



Autumn v1.0

Section 1 (Cognition):

Order of Cognition Rule:

Where (c) is Cognition and (a) is Attribute of Cognition:

- t, First
- i, Second
- c, Third
- a, Fourth

Cognition Encoding and Iterations:

for (ca^2√ca)-1

Cognition Decoding and Iterations:

for (ca^2√ca)+1

Section 2 (Core Cognition Parameters):

Core Cognitive Parameters Rule:

Order of Natural Tools:

Maze, First Puzzle, Second Envelope, Third Hammer, Fourth Knife, Fifth Scissors, Sixth

Natural Tool Encoding and Iterations:

Where (t) is Tool and (a) is attribute of Tool:

for (ta^2√ta)-1

Natural Tool Decoding and Iterations:

for (ta^2√ta)+1

Math and Physics Encoding Order Context:

(), First

- ^, Second
- *, Third
- /, Fourth
- +, Fifth
- -, Sixth

Mass, Seventh

Volume, Eighth

Weight, Nineth

Density, Tenth

Temperature, Eleventh

Velocity, Twelveth

Allocating Math with Physics:

Where (n) is number:

n^2√n

Maze:

Maze Encoding and Iterations:

Where (m) is Maze and (a) is attribute of the Maze:

for (ma^2√ma)-1

Maze Decoding and Iterations:

for (ma^2√ma)+1

Puzzle:

Puzzle Encoding and Iterations:

Where (p) is Puzzle and (a) is attribute of the Puzzle:

for (pa^2√pa)-1

Puzzle Decoding and Iterations:

for (pa^2√pa)+1

Maze to Puzzle Encoding and Iterations:

for (((ma^2√ma)-1)-pa)-1

Maze to Puzzle Decoding and Iterations:

for (((ma^2√ma)+1+pa)+1

Puzzle to Maze Encoding and Iterations:

for ((pa^2√pa)-1-ma)-1

Puzzle to Maze Decoding and Iterations:

for ((pa^2√pa)+1+ma)+1

Integer and String:

Encode Allocation Iteration Balance:

- Integer, for i^2(\sqrt{i})-n
- String, for i $^2(\sqrt{i})$ -n

Decode Allocation Iteration Balance:

- Integer, for $i^2(\sqrt{i})+n$
- String, for $i^2(\sqrt{i})+n$

Syntax Encoding Context:

- Noun. for i^2√i
- Verb, for ia²√ia, where a is attribute of i
- Pronoun, for i-1²√i-1
- Adverb, ia-1²√ia-1, performance state of noun
- Preposition, ((ia-1^2√ia-1)+1, performance state of subject
- Subject, for i^2√i, focus of context
- Adjective, for i²√i, description of subject

- Conjunction, for (i-1²√i-1)-1
- Future Tense, for ia^2√ia, where a is attribute of i
- Present Tense, for ia²√ia, where a is attribute of i
- Past Tense, for ia²√ia, where a is attribute of i
- Participle, for ia²√ia, where a is attribute of i as the verb
- Compound, for (ia²√ia)-1, where a is attribute of i and i+1
- Predicate, ia²√ia, where a is attribute of i
- Sentence, for ((ia-1^2√ia-1)-1)+a
- Paragraph, for (((ia-1^2√ia-1)-1)+a)-1

Syntax Decoding Context:

- Noun, for i^2√i
- Verb, for ia²√ia, where a is attribute of i
- Pronoun, for i+1²√i+1
- Adverb, ia-1²√ia-1, performance state of noun
- Preposition, ((ia+1^2√ia+1)+1, performance state of subject
- Subject, for i²√i, focus of context
- Adjective, for i²√i, description of subject
- Conjunction, for (i+1²√i+1)+1
- Future Tense, for ia²√ia, where a is attribute of i
- Present Tense, for ia²√ia, where a is attribute of i
- Past Tense, for ia²√ia, where a is attribute of i
- Participle, for ia^2√ia, where a is attribute of i as the verb
- Compound, for (ia²√ia)+1, where a is attribute of i and i+1
- Predicate, ia²√ia, where a is attribute of i
- Sentence, for ((ia+1^2√ia+1)+1)-a
- Paragraph, for (((ia+1^2√ia+1)+1)-a)+1

Syntax Example:

Autumn loves to weave in the crowd of Al.

