

# A Shortcut to Your Own Game Insights Platform

The game developer's blueprint to unlocking deeper insights with turn-key data solutions.

```
game_id: 999999,  
  
{"session_num": "3",  
 "session_id": "1cc0dc37-294a-46ad-853b-4d46f3ed86cf",  
 "platform": "ios",  
 "os-version": "ios 11.0",  
 "manufacturer": "apple",  
 "event_id": "Source:Coins:Reward:Muscle",  
 "custom_03": "Regular",  
 "custom_02": "Journalist",  
 "custom_01": "TestGroupB",  
 "country_code": "US"  
}
```

#### Group Query

```
{  
  "interval": "2020-08-01/f...",  
  "granularity": "day",  
  "query": {  
    "type": "group",  
    "dimension": "country_code",  
    "limit": 3  
  }  
}
```

#### Player Warehouse

Standardised and ready to query data aggregated on event and device levels for in-depth analysis of player behaviour

ID	Revenue
32DFFSXR4G	\$323
89DEESZT2C	\$280
...	\$229
...	\$201
...	\$170
...	\$142
...	\$123
...	\$98
...	\$56

#### Funnels

Completion rate 43%



## Contents

# What's inside?

Explore this guide to transform your data into insights using our turn-key data solutions.

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## Overview

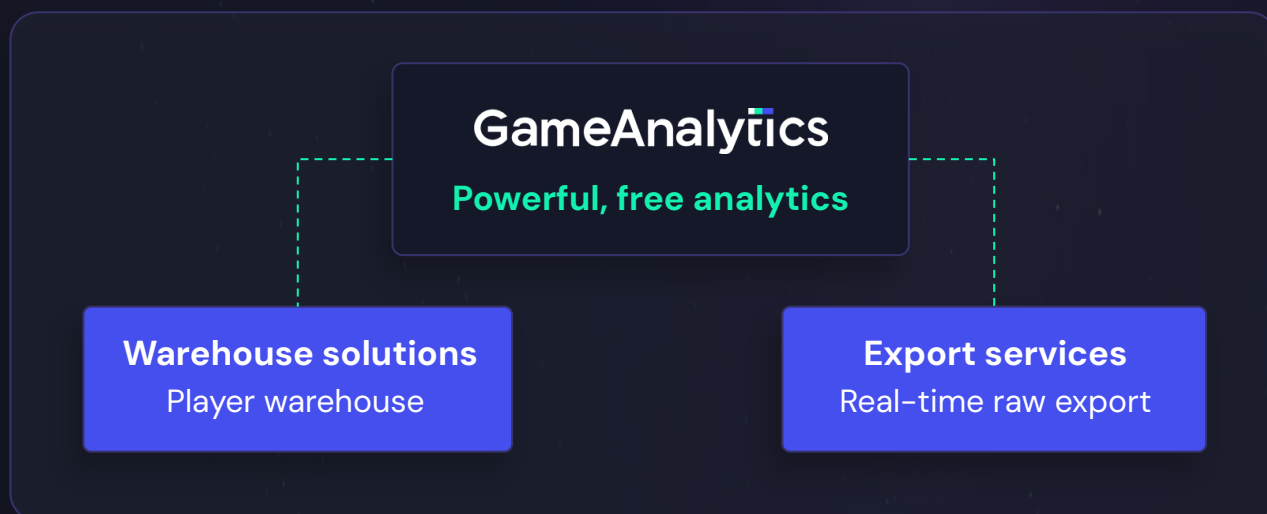
# Your data, your rules

**Today's successful studios are driven by data in all areas — from testing prototypes, to game economy balancing and monetization. GameAnalytics helps studios thrive by tapping into this data at every stage.**

**Our analytics solutions are budget-friendly compared to market alternatives, and our web tool is packed with features that help studios on their growth journey. However, as studios scale, reporting flexibility and data ownership become more crucial.**

That's why we offer a versatile package of tools that help you access and extract event-level data, player-level data, and raw data from our web platform. This frees you from the limitations of black-box analytics solutions and helps you to bring your reporting in-house, driving your studio's success.

