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--: {net: [] (😊) <- Net Remote Command Library -> muse/docs/lib/net.md
--😊 net: Command Line Library providing turtle operations used by remote library (effectively the UI for Muse). -> net

--:# Remote commands for turtles need prefixing by farmer, miner, Logger, porter, or rover roles.

--:# Dispatcher op catches net operations that raise exceptions so turtles report errors, ready for new commandsa.

--:# Testing, Monitoring, and Control (e.g., farmer echo something something)

--:- status level [filename] -> Set reporting hurdle and optionally save reporting in log file.

--:- echo arguments ... -> For testing: just returns its arguments.

--:- quit message -> Set quit flag to message; next core.status throws error to abort operations.

--:# Remote Turtle and Task Operations (for turtle API operations, e.g., rover find)

--:- fueling -> Returns energy available in turtle slots.

--:- items -> Returns items in turtle inventory as string.

--:- find name...? -> Report and select first slot found [or if no name, just report inventory].

--:< Directions are up, down, north, east, west, south, forward

--:- suck direction quantity? -> Suck quantity items [or all] into available slot.

--:- drop item direction quantity? -> Drop quantity of selected items [or all].

--:- look direction -> Detect and inspect direction, return report.

--:- compare item direction... -> Named item matches block in any of specified directions?

--:- attack direction -> Attempts attack in specified direction.

--:- dig direction distance hoeing... -> Direction and distance to (possibly blocked) move, hoeings directions to hoe.

--:- put filling direction distance putting... -> Direction, distance to move, placing filling in puttings directions.

--:- change target filling direction distance putting... -> Move distance in direction replacing target with filling.

--:# Remote Turtle Motion Commands (e.g., farmer come)

--:- to place | x y z face? -> To named place or position and face. Retry for different first direction.

--:- go (first letter of) directions followed by optional counts, e.g. r 10 u east 3 u 4 d n. -> Chained movement.
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--:- trace trailname -> *Move turtle along traced situations in named trail from one end of trail to the other.*

--:- come -> *rover turtle towards GPS player position.*

--:- tail rate? -> *Move **rover** every rate (default 5) seconds towards GPS player position.*

### --:-< **Places - Points, Locations, Trails, and Ranges of Maps**

--:- trail name label -> *Include named point at head and (current situation) tail of a new trail, update map.*

--:- point name label trail? -> *Add named labeled point, can start trail, MU updated map. (Player situation needs GPS.)*

--:- range name label point point key? value?? -> *Volume by named points, optional key and value for feature.*

--:- chart filename ... -> *Loads and runs named file in **charts** directory to create named point and associated ranges.*

### --:-< **Navigation in Maps: Where Are We, What's Nearby, and Where Are We Heading?**

--:- at -> *Report current (dead reckoning) turtle position and facing or player GPS position.*

--:- near place? span?? -> *Report points within span blocks (or all) of named place (or current player or turtle position).*

--:- view place -> *Report place details including name, label (if any), features and all situations.*

--:- where place? count?? -> *Report movement direction, distance to named place (or all) three (or count) closest places.*

--:- fix trail? -> *Set and report GPS turtle position for dead reckoning. Optionally begin named trailhead.*

--:- headings rate? place? count?? -> *\_Repeated movement report at specified rate (or every G.Muse.rates.headings) seconds).*

### --:-# **Map File Operations** (e.g., **rover site ...**)

--:- erase name -> *Remove named place, broadcast Muse eXcise (MX).*

--:- sync -> *Muse Update (MU) broadcast local map to (MQ) registered units.*

--:- site name? -> *Remote operation to report or change site (persistently) after, e.g., porting **rover**.*

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--:- join site role -> *Set site and join landed turtle to it with specified role.*

### --:-# **GPS Launch Command** (e.g., **rover launch gantry ....**)

--:- launch place yD? -> *Deploy GPS launch yD or maximum y above place, report GPS at place.*

--:# **Remote Mining Operation Commands** (e.g. **miner shaft ....**)

--:- shaft minehead levels shaftPlans -> *Dig down number of levels under named minehead place using specified plans.*

--:- bore marker borePlans -> *Dig horizontally from marker using saved or specified bore and shaft plans.*

--:- post marker borePlans? -> *Go to marker (and up 1 block) from current level with saved or specified plans.*

--:- ores marker borePlans? -> *Excavate ores from side tunnel near marker, return up 1 from marker.*

--:# **Remote Volume Operations** (bound by point pairs, possibly in a **range**)

--:- cut point point -> *Quarry out blocks bound by named points (defining a rectangular solid).*

--:-< *Filling and target may be one of the turtle categories or a Minecraft detail name without prefix **minecraft:***

--:- fill point point filling ?target -> *Layer fill bounds by points; optionally swaps out only target blocks.*

--:-< *Seed may be one of the turtle categories or a Minecraft detail name without the prefix **"minecraft:"***

--:- till point point seed -> *Till the seed bounds by named points (defining a rectangular solid).*

--:- fence range [item] -> *Put item or available wooden fence from one point to another in range.*

--:# **Remote Farm Operations** (where a range feature value is a **fieldName** keyed by **field**, a string literal).

--:+ *A **fieldName** is a file name without its suffix, e.g. **cane** rather than **cane.Lua**, in the **fields** directory.*

--:= farm:

--:- quarry range firstPlot? lastPlot?? -> *Dig out the field to level it.*

--:- layer range firstPlot? lastPlot?? -> *Put foundation material in place for field.*

--:- cover range firstPlot? lastPlot?? -> *Replace field material (for tree farm grid).*

--:- finish range firstPlot lastPlot?? -> *Complete field preparation for farming.*

--:- harvest range firstPlot lastPlot?? -> *Harvest (and replant if needed).*

--:- path range firstPlot lastPlot?? -> *Test harvest path (safely).*

--:# **Command Computer Setup and Port Commands** (e.g., **locate gantry launch**)

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--:- locate name label? -> *Create launch point having Minecraft coordinates above **porter**.*

--:- activate range -> *Add borders from west and north to east and south of range for Minecraft forceload.*

--:- book name label from to span? item??... -> *Spanned range with (default) items as properties; return cost less bank.*

--:- port booking -> *As provided in booking, consume player inventory to teleport entities from one area to another.*