Overview of the Time Attack glitch

(Xenoblade Chronicles: Definitive Edition)

Created by XenoPlayed (<- person to boo for anything bad in this "guide")

Big big thanks to Cross from the Discord btw ^^

Forgot to say it but neither Time Attack glitch, party swap nor Art inheritance are my discoveries. This is just a doc that lists all my observations (and then others' if others edit it) on this glitch.

However, I don't remember who found what, so excuse me if there's no credits to anyone, I feel quite bad too. Hope you understand ^^'

Disclaimer:

There will be some Future Connected-related spoilers, although nothing will be said about its story nor most of its side-quests. You've been warned.

General notes

This Google Doc will aim at encompassing every known characteristic of the Time Attack glitch from XC:DE, a glitch that was discovered around the same time v1.1.2 came around by some Japanese players I believe (don't quote me on that) but is actually doable on both commercial versions of the game as of the date this document is gonna become publicly available (v1.1.1 and v1.1.2).

It has managed to become a really intricate bug with a lot of "mechanics" and depth to it, but so far the West seems either way more oblivious to it than Japan or at least seems to understand its ramifications or some of its aspects way less, and this doc is thus kind of my way to try to bring the light on this mess.

Big shout-outs to TestAccount from Japan for having done most of the discoveries and testing (don't remember if they did the initial discovery but they did find and provide the method!). However, I kinda had to test and find things for myself as reading tweets in Japanese translated by Google Translate is not the best experience... sorry Test, but still, respect to you from the French dummy I am. o/

Of course, while this doc will be hopefully as exhaustive or complete as possible, many small details could have been missed, misunderstood or straight up wrong, so feel free to talk to me or maybe the Xeno speedrunning Discord server in the #xenoblade_de channel, if anything comes up. You can also leave suggestions, which will produce a mail notif to me, if you need info/ but don't have Discord ^^'

Besides, this is an anyone-can-edit doc, so if you have otherwise lacking information, feel the need to correct some wording or phrasing, or want to include links to helpful resources plike videos and such, absolutely don't hesitate on doing so! I don't mind at all, an improved doc will benefit everyone using it surely!

Also, I understand that an edited video or a couple of them would probably be a way better format, but right now I'd suck even more at making those than I already do with a doc. And yes, I could have done a Google Sheet/Excel sheet too, but I had already begun this doc so I wasn't going to change. Sorry to make a doc instead... ^^'

Note pour les francophones: peut-être un beau jour traduirai-je ce doc en Français, je verrai avec la demande, vu que c'est un si petit guide pourquoi pas (comparé à ce sur quoi je devrais travailler en réalité...), pour l'heure par contre je suis désolé... ^^'

For a table of contents, use the plan on the left (at least on PC, sorry mobile users ^^')

Before I may start, it is very important to keep in mind that this glitch can slightly harm your save file, although not in a "save corruption" kind of way.

Make sure to handle your save(s) cautiously if you're gonna check this glitch out!

Part 1: The Time Attack glitch

I. Nature of the glitch

The Time Attack glitch is a bug that lets you go into a challenge but without letting the countdown (and thus the timer) start, which creates some odd results.

You become able to open menus (outside of the Y-button access to Area Maps which is disabled, but the access to Area Maps in the main menu isn't), you can have Casual mode active (which is not normally possible in Time Attack), and if you decide to kill the enemy/ies and bring the green barrier down, you can then roam freely throughout the area: for

example, with the challenge Lost in a Dark Dream that is unlocked after beating Future Connected, thanks to this glitch, you can walk on the entire Bionis' Shoulder map.

If you then want to exit the challenge map, you have two options: either dying (from the challenge enemies, from falling into a pit, ...) which will put you back to the last Skip Travel location you were at before entering the trial; or using the Area Maps option in the menu, which requires getting rid of the green barrier.

II. Conditions of activation

To execute this glitch, you need to finish an auto-completable quest (i.e. the quest finishes the second you get or have what's needed) that asks for collectables that can be bought from the Nopon Archsage after entering one of the trials, Free or Restricted. This is possible because you can access both the Archsage's shop and the trials from the same menu. After buying the necessary item(s), when you enter the trial, you want to wait around 5s after the quest prompt shows up, and you're then good to go. Exiting the prompt too early will result in a normal trial behaviour.

The main drawback of this glitch is the really low amount of quests fitting the criterias to activate it, as the collectables the Nopon Archsage sells are all of the ones needed for Colony 6 reconstruction, but only those ones. This makes finding an appropriate quest quite hard. But thankfully, the only 3 quests that work are at least easy-to-get-and-fulfill quests available basically from the start, the best one being a generic quest that asks for 2 Rabbit Diodes in Colony 9 since Rabbit Diodes are pretty cheap Noponstone-wise. However, if you have already completed all of those quests, then you will not be able to (re)perform the Time Attack glitch unless you create a new save file or enter New Game Plus (NG+ for short).

Be sure to not become able to fulfill the requirements of the quest between obtaining the quest and attempting the glitch by accidentally having or reaching the required amount of collectables. To be safe, you should sell the needed collectables and avoid the blue orbs that will give the item(s) during the whole process (quest collectables being denoted with a "!" both on the mini-map and in the overworld in this remake).