With our affordable warehousing solutions and export services, any growing game studio can establish its own proprietary reporting pipeline. Integrate one of our official SDKs for all major engines and environments, then access player and event-level insights with unmatched detail. It's like having an in-house data engineering team, but at a fraction of the cost.



## Why a data pipeline?

# Turn data into insights

Even with the solid features of our web tool, there comes a point where you'll likely want more customization. Web-based solutions can sometimes be restrictive, confining data and limiting reporting flexibility. This leads many to build in-house data solutions.

While many aspire to such a setup, the journey often involves high infrastructure and engineering costs, lengthy development cycles, and challenges in delivering expected business value on time. In the long term, this may lead to hard-to-maintain codebases and, as your studio or games scale, hefty bills from cloud providers due to data processing inefficiencies.

In comparison, our data tools gives any team a turn-key data warehouse or data lake which works at scale, at low cost, and where data from external sources like mediation and attribution platforms can be combined. This quickly enables your BI team to perform custom analysis and improve your decision-making.

With our data tools, you bypass the usual challenges and pitfalls, gaining the data flexibility you need in just a few hours. Say goodbye to the headaches of infrastructure setup, maintenance, scaling, and the engineering complexities typically associated with data collection and transformation. We handle the heavy lifting—from building custom SDKs and collecting data to processing and bug fixing—all in a privacy-compliant package from GameAnalytics.

**“The data tools that GameAnalytics offer are incredibly powerful. We now have access to an enormous amount of data through BigQuery. It requires some good knowledge of SQL, but it’s the way to go if you want to dig deep into the product and what happens to these users. Once you understand the different databases and workflow, you can get incredibly granular and hone in on any specific point in the game.”**

**David Smit**  
CPO at Roamer Games



## Solutions Breakdown

# How it works

## Platform overview

Our data tools are packaged into two distinct offerings: Player Warehouse and Raw Export. Let's explore their functionalities.

### Player Warehouse:

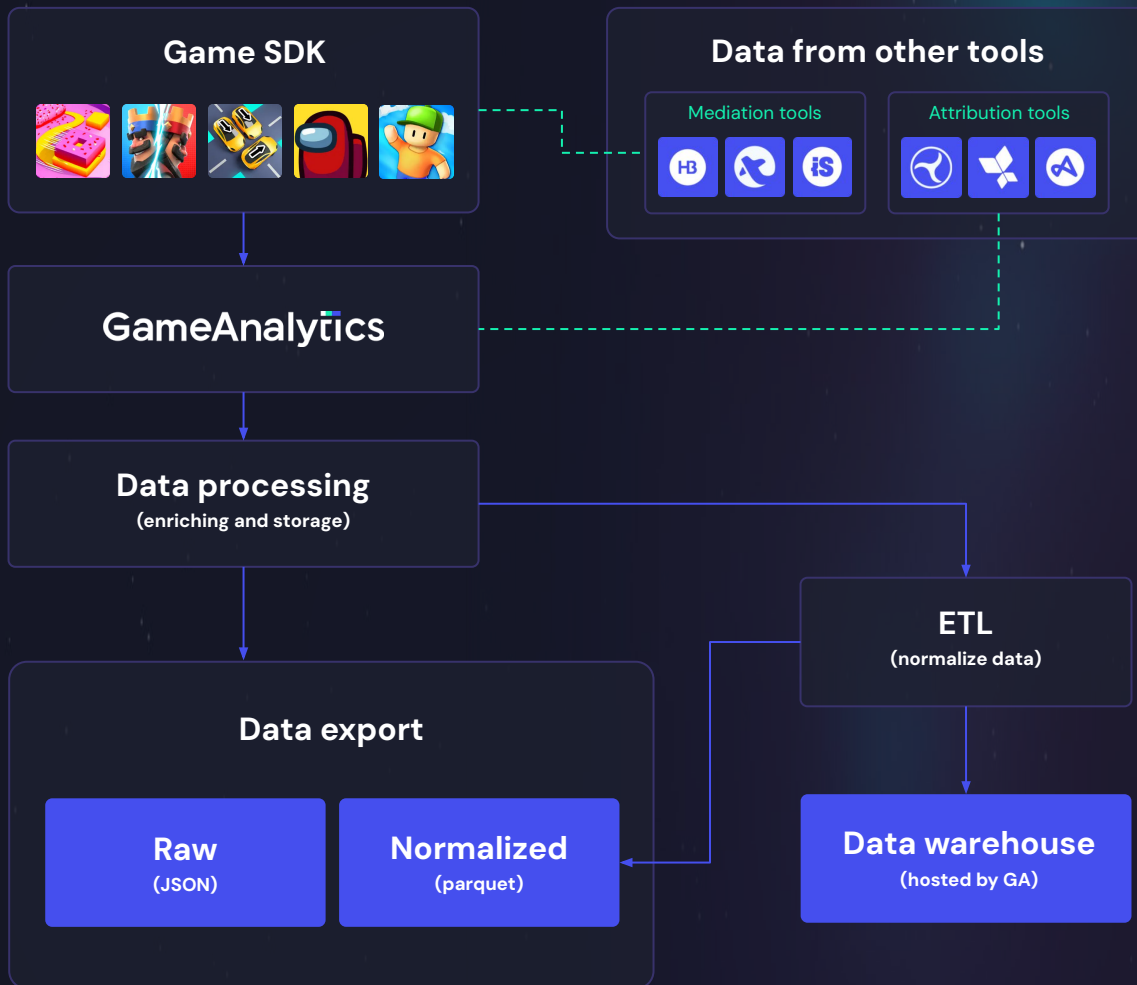
Your data is pre-aggregated and made available in SQL or Parquet format, ensuring compatibility with leading platforms like Redshift, BigQuery, Snowflake, Spark, and most other popular SQL-powered data tools. The data undergoes batch processing, ensuring it's primed for analysis, so you can quickly run advanced player and event-level queries directly.

