

Item data structure (Generation III)

Item data is stored in a 44-byte structure in the US version of the [GBA games](#).

Offset	Field	Size
0	Name	14 bytes
14	Index number	2 bytes
16	Price	2 bytes
18	Hold effect	1 byte
19	Parameter	1 byte
20	Description pointer	4 bytes
24	Mystery value	2 bytes
26	Pocket	1 byte
27	Type	1 byte
28	Pointer to field usage code	4 bytes
32	Battle usage	4 bytes
36	Pointer to battle usage code	4 bytes
40	Extra parameter	4 bytes

Pocket

This determines which pocket of the [Bag](#) the item should be stored in. This does not prevent the item from being in another pocket, though. The game uses it to see where it should place the item upon collection.

For FireRed and LeafGreen

Number	Pocket
1	Items pocket
2	Key items pocket
3	Poké Balls pocket
4	Berry Pouch
5	TM Case

For Emerald, Ruby and Sapphire

Number	Pocket
1	Items pocket
2	Poké Balls pocket
3	TMs and HMs
4	Berries pocket
5	Key items pocket

Type

For items other than [Poké Balls](#), the type determines how the item can be used. With Poké Balls, the type indicates the Poké Ball type, and is one less than the index number.

Type	Description
0	Mail
1	Items which can be used out-of-battle.
2	Items which must be used in a certain location; key items of this type can be assigned to SELECT.
3	Only the Pokéblock case is of this type.
4	Items which cannot be used out-of-battle.

Parameter

A parameter used by different kind of items. It is used to represent the number of steps repels and flute effects last. HP and PP recovering items have this value as their number of HP/PP recovered, but the actual number of HP/PP restored is stored in a different table.

Mystery values

Mystery value 1 is:

- 0 for normal items.
- 1 for HMs and *most* key items.

- 2 for some plot-related key items: Blue Orb, Devon Goods, Letter, Oak's Parcel and Red Orb.

Mystery value 2 is:

- 0 for most items.
- 1 for many key items: Acro Bike, AuroraTicket, Berry Pouch, Bicycle, Fame Checker, Good Rod, Itemfinder, Mach Bike, Magma Emblem, MysticTicket, Old Rod, Old Sea Map, Pokéblock Case, Powder Jar, Rainbow Pass, Ruby, Sapphire, Super Rod, TM Case, Tea, Teachy TV, Town Map, Tri-Pass and VS Seeker.

Battle usage

Battle usage can be:

- 0 if the item can't be used in battle at all.
- 1 if the item's effect is seen *during* battle but *on* a subscreen, such as healing items.
- 2 if the item's effect is seen in battle such as Poké Balls.

Extra parameter

Extra parameter is used to distinguish Poké Balls and Mails, as opposed to just using the item index.

Offsets

These are for US Versions:

- Ruby: 0x083C5564
- Sapphire: 0x083C55BC
- Emerald: 0x085839A0
- FireRed: 0x083DB028
- LeafGreen: 0x083DAE64

Fingerprint

For Ruby/Sapphire:

```
AC AC AC AC AC AC AC AC FF 00 00 00 00 00 00 00 00 00 00 00 00 DA 55 3C 08 00
00 01 04 11 A7 0C 08 00 00 00 00 00 00 00 00 00 00 00 00 // ????????
C7 BB CD CE BF CC 00 BC BB C6 C6 FF 00 00 01 00 00 00 00 00 00 A0 20 3C 08 00
00 02 00 00 00 00 00 02 00 00 00 65 A2 0C 08 00 00 00 00 // MASTER BALL
CF C6 CE CC BB 00 BC BB C6 C6 FF 00 00 00 02 00 B0 04 00 00 D3 20 3C 08 00
00 02 01 00 00 00 00 02 00 00 00 65 A2 0C 08 01 00 00 00 // ULTRA BALL
C1 CC BF BB CE 00 BC BB C6 C6 FF 00 00 00 03 00 58 02 00 00 0D 21 3C 08 00
00 02 02 00 00 00 00 02 00 00 00 65 A2 0C 08 02 00 00 00 // GREAT BALL
CA C9 C5 1B 00 BC BB C6 C6 FF 00 00 00 00 04 00 C8 00 00 00 44 21 3C 08 00
00 02 03 00 00 00 00 02 00 00 00 65 A2 0C 08 03 00 00 00 // POKE BALL
CD BB C0 BB CC C3 00 BC BB C6 C6 FF 00 00 05 00 00 00 00 00 6B 21 3C 08 00
00 02 04 00 00 00 00 02 00 00 00 65 A2 0C 08 04 00 00 00 // SAFARI BALL
C8 BF CE 00 BC BB C6 C6 FF 00 00 00 00 00 06 00 E8 03 00 00 A0 21 3C 08 00
00 02 05 00 00 00 00 02 00 00 00 65 A2 0C 08 05 00 00 00 // NET BALL
BE C3 D0 BF 00 BC BB C6 C6 FF 00 00 00 00 07 00 E8 03 00 00 D7 21 3C 08 00
00 02 06 00 00 00 00 02 00 00 00 65 A2 0C 08 06 00 00 00 // DIVE BALL
C8 BF CD CE 00 BC BB C6 C6 FF 00 00 00 00 08 00 E8 03 00 00 0F 22 3C 08 00
00 02 07 00 00 00 00 02 00 00 00 65 A2 0C 08 07 00 00 00 // NEST BALL
...
```

Data structure in the Pokémon games

Generation I	Pokémon species • Pokémon • Poké Mart • Character encoding • Save
Generation II	Pokémon species • Pokémon • Trainer • Character encoding • Save
Generation III	Pokémon species (Pokémon evolution • Pokédex • Type chart) Pokémon (substructures) • Move • Contest • Contest move • Item Trainer Tower • Battle Frontier • Character encoding • Save
Generation IV	Pokémon • Save
TCG GB and GB2	Character encoding

This data structure article is part of [Project Games](#), a [Bulbapedia project](#) that aims to write comprehensive articles on the [Pokémon games](#).



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