III. List of usable quests

Here is a list of all of the only few usable quests for the purpose of the glitch, including where and how to get them, and the requirements of the quests themselves:

Quest Name (Zone)	Location and time	Prerequisites	Required items	Total price in Noponstones
Collection Quest 1 (Colony 9)	Ether Light between 06:00 and 18:00	None	2x Rabbit Diodes	6000

Collection Quest 3 (Colony 9)	Tranquil Square between 06:00 and 18:00	None	2x Rainbow Zirconias	7800		
Collection Quest 1 (Tephra Cave)	Escape Pod Bay anytime	After the Mechon attack on Colony 9	2x Kneecap Rocks	13400		
Yup that's it:						

IV. Additional information before moving on

- Since the Archsage only sells collectables after beating Lorithia in Bionis' Interior, it is currently impossible to execute the Time Attack glitch before that point in the story.
 And remember that the "Uniquely Disadvantaged" trial is also only unlocked when being able to reach the last time attack teleporter, if you want to use that challenge.
- On the trial maps, which seem to be separate from the real maps but I'm not really certain, a lot of actors are seemingly unloaded: there will be no NPC's, no enemies (outside of those that are or were present in the challenge arena) and no items. Moreover, poisoned water or Sword Valley's ether river will act as normal water, and teleporters such as Eryth Sea's won't work. What's more, some actors that are still present like the giant doors from the side of Mechonis Field can behave really strangely (in the example of the doors, during "Sparks Fly, You Die" you'll notice the doors will constantly open then close then reopen again in an endless cycle, like other actors from the Mechonis Field too)
- If you decide to kill all the enemies of the arena with the glitch active, then next time you'll reenter the arena, even if you don't reactivate the glitch that time, the trial will still be "glitched out" ~ you'll be frozen for a few seconds (as if you were waiting for the timer to start, but there is no timer), then you'll be free to move around the trial map. And glitching out the map in Free also glitches the map for Restricted and vice-versa. The next part will further develop that aspect, as there is a little bit more depth to it than it seems at first glance...

Now, you might wonder why this glitch deserves a doc on it. I mean, so far, the glitch has been very cool and all, but it's not really been that useful, right?

Well, think again!

You now know what happens once we kill all the enemies, the barrier drops down and you can now explore the modified areas or leave manually. But what if I told you killing only some

V. Wave Cut Bug

The Wave Cut Bug is an application of the Time Attack glitch that is performed by killing the first Wave of enemies of a glitched Trial but then dying to the second Wave instead of taking care of it, then coming back normally to the same Trial map you glitched. Once you do get back into the challenge, there will be two different behaviours depending on the original number of Waves the Trial had (Lost in a Dark Dream is not taken into account as it is only 1 Wave and thus Wave Cut cannot apply):

- The Trial had 2 Waves: you'll start on Wave 2 instead of Wave 1, and the timer behaves normally.
- The Trial had 3 Waves: you'll start on Wave 2 instead of Wave 1 as for the 2-Wave case, but the timer will also stop after 0.03s, ending the challenge immediately.

After completing the challenge that way however, the Trial is completely un-glitched, meaning you unfortunately cannot use this glitch to farm Noponstones and stuff:(

Also, the glitch is at least as of 12/01/2021 D/M/Y banned from the DE IL speedrun leaderboards as it completely trivializes all 3-Wave Trials, over half of the Trials, making them go down to 0.03s, and there would be no competition at all on those Trials, and not just for Free but for Restricted too.

I kept the name given by TestAccount in his tweets because it is a really fitting name, and they are as far as I know the discoverer of that aspect, and if they are not then they are the one that popularised it at the very least.

Now, get ready for a longer glitchy excursion, because the next parts will cover what happens specifically when and after you use the glitch and enter a Restricted challenge (or enter the Restricted version of a Free trial you glitched out)... and the rabbit hole goes somewhat deep, believe me :0

Part 2: Party swap

Party swap is another application of the Time Attack glitch that's done when using specifically a Restricted challenge for the glitch. You'll spawn with the Restricted team for the challenge as normal, yet since you can escape the area with a death or skip travel with Area

Maps, you can successfully extract the challenge team, effectively "swapping" it with the normal party, hence the name. Though technically it's not a 'real' swap, they're just the normal characters but modified, but I'll come back to that in just a bit.

Party swap is as well not version-dependent as of the writing of this doc (Monolith, don't patch any of the present glitches pls), and currently has a use in non-Casual-mode speedruns: it cuts grinding by around 30min as you only need to have the levels to beat Lorithia instead of up to Zanza by using one of the highest level teams available. As of 14/09/2020 both 1st and 2nd places are using party swap, and it probably was what allowed for DE's first sub 5 in Normal any%, a 4h46 run from TJ Blakely:D

Outside of this speedrun utility though, party swap can be quite dangerous for your file instead of helpful. Here's a (hopefully) comprehensive list of the effects of party swap so that you may form your own opinion:

- The Equipment menu will crash upon exiting it, but it's to my knowledge the only part of the menu that's problematic (tho it is still a big issue).
- You can't access the characters that were not on the trial team outside of Skill Linking their skills on trial characters.
- The characters from the trial team have their Affinity Coins reset to 0/0 and all of their Skill Links are reset. In addition, their skills are set to what the trial normally sets, which is fine, but they at least keep access to their 4th or 5th branches.
- Affinity between the characters of the trial team is set to a state specific to each trial (parameter not shown in the team preview so it's worth mentioning).
- You can regain Arts on your Arts list by leveling up (or by leveling down then up), otherwise your Arts are set to whatever the team is supposed to have, and your AP are reset to whatever they're set when first getting the character.