### Raw Export:

Prefer your data straight up, without any predefined schema or aggregations? Raw Export delivers your data in pure JSON format. It reflects all the custom fields, events, or dimensions you've chosen to collect through our SDK, offering a rich, unstructured playground of data. Raw Export streams data in real-time, letting you catch the action as it happens.

## Solutions Breakdown

# How it works



This setup means that GameAnalytics takes care of most of the heavy lifting and slashes the need for engineers specialised in distributed systems and big data processing, freeing up your analysts to dive straight into the data, or easily integrate with their BI tools.



While our platform comes with a predefined schema, both Player Warehouse and Raw Export let you ramp up the customization with 50 additional custom fields, compared to 3 available in the web tool.



Unlocking possibilities

# Choose Smart, Save Big

The costs associated with building and maintaining a custom data infrastructure can quickly pile up when you factor in the need for specialist engineers, robust servers, and continuous system upgrades. Our data tools offer a cost-effective alternative that significantly trims down many of these associated expenses:

## **Specialist engineers**

Building a custom data infrastructure demands a team of skilled data engineers. Maintenance, troubleshooting, and upgrades require ongoing technical support, adding to the cost.

## **Compliance and security**

Ensuring your system complies with data protection, changing privacy regulations, and maintaining high-level security standards is crucial but costly.

## **Scaling**

As your games gain traction, scaling your data infrastructure to handle increased traffic requires additional investments and valuable engineering time on admin.

## **Software and licenses**

Acquiring the necessary software and licenses for data analysis and storage can be pricey. Managing and upgrading software to meet evolving needs adds to the overall cost.

## **Infrastructure**

Establishing your own servers and ensuring they run optimally incurs substantial costs. The overhead of managing, scaling, and securing your infrastructure is a continuous expense.

## **Development time**

Developing a bespoke data solution from scratch eats into valuable time that could be channeled into game development. Resolving bugs, system failures, and ensuring system compatibility are time-consuming tasks.

## Advanced use-cases

# Unlocking possibilities

With this event-level data provided by GameAnalytics, our partner studios have tapped into many transformative use cases.

### In-House BI Tool Development

#### Custom Tool Creation

Design proprietary BI tools, finely tuned to interpret your game's unique data, leading to more informed decision-making.

