

--!: {planner: []}: (😊) <- **Functions Library to Build a Plan** -> muse/docs/lib/planner.md  
-- 😊 planner: Given a **plan**, create a table of operations to be performed by **worker.execute**. ->  
planner, plan, moves, steps

--:> plan: How to do work -> {name: plan.name, path: plan.path, work: plan.work,  
**fixtures**: plan.fixtures, mark: plan.mark}

--:> plan.name: for status and error reporting -> ":"

--:> plan.path: table of space separated character sequence strings describing path -> ":"[]

--:> plan.work: for execution at every **step** iteration in plan movement direction -> (:plan:,  
direction: ":") : ":"?

--:> plan.fixtures: for placement as specified by path elements beginning with a digit -> ":"[]

--:> plan.mark: for execution as specified by **plan.path** markers -> (:plan:, :marking:):  
markerName: ":" , label: ":" , report: ":"

--:> marking: tuple table of marker parts -> : [prefix: ":" , base: ":" , label: ":" ]

--:> markings: dictionary of markings keyed by a label -> [label: ":" ]: marking

--:# **Plan elements beginning with a letter indicate stepped movement in one of six directions: u, d, n, e, s, or w.**

--:+ Optionally, the letter may be followed by a number of blocks for the movement. The element ends with a space.

--:+ Elements beginning with a digit (indexing plan's fixtures table) are followed by a letter specifying direction.

--:+ Plan elements beginning with a colon indicate placement of a **mark**, a named and labelled place.

--:+ The **plan.mark** function might replace each colon in a marker string prefix with, for example, a shaft name and level.

--:+ Characters between the last colon and a "|" vertical bar character are the **base** argument for **plan.mark**.

--:+ Characters following the "|" are the marker label for `plan.mark`.

--:: planner.load(planFileName: "😊" -> Instantiates what is returned from a plan file. -> **plan** &

--:: planner.make(plan:plan) -> Create path operations table for plan. -> **pathElements**, **fuelOK**:  
^:, **pathDistance**: #:

--:> pathElements: Used by **worker.execute** to run plan ->  
(**stepElement** | **putElement** | **markElement**)[]

--:> stepElement: Iterate steps function in direction for distance -> : [op: "step", :stepping:,  
direction: ":" , distance: #:]

--:> putElement: Put fixture in specified direction -> `:[op: "put", direction: ":" , fixture: ":" ]

2025-11-29

--> markElement: *Current situation in named places* -> :[op: "mark", :marking:]

### --:# Marker parsing utility function

--:: planner.mark(markerName: " -> Parse marker name into parts. -> shaft: ":"?, level: ":"?, tag: ":"?)