UNREAL DEV GRANT RECIPIENT

GAMEDNA

GOOGLE ANALYTICS

PLUGIN FOR UE4

SECOND EDITION

Contents

1. License

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You may Distribute the Google Analytics Plugin for Unreal® Engine 4 incorporated in object code format only as an inseparable part of a Product to end users. The Product may not contain any Plugin Content in uncooked source format.

2. Plugin updates

a. Update from previous versions to 2.6.0

Delete all files under *Plugins/GoogleAnalytics* directory and install plugin again as described in *Getting started* section.

3. Introduction

Google Analytics Provider integrates out-of-the-box Google Analytics into Unreal Engine project and is compatible with all platforms. It fully implements the Unreal Analytics Provider system so you can use all available features exposed by this, including Analytics Blueprint Library. It's useful for tracking events and screens, real-time sessions tracking, registering in-app purchases, user progression, automatic reporting errors, exceptions, crashes, etc.

Required Unreal Engine 4.10 or above because of Android Plugin support!

Current plugin version: 2.6.0

Support: support@gamednastudio.com

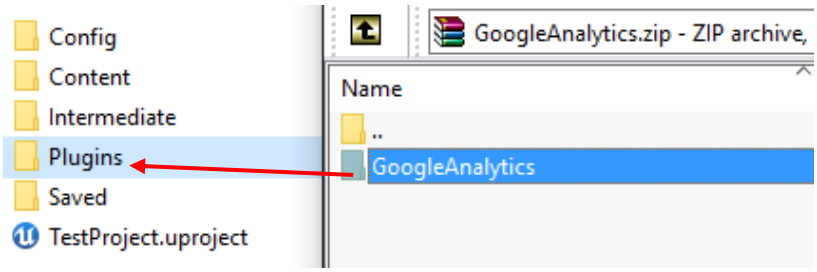
FEATURES:

- Four special nodes only for Google Analytics Provider plugin: *Record Google Event*, *Record Google Screen*, *Record Google Social Interaction*, *Record Google User Timing*
- Implements Unreal Analytics Provider system
- All features are exposed to Blueprints
- Real-time sessions tracking (you can see who is currently playing your game!)
- Tracking events and screens
- Registering In-App Purchases
- Registering user progression
- Sending info about age, gender, location and interests
- Automatic errors, exceptions and crash reporting
- Automatic system info tracking (e. g. device, operating system, app version)
- Automatic caching events when user is offline and send them to Google Analytics when user is online
- Campaign measurement
- Social interactions
- User timing
- Custom dimensions and metrics
- And more features provided by Google Analytics
- Full source code
- Compatible with all UE4 platforms (all-in-one)

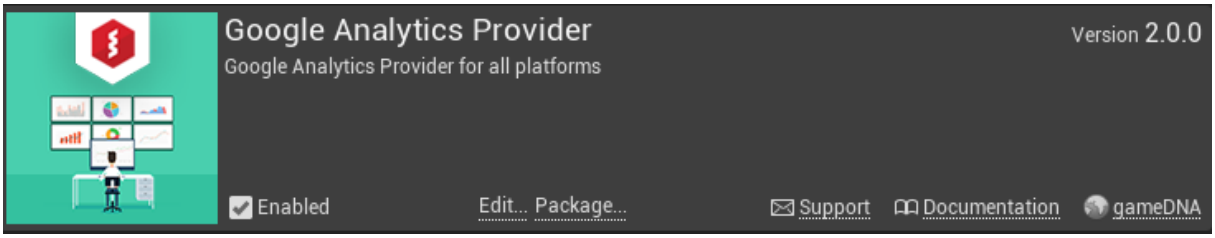
- Supports gameDNA installer. No more downloading SDKs and creating packages on your own!
- Easy plugin setup
- All future updates
- Support via e-mail (support@gamednastudio.com)

4. Getting started

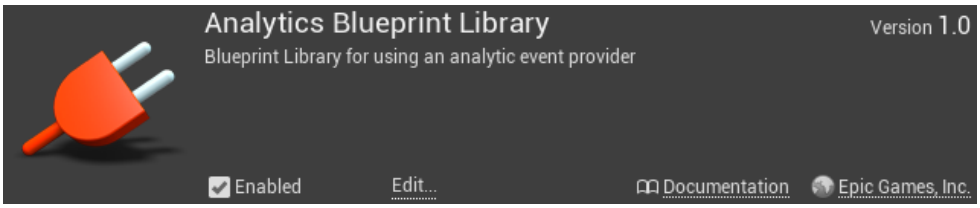
1. Unpack the plugin archive to *Plugins* folder in your UE4 project folder (for project plugins) or *Engine/Plugins/Marketplace* (for engine plugins) and start the editor.