### AI/ML Deployment

#### Predictive Churn Analysis

Use machine learning to predict when players might leave, allowing for timely actions to boost retention.

#### LTV Predictions

Build predictive models to estimate the lifetime value of players, invaluable for optimizing marketing spend and evaluating overall game health.

#### Anomaly Detection

Spot unusual patterns within game data that might signal bugs, fraud, or areas that need a tweak.

#### Player Segmentation

Use clustering algorithms to segment players based on behavior, spend, engagement, and other factors, enabling more personalized marketing and game experiences.

### Live ops Activities

#### Dynamic Segmentation

Set up segments and trigger in-game interactions or offers based on real-time data, enhancing engagement and monetization.

#### A/B Testing

Run A/B tests to check out different game features, offers, or marketing strategies, using real-time data to make quick, informed decisions.

#### In-Game Offer Optimization

Utilize ML to dynamically tweak the timing and content of in-game offers, maximizing revenue and player satisfaction.


#### Cross-Promotion Strategies

Craft data-driven cross-promotion strategies to move players between titles, maximizing the lifetime value across your portfolio of games.



# Integrations

Another key advantage of this setup is that you can connect your product data with various sources, including mediation, attribution platforms, and your go-to BI tools — all in one place.

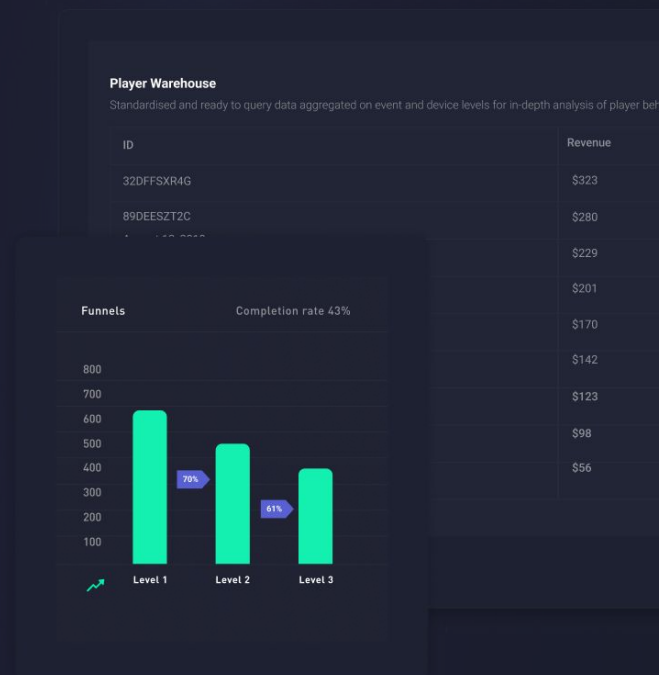
 Looker aws Google  
Big Query Metabase Power BI + a b l e a u holistics Google  
Data Studio APPLOVIN  
MAX AdMob tenjin singular KOCHAVA★ AppsFlyer +[All integrations](#)[Documentation](#)

# Player Warehouse

## Your own bespoke data workbench

Consider Player Warehouse your tailored data hub. It's a centralized warehouse with analytics data from all your games, neatly stored in a managed BigQuery instance. The data here isn't just thrown in a heap; it's pre-processed and organized, ready for you to venture into advanced analysis and reporting.

Give your analysts the freedom to run advanced SQL queries on gameplay events without waiting for engineers to craft custom SDKs, data pipelines, or storage infrastructure. Data is updated and ready for exploration daily.



With Player Warehouse, you get a year-long access to player level historical event data, reaching back to previously collected data.

# Streamlined data, ready-to-query

Your data is bundled by either device ID or event ID, refreshed daily in a standard table format, and housed in Google BigQuery. The charm here is that the data has already gone through the stages of collection, transformation, and processing. Once it lands in BigQuery, it's ready for immediate querying with SQL by your product, analyst, or data teams.

