

# What is the PRNG ACE stall code?

The PRNG of Pokémon Emerald advances at approximately 60Hz because of an RNG call that is made during the VBlank Interrupt call that the game makes when preparing to draw a new frame to the screen. Depending on the state of certain battle flags, this RNG call is disabled, and the game will not advance the RNG at 60Hz anymore. Usual calls to the RNG like NPC movement, the ASLR, and Pokémon generation advance it like usual.

## What does that do for me?

It makes it so that you can get any valid H1 wild Pokémon with 100% success rate. This can also be applied to method 1 Pokémon but depending on the Pokémon you will have only a high success rate, not 100%. The reason some are not 100% is because for some, like the Wynaut egg, Beldum, Voltorb, and Electrode are in areas where the RNG can advance if you don't interact with them quickly enough after exiting the menu. VBlank will not advance your RNG state until you reset or enter a battle. Since the game thinks you are in battle, there are some things you should not do while the RNG is stalled. Examples are giving a Pokémon a rare candy or using surf out of battle. Its fine for you to use the ACE while surfing, you just won't be able to use it again outside of battle until you clear the effects of the ACE by entering a battle. Entering a battle will make the game behave as if you never used the code afterward. The intended use for this code is to use it and immediately get an encounter. If using for things like Wynaut eggs/Beldum/etc. you want to get into a battle as soon as you can after collecting your pokemon to make sure you don't run into these issues. Worst case is you're just going to freeze and have to restart from wherever you last saved.

## What do I need to do prior to starting this?

It is assumed you are familiar with Emerald ACE with 0x6011. This Pokémon works for executing ACE but is extremely inconvenient due to needing to hatch the egg. A stable summary Pokémon is much more useful for diving into the world of ACE.

Follow Merrp's guide to get the stable glitch species 0x40E9 (for English versions):

<https://pastebin.com/Sz2Aiu6p>

This ACE requires us to be able to use boxes 1-13 as code. Most ACE codes can't fill that much up with code because an exit code is required to make the ACE not freeze the game. We fix that problem by storing a branch instruction in box 14, never touching it again, and making a bootstrap Pokémon to store the exit code normally used in boxes 8-13. To make the bootstrap, use the codes in E-Sh4rks box name generator and follow these steps.

[https://e-sh4rk.github.io/EmeraldACE\\_web/](https://e-sh4rk.github.io/EmeraldACE_web/)

- 1) Make sure Box 10 Slot 19 is Empty
- 2) Execute "Create Pokémon species from nothing" targeting species 0xFF
- 3) Execute "Certificate Exit Code Bootstrap"
- 4) Chuck the Pokémon in Box 10 Slot 19 immediately after your 40E9 bootstrap

Once this steps is complete, as long as box 14 is not re-written and the code you are using doesn't use register r0, this lets you use codes that expand to boxes 1-13. The "exit code" will make you see a Pokédex completion certificate once the code is done executing.

- 5) Nickname any Pokémon  `_ _ D n ' J k l _ _`, where `_` is a space and chuck it immediately after the exit code bootstrap Pokémon.

Now when you execute a code you stay in the summary screen instead of seeing the certificate but still don't crash. This is convenient for the ACE Stall code and inconvenient for some others. Add/Remove this Pokémon directly after the exit code bootstrap depending on which behavior you want.

What offsets do I use when performing my search for the seed I want to input?

The recorded offsets assume have completed the prior mentioned setup and are using a stable summary ACE Pokémon. You should initiate dialog boxes/encounters as soon as possible for method one Pokémon to get these offsets and use sweet scent without leaving the Pokémon menu if going for a wild Pokémon.

## Offsets for methods/Pokémon that have been tested:

Sweet Scent: 2

Most Legendaries: 3

Sudowoodo: 6

Beldum: 4

Electrode: 5 if both electrodes present, 4 if one

Voltorb: some are 4, some 5 depending on which voltorbs you have already interacted with

## What seed do I enter to get my desired Pokémon?

We find the seed the generates our desired Pokémon and throw it into a convenient tool. This tool has support for several stationary Pokémon, general wild Pokémon, and fishing. No rock smash support yet, but if someone expresses interest, we could do that. Below is a worked through example of how one might use this to get the input seed.

### If you found your target with searcher

Take the "Seed" field entry and use that as input to this tool and answer the questions it asks you.

[https://e-sh4rk.github.io/EmeraldACE\\_web/scripts/seed/](https://e-sh4rk.github.io/EmeraldACE_web/scripts/seed/)

Generator
Searcher

RNG Info

Method
Method H1

Location
Altering Cave

Pokémon
-

Encounter
Grass

Lead
None

Search
Cancel

Filters

HP
11
~
11

Atk
25
~
25

Def
10
~
10

SpA
25
~
25

SpD
3
~
3

Spe
24
~
24

Ability
0

Gender
Any

Gender Ratio
Genderless

Encounter Slot
5
Any

Hidden Power
Psychic
Any

Nature
Calm
Any

Shiny
Any

100%

Seed	Lead	Slot	Level	PID	Shiny	Nature	Ability	HP	Atk	Def	SpA	SpD	Spe	Hidden	Power	Gender
00000000	None	5	12	60A1E414	No	Calm	0	11	25	10	25	3	24	Psychic	53	-

## If you found your target with generator

If instead you found your target with generator, find it again with searcher! Head over to the searcher tab and enter as many details as you can from the generator. Make sure your lead is consistent!

Frame	Slot	Level	PID	Shiny	Nature	Ability	HP	Atk	Def	SpA	SpD	Spe	Hidden	Power	Gender
1	5	12	60A1E414	No	Calm	0	11	25	10	25	3	24	Psychic	53	-

Generator

Searcher

RNG Info

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Spe
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~
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Nature
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Shiny
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100%

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