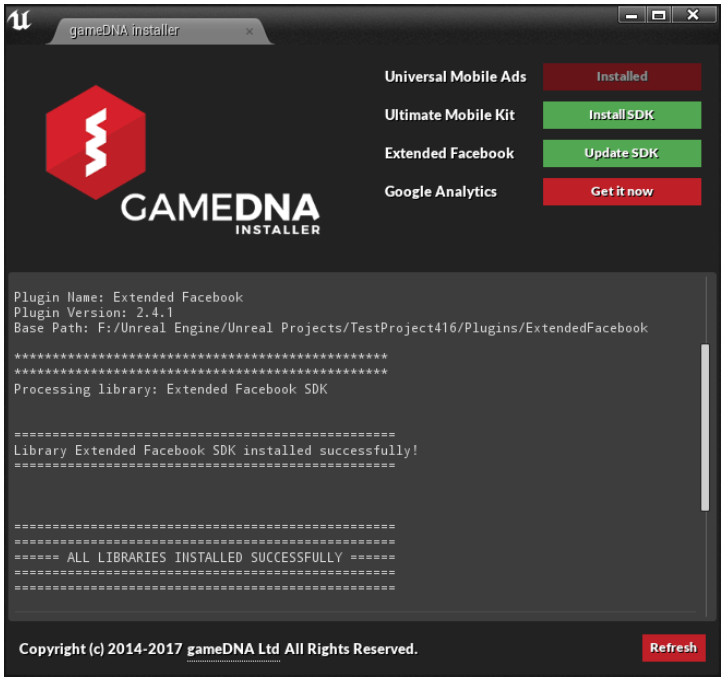
2. Enable *Google Analytics Provider in Edit -> Plugins -> Analytics -> Project -> Google Analytics Provider.*



3. If you want to use Blueprint nodes for *Google Analytics Provider*, go to *Edit -> Plugins -> Built-In -> Analytics* and enable *Analytics Blueprint Library*.



4. Download **gameDNA installer** plugin from the *releases* tab on the official GitHub repository https://github.com/gameDNAstudio/gameDNAinstaller. Install plugin and SDKs as described in the included documentation.



