VOLTAIC KOVAAKS BENCHMARKS  
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# Introduction

This document serves as a source of info on everything you need to know about the Voltaic Benchmarks in KovaaK’s. We will go over the benchmarks, the different categories, subcategories and how to play each scenario.

# Quick Start

1. **Read from our Knowledge Base**
   1. Read the [Aim Journey](http://bit.ly/2l3jZTf) & [Advice FAQ](http://bit.ly/2TIudqA)
2. **Benchmark Yourself**
   1. Fetch the [Progression Sheet](https://bit.ly/VTxKvKsprogressS4) (Recommended) & [Updater Tool](https://github.com/VoltaicHQ/Progress-Sheet-Updater) - [Check our Video Guide](https://youtu.be/awBoG9Jy8CY) (Optional)
3. **Play Appropriate scenarios / routines**
   1. Play Fundamentals if you want overall aim improvement (Benchmarks are solid to play for improvement too, but may not cover everything)
   2. Play Game-specific if you want to improve only for one specific game
   3. Add an Issue-specific routine to your daily routine if you lack in a specific area (Identified through vodreviews & benchmarks)
   4. Avoid Injury, read the Health Improvement Routine & Wrist Stretching & Posture Guide (consult the #health channel on our discord for more help)

## Brief Explanation

To make our categories more visible, we color code **Clicking** in red , **Tracking** in blue , and **Switching** in purple. Beyond this we also have assigned colors to the subcategories for your convenience, all of which can be seen below.

* For **Clicking** we have **Dynamic** in yellow and **Static** in salmon .
* For **Tracking** we have **Precise** in teal and **Reactive** in light blue .
* For **Switching** we have **Speed** in rosewood pink and **Evasive** in light purple .
* Strafe scenarios under both **Clicking** and **Tracking** are colored in faux-pink flamingo .

In order to submit for a benchmark rank you need to meet a certain energy threshold, the specifics of which can be seen in our benchmarks sheet. Energy is a brand new system created for the fourth season of our Kovaak’s benchmarks, designed to better represent players with specific strengths. This means that even if a player isn’t equally proficient in all subcategories, their associated rank should still somewhat reflect their abilities as a whole.

There are still score targets assigned for each benchmark rank but now hitting these exact targets or more, in a certain quantity is no longer required and an energy value is bound to each score. There is a single energy value for each subcategory, and that value is taken from the highest scenario energy value for that subcategory. Even though this single score is the only one accounted for in the energy system, you can still earn a *complete* role by passing your specified ranks score targets for every benchmark scenario. The sum of all the subcategory energy values will be the primary energy value used to determine your rank. This sum will be compared against specific energy target values given to each rank, and pushing scenario scores by any amount will award you an associated amount of energy. Lastly, strafe scenarios do not count towards a base rank even though they are still required for achieving a complete rank.

*Advanced Energy Targets*

| Grandmaster | Nova | Astra | Celestial |
| --- | --- | --- | --- |
| 900 | 1000 | 1100 | 1110 |

*Intermediate Energy Targets*

| Platinum | Diamond | Jade | Master |
| --- | --- | --- | --- |
| 500 | 600 | 700 | 800 |

*Novice Energy Targets*

| Iron | Bronze | Silver | Gold |
| --- | --- | --- | --- |
| 100 | 200 | 300 | 400 |

Once you meet the requirements, apply through [this](https://docs.google.com/forms/d/1tPRZGN04i8e3Y_0xDcAe--Db_7PMuFD81cAmy7fyYXg/viewform?edit_requested=true) form. Upload screenshots of your score for each scenario required for the rank. Screenshots should include your name, and the name should match your Steam username. We will additionally check the leaderboards, and if you do not have a said score, you will be denied the role.

**Note:** We require video evidence for Grandmaster+ (and non-Grandmaster scores if they are used for your application) scores (with at least 60 FPS, system clock, and challenge timer UI elements enabled & clearly visible in KovaaKs, and uploaded to YouTube and compiled into a single playlist). All KovaaKs video submissions will now require Kovaak 2.0.5.0 or later. Submissions with the old UI will no longer be considered valid, as current tweaks to the game can cause discrepancies in older versions of scenarios. After applying for Grandmaster+, you must submit your VODs to the #leaderboards channel.

