websites for multiple clients, getting a clear overview may indeed be problematic. In order to monitor multiple sources of data from one place, you will need external tools, such as Cyfe. 	<ul style="list-style-type: none"> Piwik, by default, lets you compare global data from all your tracked properties. There is an evolution graph for every row, with the option to compare against data from other rows and metrics. For users with hundreds or thousands of tracked websites, adding a premium feature like MetaSites will be a good choice. Another useful add-on is the Comparison Dashboard, which lets you see reports from up to three different segments all in one place.

III.4 Key Features and Reports

When you start comparing reports and functionalities of Piwik and Google Analytics, you soon discover that both platforms name or organize their functionalities in different ways. In this section, we focus on a comparative review of features and reports of these two platforms so you can get a better sense of what's really on offer.

Starting with an overview of **web-tracking reporting features** (Goals and Funnels, Site Search, Segmentation, Events and Content Tracking, Real-Time Reports, Campaigns), we then move on to outline different **analytics uses** for both platforms (websites, e-commerce, intranet, server logs). We finish with a discussion of **other important features** (visualization tools, sharing and communication, dashboards, privacy settings).

WEB-TRACKING REPORTING FEATURES

Goals and Funnels:



Goal-conversion tracking is one of the most efficient ways to measure and improve your business objectives. Funnels present all actions that happen on the way to conversion. Knowing where your users enter and exit can help you optimize that path.

Google Analytics	Piwik
<ul style="list-style-type: none"> Goals in GA are configured at the view level. They can be applied to specific pages your users view, number of screens opened in a session, time spent on your site, or events triggered during their visit. Every goal can have a revenue added to measure conversion value. Goals are limited to 20 per view. With a destination goal, you can specify the path you expect your users to take. When you specify steps, GA records where users enter and exit on their way towards completing the condition of your goal. The Funnels report appears in the Goal Flow and Funnel reports. 	<ul style="list-style-type: none"> Goals in Piwik are enabled with a free plugin. They can be triggered by user action (visit to a given URL, event, download, click on an outlink, etc.) or manually. With e-commerce tracking, Piwik goals and online-cart stats will be linked. Every goal can have a revenue added to measure conversion value. No limits in number of goals. With an upgrade to Piwik PRO, you get access to Funnels tracking. You can observe how your visitors move on the path to a given goal conversion. It appears in the Goals section and this data can be further filtered by applying a segment view.

Site-Search Tracking



This group of reports teaches you more about searches performed on your internal search engine and what types of information your users look for.

Google Analytics	Piwik
<ul style="list-style-type: none"> GA lets you dig into searches performed by your visitors by displaying the following metrics: Sessions with search, percentage of sessions that used internal search, total unique searches, results pageviews, search exits, percentage of search exits, search refinements, percentage of search refinements, time after search, search depth. You can also browse reports by dimensions, such as: <i>search page</i>, <i>search results page</i>, <i>results pageview</i>. 	<ul style="list-style-type: none"> Piwik provides detailed reports on searched keywords, keywords with no results, search categories, and pages following a site search. These include number of visits with search, number of search-results pages, percentage of search exits, and number of times a particular page was visited following a search. For each row, you can also view row evolution to see how metrics changed over time. For pages following a search, you'll also get Transitions and Overlay options to visualize your data in context.

Advanced Segmentation



Segments let you isolate and analyze particular subsets of data so you can examine and respond to the component trends in your business, including remarketing activities.

Google Analytics	Piwik
<ul style="list-style-type: none"> Define segments by creating filters based on dimensions, metrics, and data scope. GA has a segment builder, which lets you create up to 1,000 segments per account. Each segment you create can contain up to 20 filters. After creating a segment, you can see it reflected in historical data and across all your reports. You can compare different segments. 	<ul style="list-style-type: none"> Piwik lets you create advanced segments based on actions, referrers, visits, metrics, locations, and custom variables. The segment editor lets you add an unlimited number of criteria and conditions. You can create as many segments as required. You can easily switch between segments or compare data from different sets at once with the Comparison Dashboard.

Events and Content Reports



Events tracking lets you learn about visitors behavior, e.g. how often they download brochures or play with interactive elements. Similarly, content tracking can measure performance of any piece of content on a website or app you track.

Google Analytics	Piwik
<ul style="list-style-type: none"> Event Tracking includes the following: Category, Action, optional Label and Value. The first 10 event hits are tracked immediately; after reaching the limit, tracking is limited to 1 hit per second. Content Grouping in GA lets you organize content in a meaningful structure and then compare aggregated metrics by group name or drill down to a URL, page title, or screen name. If you run Google Ads, GA can directly import AdSense data to help you display ad units at the best place on your site. 	<ul style="list-style-type: none"> Javascript function trackEvent logs an event with an event category (game, video, etc.), action (play, pause, duration, etc.), an optional event name, and numeric value. Content tracking lets you group content into blocks to measure performance; impressions and clicks and CTR for image and text banners, or any other content element on your websites or apps. Versatile and modifiable, Piwik's content tracking can be used from any application or server owing to the Tracking API.

Real-Time Reporting



Real-time reports tell you how many visitors are on your site right now and what they're doing. It can prove extremely useful for CRM systems, customer databases, e-commerce carts, and more.

Google Analytics	Piwik
<ul style="list-style-type: none"> GA lets you monitor user activity right after it happens on your website, although period of delay is not explicitly stated. To access real-time reporting in a given view, select the reporting tab and choose the real-time option. You will find six reports: Overview, Locations, Traffic Sources, Content (or Screens, for Mobile App properties), Events, and Conversions. The Real-Time Reporting API is currently available as a preview in limited beta. 	<ul style="list-style-type: none"> Piwik offers real-time web analytics in all of its reports. To see real-time data, simply select any date range including today, and all the reports will include the visits happening now. By default, reports are processed every 10 seconds, but this delay can be customized. The Live! widget shows the real-time flow of visits to your website. The Live! API gives easy access to all visits and actions. The E-commerce Log gives detailed insights on all your visits in real-time.

Campaign Tracking



See how efficient your marketing campaigns are in terms of driving traffic, increasing visitor conversion, and revenue generation.

Google Analytics	Piwik
<ul style="list-style-type: none"> Add campaign parameters to the URLs used in your activities to identify the campaigns sending traffic to your site. When clicked by your user, the UTM parameters will be sent to Google Analytics. To define and add parameters, you can use Google URL Builder, or Google Play URL Builder. By default, you can specify 5 parameters. 	<ul style="list-style-type: none"> Add campaign parameters to the URLs used in your activities to identify the campaigns sending traffic to your site. When clicked by your user, the parameters will be sent to Piwik. To define and add parameters, you can use the free Piwik URL Builder. By default, Piwik lets you track 2 parameters: campaign name and keyword. With the Campaign Reporting feature from Piwik PRO, you can track up to 5 parameters.

ANALYTICS USES

E-Commerce Analytics



E-commerce analytics lets you track and understand purchases and transactions on your website or app. This is essential for all online carts.