5. Open *Config/DefaultEngine.ini* file and add following lines:

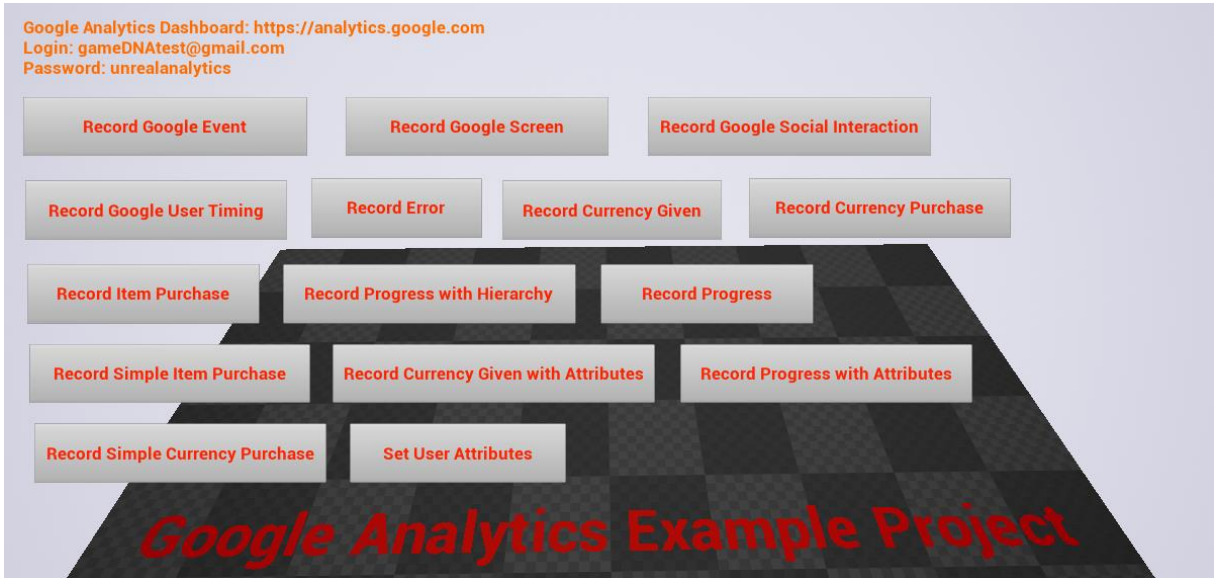
```
[Analytics]
ProviderModuleName=GoogleAnalytics
TrackingIdAndroid=<ENTER YOUR TRACKING ID FOR ANDROID>
TrackingIdIOS=<ENTER YOUR TRACKING ID FOR IOS>
TrackingIdUniversal=<ENTER YOUR TRACKING ID FOR PLATFORMS OTHER THAN
IOS OR ANDROID>

[AnalyticsDevelopment]
ProviderModuleName=GoogleAnalytics
TrackingIdAndroid=<ENTER YOUR TRACKING ID FOR ANDROID>
TrackingIdIOS=<ENTER YOUR TRACKING ID FOR IOS>
TrackingIdUniversal=<ENTER YOUR TRACKING ID FOR PLATFORMS OTHER THAN
IOS OR ANDROID>

[AnalyticsTest]
ProviderModuleName=GoogleAnalytics
TrackingIdAndroid=<ENTER YOUR TRACKING ID FOR ANDROID>
TrackingIdIOS=<ENTER YOUR TRACKING ID FOR IOS>
TrackingIdUniversal=<ENTER YOUR TRACKING ID FOR PLATFORMS OTHER THAN
IOS OR ANDROID>
```

TIP: *Google Analytics* account for platforms other than iOS & Android should be set as website.

6. That's all! *Google Analytics Provider* works now! ☺

5. Example project

You can download example project at the following address:
https://github.com/gameDNAstudio/ExampleProjects



Credentials to Google Analytics Dashboard (https://analytics.google.com):

Login: gameDNAtest@gmail.com

Password: unrealanalytics2017

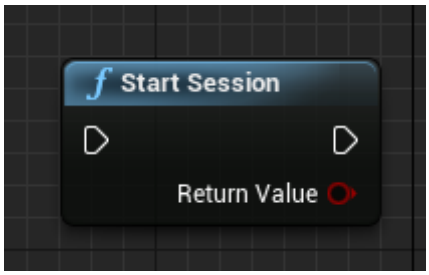
Please don't change password! ;)

6. GitHub Repository

Please email the receipt of this plugin's purchase to support@gamednastudio.com for access to the GitHub repository used to develop this plugin!

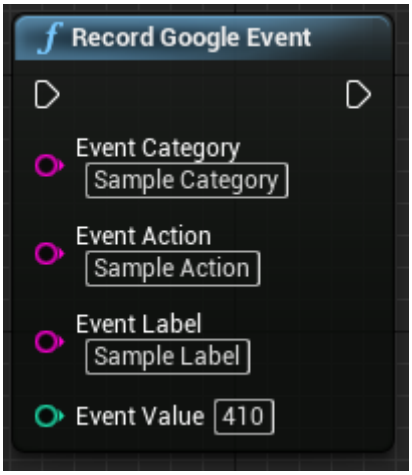
7. Recording events in Blueprints

Before recording any events you have to call the *Start Session* function. You should do it before any other Google Analytics function.

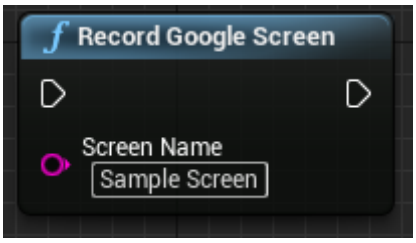


This plugin implements four special nodes only for Google Analytics.