Here will be provided a table with all the necessary info on the trial teams (will be added sometime):

Alright, this glitch became a little more interesting.

But access to Restricted teams that I can't even change the equipment of doesn't change things too much outside of speedruns. Is there more fun for casuals and glitch maniacs?

Well, yeah!

(otherwise I would not make this transition, duhhhh)

Let's now try to enter NG+ after a party swap...

Part 3: NG+ consequences

NOTE:

In this part and the next ones it is going to be important to really pay attention to the terms used to describe the characters or the Arts. You will quickly see that there is a notable difference between the concepts of "trial characters/non-trial characters" VS "characters with an empty Arts list/characters with an non-empty Arts list", or between "normal Arts/Talent Arts" VS "Arts on normal palette/Art in the middle slot" for example.

I know this might be a little hard to take in all of this information, so don't hesitate, again, to ask me or on the Discord for clarification if needed! ^_^

I. Entering NG+ after party swap

By either fighting Zanza after the glitch or beating him prior to executing it, and entering NG+ on a file with your swapped team, you will begin a seemingly normal NG+ file. You'll be able to get access back to all characters by going through the story again. However, your party members will still be in a weird state.

Down below is a small and (hopefully) comprehensive list of what you can check in your menus pretty quickly (unless you picked like "Fair Game" or something for the party swap, in which case you'll have to wait until getting Dunban after Mine to see all the weirdness probably):

- The Equipment sub-menu is unglitched, you can now safely check and change equipment. Trial members stay with their trial equipment and don't lose their previous one. (However, the gems that were supposed to be given for the trial are not given to you. ^^')
 - This can lead for example to Shulk having both the Monado I ("Humble Beginnings" and such) or Monado II ("Sparks Fly, You Die") with the Monado III, which is neat, but also is the cause of the sub-glitch described in III.
- Skills and Skill Links are not modified at all (including underflows for v1.1.1 only) for non-trial-members. In fact, you get to keep Skill Links to skills the trial members have forgotten, until you remove them from their Skill Link slot.
- Affinity is not modified between non-trial characters nor between a non-trial character and a trial character.
- But most importantly, you'll see that non-trial-members got their Arts list completely
 wiped out and now only have Arts on their Art palette (for Shulk it's the same be it
 normal or Monado palette, except if you had gotten Armour or Eater previously, in
 which case you will get them back immediately). This is what's gonna cause the two
 important bugs of the next Part: Art inheritance and Art duplication.

II. Weapon deletion

You can delete a non-trial character weapon that's not Shulk's by selling or discarding it between the party swap and the NG+ entry. By doing this, once the character joins the party back, they will not have any weapon equipped, which in itself is an oddity.

A few noteworthy things:

- The game will crash upon exiting the Equipment screen if you exit it while there's no fashion weapon assigned, probably because it tries to load the weapon object corresponding to the fashion weapon, or the actual weapon if there's no fashion weapon. So if there are not any weapons nor any fashion weapons equipped at all, it's understandable that the game doesn't know what to do and crashes.
- The fashion weapon will still load on the map but not in the character's possession. The most likely theory is that it loads at the coordinates (0,0,0) of the map, because the game doesn't know where to put the weapon, since the character is not supposed to have one right now. The weapon still behaves like "usual" for animations, as in, even though it is not in the character's hands, using an Art will still move the weapon accordingly.
- A character without a weapon equipped is not able to use Auto-Attacks though, for some reason, but is still able to do anything else.

III. Weapon limit bypass

As it turns out, when entering NG+ with a party swap that involves Shulk, the game adds the Monado I/Monado II to the inventory without caring about the weapon limit, which allows you to bypass said limit if you already had 450 weapons.

I don't know if this is the case for other weapons or for armor, but it's at least the case for Monados as TestAccount did achieve this limit bypass.

I also don't know what is the new theoretical limit nor what would happen should this limit be reached (overflow, crash, nothing ,...).

Now, let's see what Art inheritance and Art duplication are all about...

Part 4: Art inheritance and Art duplication

I'll start with Art duping/duplication because it's the simpler of the two (yet has some subtleties to it still), but you should always try inheritance before duplication if you want both, and I'll explain why in the beginning of the inheritance section! Also, those two glitches only apply to non-trial characters, for reasons that'll also be explained later.

I. Art duplication

You can effectively dupe normal Arts ("normal" as in "in comparison to Talent Arts": Monado Arts are considered "normal" and not Talent Arts) that are currently on the palette of a non-trial character by leveling up (or down then up) to reconstruct their Arts list while letting the desired Art(s) go(es) on the palette a second time by having it place itself into an empty slot on the palette. E.g. you can have two Wild Downs on Reyn, or two Happy Happy's on Riki, et cætera...