Google Analytics	Piwik
<ul style="list-style-type: none"> E-commerce reports are composed of transaction and item data. Standard e-commerce reports let you analyze purchase activity on your site or app. You can see product and transaction information, average order value, e-commerce conversion rate, time to purchase, and more. Enhanced e-commerce for analytics.js enables measuring user interactions with products on e-commerce websites across the user's shopping experience, including product impressions, product clicks, viewing product details, adding a product to a shopping cart, initiating the checkout process, transactions, refunds, etc. No direct limit on e-commerce transactions, but they all count towards the overall monthly hit limit. 	<ul style="list-style-type: none"> Analyze e-commerce interactions such as orders, cart update, product and category page views, total revenue, average order value, conversion rate, purchased products, and abandoned-cart metrics. Generate lists arranged by metrics: product revenue, quantity purchased, unique purchases, average price, average quantity, total visits, conversion rate, etc. Browse top product reports by product name, SKU, or category. No daily limits of transactions or hits you can track. Piwik can be integrated via APIs and ready-to-use Integrations for Magento, Woocommerce, ZenCart, PrestaShop, OXID, osCommerce, xt:Commerce, Shopify, and more.

Mobile Analytics



Measure what matters to your users from first download to app install and in-app purchase. Understand the entire customer journey and make smart decisions.

Google Analytics	Piwik
<p>GA offers SDK for iOS and Android.</p>	<p>Piwik offers SDK for iOS and Android and the Titanium Module.</p>

Intranet Analytics



Many intranets come with built-in analytics reports, yet these can't be compared with advanced functionalities of web-analytics platforms such as Google Analytics or Piwik.

Google Analytics	Piwik
<ul style="list-style-type: none"> In order for GA to generate reports for intranet usage, the corporate network must be able to reach the Analytics JavaScript file (analytics.js). Your intranet must also be accessible through a fully qualified domain name, such as http://intranet.example.com, otherwise JavaScript of GA won't work. Full Sharepoint integration may be tricky and require developers. 	<ul style="list-style-type: none"> Piwik tracks intranet using Javascript code. It lets you track multiple intranet websites in the same installation, alongside other blogs, sites, or e-commerce carts. For sites that can't use Javascript, Piwik imports web-server access logs directly and displays stats in the same dashboard. A Sharepoint dedicated solution is available freely for all upgrades to Piwik PRO. Read more.

Log Analytics



An alternative method of tracking often used if the Javascript tracking method isn't feasible, or for strict security policies.

Google Analytics	Piwik
<p>This feature is not available.</p>	<ul style="list-style-type: none"> For websites and apps that can't add direct Javascript, Piwik will draw reports with data mined from your logs in your Piwik MySQL database. Your reports will be displayed in a standard Piwik user interface, giving you access to a majority of its features. Especially useful in data-sensitive industries, such as finance or healthcare.

OTHER IMPORTANT FEATURES

Visualization Tools



Visual presentation of data makes it easier to identify and understand trends in your users' behavior.

Google Analytics	Piwik
<p>GA displays visual information using a variety of charts to make your web analysis easier to understand.</p> <p>It also offers a number of visualization tools:</p> <ul style="list-style-type: none"> • In-Page Analytics reports are used to visually assess how visitors interact with your web pages. • Flow Visualization generates a graphical representation of the path visitors take through your site from the source, during the different pages, including all paths through which they exited your site. There is a number of specialized reports, such as behavior, goal, users, events, and funnels flow. 	<p>Piwik gives you a choice on how to display your data — in a simple or more complex table, pie chart, tag cloud, sparkline, vertical bar graph, or other.</p> <p>It also makes use of tools to better display trends:</p> <ul style="list-style-type: none"> • Page Overlay displays statistics directly on top of your website with our smart overlay. • Row Evolution presents current and past metric data for any row in any report. You can plot several metrics at once. • Page Transitions visualizes all actions that happen before and after viewing a specific page. • Visitor Map provides visitor statistics on a World Map you can browse by countries or regions.

Highly Customizable Dashboard



A dashboard provides a performance overview of your tracked properties, and lets you see correlations between different reports, and quickly check the condition of your accounts (for details see [chapter III.3](#)).

Google Analytics	Piwik
<p>With the GA dashboard, you can add, customize, and remove new widgets as required. You can create up to 20 dashboards with up to 12 widgets each.</p>	<p>Piwik dashboard is highly customizable and you can create new dashboards and adjust the layout. Piwik doesn't limit the number of dashboards or widgets to display.</p>

Sharing and Communication



Analytics insights are key to business decisions, so it's essential to provide access to all stakeholders.

Google Analytics	Piwik
<ul style="list-style-type: none"> • Sharing Tools exports customized dashboards with a selection of widgets and metrics. • Intelligence Events helps you notify colleagues and discover unexpected changes. • You can mark key events in your account's history visible to your team, and create a variety of custom alerts and email reports in many formats (CSV, TSV, PDF, etc.). • Importantly for developers, the majority of data in GA can be accessed via the Google Analytics Core Reporting API. 	<ul style="list-style-type: none"> • Piwik lets you insert annotations in your graphs to remember particular events. • You can grant view access to an unlimited number of users or decide to make your analytics publicly available. • You can embed single or multiple reports on your website or app with iframe code. • Email reports can be set in a number of formats (CSV, TSV, PDF, etc.). • For developers, fully featured tracking and analytics APIs enable unrestricted data export in a variety of formats.

Data Privacy



Data-privacy compliance is key to keeping your and your users' personal information safe and sound. Lack thereof may be harmful to your business reputation. For a detailed discussion, please view chapters [II.3](#) and [III.6](#).

Google Analytics	Piwik
<ul style="list-style-type: none"> • Unfavorable TOS: Analytics data can be used for profiling and advertising services. • Opt-out browser add-on available to download for users who don't wish to be tracked. • IP masking available. • Cookie Consent is obligatory. • Controversies around whether GA respects the DNT preference. • May require legal counsel / addendum due to changing EU regulations. 	<ul style="list-style-type: none"> • 100% data ownership: analytics data stays yours and isn't shared with any third parties. • Opt-out feature available for website administrators who want to give users a choice to be tracked. • Automatic IP anonymization. • Exempt from the Cookie Consent obligation. • Always respects DNT preference. • Self-hosted platform means no need to worry about changing regulations.

III.5 Cookie Settings

Cookies are tiny files used by websites to track visitors and store their preferences. They have long embodied the worst fears about online privacy. Certain cookies can indeed be used to manipulate our web experience in ways we might not expect, or want, while collecting information on us for the benefit of some other party. There's much more to cookies than just spying, however, and that's why they are ubiquitous.



Growing public concern over cookies lead to the issue of the European Directive 2009/136/EC, obliging all website owners in the EU member states to introduce new policies to increase their visitors' privacy online.

As both Google Analytics and Piwik rely on cookies for tracking, in this chapter we will discuss practical matters to consider to make sure your analytics is in line with the European Cookie Law. Starting with a brief discussion of the concept of cookies, we then jump into the legal-compliance section, finishing with ready-to-use guidelines to make sure your setup is in line with the law.

First- vs. Third-Party Cookies

One of the key attributes of a cookie is its host — the domain name of the site that ultimately sets the cookie. Only the host domain can retrieve and read the contents of the cookie once it has been set.

We speak of a **first-party cookie** when the host name matches the domain in the browser's address bar at the time it is set or retrieved. Such information is issued only by the website while you are visiting, giving its owner a chance to collect data to adjust the way their website looks or displays information. This data can't be passed on to other sites or sold, unless explicitly stated in the privacy policy.