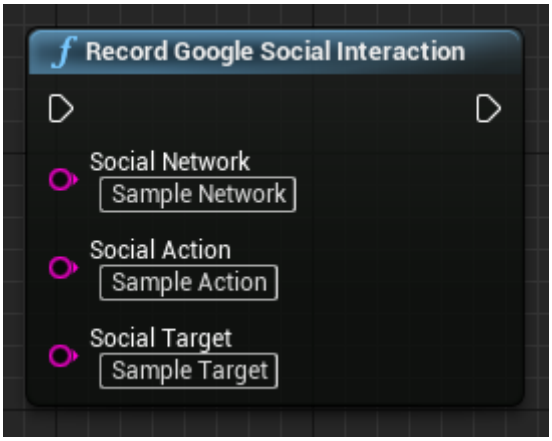
a) **Record Google Event** - events are a useful way to collect data about a user's interaction with interactive components of your game, like button presses or the use of a particular item in a game.



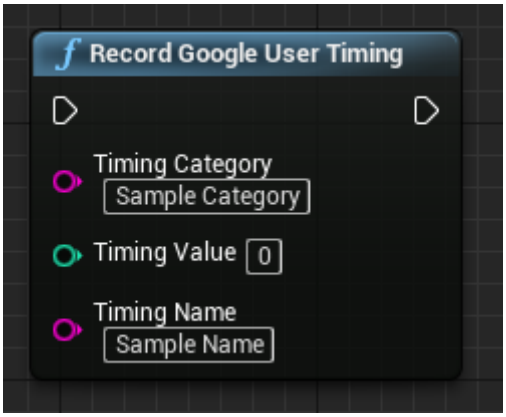
b) **Record Google Screen** - screens in Google Analytics represent content users are viewing within your game. The equivalent concept in web analytics is a pageview. Measuring screen views allows you to see which content is being viewed most by your users, and how they are navigating between different pieces of content. A screen view consists of a single string field that will be used as the screen name in your Google Analytics reports.



c) **Record Google Social Interaction** – social interaction measurement allows you to measure a user's interactions with various social network sharing and recommendation widgets embedded in your content.



d) **Record Google User Timing** – measuring user timings provides a native way to measure a period of time in Google Analytics. This can be useful to measure resource load times, for example.



Google Analytics Provider plugin fully implements Unreal Analytics Provider system so you can use all available features exposed by this (including Analytics Blueprint Library).

You can learn more about Unreal Analytics Provider here:
https://docs.unrealengine.com/latest/INT/Gameplay/Analytics/index.html

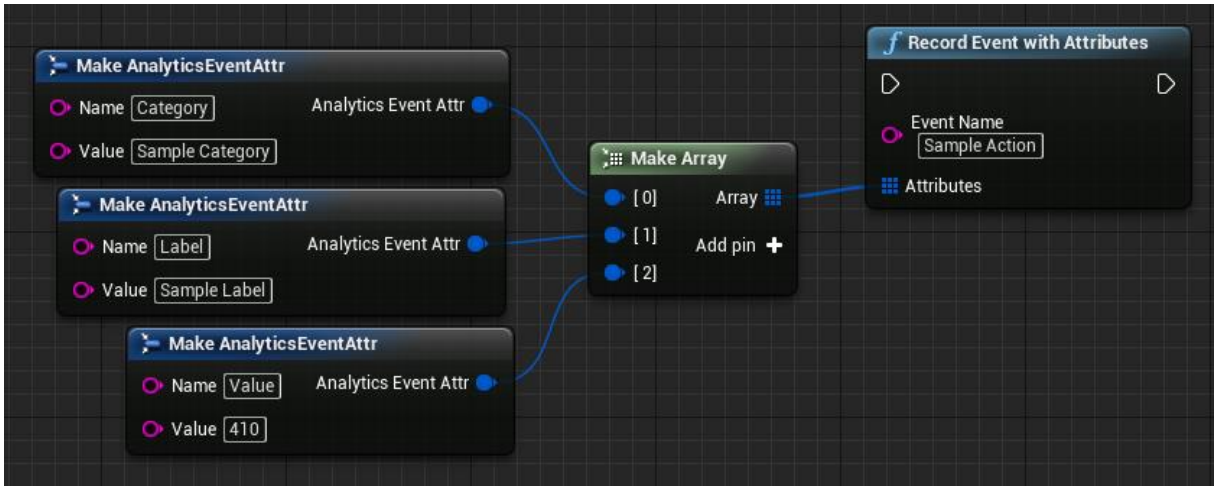
and about Analytics Blueprint Library here:
https://docs.unrealengine.com/latest/INT/Gameplay/Analytics/Blueprints/index.html

