

Dream Radar RNG Abuse Guide for RNG Reporter 9.96.4 BETA and Above

Introduction

This guide aims to show how it is possible to reliably RNG a Pokémon from Dream Radar by using the RNG Reporter software, which at the time does not directly support doing so. It is recommended that you have an understanding of standard RNG abuse for the set-up that you use before attempting this.

(Note: The testing for this was performed using by a White 2 retail cart that had not yet used the Memory Link functions. After reading Chiizu's posts, I adapted them and found a method that works for me, and so it is possible that there may be variables that cause you to receive different results, and so you may have to compensate for them.)

The manipulation of a Pokémon received from the Dream Radar application is a difficult process for the sole reason that there is only one chance to obtain a Pokémon due to the game saving immediately after obtaining it. However, if all preparations are made, then there is little room for error.

Before you can RNG a Radar Pokémon, it first must be caught in the Dream Radar game itself, and then transferred from the game's main menu to your Black 2, or White 2 game cart save. From there, the cart can be removed and reinserted into another DS before actually receiving the Pokémon, and so it is possible to RNG the Pokémon using any DS system that you have already calibrated for. It is also recommended that you only attempt to RNG the Pokémon in the first slot due to the way others advance it.

About the two RNGs and their frames

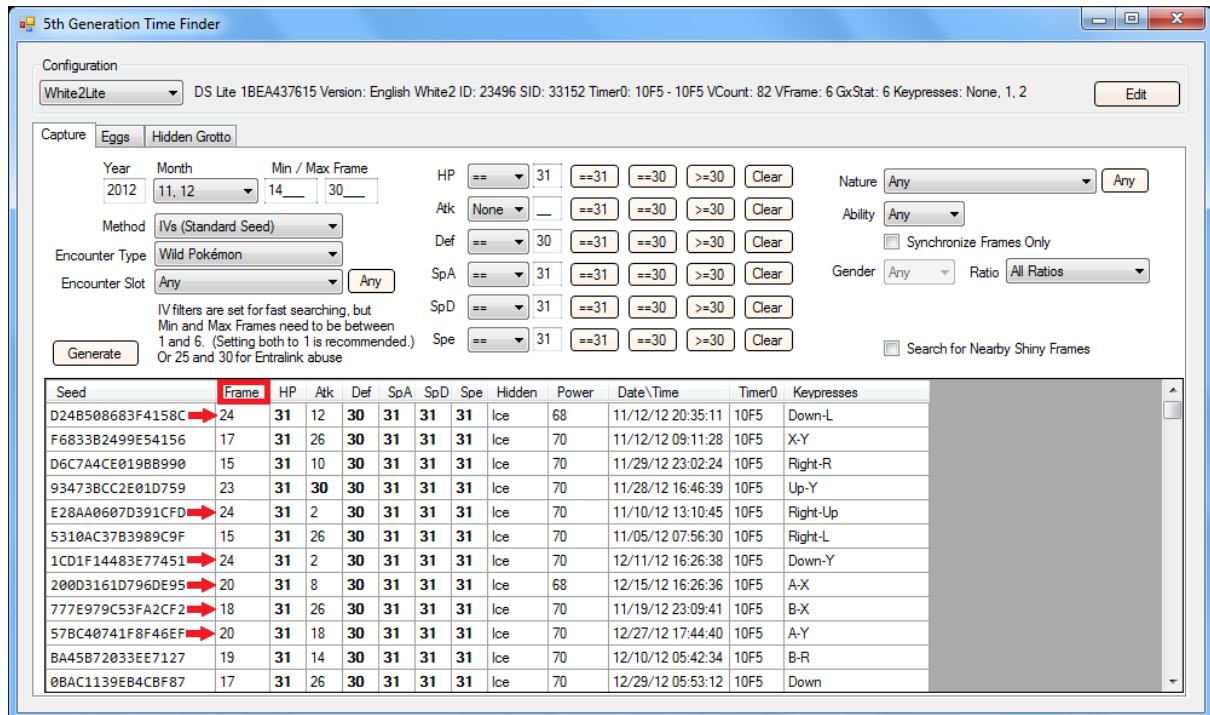
With regular RNG, there are two RNGs that are independently advanced, the MTIVRNG which determines IVs, and the PIDRNG which determines Nature amongst other aspects that are determined by a Pokémon's PID. However with Radar abuse when advancing frames, the two RNGs are advanced simultaneously.

IVs are determined using the same method as IVs for wild Pokémon, but with the IV frame starting on frame 8. The Nature is determined using the same method as the PID for wild Pokémon, and appears to start on: the same frame after calculating initial PIDRNG Frame, but with an offset of 2 for Pokémon with a gender, and an offset of 1 for Pokémon without a gender.

