



Please Hack My Phone

The Japanese Feature Phone
game preservation crisis and
how you can help



Please Hack My Phone

Coney Island Maker Faire - October 2023

In This Image

- Steam Deck showing video footage of Rockman Dash: Great Adventure on Five Islands
- 2011 Sharp mobile phone with parallax 3D
- Licensed Evangelion phone
- Licensed FFVII phone featured in Advent Children
- Live stream brute force effort to find device key for Cryptomeria Cipher
- Separate pile of phones



What is a Japanese Feature Phone?

- Japanese Feature Phones: Mobile devices before the smartphone era (iOS, Android) with advanced features
 - Ex: Digital wallet, video calls, online game streaming
- Offered an exclusive library of high quality mobile games



ATLUS

CAPCOM®

LEVEL 5



TAITO®

KONAMI

SQUARE ENIX

SEGA®

Famous Publishers



Original Games

FINAL FANTASY IV
THE AFTER

月の帰還



FINAL FANTASY IV
THE AFTER YEARS.



Games Made International

Why Have I Not Heard of This??

- No physical library
 - Cannot be collected easily like game cartridges
- Strict copyright controls
 - Very risky to attempt game preservation in Japan
- Specialized market
 - Many phone users in Japan only used phones for calls and messaging, not gaming
- Lost in translation
 - Most games have no documentation in English - all articles are in Japanese

Preservation EMERGENCY

- All online markets to download games are now closed
- Thus, there are only two ways to recover games
 - 1. Auction lottery: buy a lot of used phones and hope some of them still have data
 - 2. Contacting a phone owner in Japan: difficult because of linguistic/cultural barriers and strict copyright laws
- Devices are old (15-25 yrs) and will soon expire
- We still do not know how to extract data from most phones

We need your help to save these games!

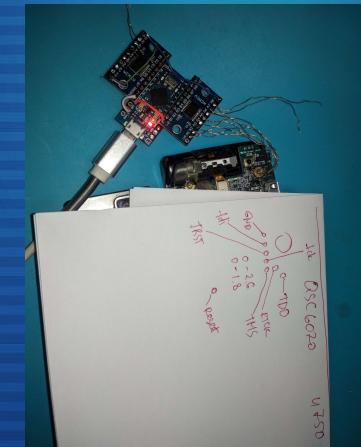
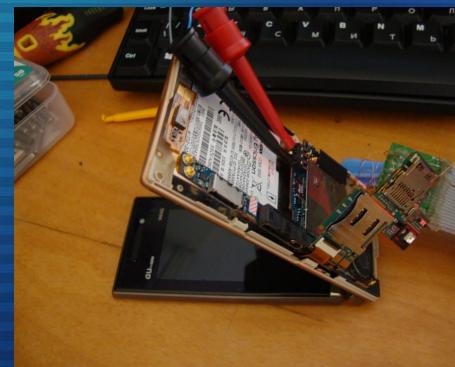
What can
we do?

We need Hardware hackers!

- Japanese mobile phones use BGA chips
- Most mobile phones use proprietary flash memory chips with almost no documentation

To Do

- Remove surface mounted Flash Memory and attempt read with chip programmer (ex: XGecu T48)
- Find JTAG test points and read them with JTAG tools (ex: Riff Box V2)



We need Firmware hackers!

- Firmware dumped from phone chips must be analyzed and extracted.
- If software exploits are found, data can be dumped less destructively

To Do:

- Analyze firmware using Ghidra to understand how data is stored and find exploits
- Use currently known exploits to try and dump groups of similar phone models

The screenshot shows the Ghidra debugger interface with multiple windows open. The main window displays assembly code for a function named `every_nr_needs`. The assembly code includes various instructions like `push`, `pop`, `add`, and `sub`, along with memory operations and conditional jumps. To the right of the assembly window, there are several other windows: a Registers window showing CPU register values; a Stack window showing the current stack state; a Dump window showing memory dump data; and several Analysis Call Trees windows showing the control flow graph of the program. The interface is highly detailed, showing complex memory structures and assembly-level logic.

We need Java programmers!

- Most feature phone games refuse to launch without a network connection.
- This requirement must be patched out directly

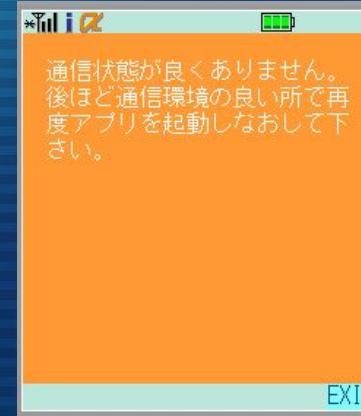
To do:

- Decompile .jar files and identify the functions that prevent the game from loading
- Remove network check requirements and recompile the .jar

Before:



After:



We need archivists!

Keitai Wiki
One moderator - Me!

To Do:

- Create articles for feature phone games that don't have one
- Write summaries with screenshots for feature phone games based on available documentation (mostly articles and Wayback Machine)

Pokémate

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Pokémate is a Pokémon mobile game developed by Square Enix. Much like *Pokémon Go*, it was an online game dedicated to catching and collecting Pokémons. Overall, very little is known about this game, as even pre-installed versions are unable to run due to network requirements.

[Gallery](#) [edit | edit source]

Images from Official Pages [edit | edit source]

Developer(s): Square Enix
Publisher(s): Square Enix
Pre-installed: FOMA F902IS
Language(s): Japanese
Series: Pokémon
Preserved?: No
Website: [Pokémate Official Page](#) ↗

Tools [hide]
Actions
Move
Purge
General
What links here
Related changes
Upload file
Special pages
Printable version
Permanent link
Page information
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Where to find us



**Hack
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Local Team

Hack Manhattan:
34 W 37th St. New York, NY
hackmanhattan.com



You can also chat
with members of
the international
team in Hack
Manhattan's
Discord channel



International Team

Kahvibreak:
bluemaxima.org/kahvibreak
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