# Frequently Asked Questions

1. **How often are the benchmarks changed?**
   1. Scoring and Energy thresholds will be balanced to keep the benchmarks challenging and ranking up rewarded, while also remaining accessible.
   2. Scenarios are changed at the Voltaic Benchmark Team’s discretion, or when better benchmark scenarios are created, there will be grace periods for any major changes to the benchmarks.
2. **What settings should I use?**
   1. We require 103 overwatch as a minimum field of view. We also recommend it as a baseline field of view during your practice outside of the benchmarks. However it’s common for players to increase this value to 115-125OW for switching scenarios that have bots placed beyond the camera's peripheral vision.
   2. We typically recommend 25-35 cm/360, because faster sensitivities are more difficult to control and tend to offer better practice. However, practicing with slower sensitivities (especially if you use it in your main game) is still beneficial. With this considered, changing your sensitivity for practice in certain scenarios isn’t just acceptable, it’s beneficial to your training and mouse control development.
   3. When you’re able to be smooth and precise on a difficult to control (or faster) sensitivity, this usually translates to being able to perform better on the slower one

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# Voltaic Benchmarks Explained

## What are Aim Training Benchmarks?

Aim Training Benchmarks are used as a tool to measure your overall mouse control skill with the applied use of third party aim training software. In KovaaK’s players play our tailor made scenarios and their scores on these scenarios determines their rank.

## Why are benchmarks useful?

Benchmarks help you identify your weaknesses, so you can focus on developing aspects of mouse control that you struggle the most with. In addition to this the score targets serve as premade small achievable goals, which is a foundational principle of building momentum and discipline towards accomplishing a larger goal.

## How frequently should you benchmark yourself?

Even though we recommend our users to benchmark themselves at least once a week to keep track of their progression, you may play more at your own discretion. The scenarios are optimized to have consistent scoring so that they can serve as optimal mouse control assessments, meaning that they aren’t intended to function as practice.

## How to obtain a rank role?

Once you meet the requirements for platinum or above, apply through [this](https://docs.google.com/forms/d/1tPRZGN04i8e3Y_0xDcAe--Db_7PMuFD81cAmy7fyYXg/viewform?edit_requested=true) form. Upload screenshots of your score for each scenario required for the rank. Screenshots should include your name, and the name should match your Steam username. We will additionally check the leaderboards, and if you do not have a said score, you will be denied the role. Please note that you only need to compile an album with your scores for Platinum and Diamond. We require video evidence for Grandmaster+ scores (with at least 60 FPS, system clock, and challenge timer UI elements enabled & clearly visible in KovaaKs, and uploaded to YouTube and compiled into a single playlist). After applying for Grandmaster+, you must submit your VODs to the #leaderboards channel.

## Why are there multiple difficulties for the benchmarks?

There are multiple difficulties to our benchmarks to ensure that players are able to play the benchmarks best appropriate for their skill level to offer the best results. Severe jumps in difficulty raises the potential of complicated an otherwise simple learning process, which is much more manageable with a slow and steady progression.

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# How to use the Voltaic Benchmarks

## Finding the Scenarios in the Workshop

1. If this is your first time starting KovaaKs, then press ‘’Escape’’ and click on ‘’KovaaKs Sandbox’’ otherwise go straight to Step 2. Be sure to have our Benchmark or Progression Sheet open, as well.
2. Once you’re in the Sandbox Mode, go to the search bar and type the Voltaic scenario you’re looking for.
3. There, you will be greeted with a list of all the Voltaic benchmark scenarios. Refer to the benchmark sheet to know which ones to download. Use the search bar to narrow down your search.
4. Click on the scenario you want to play.

## Recommended and Required Settings

When playing our benchmarks and applying for a rank role, you have to meet a few set of requirements. You can read about it below.

## Requirements

We require everyone to use at least 103 Overwatch Field of View for all the benchmark scenarios. Anything lower than that field of view will not be accepted.

**In case you are applying for a rank role in our discord, then you must know the following:**

* We require video evidence for Grandmaster+ scores (with at least 720P 60 FPS, system clock, and challenge timer UI elements enabled & clearly visible in KovaaKs, and uploaded to YouTube and compiled into a single playlist).
* All submissions must be clear of visual clutter & excessive overlays and will be reviewed at the mod/helper’s discretion

### Recommendations

* For Switching Scenarios we recommend using 110 source Field of View as it makes it easier to have all targets within your peripheral view.
* For static scenarios we recommend using Pure Color settings, for the other scenarios we recommend using Concrete Tiles or any other visual settings from our #visuals channel on our discord.