Frames for each RNG are advanced by activating the IR Key Transfer, with each activation of the function advancing both frames by 2. The spinner that is displayed is used for determining the seed hit, as well as for checking the current frame.

Finding compatible seeds for IVs

Seeds that are used for wild Pokémon's IVs can also be used for Radar Pokémon, providing that the target frame is an even numbered frame (as an odd numbered frame would be impossible to reach due to only being able to advance it by 2 each time). So to find a seed for use, open the Time Finder 5th Generation window. Set your profile, the parameters you require, the Min Frame to 14 or higher, and the Max Frame to around 30 or to a number you feel comfortable with. After clicking Generate, a list of seeds will be generated. From this list, you can hit any that has an even number in the Frame column.



Seed	Frame	HP	Atk	Def	SpA	SpD	Spe	Hidden	Power	Date\Time	Timer0	Keypresses
D24B508683F4158C	24	31	12	30	31	31	31	Ice	68	11/12/12 20:35:11	10F5	Down-L
F683382499E54156	17	31	26	30	31	31	31	Ice	70	11/12/12 09:11:28	10F5	X-Y
D6C7A4CE019B8990	15	31	10	30	31	31	31	Ice	70	11/29/12 23:02:24	10F5	Right-R
934738CC2E01D759	23	31	30	30	31	31	31	Ice	70	11/28/12 16:46:39	10F5	Up-Y
E28AA0607D391CFD	24	31	2	30	31	31	31	Ice	70	11/10/12 13:10:45	10F5	Right-Up
5310AC37B3989C9F	15	31	26	30	31	31	31	Ice	70	11/05/12 07:56:30	10F5	Right-L
1CD1F14483E77451	24	31	2	30	31	31	31	Ice	70	12/11/12 16:26:38	10F5	Down-Y
200D3161D796DE95	20	31	8	30	31	31	31	Ice	68	12/15/12 16:26:36	10F5	A-X
777E979C53FA2CF2	18	31	26	30	31	31	31	Ice	70	11/19/12 23:09:41	10F5	B-X
57BC40741F8F46EF	20	31	18	30	31	31	31	Ice	70	12/27/12 17:44:40	10F5	A-Y
BA45B72033EE7127	19	31	14	30	31	31	31	Ice	70	12/10/12 05:42:34	10F5	B-R
0BAC1139EB4CBF87	17	31	26	30	31	31	31	Ice	70	12/29/12 05:53:12	10F5	Down

Pick any of these results and copy the seed, note this as the IV target frame.

Return to the main window, change the Method to Gen 5 PIDRNG, tick the 'Black White 2?' Box, paste the seed, click Calculate Initial PID Frame and note the number that appears in the Starting Frame field.

RNG Reporter 9.96.4 BETA

Pokédex-IV Checker 3rd Gen Tools 4th Gen Tools 5th Gen Tools Profiles Language Researcher Options [Donate](#)

Method: **Gen 5 PIDRNG** HP: None ==31 ==30 >=30 Clear Nature: Any Any

Encounter Type: Wild Pokémon Atk: None ==31 ==30 >=30 Clear Ability: Any Any

Synchronize: None Def: None ==31 ==30 >=30 Clear Encounter Slot: Any Any

Max Results: 100000 SpA: None ==31 ==30 >=30 Clear Gender: Don't Care / Genderless

Starting Frame: **49** SpD: None ==31 ==30 >=30 Clear **Calculate Initial PIDRNG Frame**

Seed (Hex): **2DE2061DF387F1B1** Spe: None ==31 ==30 >=30 Clear ☒ Roamer Released ☒ **Black White 2?**

☐ Memory Link?