Third-party cookies belong to domains different than the one currently viewed by the user. Usually placed via scripts or tags added into the page, sometimes these scripts also enable additional functionalities. Commonly used in online advertising, by adding their tags to a website, advertisers can track a given user across many of the websites they visit to build their "behavioral profile" and target them with related ads.

Privacy and Security Concerns

While first-party cookies can generally pass as unproblematic, third-party cookies may be used to collect long-term information on a user's web-browsing habits and history, storing data such as saved addresses or credit-card information. Tracking user

behavior across different websites allows the construction of a profile, subsequently used for display of more personalized ads.

Cookies can be used to store personally identifiable information (PII) — anything from a name or email address or any other type of data provided by the users through registration forms or login pages. This would be fine as long as that data were secure, but it frequently isn't.

Cookie Law Compliance

The European Directive 2009/136/EC requires all website administrators to place a special notification informing visitors not only of the presence, but also the purpose and duration of cookies deployed. The users need to grant consent to be tracked by these cookies.

A comprehensive guide to cookie compliance was published by the French commission CNIL⁷, the European frontrunner when it comes to privacy. A brief summary of the document can be found below.

Dealing with cookies, all website administrators need to consider the following:

- Need for arrangements for obtaining user consent.
- Visibility and simplicity of information on cookies.
- Possibility of consent withdrawal at any time.
- Lifetime of cookies and validity of consent, not exceeding 13 months.

Two Steps Towards Cookie Compliance

Below we describe two steps to ensure cookie compliance, a procedure already required from all web administrators in France, and with the arrival of the General Data Protection Regulation (GDPR), will most likely become a European standard. Even if not yet formally required in your country, cookie compliance may pay off in a relatively short period of time.

⁷ [CNIL](#) stands for La Commission nationale de l'informatique et des libertés.

Step 1: Provide Users With Information About Cookies and Their Purposes

According to CNIL, every website must devise a banner informing users that further navigation of the site constitutes an agreement for the installation and reading of cookies. The purpose for cookie usage must be specified, and users must be given the option to object, with a link to a dedicated part of the site.

Step 2: Provide a 'Learn More' Page

When a user clicks on the link provided in the banner, they must be directed to information about how to accept or refuse cookies. This may be presented as a direct-consent mechanism, a link to opt-out solutions, or details on how to modify browser settings to accept or refuse cookies.

Certain cookies are, however, exempt from this rule of consent — mainly those fundamental to offering the service required by users. According to CNIL, these are:

- Authentication cookies
- Session cookies
- Shopping-cart cookies
- Interface-personalization cookies
- Short-lived session cookies
- Certain first-party cookies, such as Piwik cookies

If you track your website with Piwik, you are exempt from the Cookie Consent obligation.

Cookie Usage by Google Analytics and Piwik

As already mentioned, both Google Analytics and Piwik make use of first-party cookies, but in a divergent manner. In this section we're going to discuss that difference in detail.

Please note that in this comparison we include Universal Analytics, the new operating standard for Google. As ga.js is now deemed a legacy library, it is recommended to use the latest version of analytics.js in new implementations.

Universal Analytics	Piwik
<ul style="list-style-type: none"> • Cookies are installed as soon as a user enters a website with UA tracking code. • A single first-party cookie is used via the analytics.js library to store information about visitors, sessions, and campaigns. • UA may not need a cookie to collect data, however, especially when measurement protocol is in use. • New vs. recurring visitors: If visitors return within a specific time frame, they are treated as recurring, otherwise they are seen as new. No further inquiries to verify. • _ga enables Universal Analytics to distinguish unique visitors and stores client ID information made up of a random unique ID and the 'first time stamp', but Google reminds that it's PII. It may be problematic to stitch client IDs across different browsers and devices. • Expiration periods: _ga by default is set to 2 years, pushed back with each visit. You can customize its expiration time using cookieExpires. • Modify _ga cookie by changing its attributes: Name, domain, path and/or expiry date — full documentation available online. • A session or campaign-specific data from the _ga cookie can't be dug out, and Google recommends against accessing directly, for its format might change without warning, leading to script errors and incorrect data. • The expiration period of Universal Analytics cookies MUST be adjusted to comply with European law. It cannot exceed 13 months. • You are also required to inform your users about the type and purpose of cookies used on your website. • Measurement protocol means UA can collect data even without cookies. 	<ul style="list-style-type: none"> • Piwik, by default, uses first-party cookies via the piwik.js library. • If you excluded yourself from being tracked with cookies, Piwik will create the 'piwik_ignore' cookie on the domain of your Piwik server. • Otherwise, cookies are set on the domain of the tracked website. These are: <ol style="list-style-type: none"> 1. _pk_ref 2. _pk_cvar 3. _pk_id 4. _pk_ses • Expiration periods are by default compliant with European regulations, i.e. the Visitor Cookie is set to 13 months, Referrer Cookie to 6 months, and Session Cookie to 30 minutes • Modify cookies by using the following: <ol style="list-style-type: none"> 5. setVisitorCookieTimeout(seconds) 6. setReferralCookieTimeout(seconds) 7. setSessionCookieTimeout(seconds) • New vs. recurring visitors: Cookies are used to determine if a visitor is new or recurring. A visitor will be recorded as new when they return after the lifespan of the cookie, which is also configurable. • Piwik cookies help distinguish unique visitors. Visitors with disabled or removed cookies will be checked by Piwik if unique, by using browser-fingerprinting technology to find out if that user may have visited your website already. • Expiration periods of Piwik cookies are by default compliant with EU Cookie Law. • Piwik is exempt from the consent obligation, according to CNIL. • Using fingerprinting means Piwik can track visitors with cookies disabled, or across different devices. However, it is not recommended for possible loss of accuracy.

Final Thoughts

- With cookie-consent laws in place, web administrators must ensure their websites' compliance. Best practices to follow are outlined in the CNIL guidelines.
- You need to notify your website visitors of using cookies and obtain their prior consent. There are exemptions from this rule, e.g. session or Piwik cookies.
- Expiry times of Piwik cookies abide by European regulations, whereas GA and UA require adjustment to be in line with the law.
- Both Piwik and Universal Analytics don't have to fully rely on cookies for data collection, due to measurement protocol (Google) and browser fingerprinting (Piwik). Nevertheless, they're not foolproof.

III.6 Privacy Settings

We have already sketched the basic difference in how Piwik and Google Analytics approach the concept of data privacy in [chapter II.3](#). In this section, we focus on the practical aspects, describing settings and options these platforms make available to website owners.

Privacy in Google Analytics: Steps for Action

1. **Pay close attention to Google Analytics' [TOS](#) and publish a comprehensive privacy policy on your website.** 7. Privacy states it clearly that you will have to post such information on your website, disclosing its usage to your visitors and explaining how it collects and processes data. Such notice will have to abide by all the applicable regulations and include information on cookies used for data storage. Where required by law, you will have to obtain your users' consent.
2. **Your organization may have to seek legal advice with regard to the renouncement of Safe Harbor and the changing European privacy regulations.** If you operate within the EU, you must ensure your clients' and employees' personal data is not received directly or indirectly in the United States or change your existing clauses to avoid fines⁸.
3. **There are a few settings website administrators can use to provide visitors with more choice on how data is collected by Google Analytics:**
 - **GA opt-out browser add-on:** Visitors who prefer not to be tracked by the GA JavaScript can install the opt-out add-on in their browsers. This add-on instructs the `ga.js`, `analytics.js`, and `dc.js` to stop sending visit information to Google.