When used in battle, the cooldowns of the two Arts will be handled independently. And when you level up the Art in the Arts list, both versions level up, since the icons on the palette are really just pointing to Art data in the code, and just happen to point at the same place in memory.

You cannot get back Arts that were only given during the story, namely Speed, Shield, Purge, Cyclone, Mind Blast and Final Cross, through this process. You are also unable to dupe Arts that are not the character's own Arts for obvious reasons. Moreover, while you can recuperate Arts for trial characters, you cannot dupe their Arts because the latter are already on the Arts list and so will not get put on the palette automatically, even with empty slots, again.

• Do note however that <u>all deleted-from-list Arts (non-trial characters + deleted Arts from trial characters) are reset to a level 0</u> (to get the stats of a level 0 art just look at how much cooldown and all are incremented and substract instead these increments to the level I stats), <u>then level I when you get them back.</u>

Last but not least, it might be possible to dupe Arts more times by redoing a party swap and reentering NG+ again, but I have yet to test that as of 16/09/2020. Though maybe others have already tried.

And now, for the main buffet...

II. Art inheritance

You can obtain Arts from other characters on the Art palettes of characters that have an empty Arts list, and there are two methods: one 100% consistent that allows you to transfer the first Art of the list of a character that has a non-empty list, and one really random from our current viewpoint that can give access to any ally-side Art in the code, even Mumkhar's, Alvis', Dickson's, or even from FC characters like Nene, Kino and the Ponspectors'! It can be really broken. And you can't crash ever! (though with Homs Fiora you can softlock instead, but at least you get to hear Xeno music, that's a good point right?)

- First method: the first Art from a list of another party member. Consistent.
 - o Go in the Arts menu
 - Look at the page of a character that has a non-empty Arts list (if Shulk, both normal and Monado lists are different)
 - Then go on the page of a character without a list
 - Select a spot on the palette and input up or down
 - You can now equip the first Art of the the non-empty list you last looked at

- The whole process has to be done without leaving the Arts menu in-between steps.
- Basically, the Art of choice is set each time you look at a non-empty list, and is not changed when looking at an empty list. So you need to arrange the party so that you can go between adjacent characters with L and R from the character you want the Art from to the character you want to give the Art to.
- Second method: potentially any ally-side Art in the game!. Really random for now (not in the sense of RNG, but in the sense of "how the fricc is it choosing that Art and not another?")
 - Make sure you lead with a character that has an empty Arts list
 - o Go in the Arts menu
 - (Optional) If there's a character that also has an empty list you can go on their page
 - o (Optional) Select a spot on the palette
 - Input up or down to see if you've got an Art ready to be equipped out of nowhere
 - Exit the Arts menu and repeat the previous steps if not
 - If yes, you can now equip the obtained Art anywhere on the palette or anywhere on the palettes of adjacent characters with empty lists.
 - Looking at a non-empty list at any point during the process just sends you to the first method

Throughout the rest of the document I'll be talking from time to time about the "index" of an Art. Just think of it as the game attributing a number to each Art in a certain order, except it's neither the order of the Arts list nor the order of level up learnset, but still a certain order. And those indexes go from 0 to 15 (as everyone but Homs Fiora has exactly 16 Normal Arts), but there are more Arts per character than total indexes as Talent Arts's indexes also start at 0. So, to simplify and to not have the same numbers for different Arts on one character, this doc will refer to Talent's indexes with T0, T1, ...

• E.g.: Reyn's Hammer Beat has an index of 0, Magnum Charge is index 10, Berserker is index 5, but for this doc since Mad Taunt is also on 0 like Hammer Beat, Mad Taunt will be said to have index T0 instead.

For those that are familiar with the datamine or would like to be, the numbers that are most likely used for animation choice and what is thus referred to as the index in the present doc are the numbers from the column "act_idx" in the pc_arts part (and not "idx" because of the different ordering of the Monado Arts and practical observations), but since some Talents and 1st few normals share the same act_idx number, this is why a T will be added in front of the number if it's a Talent Art for this doc. I could have gone for 0-0, 0-1, 0-2, ... 0-15 for normals and 1-0, 1-1, ... for Talents but it would have been meh.

Here's a link to the part of the datamine I'm referring to: https://xenoblade.github.io/xb1de/bdat/bdat_common/pc_arts.html

And here is a link to a more readable table that lists most Arts in the game with their index number per character (credits to Cross from the Discord server for establishing it, I

just rearranged it and completed it with the Ponspectors, but Cross did most of, if not all of, the hard work ^_^): Art Inheritance table v2

As well, you'll see the word "gacha" being used throughout the rest of the doc, it's just to designate the seemingly random process of getting Arts, but once we know how it works, I might or not change terms. For now though, this glitch behaves exactly like a gacha game, as more often than not pulling up the Arts menu won't even give you an Art, it can give you empty slots.