☐ DS Parameters Search

☐ Note: frame prediction will not be accurate if there are NPCs in the area

☐ Shiny Only ☐ Ditto Parent ☐ Nidoran/Volbeat

☐ Synch Frames Only ☐ Dream World Egg Only ☐ Shiny Charm

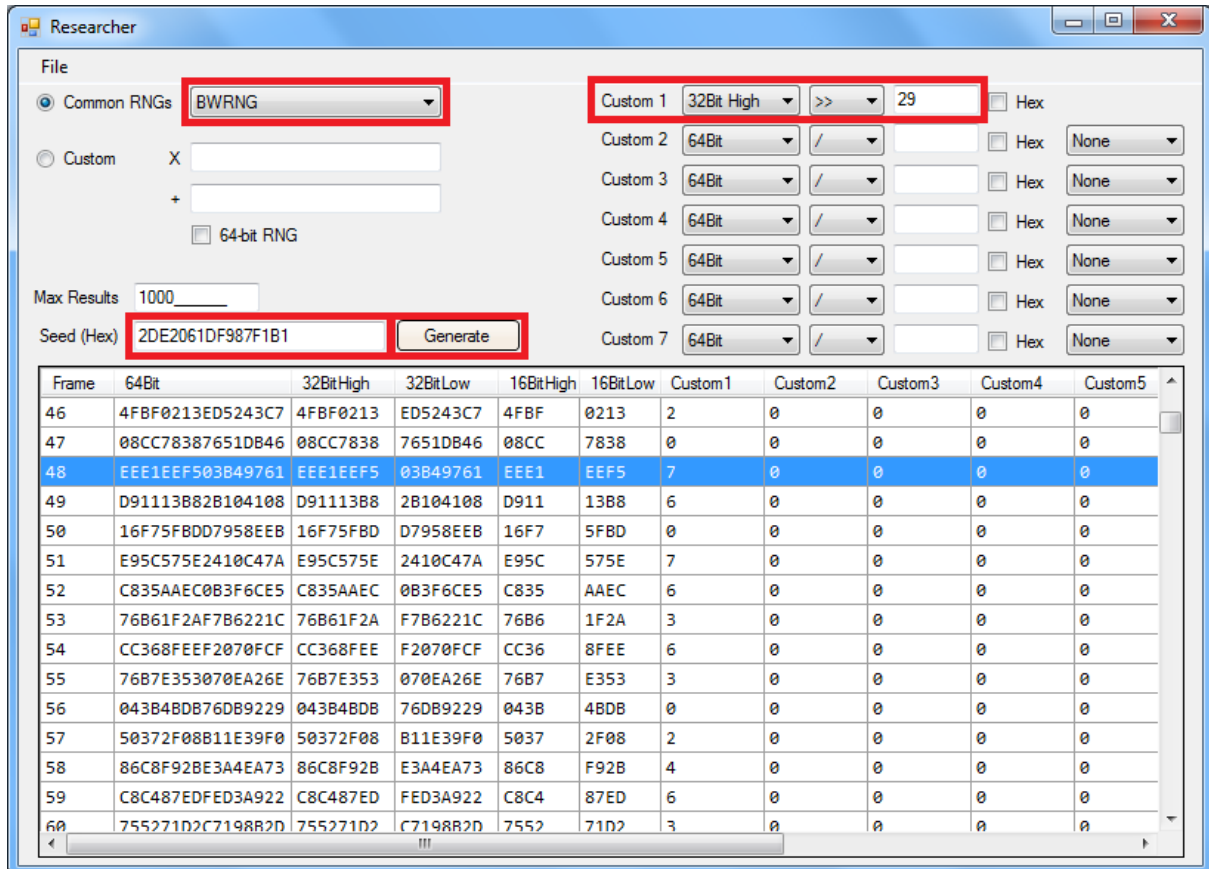
ID: 23496 SID: 33152

Frame	Occidentary	Time	Elm	Chatot Pitch	Encounter Slot	PID	!!!	Nature	Ability	Coin	HP	Atk	Def	SpA	SpD	Spe	Hidden	Power	Species	50% F	12.5% F	25% F	75% F
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Target Frame: None Coin Flips for Seed: Elm Responses for Seed:

☐ R ☐ E ☐ L ☐ Roaming Pokemon Locations:

From the main window, open the Researcher. In the window that appears, select BWRNG, and for the Custom 1 options, choose: 32Bit High, >>, 29, then paste the seed from earlier and click Generate. Scroll down to the row with the Frame number one before the Initial PID frame value found earlier.



Attempt to hit your seed as you would for any other method, but go to the Unova Link menu, and choose Key System, Send and Receive Keys, and select Yes, and look at the bottom right hand corner of the top screen, and go back. Note the starting position of the spinner and convert it to a number as follows:

■ = 0, ■ = 1, ■ = 2, ■ = 3, ■ = 4, ■ = 5, ■ = 6, ■ = 7.

This number should correspond with the number in the Custom 1 column two rows down. For this example it would be 0, and so the spinner should have started at the top. If the number did not correspond, then either something wasn't calculated correctly, or you hit the wrong Timer 0 value. If it did correspond, then repeat this process until you have done the appropriate number of advances.

This number can be determined by this formula:

Advances to hit IV frame = $((\text{Target frame} - 8) / 2)$.

For this example: $((18 - 8) / 2) = 5$ advances required.

If I had hit my seed, then the positions would be: 0, 6, 6, 0, and 4.

If the sequence matched so far, then exit this menu, but do not exit the Unova link. Instead choose 3DS link and, if everything is correct up to this point, receive your Pokémon with the desired IVs.

After the saving is complete, return to the game and check what IVs, and so frame it was that you hit.

