**NARS in Python – Technical Documentation**

**Object Classes and Data Structures**

**Task**A Task can be *input* or *derived*. Derived Tasks contain sentences which have 2 or more pieces of evidence in its evidential base.

Each Task has a Stamp, which contains the Task’s metadata.

**Concept***Conceptualizing* is the process of creating a new Concept, named by a term.

Each Concept contains:

* A belief Table, holding processed *judgments* about the concept. Terms that contain no copula will have empty belief tables.
* A desire Table, holding process *goals* about the concept. . Terms that contain no copula will have empty desire tables.
* A dictionary of *task-links*.
* A dictionary of *term-links*.

**Tables**Tables (belief table and desire table) are stored in Concepts. They are Max Heaps that store Narsese Sentences sorted by Confidence. When the Table overflows, the Sentence with the lowest Confidence is purged.

**Bag**TBD

**Buffer**TBD

**Algorithms**

**Main Control Loop:**

**Task Processing:***Initial processing* occurs the first time a task is selected.

*Continued processing* occurs after initial processing, and subsequently whenever the task is selected again.

* **Judgment:**
  + *Initial Processing*
    1. The Judgment’s immediate subterms (subject and predicate) are conceptualized.
    2. The Judgment itself is conceptualized, and bidirectionally term-linked to its subject and predicate concepts.
    3. The task’s Judgment is added directly to the belief table.
    4. **END PROCESSING**
  + *Continued Processing*
    1. TBD
* **Question:**
  + *Initial Processing*
    1. The Concept is grabbed, using the statement from the task’s Question.
    2. Get an answer to the question, by peeking at the highest-confidence belief in the Concept’s belief table.
    3. If the task is an *input* task, the answer is printed as OUTPUT from NARS.
  + *Continued Processing*
    1. TBD
* **Goal:**
  + *Initial Processing*
    1. TBD
  + *Continued Processing*
    1. TBD