Below are a few general notes about art inheritance:

- Inherited normal Arts behave normally for any character as instead of trying to use a
 non-existent animation (which would most likely result in a softlock or crash), they
 use the animation of the Art with the same index. For example, Speed on Reyn will
 use War Swing animation because they both are index 3, Shadow Eye on Melia will
 use Power Effect's animation, and so on...
 - However, Homs Fiora does not have animations past index 3 (since she wasn't programmed to have animations for anything other than her own 5 Arts), and Homs Fiora instead freezes in place if she uses an Art of index 4 or higher and ends up soflocking the game. Arts under index 3 are good though.
 - Similarly the different characters have different numbers of Talent Arts, Reyn and Riki (and Homs Fiora) have 1, Shulk and Sharla have 2, Dunban and Mecha Fiora have 4 (the different levels of Fiora's Drones count as the same index) and finally Melia has 7. Giving a character a different Talent Art of a higher index than they themselves have, on the central slot and using it will also cause the character to get stuck in place.
- You can switch the Art in the middle slot (at first the Talent Art) with an Art on the normal palette or even an empty slot (but you'll lose access to the middle slot forever if empty space) by getting the middle Art via gacha then trying to equip it on the palette.
 - Normally you can't unequip, select nor swap out the middle Art, but when you try to put the middle Art on the normal palette, the game has no issue with you trying, however since equipping it would put it twice on the whole palette, the game instead does what it would normally do with other Arts, aka swapping the two intervening Arts. The developers just did not think about changing this subroutine, because... why would they? It's normally impossible to interact with the Art in the middle.
- Most inherited Talent Arts behave differently than normal Arts: when on the normal palette, Talent Arts will redirect to the Art in the middle slot instead of executing themselves. This might be because of how Talent Arts and the middle slot are coded or something. Why the developers coded it like this instead of simply applying the same code as normal Arts, the world may never know...

- Inherited Arts that have the same index as an aura of the character they are now on will not only use the auras animation but keep the visual effects the aura grants until a different aura animation is used. For example Slit Edge on Riki uses the "Riki is Angry" animation, which will make him glow red continuously.
- Especially in Sharla's, Dunban's and Melia's cases, it's important to note that the Talent Gauge/middle slot and actual Talent Arts are treated separately, so some behaviours still happen regardless of the Art present in the middle slot (or regardless of which Talent Art is in the middle for Dunban).
 - For Sharla, getting to 100% Talent Gauge still activates the automatic form of Cool Off, and Talent Gauge should (to be tested more) still affect her damage and healing by the same amounts.
 - For Melia, getting to 100% Talent Gauge still activates her Element Burst aura.
 - For Dunban, using any Art in the middle slot will still activate Burst Affinities to go to the other Arts that compose the entire Blossom Dance.
 - "Blossom Dance" is actually cut into 4 Arts: Blossom Dance, Cutting Petal, Twisting Petal and Falling Petal. The reasoning that comes to mind is that since all other Arts are coded to have a fixed ratio per hit that gets read once by the game when executing the Art, and also happen in one continuous animation, it was easier to implement Blossom Dance's varying damage ratios and discontinuity by just linking 4 Arts rather than trying to implement it another way.

IMPORTANT:

Here are shown which properties of the inherited Art you'll use will come from the actual Art itself and which from the Art of the same index from the character, as well as an info on number-of-hits-related shenanigans.

- When using an inherited normal Art, or an inherited Talent that's on the middle slot, in battle:
 - <u>Damage ratio per hit</u>, <u>damage type</u>, <u>bonuses</u> (more damage from behind, longer duration for Bleed, yada yada... but also just buffs, debuffs or auras in general), <u>range of the Area of Effect</u> (in short AoE range), <u>colour</u> (important for Chain Attacks), <u>activation range</u>
 - **⇒ Inherited Art**
 - Animation, number of hits (yes, it's tied to the animation rather than the Art's data lul)

⇒ Art of the same index as the inherited Art

- When using a Talent Art on the normal palette (in most cases):
 - Damage ratio per hit, damage type, bonuses, AoE range, colour
 ⇒ Art in the middle slot
 - o Animation, number of hits
 - ⇒ Art of the same index as the Art in the middle slot if inherited, otherwise it's just the Art in the middle slot too
 - o Activation range
 - *⇒ Talent Art on normal palette*
- Because the number of hits is tied to animation rather than the Art, there can be some odd interactions:
 - If an inherited multi-hit Art uses the animation of an Art with less hits, the missing hits will be completely ignored.
 - E.g.: Final Cross on Shulk would only get one hit as Stream Edge is the Art of the same index (index 15) and Stream Edge's animation has only one hit, and so no topple for example.
 - On the contrary, if an inherited Art uses the animation of an Art that has more hits, the added hits will have exactly the same properties as the last existing hit.
 - But, if such an Art is used during a Chain Attack, you'll go to the next character after the intended number of hits of the Art, yet the added hits still happen!
 - E.g.: If we take the above example, but inverted, Stream Edge on Mecha-Fiora would get 4 physical hits that all inflict Break, because Final Cross' animation has 4 hits.
 - E.g.: Worldly Slash on Reyn gets 4 hits because War Swing's animation has 4 hits, but only the last 3 hits inflict the debuff(s) because the added 2 hits take on the properties of the last valid hit, the 2nd hit, whereas the first stays the same as if it were on Dunban, no debuff. And if used during a Chain Attack, let's say it's Reyn-Sharla-someone else, then you'll go to Sharla after the 2nd hit of Reyn's Worldly Slash and not after the 4th.
- Again, <u>all deleted-from-list Arts (non-trial characters + deleted Arts from trial characters) are reset to a level 0</u> (to get the stats of a level 0 art just look at how much cooldown and all are incremented and substract instead these increments to the level I stats), <u>then level I when you get them back on the list.</u> So don't waste

time getting/buying Art books *before* the glitch. <u>If you intend on seriously using it for like IL's, NG+ speedruns, etc... be sure to only get them afterwards.</u>