LIMITATIONS:

Google Analytics supports only following attributes for events:

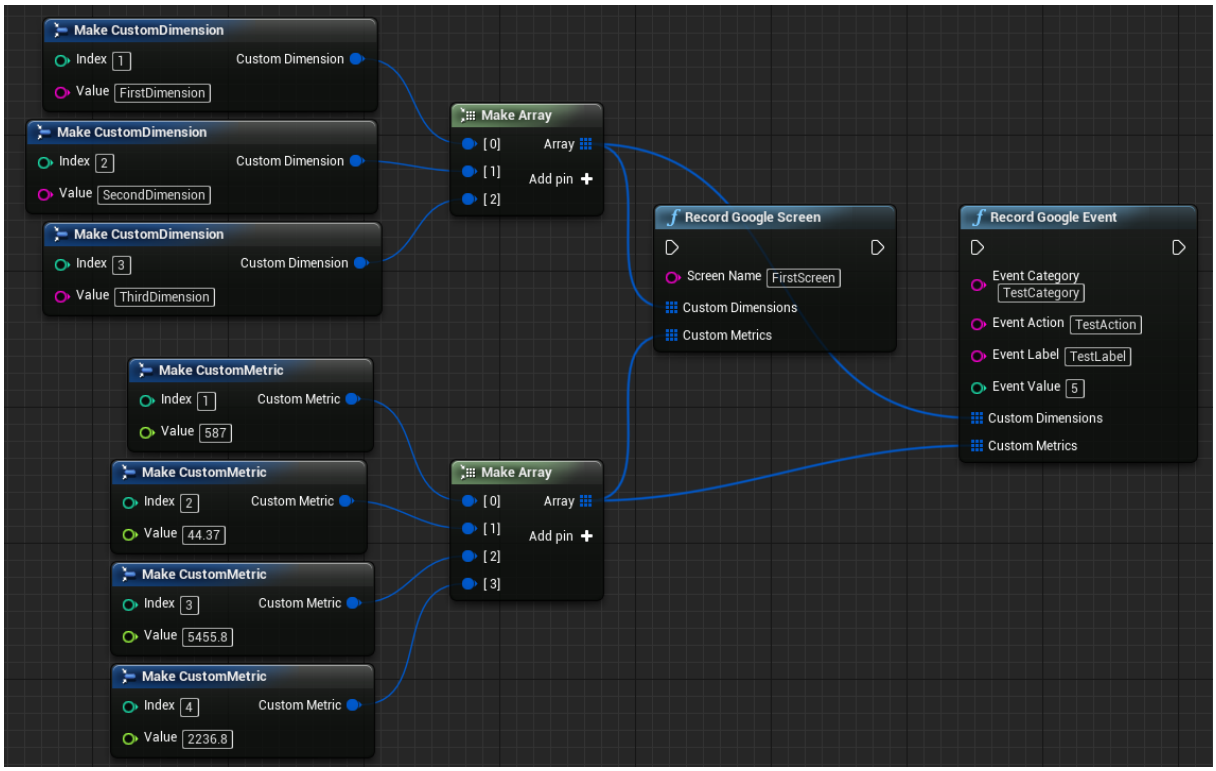
- Event Category (String)
- Event Action (String) – known as Event Name in Unreal Analytics Provider system
- Event Label (String)
- Event Value (Integer)

So if you are using standard Unreal Analytics Provider functions, you can make something like this and that's exactly what special Record Google Event node is.