⁸ Safe Harbor, its meaning for companies relying on transatlantic data flows, and advice on how to deal with its consequences, has been covered on the [Piwik PRO blog](#).

- **Disable GA and implement independent opt-out controls:** Website owners can also disable tracking on a page without having to remove the GA JavaScript snippet. They can build their own notification and controls for site visitors, or implement third-party privacy controls.
- **Ad settings:** Visitors can use [this panel](#) to opt out or manage their settings of the third-party DoubleClick cookie used for remarketing with Google Analytics.
- **Google Analytics SDK and Measurement Protocol notice and opt-out:** Google reminds that owners of any site, app, or other digital service making use of tracking via GA SDK or Measurement Protocol are obliged to provide notice with an opt-out choice to users (see point 1).
- **IP masking:** This method gives website owners the option to tell Google Analytics to use only a portion of an IP address, rather than the entire address. By default, GA uses the entire IP address of website visitors for geographic reporting. With IP masking, GA removes the last octet of the user's IP address prior to its use and storage.

Privacy in Piwik: Settings and Ideas

It is recommended to publish a comprehensive privacy policy with an explanation of how your website uses Piwik to gather and process data. A separate cookie-consent form for basic tracking is not compulsory.

Piwik settings are gathered in the [Administration > Privacy](#) available when you log in as a Super User. These are:

- **Automatically anonymize visitor IP:** Piwik ensures you do not store IPs by enabling IP anonymization. It gives you three levels of masking: 1, 2, or 3 bytes of your visitors' IPs. Anonymize Visitor IP also gives you the option to mark whether you want to use the Anonymized IP addresses when enriching visits.
- **Delete old visitors logs:** Piwik can be configured to automatically delete older logs from the database. This will help protect your and your users' privacy and also free significant database space, which will, in turn, increase performance. It is recommended to keep detailed logs only for 3 to 6 months.
- **Include a web analytics opt-out feature on your site (using an iframe):** All your website visitors are tracked by default, but if they opt out by clicking on the iframe link, a 'piwik_ignore' cookie will be set and all visitors with this cookie will not be tracked. Piwik will provide a snippet of code you can add to your existing privacy-policy page to actually allow your visitors to opt out of being tracked by your platform.

- **Respect DoNotTrack preference:** Unlike GA, Piwik by default respects users' preferences and doesn't track visitors who have specified "I do not want to be tracked" in their web browsers. Tracking all visitors can be enabled in the admin panel, but Piwik recommends enabling DoNotTrack support.
- **Optional privacy preferences:** A few other optional privacy settings you may want to consider as a Piwik administrator:
 1. HIDING SERVER URL
 2. DISABLE COOKIES
 3. DISABLE REAL-TIME AND VISITOR LOG

An upgrade to Piwik PRO enables access to a variety of premium features, including a selection of functionalities aimed at security and permissions management.

III.7 Security Settings

As the proverb says, better safe than sorry. In this chapter, we focus on how Piwik and Google Analytics compare in terms of security and measures they take to safeguard your analytics data. Comparing security of on-premises and cloud-hosted software may seem a bit like apples to oranges, therefore we present the most vital aspects of both options.

Piwik Community and Security

Piwik is designed and written to be secure by default. The Core Team makes sure all parts of Piwik's source code adhere to the PHP security checklist, and the community rewards experts for finding vulnerabilities, supporting and conducting professional third-party software reviews and regular internal code control whenever a change is committed to the codebase.

There are also a few best practices every administrator should follow to make their self-hosted Piwik platform and infrastructure more secure.

- Use the latest PHP, MySQL, web server (Apache/ Nginx), Operating System (Linux).
- Use .htaccess to restrict access to a few files only, and to restrict by defined IP address.
- Use a new MySQL username and password for your Piwik database.
- Install Piwik in a separate MySQL database.
- Use Piwik with secure and encrypted connections, always use over https://.
- Use the Piwik Security Plugin and set all Security Issues to green.
- Always keep Piwik up to date and subscribe to the Piwik Changelog

For a full discussion and further ideas, please check out our whitepaper on [Optimizing Piwik for Security and Performance](#)



Piwik PRO On-Premises and Security

With an upgrade to Piwik PRO On-Premises, you enjoy all the advantages of a self-hosted platform, with added benefits of:

- Setup, configuration, and security advice.
- Technical support, maintenance, 24/7 monitoring, and incident handling.
- Reaction times guaranteed in the service-level agreement (SLA).
- Access to premium features, such as Audit Log or Password Policy, for easier security and permission management in your platform.

Piwik PRO Cloud and Security

When using Piwik PRO Cloud, you receive all the benefits of an open-source platform with the ease of a secure cloud, as well as full control over where your data is located and under which jurisdiction:

Data Centers and Infrastructure	Services and Features
<ul style="list-style-type: none"> • Piwik PRO uses ISO 27001-certified data centers in Frankfurt, Germany, and Washington, DC. • Both data centers deploy multi-layered security policies, including: 24/7 video surveillance, alarm monitoring, keycard access, cabinets equipped with tumbler locks, perimeter electric fencing, and more. • Fire detection and suppression systems include VESDA, fire-resistant walls, and argon-gas extinguishers 	<ul style="list-style-type: none"> • The scalable, redundant infrastructure configured for security by the Piwik PRO engineers. • Replication of data into multiple database servers. • Data backups performed on a daily basis. • Proactive maintenance by software engineers and admins. • 24/7 monitoring and incident handling. • SLA with guaranteed reaction times in case of incidents

ISO 27001 is one of the most widely recognized, internationally accepted independent security standards.

Google Analytics and Security

The following measures are taken by the Google Analytics team to ensure your analytics data is secure at all times:

- **Google Analytics is ISO 27001-certified** for systems, applications, people, technology, processes, and data centers.
- **Security-dedicated engineering teams** at guard against external threats to data.
- **Internal access to data is regulated** and subject to corporate procedures.
- **GA data is also SSL protected and encrypted.**
- **Multiple-location data storage:** rather than stored in a database manner, segregated and collated for each customer separately, Google Analytics data is encoded and dispersed across a number of physical volumes.
- **A comprehensive disaster-recovery program** at all of its data centers includes components such as:
 4. Data replication to separate systems in different data centers.
 5. Geographic distribution of data centers with robust facilities.
 6. Resilient and redundant infrastructure.
 7. A continuity plan in the event of disaster.
- **Google Analytics 360 subscribers receive a SLA** with guaranteed reaction times. The Premium plan also involves support of product specialists who make sure tracking continues without interruption.



IV. Working with Data and Enhancing Your Analytics

IV.1 User-Level Reporting vs. Aggregated Data

Web-analytics platforms can track visitors on two different levels: a user level, which can be found in Piwik, or an aggregated level, delivered by both Piwik and Google Analytics. Both solutions come with great advantages.

While aggregated data provides a general outlook on trending and overall site performance, user-level reporting shows individual behavior and specific data about every single user. In this chapter we will compare both types of reporting and explain what you can expect when using them, also mentioning potential uses of individual tracking functionalities in e-commerce and marketing.

