BT3 GSC Breakdown

Abstract

This document contains a nearly complete structure analysis (in other words, a work in progress) of Budokai Tenkaichi 3's scenario files (GSCs) used for Dragon History.

Before proceeding with the rest, it is highly recommended to have decent knowledge of the hexadecimal system, which is what NIM's guide stands for.

Introduction

The original research that led to this English adaptation was provided by Vras, pxgamer13 and Raide.
Because of certain meanings being lost in translation, some corrections had to be made.

As a means of organization, the research has been split into three parts:

- **Part 1** - Explanation of GSC Keywords
- **Part 2** - Contents and Functions of each Scene (from 1st to nth)
- **Part 3** - Event and Condition IDs

Part 1

➔ **GSCF**

Speculated Meaning: Game Scenario Contents of File
This is the section that contains all the other **GSXX** sections.
It is basically the entire file, and its index must be one line above the last **EOFC**.

➔ **GSHD**

This section seems to be the same in all scenarios.
Editing it is **not** recommended.

➔ **GSCD**

Speculated Meaning: End of File (for) Cutscene
This section is the section that contains the **GSAC**.
It is located above the **GSDT** section and closed by the **EOFC**.

➔ **GSAC**

Speculated Meaning: Game ScenArio Cutscene
These are the sections that control subtitles, special dialogues, parameters of the story mode, events, cutscenes, etc.

These **GSACs** refer to strings and their corresponding 4 byte pointers, which start with either **0A** or **1A**.
0A is used for integers, **1A is used for floats**.

As shown by the data types above, pointers essentially direct you to a specific *byte quartet* (either *integer* or *float*) found in the **GSDT**, and based on the section they are located in, they're pretty much in charge of modifying specific aspects.

That is not far from the truth, however the values **these pointers** store aren't the exact same as **the offsets/addresses you're taken to**, but rather **divided by 4**. So, if you want to go to byte 240 of the **GSDT**, you'll have to find a pointer with the value of 60.

➔ **GSDT**

Speculated Meaning: Game Scenario DaTa
Self-explanatory, quite frankly, but also hard to grasp.
Think of it as unorganized sets of integers and floats that are **not meant to be changed directly**, but rather **pointed to**, because several pointers are linked to the same int or float for different purposes, so it's best to **change the values of specific pointers** rather than **a specific int/float** in the **GSDT**.

It's also advised to always paste the contents of the **GSDT** in its own file (without the header / first row), before proceeding with anything else.

➔ **EOFC**

Speculated Meaning: End of File (for) Cutscene
Once again, self-explanatory. It indicates the end of any of the sections above.

Part 2

DISCLAIMER: Not every scenario contains these strings, but they can still be added.
Read MetalFrieza3000's tutorial on how to do that, but for music changes instead.

➔ 1st GSAC

This section seems to always be the same for every scenario (besides the empty ones, obviously). The last 2 bytes of the first byte quartet indicate which cutscene to start the scenario with. This can be used to skip to a certain cutscene right away (for debugging).

➔ 2nd GSAC

Much like the first, this **GSAC** is responsible for storing the **GSACs** below it.

➔ 3rd GSAC

Not worth experimenting with, since it can lead to game crashes.

➔ 4th GSAC

This entire section is dedicated to the game's subtitle display system... and more!

- **01 01 02 00**

This string checks for the scenario's ID, which the game uses to play the right subtitles and voice lines for the characters.

- **01 0F 10 00**

This string pretty much decides what prizes you get after completing a scenario.

Pointer Number	Pointer Description
1	Amount of Zeni Received in Easy Difficulty
2	Amount of Zeni Received in Normal Difficulty
3	Amount of Zeni Received in Hard Difficulty
4	Unlocked Z-Item ID #1
5	Unlocked Z-Item ID #2
6	Unlocked Z-Item ID #3
7	Unlocked Map ID #1
8	Unlocked Map ID #2
9	Unlocked Map ID #3
10	Unlocked Character ID #1
11	Unlocked Character ID #2
12	Unlocked Character ID #3
13	Unlocked Scenario ID #1

14	Unlocked Scenario ID #2
15	Unlocked Scenario ID #3

- **08 6C 01 00**

This string's purpose is currently unknown.
It has a pointer that always leads to the byte 02.