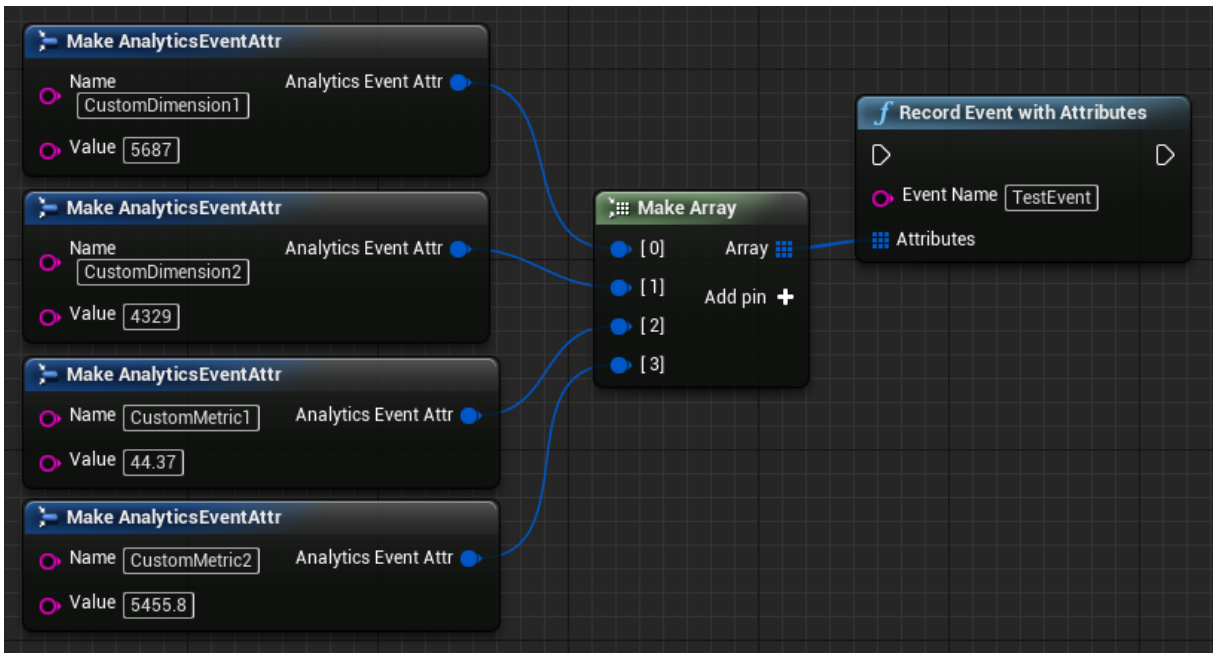
8. Custom dimensions and metrics

You can add custom dimensions and metrics for almost every function. Simply make an array of *CustomDimension* or *CustomMetric* structure and connect to the node.