Use Aggregated Data to Identify General Trends

Both Google Analytics and Piwik provide comprehensive data about traffic and demographics. You can check the general health of your page and view various averages and summaries, known as aggregated data, but there is just an overall summary about your users' behavior and no specific information on the level of individual preferences of your visitors.

Aggregated data proves useful if you want to track overall performance of your website. For numerous metrics, such as conversion rate, bounce rate, or time spent on page, aggregated data will be more than enough. Unfortunately, you don't get any detailed information about particular users' locations, languages, visits, and many other metrics — just a summary. Most importantly, you will not be able to see the entire customer journey.

If you are not an advanced user, you may be satisfied with the aggregated-data approach. However, if your business relies heavily on web-analytics insights, you will need user-level reporting.

Use Individual Tracking to Run Personalized Campaigns and Understand Your Visitors

Piwik offers access to aggregated data, just as Google Analytics does, but it also lets you dig a bit deeper to fully capture the online behavior of an individual, and that's where user tracking comes in handy. [Editor's note: Google Analytics started to roll out a similar functionality in beta version in late March 2016, making it available to selected users⁹.]

⁹ [C Google Analytics' new User Explorer report shows individual, anonymized website interactions](#), The Marketing Land, April 2016.

Piwik connects user’s data collected from different devices and browsers focusing on a visitor’s individual behavior and data. All information will be reported under the User ID, unique for every visitor. Users of Piwik 2.0 or its higher versions get access to the Visitor Profile reports thanks to the user-centric reporting feature. Those logs give you a summary of all crucial information about a particular visitor’s actions on your website.

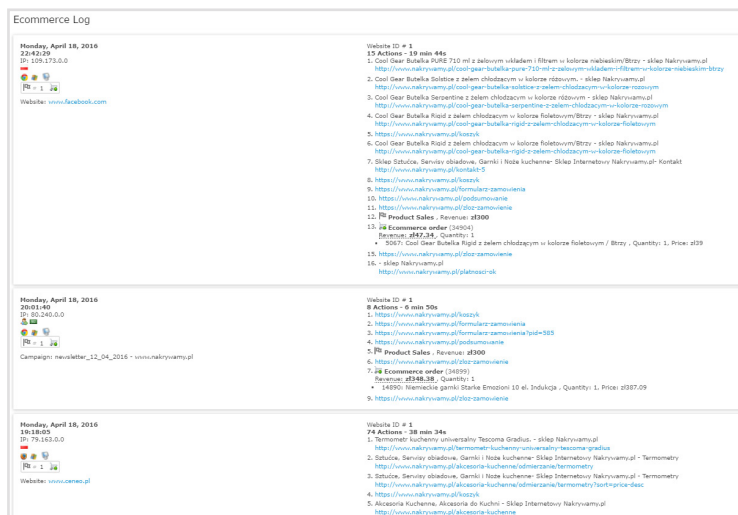


If you want to take advantage of user-centric reporting and stay in line with privacy regulations, you are obliged to inform your visitors about the way you record their data. Include a paragraph in your privacy policy explaining for what purpose you collect individual data.

For more information on this subject, read our free whitepaper: [Web Analytics for Data-Sensitive Industries.](#)



There is a powerful feature built around user-level reporting called E-Commerce Logs, useful for tracking individual’s preferences in online carts.



With Ecommerce Log you can easily browse your individual profiles of your online cart customers.

With this functionality you can browse individual user profiles of customers who bought particular products in your online store. Having this knowledge, you can create targeted marketing campaigns to put the right products in front of the right people and ultimately drive more sales. Moreover, you will see the whole customer journey of users who abandoned their carts. Therefore, you can view the whole history of one’s visits and interactions.

With that data in your hands, you can compare profiles of users who convert and those who abandon your acquisition funnel. This information may fairly enhance usability of your page, especially if you try to tie your buyer personas to the visitors' behavior.

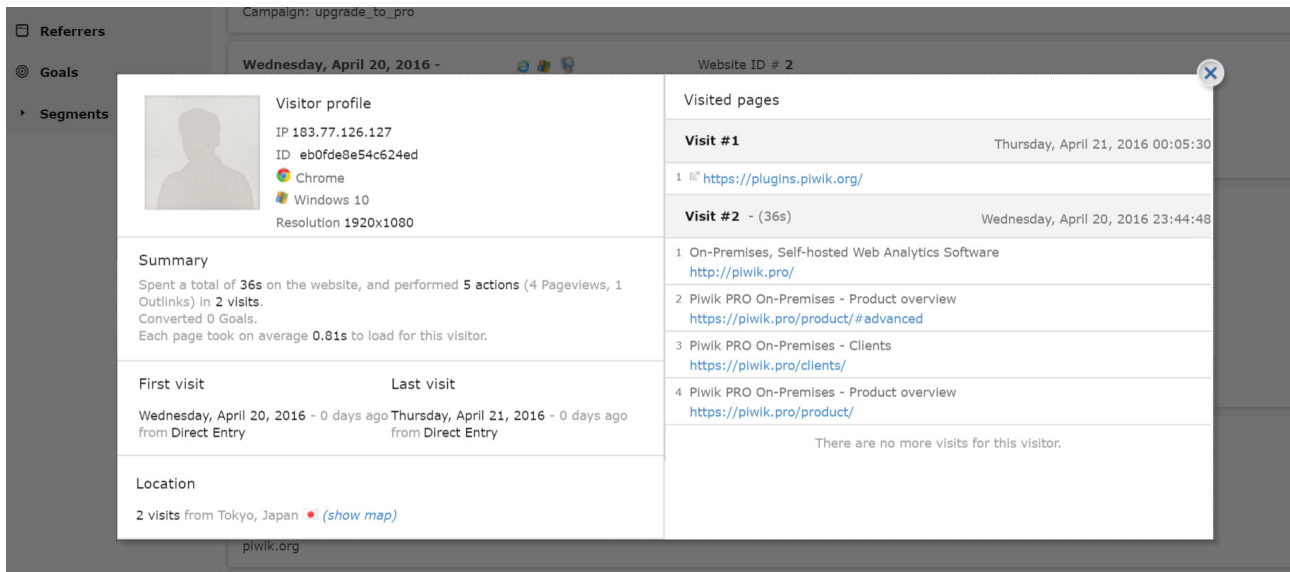
Note that with the free version of Google Analytics, you can set up funnels to track your visitor's interactions, but they will show you sequential stages of a customer who achieved particular goals in one visit only; this data will still be aggregated, and GA doesn't allow segmentation inside the funnel. Piwik offers funnel analytics as a premium feature for all Piwik PRO subscribers. The Piwik funnels feature retrieves all past interactions, no matter how much time it took your users to achieve your goals.

Last but not least, user-level reporting is also a huge advantage when you contact your leads. You get access to valuable insights of prospective clients' behavior on your website. This knowledge may come in handy during a phone call or when preparing a personalized offer for your client.