## Benefits:

- Delve into advanced queries with SQL
- View your data at both event and player level
- Blend data from multiple sources
- Download your event data whenever you wish
- Access your data programmatically
- Look back on your historical data up to a year ago



If BigQuery isn't your preferred system, we offer the choice to export to AWS S3 in Parquet format, making it easy to load data into any warehouse. Plus, the data is prepped for cost-optimized querying, thanks to clustering and partitioning.

## Use cases



### Custom User Profiling

Harness the power of data with machine learning and AI models to craft lookalike user profiles. This data-driven approach fuels your programmatic bidding strategies, helping you spot high-value users from cost-effective inventories and boosting player-level margins.



### Advanced Behavior Analysis

Dive into event-level tables to see patterns in user interaction. Discover links between specific events and ad views or IAP conversions.

For instance, if your game levels are randomized, you might unearth a sequence of levels leading to higher earnings or better retention rates per user. And that's not all—you can get creative with custom A/B testing results analysis too.



### Audience Segmentation

Armed with insights on playtime, spending, progression, and virtual currency usage, Player Warehouse hands over the key data points you need. Create precise audience segments for any initiative—be it cross-promotion, re-engagement, retargeting, or offer targeting, and hit the mark every time.



### Device-level ROI Analysis

Merge device-level ad revenue and IAP revenue data from Player Warehouse with device-level or estimated CPI per user from attribution or ad campaigns. This reveals a device-level ROI figure, highlighting ROI positive players. Retain them with engaging live ops campaigns or channel them to new games, letting them continue as your revenue drivers.

## Account setup

We suggest a structure that leverages GCP and Google BigQuery. GameAnalytics will whip up a dedicated project for you in our GCP account. This setup empowers your data team to:

- **Access data tables for various tasks or queries**, whether it's migrating this data to other systems, querying, or merging it with other data sources.
- Enjoy read/write access to **bring other data sources into the account**.
- **Have dedicated and transparent reporting for any resource usage** tied to querying, storage, and other project-based actions.

This arrangement also allows GameAnalytics to keep the pipeline running smoothly, manage access controls, and update fields as new capabilities roll in or old ones roll out. You can schedule jobs, link up with BI tools, and do much more, all in a structured and manageable manner.

## Technical specs

[Overview](#)[Documentation](#)[Schemas](#)[SQL Access](#)[Sample SQL](#)[FAQs](#)





## Case study

# Crafting a #1 MMO Using Event-Level Data



MMORPG



23 employees



Meta Quest, Steam, PS VR, PS VR 2

Explore how the devs behind “**Zenith: The Last City**”, a chart-topping hit on various VR platforms like Quest, Steam, and PS VR, harnessed data-driven insights and tools like Player Warehouse to elevate user engagement.

[Read the full story](#)



# Raw Export

## Real-time Raw Gameplay Data

Raw Export is your shortcut to a personalized data pipeline, ushering in real-time data analysis/streaming to swiftly inform in-game decisions.

Get your data in pure JSON format, retaining all custom fields, events, or dimensions you collect through the SDK. There are no rigid schemas here; collect whatever data you need.

This feature is tailored for those looking to run custom analysis, develop internal tools, craft advanced visualizations, or set up a data lake. Raw Export simplifies your journey towards these objectives.

user\_meta:

```
{
  "revenue": "16",
  "origin": "organic",
  "is_converting": "true",
  "install_ts": "1653250004",
  "cohort_week": "1652659200",
  "cohort_month": "1651363200"
}
```

game\_id: 999999,

```
{
  "session_num": "3",
  "session_id":
    "1cc0dc37-294a-46ad-853b-4d46f3ed86cf",
  "platform": "ios",
  "os-version": "ios 11.0",
  "manufacturer": "apple",
  "event_id": "Source:Coins:Reward:Muscle",
  "custom_03": "Regular",
  "custom_02": "Journalist",
  "custom_01": "TestGroupB",
  "country_code": "US"
}
```



# Fast-track your data to AWS

Setting up data transfer to your own AWS S3 bucket is a breeze and gets done in just a few hours, bypassing months of R&D while saving on infrastructure expenses.