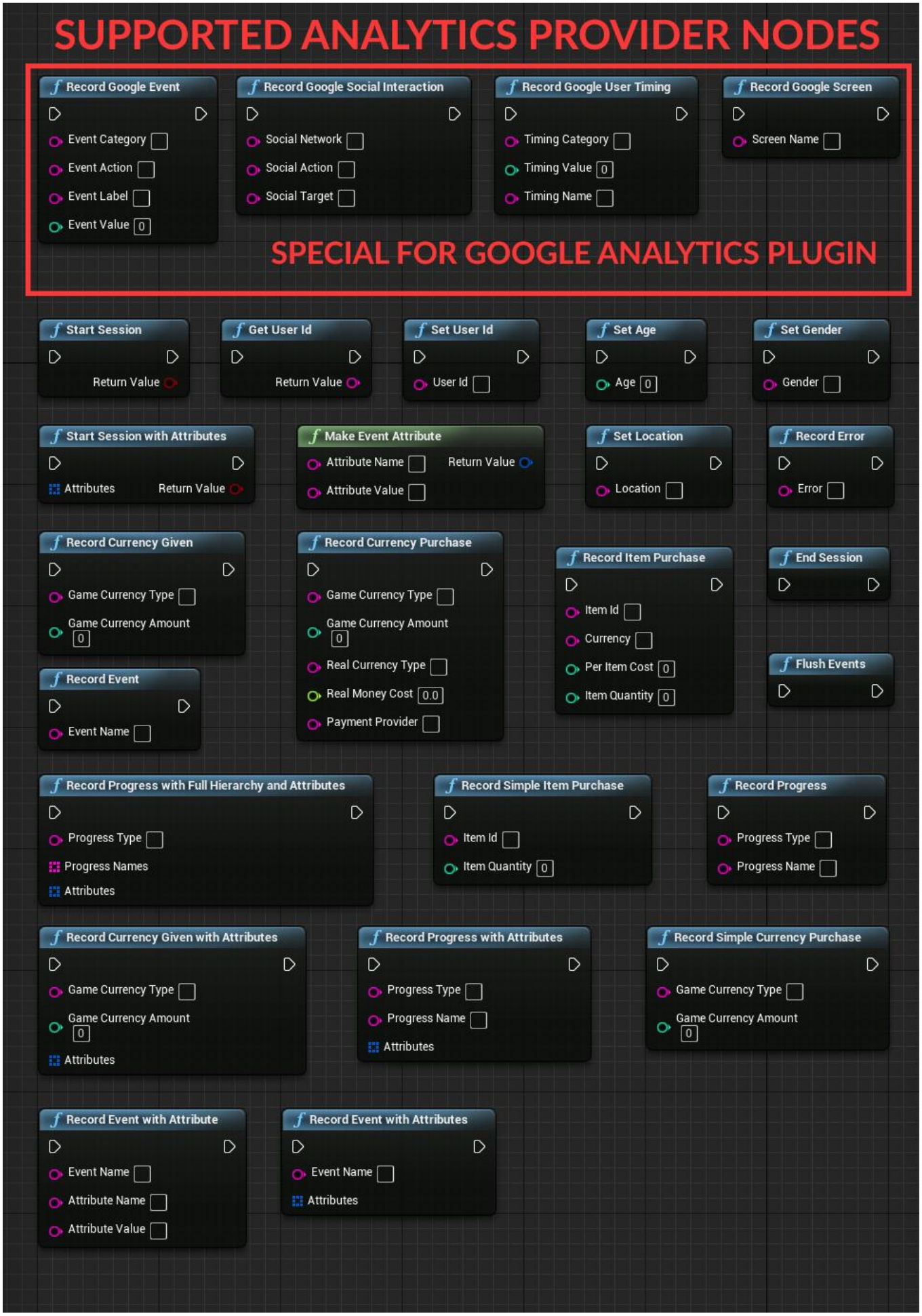


You can also create array of *AnalyticsEventAttr* with specified:

- *CustomDimension<DimensionIndex>* (for Custom Dimensions)
- *CustomMetric<MetricIndex>* (for Custom Metrics)



9. Supported Analytics Provider Nodes



10. Recording events in C++

You can use Unreal Analytics Provider for C++ or simply call special functions for Google Analytics Provider plugin.

Add the following to your **.Build.cs* file private dependency module name:

```
PrivateDependencyModuleNames.AddRange(new string[] { "GoogleAnalytics" });
```

Import these headers anywhere in source code project:

```
#include "GoogleAnalyticsBlueprintLibrary.h"
#include "Runtime/Analytics/Analytics/Public/Analytics.h"
#include
"Runtime/Analytics/Analytics/Public/Interfaces/IAnalyticsProvider.h"
```

a) Start session:

```
FAnalytics::Get().GetDefaultConfiguredProvider()->StartSession();
```

b) Record Google Event:

```
UGoogleAnalyticsBlueprintLibrary::RecordGoogleEvent(TEXT("Event Category"),
TEXT("Event Action"), TEXT("Event Label"), <INTEGER VALUE>);
```

c) Record Google Social Interaction:

```
UGoogleAnalyticsBlueprintLibrary::RecordGoogleSocialInteraction(TEXT("Socia
l Network"), TEXT("Social Action"), TEXT("Social Target"));
```

d) Record Google User Timing:

```
UGoogleAnalyticsBlueprintLibrary::RecordGoogleUserTiming(TEXT("Timing
Category"), <INTEGER VALUE>, TEXT("Timing Name"));
```

e) Record Google Screen:

```
UGoogleAnalyticsBlueprintLibrary::RecordGoogleScreen(TEXT("Screen Name"));
```