- **08 6E 01 00**

This string makes subtitles appear or disappear according to its boolean pointer:
00 - subtitles are *present*, **01** - subtitles are *absent*.

- **08 64 02 00**

This string might be a leftover from BT2, as it involves
the position of the subtitles (stored as integers).

Pointer Number	Pointer Description
1	X Coordinate (Left/Right)
2	Y Coordinate (Up/Down)

- **08 61 02 00**

This string lets you change the width and height of the subtitles (stored as floats).

Pointer Number	Pointer Description
1	Width
2	Height

- **08 73 01 00**

This string determines the size of the subtitles, also stored as a float.

- **08 63 04 00**

This string is responsible for the color of the subtitles, using the RGB color model.

Pointer Number	Pointer Description
1	Amount of Red
2	Amount of Green
3	Amount of Blue
4	Opacity

- **08 70 02 00**

This string manages letter-spacing and line-spacing.
Once again, yet another odd feature.

Pointer Number	Pointer Description
1	Letter-spacing
2	Line-spacing

- **08 77 01 00**

This string adjusts the text alignment via one pointer that takes these values:
00 - text is *left-aligned*, **01** - text is *center-aligned*, **02** - text is *right-aligned*.

- **08 4F 02 00**

This string is in charge of the width & height for subtitle outlines (stored as floats).

Pointer Number	Pointer Description
1	Width
2	Height

- **08 43 04 00**

This string helps color the stroke/outline of the subtitles via the RGB color model.

Pointer Number	Pointer Description
1	Amount of Red
2	Amount of Green
3	Amount of Blue
4	Opacity

- **➔ 5th GSAC**

This section controls maps, music, battle time, and characters.

- **01 05 0A 00**

This string refers to pointers that modify general parameters of the scenario.

Pointer Number	Pointer Description
1	Map ID

2	Initial BGM Track ID
3	Battle Time (unused)
4	Announcer ID
5	Enable/Disable Map Destruction (unused)

- **01 02 0B 00**

This string displays the number of characters
each team (player team and enemy team) contains.

Pointer Number	Pointer Description
1	Team ID (**00** for Player Team, **01** for Enemy Team)
2	Number of Teammates [1-5]

- **01 0E 0C 00**

This string refers to several pointers that take care of the characters' attributes.

Pointer Number	Pointer Description
1	Character Index (their position in the team) e.g. **01 00** - player team's 2nd character, **00 80** - enemy team's 1st character
2	Character ID
3	Costume ID [0-3]
4	Boolean costume parameter (**00** - Regular, **01** - Battle-damaged)
5	COM Difficulty
6	Strategy Z-Item ID
7	Starting Health Percentage (stored as an integer that ranges from 0 to 100)
8	Z-Item ID #1
9	Z-Item ID #2
10	Z-Item ID #3
11	Z-Item ID #4
12	Z-Item ID #5
13	Z-Item ID #6
14	Z-Item ID #7

➔ 6th GSAC

This section corresponds to voice lines assigned to characters during cutscenes.

- **08 76 02 00**

Pointer Number	Pointer Description
1	Voice Line ID
2	Character Index (set to FF 7F for undefined background characters)

➔ 7th-to-nth GSAC

These sections belong to the scenario's cutscenes.
The last 4 bytes of their header represent the **cutscene ID**.
Cutscene IDs start from **10 27** (10000) up until **41 27** (10049). Generally speaking:

- **10 27** represents the introductory cutscene
- **2E 27** represents the final ending cutscene
- **37 27** represents a placeholder victory cutscene (for Player 1)
- represents a placeholder victory cutscene (for the COM)

- **01 00 03 00**

This string indicates the start of a GSAC.

- **01 00 04 00**

This string seems to put an end to the previous string.

- **01 00 05 00**

This string indicates the start of a GSAC's cutscene visuals.

- **01 00 06 00**

This string seems to put an end to the previous string.

- **01 00 07 00**

This string indicates the start of a GSAC's background activity (voice lines, events).

- **01 01 DD 05**

This string is able to change the background music during or after a cutscene.

