EnableThing

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enablething.org

- dict task

<<interface>>
Rest:Client

+ post(url, data)
+ get(url)

- json task

- task

- url
- data

Task:Task

+ task_id : uuid

+ init(task dict)
+ add_response(dict)
+ json() : json

- task

- task

- task

Unit:Unit

+ unit_id
+ last_seen : time
+ last_seen_by : unit_id

+ announce()
+ post_task(task)
+ get_new_commands()
+ get_new_responses()
+ get_response(task)

Task:Chronicle

+ add_chronicle()
+ neighbour()
+ isLoop()
+ cost()
+ response_timestamp()
+ find_units()
+ validate_chronicle()

Task:Memory

+ json() : json

1.

Router:NeighbourUnit

+ destination_goodness_table : dict

+ add_destination(destination)

Unit:InputUnit

+ fallback_units : Unit
+ inputs : [Unit]

+ add_fallback_unit()

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Router:ACOAlgorithm

+ q
+ persistence
+ min_goodness
+ max_goodness

+ update_pheromone_table()
+ reinforce_pheromone(dest, neigh)
+ best_neighbour(destination)

- json task

Thing A

Unit B

Taskboard:Taskboard

+ tasks : Task

+ add_task(task)
+ find_task(task_id) : task
+ task_query(query) : tasks
+ next_command()
+ next_response()

- task

- task
- query
- task_id

Thing:Config

+read()
+update()

Thing:RestHandler

+ GET,POST /<uuid>/[…]
+ GET,POST /thing

- json task

- json task

<<interface>>
Rest:Server

+ POST : dict task
+ GET /commands : query
+ GET /responses : query
+ GET /tasks?<query> : query
+ GET /task/<task_id> : query

- dict task

Taskboard:TaskSet

+ tasks : Task

+ isResponse()
*

1..*

Unit:TaskSetHandler

+ tasksets : TaskSet

+ add_taskset(tasks)
+ remove_taskset(taskset)
+ next()
+ update_tasks()

1.

Router:Router

+ neighbours : NeighbourNode
+ subscriptions : Subscriptions

+ route_task()
+ add_neighbour(task)
+ update_neighbour_table()
+ best_neighbour(destination)
+ update_router()

Router:Subscriptions

+ neighbours: list of unit_id
+ tasks : list of task_id

+ subscribe_neighbour(unit_id)
+ subscribe_task(task)
+ get_tasks()

1.

Thing:UnitHandler

+ controller_update()

Unit:Controller

+ unit_id : uuid
+ taskboard : Taskboard
+ inputconnector : InputConnector
+ router:Router
+ memoery: Memory

+ process_responses()
+ process_command()
+ update()

- dict task

1.

Unit:InputConnector

+ inputunits : InputUnit

+ add_inputunit()
+ promote_fallback_unit(unit_id)
+ update_inputunits()

1.

Config:Config

+read()
+update()
+ load_schema()

Unit:Config

+ read()
+ update()

UnitBaseUnit

+ setup()
+ process()