Receiving a Pokémon with the desired nature

If you hit the correct IV frame, then everything worked out correctly, but you most likely didn't get a nature with much if any value. Back in the main window click Generate and a list of PID frames will appear. You should be able to find the frame with the nature that you did hit by using this formula:

$$\text{Nature Frame} = ((\text{Initial PID RNG frame} + \text{offset}) + (\text{Spinner activations} * 2))$$

The offset value is 2 for receiving Pokémon with a gender, and 1 for Pokémon that are genderless.

Frame	Chatot Pitch	Encounter Slot	PID	Nature	Ability	50% F	12.5% F	25% F	75% F
49	High (84)	0	4834AAEC	Hasty	0	M	M	M	M
50	Low (8)	8	76B71F2A	Rash	1	F	M	F	F
51	High (91)	5	4C378FEE	Hasty	1	M	M	M	M
52	Mid-High (78)	2	F6B6E353	Hasty	0	F	M	M	F
53	Mid (46)	5	84344BDB	Relaxed	0	M	M	M	M
54	Mid-High (79)	2	50362F08	Jolly	0	F	F	F	F
55	Mid (46)	0	86C9F92B	Rash	1	F	M	F	F
56	Low (1)	1	C8C587ED	Hasty	1	M	M	M	M
57	Mid-Low (31)	3	755371D2	Lonely	1	M	M	M	M
58	Mid (52)	5	0D5144E0	Adamant	1	M	M	M	M
59	Mid-High (78)	2	A82F18A3	Rash	1	M	M	M	F
60	Mid (45)	0	C2C3E615	Timid	1	F	F	F	F
61	Low (5)	0	676F888A	Serious	1	M	M	M	F
62	Low (15)	5	7D91C8B6	Impish	1	M	M	M	F
63	Mid-High (75)	2	DB063B93	Brave	0	M	M	M	F
64	Mid (40)	2	14CE7AD0	Careful	0	M	M	M	M
65	Mid (40)	1	6DC902E6	Hardy	1	M	M	M	M
66	Mid-Low (35)	0	8947989B	Relaxed	1	M	M	M	F
67	Low (8)	8	5066A008	Relaxed	1	M	M	M	F

For this example: $((49 + 2) + (5 * 2)) = 61$, which resulted in a Serious nature (I also hit this seed for a Porygon, which due to being a genderless Pokémon, resulted with a Timid nature).

To find a seed with a desirable nature, you would copy each seed you found from the Time Finder window into the main one, and calculate the nature that you would hit if you were to use that seed. If you find a seed that would result in a nature that you want, then you would attempt to hit that one. This should allow you to receive Pokémon from Dream Radar with desirable IVs and Nature.

Receiving multiple Pokémon at the same time

When receiving multiple Pokémon, they are obtained and generated in the same order that they were caught in, (this order can also be checked before transfer on the 'transfer to Black 2 or White 2' screen). There are a total of six available slots to store Pokémon in before transferring them, and receiving each one advances both current frames before the next one is generated.

For each slot that is occupied before the target slot, the IV RNG is advanced by a further 13 frames, and the PID RNG appears to be advanced by a further 5 frames for each gendered Pokémon in the previous slots and a further 4 frames for each genderless Pokémon in the previous slots. If you wish to obtain a Pokémon that is not within the first slot, then when generating a list of suitable IVs, the min and max frame should be increased (best by 13 for each additional slot). Also, when selecting compatible IV seeds, only select those that are an even number for slot one, three, and five targets, and are odd numbered for slot two, four, and six targets. When checking each seed for one that results in a good nature, the same formula used previously applies but with an alteration:

Nature Frame = ((Initial PIDRNG frame + offset) + (Spinner activations * 2) + (4 * number of genderless Pokémon before target) + (5 * number of gendered Pokémon before target))
For example, if there was a slot two Pokémon in the previous example, it would have received the IVs on frame 31, and the nature would have been on frame 66, which is Relaxed.

RNG mechanics for Therian legendaries

The ability to receive some legendary Pokémon from the Dream Radar is probably the most appealing aspect of the software, but is only slightly more awkward to RNG than a regular Pokémon. Therians occupy their own specific slot, and can be obtained and transferred even if the six slots are already occupied. The way in which the Therians are affected by the other slots is not currently known, but a method in which only one Therian is transferred is described.

Therians are generated as if they were a slot two Pokémon, and so the same method outlined above can be used. In this method, the Therian's frames can be considered to essentially start on frame 21 rather than 8 for the IVRNG, and Initial frame + 7 for the PIDRNG.

RNG Mechanics for 4th Gen legendaries

Another added feature to the Dream Radar, is that after obtaining Landorus, by inserting any of the 4th Gen main series games, it is possible to obtain that game's respective boxart mascot legendary Pokémon. These legends are much easier to find suitable seeds for than the Therians. They are considered to be slot one Pokémon, and are generated as if they have a gender. So any seed that works for a standard Pokémon with a gender in slot one can also be used for the 4th Gen legends.