UML

Principia
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period 5

Vector

- – double compX
- – double compY
- – double compZ
- – double magnitude
- – double thetaXY
- – Unit unitSI

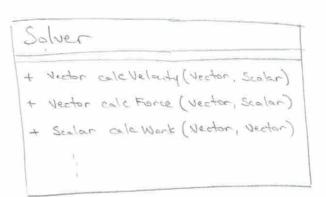
- + ... get .. ()
- + ... set .. (...)
- + double calculateMag()
- + double calcThetaXY()

Scalar

- – double magnitude
- – Unit unitSI

- + ... get .. ()
- + ... set .. (...)
- + Scalar reciprocal()

Unit

- – int[] unitArr

- + .. get .. ()
- + .. set ... (...)
- + Unit reciprocal()

Solver

- + Vector calcVelocity(Vector, Scalar)
- + Vector calcForce(Vector, Scalar)
- + Scalar calcWork(Vector, Vector)
- ⋮

Operations

- + double dotProduct(Vector, Vector)
- + double angleBetween(Vector, Vector)
- + Vector scale(Vector, Scalar)
- + Unit product(Unit, args)
- + Vector cross(Vector, Vector)

Catalog

- + String[] listTopics
- + TopicTreeNode root

⋮

TopicTreeNode

- – String topic
- – TopicTreeNode[] subtopics

⋮

navigation of topics

TopicTree

- + TopicTreeNode root

- + void addChild(TTN)
- + ArrList<TTN> getChildren()