Using Visitor-Level Reporting	
<p>You will be able to answer some important questions...</p>	<p>You will get some detailed, individual data:</p>
<ul style="list-style-type: none"> • Why did your visitors view your website? • Why do returning visitors continue to view your website? • What are your specific visitors looking for and how long does it take to find? • Which products will attract particular users? • Which users are most likely to become sales leads and when? 	<ul style="list-style-type: none"> • IP address - if you decide not to mask it • Referring page • Visitor's visits list with details about every visit • Total amount of time spent on your website • Number of visits and pageviews performed by a user • The date of first and last visit • Location • Browser • Screen resolution • Converted goals • Total amount of money the visitor spent on your website • Page loading time for a particular visitor • Each visit referrer

Final Thoughts

- Aggregated reports are the ones you probably work with on a daily basis. They are available both in Piwik and Google Analytics.
- User-level reporting gives you a detailed view on an individual visitor’s needs for better understanding of your existing and prospective clients. This type of tracking is available in Piwik.



Piwik’s Visitor Log is an example of user-level reporting.

IV.2 Data Sampling

We have already mentioned Google Analytics’ issues with data limits and subsequent sampling. As a self-hosted platform, Piwik lets you store as much data as your infrastructure can support, thus reports are always based on full traffic. In this chapter, we focus on what data sampling may mean for your business and possible workarounds.

The Challenge of Data Sampling

Sampling is a method commonly used in statistics. In web analytics, it means a subset of data is used to identify and predict trends and patterns for all of your traffic. It assumes that by analyzing just a set of data, you are able to get accurate insights. It can give precise results, but only if the selected set happens to be a good representative of all information. However, as your data is aggregated and delivered to you as a random set of rows, you cannot be sure if your reports are complete or missing the point.

Sampled data may lead to misguided decisions. Of course, it depends what the discrepancy is between complete traffic and a sampled-data report. If your reports are based on 90% or more visits, the difference will not be significant for most metrics. However, when the number is less than 10%, you may assume your insights are way off the mark.

If you need your analytics to monitor only basic trends, you shouldn't worry too much about sampling, but if your revenue and business rely heavily on getting the full picture, you need solid figures.

When you present results of your marketing efforts to your customer, you need to be specific, too. That means you should not rely on anything less than 100% traffic data when making business decisions. Still, you can treat sampled reports as a suggestion of direction to follow, but keeping in mind their accuracy is likely to be decreased.

Sampling in Google Analytics

The amount of data stored by Google Analytics is astronomically high. To process all of it, Google had to introduce limits on the amount of data you can process using their tool. Exceeding the allowance of hits may mean trouble with access to your insights; thus, resorting to data sampling is necessary. Note that you always get complete data when it comes to visits or pageviews or if your website attracts a low volume of users. The issue begins when you hit particular limits and apply advanced segments such as revenue, conversion rate, and many others.

In the free version of Google Analytics, sampling occurs when you hit 250,000 sessions per month. You can increase this limit to 500,000, but it will affect the loading time of reports. For GA 360 subscribers, the limit is 25 million and when it is exceeded, you will face sampling and therefore may get unreliable insights.

Every time you confront this issue you will be informed with a notification at the top-right of your view: "The report is based on x visits (x% of visits)." Sampling rates vary from query to query and according to the number of sessions included in the selected date range, you receive a different value.

Google Analytics provides users of its paid version with a solution to this problem. You can export an unsampled report and enjoy your full traffic information. Unfortunately

there is no quick fix to display complete reports by default, which may impede your workflow.

Piwik's Approach to Sampling

We've already mentioned that with Piwik you have access to unsampled data at all times. You are the only owner of retained information, so the amount of data you process depends on your infrastructure capacity. If your power servers cannot handle all of your data, you can upgrade your community version to Piwik PRO On-Premises, or switch to a hosted Piwik PRO Cloud with flexible pricing plans from 25 euros a month.

Final Thoughts

- Discrepancies caused by sampling may be significant, reaching even 80% between tracking tools. A level of 5% discrepancy between tools is deemed acceptable.
- Only with complete set of data can you be 100% confident your reports are correct. Don't rely on anything less than that when making business decisions.
- Google Analytics users experience data sampling when they hit the limit of 500,000 actions per month. If you regularly hit that limit, you may want to consider upgrading to Google Analytics 360, with a threshold of 25 million of unsampled data.
- Using Piwik, you always get 100% unsampled data, no matter if you are using the community version, PRO On-Premises, or PRO Cloud. Please note that actual pricing may depend on the premium plan you select.

IV.3 Approaches to Customization

Every business is unique, thus at some point you may have to adjust your analytics tool to your particular requirements. There are many ways to achieve this goal, from customizing your dashboard ([see chapter III.3](#)) to adjusting the way your data is displayed or changing the look of your platform to satisfy your organizational needs.

Piwik and Google Analytics present different possibilities, and here's a brief overview to help you choose what's best for your organization. Starting with a general comparison of how these two platforms can be customized, we then proceed with a discussion of customizing reports. We finish with an overview of ways to adjust Piwik and GA's look and feel, useful for organizations that would like to replace the soft vendor branding with their own corporate identity system.

Customizing the Platform

Google Analytics	Piwik
<ul style="list-style-type: none"> You cannot modify or adapt the code — it belongs to Google. Google Analytics is the most popular software, meaning there are many external add-ons and integrations ready to use. Some may incur extra fees. Although GA's range of features is quite complex, you may need to create custom reports to get to the bottom of your website performance. For users with more advanced needs, it may be recommended to incorporate data directly from the APIs into their own set of reports developed and adjusted to only show the graphs they require. You can also consider using custom dashboards such as Cyfe (already mentioned in chapter III.3). 	<ul style="list-style-type: none"> Piwik is easy to customize due to its open-source nature. You are free to use and adapt its code for your particular needs, although it may require some technical skills. An expanding list of free integrations includes popular CMS and CRMs, forums, e-commerce sites, intranets, etc. You can easily add new functionalities developed by the Piwik community. They are available for free on the Marketplace. With an upgrade to the PRO plans, you also access premium features as well as customization. You can customize Piwik via the config file or a custom PHP bootstrap.php. You can also call Piwik APIs to access all your analytics data and manage websites, users, permissions, settings, etc.

Customizing Reports and Comparing Metrics

Sometimes data you need is scattered around separate locations, making it difficult to analyze and identify trends. For more precise insights, you may need to combine some metrics.

Google Analytics	Piwik
<ul style="list-style-type: none"> Google Analytics allows you to create custom reports in a quick and easy way via the Customization tab of your Analytics service. Pick the dimension and metrics you require and then decide how they should be displayed. You can edit, copy, delete, or share individual reports. You can also make use of Custom Dimensions, allowing you to combine Analytics data with insights from external sources, e.g. CRM¹⁰. 	<ul style="list-style-type: none"> There is no single custom-reports functionality, but you can track correlations between different metrics and segments. Row Evolution lets you check how metrics for a particular row performed over time, with the option to plot other metrics and compare them on a single graph. Custom Variables and Dimensions let you assign custom data to your visitors or actions to visualize information on how many hits there were for each specified dimension. Piwik PRO plans include a Comparison Dashboard, which lets you compare selected data from up to three different segments in one place.

¹⁰ Custom dimensions are the new custom variables: they should be used in Universal Analytics where custom variables are used in the classic GA ga.js library. More on the [Google Analytics Help](#).

Customizing the Look and Feel

You may want to adjust the look and feel of your analytics to match your corporate identity system, or completely replace soft vendor branding and change what your tool looks like. The white-label feature is popular among enterprises and web agencies in need of providing bespoke solutions to clients.

