ArduPilot Lua Scripting

Lua Scripting

- It's here!

- People are doing cool things with it!

- Driven a number of other features recently

- It's not Python!

What's happened since last year

- Vastly increased number of bindings

- Supports FTP

- Read Eval Print Loop (REPL)

- MAVLink

- ROMFS

- More documentation!

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FTP

- Lets us read/write/delete all the files on the SD card

- Editing scripts without pulling out the SD card

- ROMFS stuff is pending but will be in imminently

- Demo

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Read Eval Print Loop

- Allows you to test code snippets directly on the flight controller

- Faster development time

- Allows on vehicle debugging

- Demo

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MAVLink

- Send or receive MAVLink messages

- Enables a wide variety of options for scripts to communicate

- Pending as PR

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Scripts from ROMFS

- Enables reliable usage of scripts

- Pending as a PR

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Examples

- Failsafes (motor, wind)

- Mission interactions

- LED

  - Pong, Scrolling Marquee, Battery status, Roll indicators, Light shows

  - Peter Hall really likes blinky bits

- Vehicle control

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Let's make something!

- Plane high altitude/circular fence?
- Arming check for neutral sticks?
- Arming check for mission sanitization?
- Send some MAVLink data?

Roadmap

- Extend the vehicle control further

- Improve the documentation

- Support require statements

- Improved tooling

- 4.1 should be exciting

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Questions?