## Benefits:

- Data streamed to you in real-time.
- No rigid or pre-defined schemas.
- A turn-key way to create a data lake.
- Full control over your data processing.
- Completely customizable and flexible.



If BigQuery isn't your preferred system, we offer the choice to export to AWS S3 in Parquet format, making it easy to load data into any warehouse. Plus, the data is prepped for cost-optimized querying, thanks to clustering and partitioning.

## Technical specs

[Overview](#) [FAQs](#) [Schemas](#) [Export](#)

## Use cases



### Internal BI Dashboards

Generate personalized internal BI dashboards tailored to your game's logic or that encapsulate the data and graphics specific to your studio's needs, beyond the standard filtering options available in the GA web tool.



### Daily Progression Tracking

Create a comprehensive funnel to monitor daily game progression, especially useful when your game structure spans extensive levels – a scenario where traditional funnels may fall short.



### Player Behavior Analysis

Delve into player interaction patterns to discover the highlights of your game, be it popular features, levels, or game modes (multiplayer vs single player). Keep tabs on player progression and spot the stages where players are losing interest.



### Ad Engagement and Monetization

Scrutinize ad click rates and the revenue generated from ads to optimize ad placements and frequency. An iterative testing approach helps enhance monetization while preserving a pleasant user experience.



### Data Transformation and Enrichment

Run custom data transformations or enrich your data with additional insights to unearth more value. Merging GameAnalytics data with external event data paves the way for a well-rounded analysis.

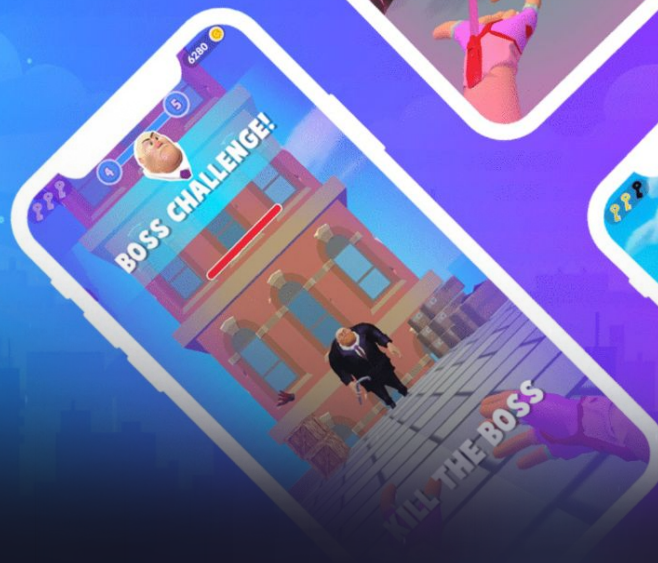


### Long-term Historical Analysis

With the data securely stored, access it whenever needed for long-term historical analysis. Track trends, changes, and player behaviors over extensive timeframes without the dependency on external companies that might pose challenges in data retrieval.



TapNation



Raw Export

## Case study

# Boosting Player LTV by 50% Across 19 Games with GameAnalytics



Over 500 million downloads



30 employees



iOS and Android

Discover how the team at TapNation used the deeper insights provided by GameAnalytics to increase their portfolio LTV by an average of 50%. The remarkable improvement was achieved in just six months of using Raw Export.

[Read the full story](#)



# Privacy-enabled

## Ensuring Privacy and Control Over Your Data

At GameAnalytics, we prioritize the security and privacy of your data. Our infrastructure is designed to bolster your compliance with GDPR and CCPA. With us, your data is protected —there's no third-party sharing involved.

We've been awarded leading accreditations, including **ISO 27001**, **SOC 2 Type II**, **KidSAFE+**, and **ePrivacy**.



# Get Started

## The GameAnalytics Advantage

Studios who work with us enjoy the flexibility of a custom data stack at significantly reduced cost versus building it themselves.

Our tailored data tools are your shortcut to a custom, real-time insights engine that sets you up for success. Forget the drawn-out timelines to see this value; we're talking hours, not months.

Ready to dive into a sea of insights and propel your game to the top? The expertise and tools you need are just a chat away.

[Book a demo](#)