- This does also mean Arts from Kino and Nene will be forever locked to level
 0, the same for other guests or Ponspectors.
- If you got the Armour or Eater records before performing party swap, you will be forever unable to place inherited Arts onto Shulk's Monado palette, as they stay throughout NG+ and will put Armour/Eater immediately back on the list. (Thus I can't test the behavior of inherited Arts on the Monado palette unless I start a new file...)

One last thing before case by case trivia: the pulling of Arts via gacha is non-uniform, i. e. all Arts don't have the same probability of being pulled. Again, it's not random as in RNG random, it's only random for our current viewpoint.

Part 5: Inheritance trivia, case by case

This part is going to be filled over time as we get more information about the specific behaviour of some Arts (whether they pose problems or on the contrary have notable advantages, any peculiar Art really).

If you want to help, please do!

This is the one part where any input is welcomed, as even getting Arts can take a ton of time, let alone testing them in every desired situation!

(I might also not be able or not have the motivation at times to write the things I find in live, so don't worry if info you're looking for is not here and you don't want to test it, ask me if you want and maybe I could still help ^^')

Grey Arts on normal palette:

The icons of grey Arts when on the normal palette never light up, however they can still be used inside their activation range as normal. And though most of the grey Arts are Talent Arts, this also applies to the Monado Arts.

Another advantage of grey Arts on the normal palette is that you can use them multiple times during a Chain Attack. You can for example go for Buster on Reyn and one round later still go for another Buster. This makes grey Arts, in conjunction to their ability to preserve the damage bonus increase from and to different colors, kinda powerful.

Interestingly enough, Activate Monado, both Overdrives, and the Petal Arts are considered to be chain type(=colour) 0 instead of 8 like all other grey Arts (colour 1 is red, 7 is orange, for example), though it is unclear whether that nuance matters for anything...

Monado Arts:

Contrary to what their chain colour or use of Talent Gauge might indicate, they are all considered normal Arts by the game, meaning they are usable by anyone even on the normal palette, although because the developers didn't account for an impossible access to those Arts outside of activating Monado, Monado Arts do not experience cooldown, as is the case for other grey Arts.

They will still consume Talent Gauge by their specified amount, but that amount is not actually required for characters other than Shulk. For Shulk however, for some reason, you will need full Talent Gauge to use them even on the normal Art palette.

Inherited Monado Arts on characters other than Shulk are thus immediately and infinitely reusable Arts, but if you want to use Talent Gauge for something else they might not be the best option.

Do note that all Monado Arts are listed before regular Arts for Shulk in terms of indexes, unlike what you'd probably think.

Also, it seems Monado Arts are among the most likely Arts to be pulled via gacha, probably because they're in the first Arts of the total Arts list?

Activate Monado:

While it behaves mostly like all other Talent Arts when on the normal palette, its virtually infinite activation range (as it is set to a distance higher than both target and despawn range) is a big plus, as it allows you to hit a given enemy from basically anywhere and with whatever Art is in the middle slot.

Something else to note though, is that, unlike all other Talent Arts, swapping out Activate Monado from Shulk's middle slot is more restrictive, as specifically Shulk's middle slot gets set back to Activate Monado anytime you enter the X menu (don't know for the + menu but I assume it's the same for now). The developers probably wanted to guarantee access to the Monado palette without any weird issues (yet didn't do anything for other Talent Arts... Monolith programming IuI).

As shown by TestAccount in one of their tweets, when Activate Monado is put in the middle slot, characters can get access to a "Monado palette" of sorts that does not contain any Arts even without having 100% Talent Gauge, but are unable to return to the normal palette until the battle ends or they flee the battle. This thus causes a softlock if you use it during a Chain Attack.

(link: https://twitter.com/testAccount8192/status/1307036347073523713?s=19)

Descriptionless Activate Monado:

This Activate Monado differs from the real one by a lot, they're really only the same by name and colour. It is considered a normal Art unlike the real one (index 0 vs T0), and its effect is to damage yourselves by 1HP, using your Talent Gauge entirely in the process. Not really the most useful Art of the bunch... Though you can get party gauge by critting yourselves, I suppose that's something to note.

Normal Arts with activation conditions: Magnum Charge/Magnum Starch, Aura Burst/Aura Toast, Burst End, Mind Blast, Happy Happy, Final Cross:

Normal Arts that need a certain condition to be available, when inherited by other characters, do not need said conditions anymore. For example, you can use Happy Happy without having high tension, or Aura Burst/Toast without using an aura.

It can be noted that Reyn can indeed use Nene's versions of Arts without conditions as well. Also, Magnum Charge and Magnum Starch will still drop your Talent Gauge, so be careful in case you want to make use of Talent Gauge for something else.