- **01 01 09 00**

This string indicates if this cutscene marks victory or defeat like so:

- **00 00 00 00** -> loss;

- **01 00 00 00** -> win;
- **02 00 00 00** -> loss via ringout;
- **03 00 00 00** -> win via ringout;
- **FF FF FF FF** —> none.

- **01 07 21 03**

This string determines the character's position on the map.
If not present, then the game will refer to the map's original positions.

Pointer Number	Pointer Description
1	Character Index
2	X Position
3	Y Position
4	Z Position
5	X Rotation
6	Y Rotation
7	Z Rotation

- **01 02 85 03**

This string helps link two cutscenes together through the use of events.

Pointer Number	Pointer Description
1	Character Index
2	Next Event ID

- **08 61 02 00**

This string helps link two cutscenes together through the use of events.

Pointer Number	Pointer Description
1	Condition for event to occur
2	Next Event ID

- **08 76 02 00**

This string corresponds to voice lines played after a cutscene in the background.

Pointer Number	Pointer Description
1	Trigger Condition (set to **FF 7F** for the voice line to play immediately)

2	Voice Line ID

- **01 00 0D 00**

This string is followed by other strings to indicate changes applied to Player 1 after a cutscene.

- **01 00 0E 00**

This string is followed by other strings to indicate changes applied to the COM after a cutscene.

- **08 48 01 00**

This string is used to restore a certain percentage of Player 1 or the COM's health.

- **08 68 01 00**

This string does the same thing as the previous string, however it can also kill the character it is assigned to, by setting their HP to zero.
(e.g. Chiaotzu after using his Ultimate Blast in *Goku's Quiet Rage*)

- **[08 30 01 00 - 08 37 01 00]**

This segment of strings overwrites Z-Items of either player after a cutscene.

- **01 01 26 03 & 01 01 28 03**

These strings respectively *assign* the aura charge & ki-charging aura to either character during a cutscene.

- **01 01 27 03 & 01 01 2A 03**

These strings respectively *disable* the previously mentioned VFX to either character during a cutscene.

- **01 01 E9 03**

This string displays a black screen that gradually fades out before the cutscene starts. The pointer next to it relies on a float: the greater the value, the longer said black screen lasts.

- **01 01 B1 04**

This string is responsible for the dramatic shake used during certain cutscenes. The pointer next to it relies on a float: the bigger the value, the stronger the shake.

- **01 02 08 00**

This string points to the scenario's post-cutscene events.

Pointer Number	Pointer Description

1	Character Index
2	Pointer that is set to **null** or to a **character ID** (for transformations/switches)

➔ Currently Unknown Strings

- 01 01 01 00
- 08 42 01 00
- 08 43 01 00
- 08 46 01 00

Part 3

★ Condition IDs

Trigger Condition ID (Hex)	Trigger Condition Description
00	Wait 10 seconds
01	Wait 15 seconds
02	Wait 20 seconds
03	Wait 25 seconds
04	Wait 30 seconds
05	Wait 35 seconds
06	Wait 40 seconds
07	Wait 45 seconds
08	Wait 50 seconds
09	Wait 55 seconds
0A	Wait 60 seconds
0B	Wait 70 seconds
0C	Wait 80 seconds
0D	Wait 90 seconds
0E	Wait 100 seconds
0F	Wait 120 seconds
10	Wait 140 seconds

11	Wait 160 seconds
12	Wait 180 seconds
14	Perform a Normal Clash
15	Perform an Aerial Clash
16	Lose 1 health bar
17	Lose 2 health bars
18	Lose 3 health bars
19	Lose 4 health bars
1A	Lose 5 health bars
1B	Lose 6 health bars
1C	Lose 7 health bars
1D	Reach 5 ki bars
1E	Reach maximum amount of Blast Stocks
1F	Go in MAX POWER Mode
20	Transform / Detransform / Fuse
21	Perform a Taunt
22	Fall into the ground/water
24	Perform the 1st Blast 1
25	Perform the 2nd Blast 1
26	Perform the 1st Blast 2
27	Perform the 2nd Blast 2
28	Perform the Ultimate Blast
29	Hit the opponent with the 1st Blast 1
2A	Hit the opponent with the 2nd Blast 1
2B	Hit the opponent with the 1st Blast 2
2C	Hit the opponent with the 2nd Blast 2
2D	Hit the opponent with the Ultimate Blast
2E	Block the opponent’s 1st Blast 2

