

Command and Control Subsystems Report

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1 Subsystem Description

The Command and Control subsystem is the subsystem responsible for converting the requests that have been collected into downloaded data to be distributed to users. It starts by receiving a list of `request` objects - a structure for containing information about each request. To prevent confusion, the mono-spaced `request` will refer to the Python object itself, whereas plain “request” refers to the concept of a user request.

With this list of requests, the first thing it does is use Python's `multiprocessing`[1] library to split work up between the different threads on the computer. While this software is designed for low end machines to be more accessible to developing areas, most computers[2] in recent times will have more than 1 CPU core (including the Raspberry Pi[3]). This allows for the processor to split up all the requests, and execute them in parallel, instead of waiting for each one to finish individually, which can provide a large performance boost.

When downloading a `request`, it determines the type of request. The types are URL, search, youtube, and ipfs. The steps for each type of request is outlined below.

1.1 URLs

URLs are your basic websites, such as `https://en.wikipedia.org/wiki/Monty_Python_and_the_Holy_Grail`

1.2 Subsection Heading Here

Write your subsection text here.

2 Conclusion

Write your conclusion here.