## Using Playlists

1. Copy the Share Code from underneath a specific playlist
2. Paste it under the Online Playlists tab on KovaaKs
3. The routine should now be appear in your list and is ready to be played at your leisure

## How to play each Scenario

### Clicking Scenarios

1. VT Pasu - **5 runs**
   1. **Description:** Single-click bots travel in straight lines at various angles on an X/Y Plane, while making unpredictable directional changes and colliding with walls. The player's weapon has three shots and empty magazines recover per bullet.
   2. **How:** Read each bot for a short period of time in order to confirm you’ll hit it, while avoiding being misdirected by a sudden direction change. Make sure your transitions between targets are smooth so that you can effectively read the next bots movements.
   3. **Why:** Helps with target reading, timing your clicks, and smoothness.
   4. **Most applicable Games:** Overwatch, Apex, CS:GO, Valorant
2. VT Bounceshot - **5 runs**
   1. **Description:** Single-click bots leap in mid-high arcs on top of a flat surface, changing depths as they traverse. The player's weapon has three shots and empty magazines recover in their entirety upon each elimination.
   2. **How:** Read each bot for a short period of time in order to confirm you’ll hit it, while attempting to time your click with the apex of the bots jump. Make sure your transitions between targets are smooth so that you can effectively read the next bots movements.
   3. **Why:** Helps with target reading, timing your clicks, and smoothness.
   4. **Most applicable Games:** Overwatch, Apex, Quake
3. VT 1w6ts/1w5ts/1w3ts - **5 runs**
   1. **Description:** Small stationary bots spawn in random locations on an X/Y Plane, with each single click elimination reloading a single bullet.
   2. **How:** Do your best to keep clean lines on your initial flicks and follow them up with micro-corrections that land directly on the bot. Identify if either your accuracy or speed is holding you back and then adjust your practice to account for this.
   3. **Why:** Static flicks are a common mouse control scenario that arises in all sorts of competitive fps games. Being able to keep these motions controlled and deliberate will favor you heavily in these situations.
   4. **Most applicable Games:** CS:GO, VALORANT
4. VT Multiclick 120/180 - **5 runs**
   1. **Description:** Medium sized bots spawn on the inner three walls within a rectangular prism, with every single click elimination reloading the player's three round magazine.
   2. **How:** Since the targets are slightly on the larger side and closer together, you want to try to directly land your initial flick as often as possible. Identify if either your accuracy or speed is holding you back and then adjust your practice to account for this.
   3. **Why:** Builds speed in static flicking by presenting a partial cluster situation where rapid eliminations with slightly diminished accuracy is favored.
   4. **Most applicable Games:** CS:GO, VALORANT

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### Tracking Scenarios

1. VT Smoothbot - **5 runs** 
   1. **Description:** One invincible thin bot makes long and short strafes in a three dimensional space at various frequencies with smooth transitions between them.
   2. **How:** Smoothness at its core, players need to be able to manage large sweeping strafes alongside smaller changes in direction and speed. Limit physical aspects of mouse movement that impose any limit on stability and specificity in control.
   3. **Why:** In addition to assessing good tracking fundamentals this scenario exposes any weakness related to smoothness.
   4. **Most applicable games**: Overwatch, Apex Legends, Fortnite
2. VT PreciseOrb - **5 runs**
   1. **Description:** One invincible spherical bot makes tall and fast leaps around the player, while changing direction at either the apex of its jump or at the end of its descent.
   2. **How:** Learn to optimize one component of the bots arc at a time whether it’s the ascent, descent, or the apex. Stay smooth and account for the unique adjustments that need to be made as a result of the bots verticality.
   3. **Why:** Builds a player’s understanding of awkward angles with extreme verticality, while also continuing to assess smoothness.
   4. **Most applicable games**: Overwatch, Apex Legends
3. VT Plaza - **5 runs** 
   1. **Description:** After receiving damage each of the five bots will make uniquely characteristic horizontal strafes along a flat plane, with each one expiring after twelve seconds elapse from its initial movements.
   2. **How:** Avoid attempting to predict the bot’s erratic movements, and instead trust each strafe completely until it changes. Strictly reacting to visual information exclusively will build good habits that translate well to certain game scenarios.
   3. **Why:** Exposes poor prediction habits and acts as a more strenuous version of the horizontal strafes you may see in some movement shooters.
   4. **Most Applicable Games:** Apex Legends, Overwatch, Quake, Fortnite
4. VT Air - **5 runs** 
   1. **Description:** After receiving damage each of the five bots will make uniquely characteristic horizontal and vertical strafes within a rectangular prism, with each one expiring after ten seconds elapse from its initial movements.
   2. **How:** Focus on not overreacting to changes in direction to optimize your time on target, while also attempting to center your crosshair within the bot as you track it.
   3. **Why:** Establishes under-tracking fundamentals and makes smoothness a part of reactivity gameplay.
   4. **Most Applicable Games:** Apex Legends, Overwatch, Quake, Fortnite