(I personally didn't test Final Cross, Mind Blast and Burst End, but following Happy's and Aura Burst's examples I don't see why they wouldn't work like this too)

• From usage in TAs, Final Cross and Mind Blast are confirmed to also work this way

Guard Shift (Reyn)/Guard Sift (Nene):

As shown by one of TestAccount's tweets, activating Guard Shift/Guard Sift does not lock your movement, Auto-Attacks nor Arts. However, you still lose the ability to begin a Chain Attack or to flee the battle for the duration of the Art.

(link: https://twitter.com/testAccount8192/status/1307533904836927488?s=19)

Sharla's and Kino's normal Arts:

Those Arts still give you free Talent Gauge when you use them (outside of the auras and Head Shaker/Egg Shaker of course). Otherwise, they all mostly work as intended.

Drive Boost:

Using Drive Boost doesn't lock your movement but still prevents you from using Auto-Attacks. Otherwise, it works as intended.

Cool Off/Doze Off and Overdrive:

Overdrive might be the Art used to implement the "automatic Cool Off/Doze Off at 100% Talent Gauge" mechanic from Sharla and Kino. When put on the normal palette, Overdrive has a virtually infinite activation range just like Activate Monado, and when put in the middle slot you can go into Cool Off without your movement being locked, but you will be unable to do literally any action other than movement until you end the battle by de-aggroing/despawning the enemy.

As a reminder from part 3, inherited Cool Off/Doze Off and Overdrive will not give you the bonuses tied to Sharla's and Kino's Talent Gauges nor force themselves at 100% Talent Gauge as they are separately implemented mechanics.

(I have not yet gotten Cool Off nor Doze Off on anyone, but I assume they work the exact same as Overdrive)

Talent Art Overwrite:

There is an interesting interaction between the Talent Arts of the different characters when placed on the central slot.

As was mentioned before Melia's Talent Gauge will work towards her Element Burst, this however has one major consequence. Any Art placed on Melias central slot, will be overwritten with the properties of Elemental Discharge, so that inheriting to this slot becomes almost entirely useless.

Dunban's Central Slot will always cause follow up Burst affinity into the following hits of the Blossom Dance Combo regardless of whether there is a Talent Art in the center, or a regular Art.

Shulk's central Art resets to Activate Monado whenever a menu is opened.

Mecha-Fiora's center Art changes back to whatever Art corresponds to her currently equipped Drones when opening a menu (no Drones gives Cannon 1).

Riki, Sharla and Reyn so far seem to work as one would expect.

If the Art that is inherited to the middle slot is itself a Talent Art, Activate Monado can only be used if the Talent Gauge is full and will deplete it. For normal Arts no amount of Talent gauge seems to be necessary.

Melia's Summons:

When inherited, the Summon Arts work wildly differently from when used by Melia. You can use the Art infinitely, and it can seemingly stay active on allies from any range, but the buff received does not seem to stack with itself at all. It also appears as though having Melia in the party prevents Summon Arts from granting the buff when used by characters other than Melia.

(More testing needs to be done with Summons as of now however, as I'm not sure if the bonuses even apply given the amount of time since I last studied a few of them, and how maybe I forgot to get rid of certain "beginning of the fight" skills for consistent tests

altogether... The interactions with the corresponding Discharges for each element have yet to also be tested, but they're going to require luck to even test ^^')

Blossom Dance, Cutting Petal and Twisting Petal:

When inherited and placed in the middle slot, Blossom Dance (and presumably Cutting Petal and Twisting Petal, not Falling Petal) will still try to call an Burst Affinity, but fails to do so. This creates two weird behaviours:

- When used outside of a Chain Attack, the character will be unable to do any action outside of moving around.
- When used in a Chain Attack however, the Chain will not carry on to the next character and you instead lock on the Dance character and the current enemy indefinitely.

This leads to an infinite Chain Attack that does not finish unless you kill the enemy and that enemy was the last one standing.

If there are other enemies or if you run out of Arts to use (for example you don't have a Monado Art), the Chain Attack becomes a softlock.

Here's a tweet of Test showing off an infinite Chain Attack: https://twitter.com/testAccount8192/status/1314219039355408385?s=19

Summon Copy:

While inherited Summon Copy does pretty much nothing apart from existing as a blue Art, do note that its animation on Melia however is special, as it hits pretty much frame 1. A shame that the only attacking Arts having the same index are Shield Bash and Shield Kersmash, but at least this can make Melia one of the best on-reaction support characters, with Armour and other buffs being of the same index as Summon Copy.

Inheritance of Auras

If an Aura is inherited to a different character than it originally belongs to there are two different behaviors in response to this:

Firstly if the character who has inherited the Aura is the character controlled by the player the Aura will function as normal and produce the desired effect.

Secondly if the character who has inherited the Aura is one of the Al controlled party members the execution of the Aura will glitch, so that the Aura will not take effect, can instantly be reused and triggers the animation of the first index of the character (of course without damage). Hence there is no reason to inherit Auras to characters that you do not intend to control.

Part 6: The laws of inheritance

In this part we will collect our observations on how art inheritance behaves
both in general and in specific situations in the hopes of potentially gaining a
more in depth understanding of how inheritance works.

This part will also assume prior knowledge of Part 3.

