

## Reflux offset finding guide

### 1. SongList

Search for string "5.1.1.", you should end up with 2 matches in static memory, use the top one.

### 2. PlaySettings

Use a group search command. The values are just indices of the list of options, so OFF is 0, RAN is 1, MIRROR is 2 etc. It follows the settings from left to right, except for FLIP which shows up between the Assist and Range options. Refer to Settings.cs::Fetch() for a programmatical example.

So on SP with RAN and Lift&SUD+, the offset would be found using the following groupscan command:

```
"4:1 4:0 4:0 4:0 4:5"
```

### 3. UnlockData

Search for any songID as a 4-byte integer, preferably not 1000 or similar as that'll give many matches. In Heaven (20016) is a good song to look for. Refer to earlier songDB output to see each song's ID.

When searching for the ID, you should end up in a place that looks similar to this (20016 used as search term):

```
20016 | 3 | 462
```

462 in that result will be 0 if you have not bought song pack 3.

This kind of entry follows the following format: (SongID | unlock type | Unlock state) Where unlock type is 1 for a base song (unlocked from the start), 2 means a bit unlock, and 3 means a hidden unlock (Either sub song or song pack). Unlock state is a series of bits for each chart for the song, following SPB, SPN, SPH, SPA, SPL, DPB etc. starting from LSB.

When you've found this, scroll up to where it starts (Should be 1000 | 1 | 462, you could alternatively search for group "4:1000 4:1 4:462", unless it gives other results as well), right click on 1000 -> Goto address, the address showing is what's needed.

### 4. The rest of the three can be done together by playing a chart, hitting a few notes and quitting out to result screen

#### 4.1. JudgeData

```
"4:pgreats 4:greats 4:good 4:bad 4:poor"
```

Hopefully you should end up with one result in static memory, that's what's needed.

#### 4.2. PlayData

"4:songID 4:difficulty 4:ex"

difficulty being 0-9, following the pattern SPB = 0, SPN = 1, SPH, SPA, SPL, DPB etc.

As an example, In Heaven SPH with 375 ex would be:

"4:20016 4:2 4:375"

It should be unique enough, otherwise just add the miss count behind ex like so:

"4:20016 4:2 4:375 4:37"

#### 4.3. CurrentSong

SongID followed by difficulty, using the above play as an example:

"4:20016 4:2"

Make sure you're not picking the playdata offset again.

#### 5. ScoreMap

Infinitas keeps both start and stop of the hashmap, as well as the hash mip size close together in static memory.

Search for 8 byte hex value: *3FFF*

You should get only one match in static memory, the addresses should look like this when aligned as 8-byte HEX values:

START STOP STOP SIZE

SIZE being what we searched for. Save the address for START.