### Switching Scenarios

1. VT psalmTS - **5 runs** 
   1. **Description:** Spherical bots make slow horizontal movements, occasionally changing height levels and direction. Each bot needs to be tracked for a short period to be eliminated.
   2. **How:** Attempt to land your initial flick directly on the bot with no micro-correction and keep this action consistent on both small and large switches. The vertical motions are slow and smooth, so they shouldn’t detract from speed in any significant way.
   3. **Why:** Forces extremely refined target switches with minimal wasted movements.
   4. **Most Applicable Games:** Call of Duty, Battlefield, Warzone
2. VT skyTS - **5 runs**
   1. **Description:** Bots move in slow horizontal lines in a rectangular prism at various depths and need to be tracked for a short period to be eliminated. Horizontal direction changes are very slow and predictable.
   2. **How:** Make sure to force full kills as much as possible, leaving as little partials up as possible. Attempt to land your initial flick directly on the bot with no micro-correction and keep this action consistent on both small and large switches.
   3. **Why:** Forces extremely refined target switches with minimal wasted movements.
   4. **Most Applicable Games:** Call of Duty, Battlefield, Warzone
3. VT evaTS - **5 runs** 
   1. **Description:** Bots move back and forth horizontally within a rectangular prism, with sizable vertical space given between each bot height. Each bot needs to be tracked for a short period to be eliminated.
   2. **How:** While not required, a larger FOV than normal is especially recommended here given the space between all bots both horizontally and vertically. Being smooth is as crucial as ever here given the bots’ continuous attempts at evading throughout a given run.
   3. **Why:** Combines well executed target switching with smooth tracking fundamentals.
   4. **Most Applicable Games:** Call of Duty, Battlefield, Warzone
4. VT bounceTS - **5 runs** 
   1. **Description:** Bots leap in mid-high arcs on top of a flat surface, changing depths as they traverse. Each bot needs to be tracked for a short period to be eliminated.
   2. **How:** Land your initial flick directly on each bot and smoothly track each bot to completion. Time your switches to close the margin between the bots elimination and the start of your flick. Smooth transitions from bot to bot will make reading their movements much easier.
   3. **Why:** Combines well executed target switching with smooth tracking fundamentals.
   4. **Most Applicable Games:** Call of Duty, Battlefield, Warzone

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### Strafe Scenarios

#### How to play AngleStrafe, SkyStrafe and BounceStrafe

In these three scenarios above, MBS scoring is used - by default you should see a bar that fills up as you move. The amount of movement score you get is based on the time spent strafing before changing direction. As long as you change direction while the bar is green, you get maximum movement score. The bar is green between 3% and 100% filled. If you keep moving while the bar is full, you don't get any score. The score is capped to a value that is easy to reach (200 for AngleStrafe & BounceStrafe 1000 for SkyStrafe) as long as you move throughout the scenario. You should find ways to move in ways that make aiming easy.

#### How to play PatStrafe

In the scenario above, conditional distance traveled scoring is used and is capped to 1000. In short, as long as you don't mirror every bot 100% of the time, you will reach the score cap. In theory, reaching maximum movement score requires you to anti-mirror for at least about 30-40% of the time.

In practice you will get an anti-mirror score while you are unintentionally anti-mirroring anyway. If you only mirror during the run, you will not reach the movement score cap. If you only anti-mirror you will easily reach score cap but your accuracy will suffer. You should mix up your movement and focus on accuracy.