Google Analytics	Piwik
<ul style="list-style-type: none"> You can adjust the dashboard layout to your particular needs or even import one with preset metrics. There is no direct way to change the overall look and feel of your interface. Neither the free Google Analytics nor the upgraded version give you the option to override GA branding with your corporate identity elements. To create a branded and fully customized dashboard, you need external tools such as Cyfe (already mentioned in chapter III.3). 	<ul style="list-style-type: none"> You can customize the Piwik logo, which will be displayed as a favicon in the user interface and email reports. Different themes are available freely from the Marketplace. You can also create your own theme and share it with the community. Piwik PRO customers can take advantage of the White Label functionality, enabling you to completely rework the look and feel of your service by adjusting the color scheme and fonts, inserting your business's name, etc.

IV.4 Dealing With Referral Spam

Referrers is an important group of reports presenting segments of traffic coming from external sources. However great, this feature may become almost useless due to referral-spam issues, which fill your reports with fake data. Instead of valuable insights, your reports may be skewed with numerous URLs linking to somewhat suspicious sites, improving their SEO through backlink building.

Since referral spam can infer serious damage to your insights, in this chapter we discuss the risks, and then move to a comparison of what Piwik and Google Analytics do to reduce its negative impact on your data.

Referral Spam in a Nutshell

It all starts with spam bots, designed to detect weak websites, exploit their vulnerabilities, and send fake referrer information, including their domain name. Some bots are more malicious than others and can harvest emails, commit click fraud, or even install malware. Others may use botnet — a network of infected computers — to access your website from many different IPs. That's why IP blacklisting may not be enough in terms of fighting the problem; it can also cause accidental block of real traffic.

All websites may receive some bogus traffic from time to time, but it should be a red light if you continuously notice high levels of suspicious links in your reports. Referral spam is on the rise and some bots may be crawling your website unauthorized, using your server resources and damaging your page-loading time. As a result, you'll experience a higher bounce rate and lower rankings in search engines.



Spam bots not only skew your reports, they may affect your website's loading time and therefore cause higher bounce rate and damage to your SEO. Some can also add your computer to a spamming network without your knowledge.

How Piwik and Google Analytics Approach the Problem

If you use more than one platform for web analytics, you'll sooner or later spot [discrepancies in the referrers results](#). One reason for this is that web-tracking tools approach this problem in a variety of ways. Both Piwik and Google Analytics try to stem the tide of the spam-referral problem.

Referral Spam in Piwik

As an open-source solution, Piwik has the advantage of maintaining a community-run and continuously updated blacklist of spammers.



Both its core team and contributors report new spam sources, and their findings are added to the platform's blacklist with every software release. The current version of Piwik (2.16) includes a record of over 300 referrer spammers.

Keeping Piwik up to date means most spam will automatically be excluded from your reports, yet some new or less-popular bots can slip through the shield. Piwik users can report them so they are blocked for everyone. For websites attracting high traffic, this is not harmful. However, even small spammers will be a problem for websites with few visits.

Referral Spam in Google Analytics

This issue is more complicated in Google Analytics. The platform offers its Referral Exclusion List as a way to combat spammers. It has, however, turned out problematic. Instead of deleting fake traffic, spam users and sessions are added to different referrals of your website. Fortunately, there are plenty of user-generated guides to help defeat spam issues, although a majority of them will require some technical know-how, as well as time and resources, and the end results are often far from satisfying.

Adam Singer, one of the Analytics advocates, confirmed in June 2015 that Google was on the case of referral spam. It will nonetheless take some time before it is in place.

Final Thoughts

- Spammers use other websites for web indexing, promotion, and SEO. There is no single universal solution.
- Negative effects include skewed data, longer website-loading time, higher bounce rate, and subsequent damage to your SEO.
- The Piwik community is constantly updating the spam blacklist, so its reports are almost 100% spam-free.
- Google Analytics is still looking for a fix, as the Referral Exclusion List failed to solve it.

IV.5 Premium Functionalities and Services in Piwik

With enterprise-level organizations in mind, both Piwik and Google Analytics introduced premium plans with extra functionalities and services. In this chapter, we compare details of their upgrades and discuss premium integrations, as well as technical support and other included services.

Overview

Google Analytics 360	Piwik PRO
<ul style="list-style-type: none"> • The free version of Google Analytics comes with data limits and sampling. Upgrading to 360 lifts those limits and provides full data ownership. • You also get technical support from the GA team, a service-level agreement, and guarantee of 24/7 data access. • Upgraded GA comes with a handful of integrations (BigQuery, DoubleClick and other Google products). • There are no other extra functionalities, apart from Custom Funnels (currently in beta). 	<ul style="list-style-type: none"> • An upgrade to Piwik PRO includes both self-hosted and cloud-hosted plans with full data ownership and no sampling. • Piwik PRO On-Premises involves assisted setup and configuration of the analytics platform on your infrastructure, whereas Piwik PRO Cloud offers secure hosting. • All subscribers receive technical support from the PRO Team, a service-level agreement, and 24/7 monitoring and maintenance. • All premium plans include a variety of features and integrations, e.g. Funnels, White Label, and Sharepoint Analytics.

Premium Features

An upgrade to Google Analytics 360 brings no extra features, while Piwik PRO includes a few to improve your insights. However, many of the functionalities offered by Piwik PRO are already available in the free Google Analytics version.

Google Analytics 360	Piwik PRO
<ul style="list-style-type: none"> • Funnel Visualization is available in the free GA version, giving you an overview of the selected goal-conversion funnel by showing the numbers of entrances and exits on each step. <p>Custom Funnels available in the paid version of GA let you use any dimension in a funnel rule, which let you specify whether the stage should include or exclude hits matching a particular value.</p> <ul style="list-style-type: none"> • Feature similar to Campaign Reporting is available in the free Google Analytics version. • Feature similar to Click Path is available in the free Google Analytics version. • Google Analytics does not offer similar feature to Concurrent Visits. • Google Analytics does not offer similar feature to Comparison Dashboard. • Feature similar to Metasites is available in the free Google Analytics version • Feature similar to Mobile App Store Analytics is available in the free Google Analytics version. • Google Analytics does not offer a similar feature to White Label. 	<ul style="list-style-type: none"> • Piwik Funnels provide a clear visual presentation of how your users, prospective, and existing customers move through any series of events. You can also filter the funnel view by the Advanced Segments available in the Community Piwik version. Compare your funnels between segments and websites using the Comparison Dashboard. • Campaign Reporting lets you track up to five extra campaign parameters to get more information about the effectiveness of your marketing campaigns. • Click Path helps you understand how users converted to goals by showing which "paths" on your website they followed. • Concurrent Visits presents how many visits your website records over a short period of time to choose the best moment to add new content or products in order to increase their exposure. • Comparison Dashboard allows you to view and compare the most important data from up to three different segments all in one place. Gain deeper insights to attract more traffic and increase conversion. • Metasites let you gather data from thousands of your websites tracked with Piwik to get a clear overview of all or part of your websites in one place. • Mobile App Store Analytics show how your mobile app is used, but also provides insights into how it's performing against your competitors in the app stores. • White Label allows customization of the look and feel of your Piwik service by personalizing the color scheme and fonts, inserting your business's logo, and replacing all mentions of Piwik with your business's name.

Premium Integrations

The majority of integrations available for Google Analytics are available in the free version of the tool, while 360's upgrade expands the list with some useful add-ons. The community version of Piwik offers a wide range of [integrations](#), but the platform doesn't yet integrate with Google tools, with the PRO Team working on the Adwords integration.

