

Working Prototype Known Problems Report

Team Name: Tool-Assisted Speedrun

Product Name: SuperTuxKart TAS Tools

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In this document, we occasionally won't be listing the individual functions we find faulty, instead we will list the behaviors of the product that don't behave as expected. This is because it is often difficult to determine whether an error in functionality is caused by our code, or the game code that we don't have as much control over.

Known Bugs:

- During execution of a TAS script, the playspeed seems to be somewhat system dependent. Playspeed equal to 1 rarely aligns perfectly with real-time seconds. This is likely an issue with our logic of computing time deltas in the function:
`DETOUR_MainLoop__getLimitedDt_Func`
- Closing the game crashes it after loading any map with `parser.py` (likely caused by an incorrect allocation of resources in `ScriptManager::loadMap`)
- Adjusting the playspeed in the TAS script can sometimes cause desyncs (unknown cause)
- Low playspeed can cause extremely long times before the payload can accept an ipc connection, e.g. setting a playspeed of 0.001 can cause the payload to not accept a connection for 8+ seconds (possible to fix in `DETOUR_MainLoop__getLimitedDt_Func`)

- Turning only emulates keyboard inputs (hard left/right instead of more continuous like on a controller) (possible to fix in `ScriptManager::sendFramebulkInputs`)
- `std::vecwrap` does not work, you cannot edit any game fields that use `std::vector` (e.g. `m_ai_kart_list` which says which karts the AI will use) (problem in entire `std::vec_wrap` struct).
- Payload will sometimes stop accepting connections (unknown cause and no known way to reproduce)
- `parser.py` will sometimes not give a human readable error message for bad syntax (errors primarily in `get_field_bits`, `parse_header`, and `parse_framebulks`)