1. VT AngleStrafe - **5 runs**
   1. **Description:** Slow moving bots travel in straight lines with either random or collision based direction changes. The player is intended to navigate the space as they shoot and their four round magazine reloads per elimination.
   2. **How:** Hit confirmations and smooth switches remain as mainstays here, the only added variable is accounting for your strafes. Move with intent and avoid building patterns in your strafes to accurately mimic evasive strafes that may be executed in-game.
   3. **Why:** Adds movement aiming as a layer on top of the isolated mouse control principles that are to be learned prior to this.
   4. **Most Applicable Games:** Apex Legends, Overwatch, Quake, Fortnite, Valorant, CS:GO
2. VT ArcStrafe - **5 runs**
   1. **Description:** Bots leap in mid-low arcs with reasonably paced and random direction changes. The player is intended to navigate the space as they shoot and their four round magazine reloads per elimination.
   2. **How:** Hit confirmations and smooth switches remain as mainstays here, the only added variable is accounting for your strafes. Move with intent and avoid building patterns in your strafes to accurately mimic evasive strafes that may be executed in-game.
   3. **Why:** Adds movement aiming as a layer on top of the isolated mouse control principles that are to be learned prior to this.
   4. **Most Applicable Games:** Apex Legends, Overwatch, Fortnite
3. VT PatStrafe - **5 runs**
   1. **Description:** A single bot makes fast and sporadic strafes on a flat surface and continuously respawns after it's eliminated, all while the player navigates the space as they shoot.
   2. **How:** Transfer previously learned reactivity principles to this movement scenario. Avoid making predictions and strafe with intention to account for your self imposed changes in direction.
   3. **Why:** Adds movement aiming as a layer on top of the isolated mouse control principles that are to be learned prior to this.
   4. **Most Applicable Games:** Apex Legends, Overwatch, Fortnite, Quake
4. VT AirStrafe - **5 runs**
   1. **Description:** A single invincible bot makes fast and sporadic X/Y/Z strafes while the player navigates the space as they shoot.
   2. **How:** Transfer previously learned reactivity principles to this movement scenario. Avoid overreacting to direction changes and strafe with intention to account for your self imposed changes in direction.
   3. **Why:** Adds movement aiming as a layer on top of the isolated mouse control principles that are to be learned prior to this.
   4. **Most Applicable Games:** Apex Legends, Overwatch, Fortnite, Quake

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# How to use the Voltaic Progression Sheet

Using the [Voltaic Progress sheet](https://bit.ly/VTxKvKsprogressS4) is rather simple, use the steps below to make use of the sheet and understand the bars presented on the spreadsheet.

## Make a copy of the sheet

1. Simply navigate to the top-left corner of the spreadsheet
2. Click on ‘’File’’
3. Click on ‘’Make a copy’’
4. Name it to whatever you want
5. Click ‘’Ok’’
6. Read more below

## Select your difficulty

Once you’ve successfully copied the sheet, you should land on the correct sheet tab from the start. If you are a beginner player then play the ‘’Novice’’ versions of our scenarios. Traverse categories at your own discretion as you continue to see improvement and positive results.

## Enter your scores

After copying the sheet you should be able to manually enter your score for each scenario. Enter your high scores for all benchmark scenarios as they appear on the leaderboard and the progression sheet will calculate your energy and subsequently your rank.

## Interpreting the Progression Sheet

The progress bars measure how close your score is to the next highest associated rank, which the energy column shows the value you’re getting out of each subcategory.

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# Final Thoughts

Voltaic benchmarks are a very useful tool to track your progress. They can also help with motivation thanks to the Discord ranks and the social aspect.

The benchmarks should be seen as a tool to naturally analyze yourself and your performance over time, and they can be very useful to compare changes in your setup & peripherals.

A key component of analyzing yourself is finding your weaknesses, and the categories for each benchmark cover all the most popular aiming movements FPS games have, allowing you to figure out what you are lacking, so that you can improve more efficiently by focusing on your weakest areas.

# Credits

These benchmarks are brought to you by Voltaic, visit [our discord](https://discord.gg/voltaic) to participate in the skill progression system with role incentive.

All these benchmarks were determined based on constant feedback from our community, comparing results from previous seasons, lots of testing and the current leaderboards on KovaaK 2.0.

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* Vodkards
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