Google Analytics 360	Piwik PRO
<ul style="list-style-type: none"> • DoubleClick Marketing Stack - this integration lets you measure the impact of your advertising efforts on goal conversions, as well as build and share audience lists inside GA. • BigQuery - a native GA 360 integration designed to deal with huge amounts of data. With BigQuery you can easily move any data stored across different software. • Adometry- this integration makes use of more complex algorithms to determine which touchpoints are the most effective. You can get insights into Multi-Channel actions due to Data-Driven Attribution. Useful for assessing the role of prior referrals, searches, and ads in your conversions and sales. 	<ul style="list-style-type: none"> • SharePoint - this integration provides you with deeper insights into all usage areas within your SharePoint service so you can learn more about the productivity and engagement of your users. • Confluence - an add-on for powerful analytics of your team collaboration on the Confluence platform. • Shopify - use this integration for actionable insights into performance of your e-commerce shop. • WooCommerce - seamless integration of your Piwik PRO Cloud or self-hosted service with the WooCommerce platform for powerful insights.

Technical Support and Other Services

Continuous support is crucial to ensure continuity and security of your analytics service.

Google Analytics 360	Piwik PRO
<ul style="list-style-type: none"> • Support and Monitoring - with an upgrade to GA 360, you will get implementation assistance as well as ongoing 24/7 phone and email technical support. Continuous monitoring and safeguarding procedures are included as in the free GA version. • Training - besides numerous online training courses available both freely and for a fee, GA 360 experts provide ongoing training concerning all premium-related topics for its clients. Onboarding is included. 	<ul style="list-style-type: none"> • Support and Monitoring - you will receive any help with configuration, setup, or increasing server infrastructure performance. Email and phone support on an ongoing basis. 24/7 monitoring and maintenance help to exclude any issues. • Training - Piwik PRO subscribers can participate in User or Technical Training sessions, available both online and on the client's site. Piwik is continuously expanding its library of tutorials and user guides.

Google Analytics 360	Piwik PRO
<ul style="list-style-type: none"> • Account Manager - all customers get their own Account Manager for day-to-day contact. • Service-Level Agreement (SLA) - GA guarantees 99.9% collection uptime. If you use Google Tag Manager, it is also covered under SLAs. • Additional Resources - GA owns a comprehensive support section for freemium and premium users. Moreover, as an undisputed leader in its niche, it is easy to find an answer to any question concerning GA. 	<ul style="list-style-type: none"> • Account Manager - Piwik PRO clients get their own Account Manager for day-to-day contact. • Service-Level Agreement (SLA) - Piwik PRO assures 99.9% data collection uptime and guaranteed reaction times to issues. • Additional Resources - the Piwik team, along with its community, has published many guides on the www.piwik.org website. Furthermore, premium users get access to video tutorials and other valuable resources.



V. Concluding Remarks

V.1 Before You Choose...

*Which software should I choose?
Which platform will best satisfy my organizational needs?
What features should I be looking for?*

Choosing a web analytics tool is a critical process: if you choose right or wrong, you will be with the platform for a while. It's definitely a long-term project, with high human and financial costs. At this stage you probably have already documented your organizational requirements, reviewed some of the numerous tools available on the market, and narrowed down your options to just two contenders. When it comes to the final decision between Piwik and Google Analytics, there is still no one easy answer.

However, you can align your organizational requirements with this set of criteria¹¹, and reaching the final decision will become easier:

1. Connectivity and Integration

How easily can the selected web analytics integrate with the rest of your digital setup? Is there an authorized and ready-to-use integration available? [See chapter IV.3.](#)

2. Professional Services

What range of services will you get with the premium tool you purchase? What costs will it incur? Will you get a dedicated project coordinator? [See chapter IV.5.](#)

3. Data-Storage Options

Do you have resources to host the tool on your infrastructure? Does your on-premises come with assisted setup and updates, or is a cloud-hosted tool a better option for your needs and capabilities? [See chapter II.2.](#)

4. Legal Compliance

Does your service provider show they respect the legislation regarding data collection and protection? Does the tool enable you to comply with current and forthcoming privacy regulations? [See chapter II.3](#) and [chapter III.6.](#)

5. Real-Time Analysis

What options for real-time reporting are available in the tool? Is it able to provide real-time insights in all areas relevant to your business? [See chapter III.4.](#)

6. Documentation, Language, and Support

How much support can you get from the service provider and other users? Are documentation and guides available to users and do they come in your language? [See chapter II.1](#) and [chapter IV.5.](#)

7. Existing and Future Costs

What is a rough estimate of the costs associated with your solution for a period of 3 years? What are data limits and how does traffic volume change your pricing? Are the features you require included in the bill, or will they incur an extra charge? [See chapter III.2](#) and [chapter IV.5.](#)

¹¹ This approach is inspired by Bernard Segarra's text, [How to Get Started with Choosing Web, Mobile and Marketing Analytics Software](#), originally published on Oct, 6, 2015 on Efficmazing.com.

8. Supplier and Software Reliability

Is continuity of your tool and services guaranteed? Do you know the vendor's past experience and condition? Do you know what happens to the tool if the provider ceases to exist? [See chapter II.1.](#)

9. Features and Tracking Types

What objectives do you want to reach with the tool? Which metrics, reports, and types of tracking do you require? Are they available in the platform of your choice? Does the tool let you monitor your KPIs with increased efficiency? [See chapter III.4](#) and [chapter IV.5.](#)

10. Service-Level Agreement

Can the tool provider commit legally to their service and performance level? Do you receive guaranteed reaction times in case of all types of incidents? [See chapter IV.5.](#)

11. Data Ownership

Can you retrieve any data collected and stored by the tool? Do you keep full control over your analytics data? [See chapter II.4.](#)

12. Trial Option



Is it possible to test drive a full version of the tool, with all extra features and services? See especially: Free trial of [Piwik PRO Cloud](#) and [Free Cloud Platform](#) (only available to business users).

That's all! We hope this whitepaper will help you make the right decision.

About Piwik PRO

Piwik PRO is a company established by the creators of Piwik – the leading open-source web-analytics platform. That’s why we know the ins and outs of Piwik better than anyone else and use our expertise to deliver enterprise solutions to governments and businesses requiring full privacy compliance and 100% data ownership.

- **Piwik Setup, Configuration and Updates**
 - **Support and Maintenance**
- **Premium Functionalities and Integrations**
- **Consultancy and Custom Development**
 - **Training**

 <p>Piwik PRO On-Premises</p> <p>Premium web analytics, enterprise-level support, and consultancy for organisations requiring on-premises solutions.</p> <p>REQUEST A DEMO</p>	 <p>Piwik PRO Cloud</p> <p>Secure cloud-hosted web analytics with a variety of premium features, updates, support, and maintenance.</p> <p>START 30-DAYS FREE TRIAL</p>
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Find out more: piwik.pro

They were very professional and delivered within budget and timeframes. The resulting implementation is perfectly integrated with our web environment both in terms of look and function.

Our users have been very impressed with our Piwik-based web-analytics solution.

Étienne Beaulé Chief, Application Platforms, Government of Canada

Not sure where to start? Piwik PRO is here to help you!

CONTACT US