Consistency of pulls:

If an Art is pulled from the gacha on a listless character in the first character slot that Art is in a way saved in memory whether you set it on the Arts Pallet or not. Regardless of which you decide to go with, if you move to another position on the pallet and try again you will be guaranteed to pull the same art yet again, so if you pull for example the art on the central slot in an empty position you can simply not set it, move the cursor over to the art you want to set to the center and place it there instead.

Furthermore this consistency inside the Arts menu is not only applicable when editing the first characters pallet though. If you pull an Art on a listless character and then decide to move over to an adjacent character (who also does not have a list) you will again pull the same Art (regardless of whether you placed it on the first characters pallet or not). In this way if there is an Art you want on multiple characters it suffices to pull it once and then place it on all the characters you want it on. Be careful though, as moving over a character with a list will replace the stored Art with the Art in that characters top position.

The behaviour of "empty slots":

You may have more often than not drawn an "empty slot" in the gacha. By "empty slot" I am referring to the instance that you select a position to inherit over, press up or down and get a completely blank Art info on the right, that means no description and most importantly no name (names without descriptions refer to Monado Dunban or Ponspector Arts).

These "empty slots" behave exactly like regular Arts in the Arts menu, so that if you set it to your Arts pallet and try to place it in a different position again the game will simply swap the two slots. As an example if you for example had Melia with Summon Bolt and Summon Flare and you inherited an empty slot over Summon Bolt and then move over to Summon Flare and inherit over it as well (without leaving the Arts menu first or moving past a character with a list) when placing the empty slot it will simply change positions with the previously placed empty slot that overwrote Summon Bolt, thus placing Summon Flare in the position where summon Bolt started and leaving an empty slot where Summon Flare originally was.

Empty Slots also come in two designs, one looks like a regular empty slot on the Arts pallet (simply a black circle) it seems when starting with a full pallet you can only ever get back to having one of these, so likely only a single empty slot has this design. The other is a negative version of the Activate Monado symbol. Both of these behave identically and

multiple ones of the latter can be placed on a single characters Art pallet by leaving the Arts menu and then coming back to place another.

Conclusions from the previous two points:

When a character without a list is placed in the first slot the game will store a (so far) randomly seeming Art at some point between opening the Arts menu and pressing down (or up) on a listless characters' Art pallet after selecting an Art slot. The exact moment when the stored Art is selected is so far unknown.

However the Art the game stores isn't simply a regular Art, it seems to be referring to some unknown list containing several different objects. This includes all regular Arts and Talent Arts, but also a sort of null Art, represented by the empty art slot (only one available) and some empty Art indices represented by negative Activate Monados.

Once the game has stored an Art there are two ways to change it. The first is to move past a character with a non empty list, in which case the game will store that characters' Art in the top position. If multiple not empty Art lists are looked at the game will store a new art at each one, meaning that the stored Art is always that of the last list character looked at.

The second way to change which Art is stored is by exiting the Art menu. This removes any Art from the stored slot so upon reopening the Arts menu a new Art can be stored.

Art pulling bias:

Art pulling bias refers to a multitude of observed effects that influence the Art that is originally stored.

Monado Bias:

The most likely to pull Arts outside of empty Arts seem to be the Monado Arts (though so far for me with the exception of Monado Cyclone). Especially Eater and Activate Monado appear unusually frequently. Turn Strike also appears fairly regularly.

Character Bias:

It seems that different characters tend to pull slightly different arts. For example every character seemingly has an increased chance of pulling their own Talent Art. Despite spending most of my time pulling on Sharla I have only gotten Elemental Discharge on Melia, Yoink! on Riki and Blossom Dance and Twisting Petal on Dunban.

Also it seems on Mecha Fiora you have an increased chance of pulling the Art of the Drones that are currently equipped.

However it doesn't seem to stop there, as I've only ever been able to get Summon Flare on Riki, but get it quite frequently with him, though never with anyone else.

It might be useful to have a document for people to indicate which Arts they managed to pull on what characters.

Part 7: Against the odds? We choose to fight!

In this section I will write a method that can be used to more or less get any Art of your choice from any character other than Shulk or Fiora on any other character:

If you want an Art A from character X other than Fiora or Shulk to be placed on character Y, you can dramatically increase your odds in the following way:

- **Step 1:** Prepare a file for the Time Attack Glitch
- Step 2: Place Art A on the pallet of character X
- **Step 3:** Perform the Time Attack glitch using a mission that does not include characters X and Y
- Step 4: Trigger New Game +
- Step 5: Play the game until you get both characters X and Y in your party
- **Step 6:** Place character X in the first slot of your party and character Y in the second which has an strongly increased likelihood
- **Step 7:** Perform the Arts gacha by opening the Arts menu and pressing ZR (other methods to check the stored Art also work)
- Step 8: You are looking to obtain the Talent Art of character X via the gacha,
- Step 9: Upon having pulled the Talent Art place it over Art A thereby moving it to the central slot
- Step 10: Now Art A is in the middle and has the inflated chances to be pulled (this has been tested and verified) so keep pulling from the gacha until you get Art A
- Step 11: Place Art A on character Y
- Step 12 (Optional): If character X has another Art you want to inherit, also overwrite that Art with Art A, to move it to the center and give it the increased chances for the next gacha