2F	Block the opponent’s 2nd Blast 2
30	Block the opponent’s Ultimate Blast
31	Perform a Dragon Homing
32	Perform a Vanishing Attack
33	Perform a Throw
34	Perform a Hyper Smash
36	Hit the opponent with a charged Ki Blast
37	Perform a fully charged Left Smash Attack
38	Perform a fully charged Right Smash Attack
39	Perform a fully charged Up Smash Attack
3A	Perform a fully charged Down Smash Attack
3B	Perform a fully charged Neutral Smash Attack
3C	Get the “First Attack!” sprite to show up to the left of the screen
3D	Perform a Rush Attack
3E	Perform a Dragon Smash
3F	Perform a Burst Meteo Finisher
40	Perform a Dash Smash
41	Perform a Teleport
42	Perform a Z-Counter
43	Perform a Guard Crush
44	Perform a Sonic Sway
45	Perform an Emergency Blaster Wave
46	Win a Beam Struggle
47	Win a Normal Clash
48	Win the battle
49	Win the battle via Ringout
4A	Lose the battle (?)
4B	Successfully perform one of the following Melee Attacks:

	• Heavy Crush • Any Air Combo • Kiai Cannon Smash • Sonic Impact • Jump Smash Finisher • Rush Finish • Blaster Wave Combo • Rolling Hurricane Finisher • Raging Impact • Tri-Cannon Finisher • Power Press
50	Press R3 (?)
52	Perform a Blast 1 Finish
53	Perform a Blast 2 Finish
54	Defeat all members of the opposing team
55	Get hit (in any way possible)
59	The opponent's health is different from zero (?)

★ Event IDs

Event ID (Hex)	Event Description
00	Nothing
01	Nothing
02	Aerial Clash
03	Map Destruction (unused)
04	Normal Clash
05	Aerial Clash
06	Aerial Clash
07	Aerial Clash
08	Beam Struggle between Player 1's 1st Blast 2 and the COM's 1st Blast 2
09	Beam Struggle between Player 1's 1st Blast 2 and the COM's 2nd Blast 2
0A	Beam Struggle between Player 1's 2nd Blast 2 and the COM's 1st Blast 2
0B	Beam Struggle between Player 1's 2nd Blast 2 and the COM's 2nd Blast 2
0C	Beam Struggle between Player 1 and the COM's Ultimate Blasts

10	Switch with Teammate #1
11	Switch with Teammate #2
12	Switch with Teammate #3
13	Switch with Teammate #4
14	Switch with Teammate #5
15	Assign Transformation to Player 1
16	Assign Detransformation to Player 1
17	Assign Fusion for Player 1
18	Make Player 1 automatically go to MAX POWER Mode
19	Trigger Player 1's 1st Blast 1
1A	Trigger Player 1's 2nd Blast 1
1B	Trigger Player 1's 1st Blast 2
1C	Trigger Player 1's 2nd Blast 2
1D	Trigger Player 1's Ultimate Blast

For both condition and event IDs, in order for them to be **applied to the COM** also, simply **add an 80 after the ID** like so: **1D → 1D 80**.

★ Auto-Activated Cutscenes

In order for a cutscene to play without pressing R3, the game relies on *cause and effect*.
The *cause* represents the *condition*, while the *effect* refers to the *post-cutscene event*.

If the cause **involves the COM** losing health bars or simply waiting for a while, the effect will **only affect the COM** as well, and it must be one of the following:

- Perform a **Special Attack** (any Blast 1 or Blast 2)
- Perform a Normal Clash
- Transform (if possible)
- Switch with another teammate (if possible)

However, if the cause involves **either player falling into the ground/water**, then and

only then will **the effect** not matter at all. It **can be anything from the list** above.
The same principle applies for **defeating the opponent or simply ringing them out**, but you'll have to make sure their HP is different from zero in the next scene.