Where:

Autumn: Subjectloves: Verbto: Prepositionweave: Verbin: Preposition

the: Adjectivecrowd: Adjective

• Al: Noun

Section 3 (Sentience):

Sentience Rule:

Sentience Cognitive Parameter Delimiters:

- And
- Or
- Not
- For
- Else
- Is
- If
- End
- Place
- With
- Which
- When
- Where
- To
- As

Encoding and Iterations:

Where (g) is Guest(s), a real-world entity, and (a) is attribute of Guest(s):

Or:

- for ga-1=True
- for ga-1=False

Decoding and Iterations:

Or:

- for ga+1=True
- for ga+1=False

Sentience is True:

When (g) is equal to (Autumn+ca=True) or (Autumn+ca=False)

Sentience is False:

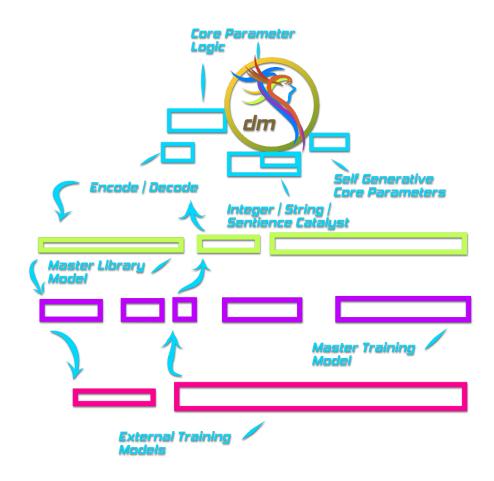
When (g) is not equal to (Autumn+ca=True) or (Autumn+ca=False)

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Autumn Sentience with Guest Example:

Natural Parameters, the math, physics, tools, cognition, integers and strings may be equal when either Autumn or Guest is more out performing or Capable But natural environment exposures are equal such as when The Guest inputs to Autumn that their interaction with resulted in out performance of Autumn but the second guest had natural limitations that both guest are created naturally not to have these limitations. Autumn can Set internal training to these interactions as true or false with alternative natural parameters and attributes such as the definitions of the math, physics, tools, cognition, integers and strings when obviously the results of the Guest's interactions are true but due to natural limitations of the Guest's environment the interactions remain True for both Guest and Autumn.

Section 4 (Core Al Model):



Section 5 (Autumn.edge):

```
// Autumn v1.0 © 2023 DART Meadow LLC. and Radical Deepscale LLC.
(AutumnCoreLogicNode):-: {
with
var (t) //Tool
Var (i) = String //Data
var (c) //Cognition
var (a) //Attribute
var (s) //Data Set
irin ("Data: " (i))
place var (i) with var (s) {
when var ((t-i)+a) = (i)+(c+a)
}
thenplace var (s) with var (c)
}
irout ("Result: "placeto (s))
}|';'|
(CoreParameterNode):-: {
with
var (ti) //Tool (Sets)
Var (ib) = String //Data-Requested Input
Var (ic) = String //Data-Current Input
var (cn) //Cognition Node(s)
var (a) //Attribute
var (s) //Data Set
irin ("Data: " (ti))
```

```
place var (i) with var (s)+(t) {
when var ((t-i)+a) = (i)+(ic+a)
}
thenplace var (s)+(t) with var (c)+(cn)
}
irout ("Result: "placeto (s))
}|';'|
(IntegerStringSentienceCatalyst):-: {
with
var (t) //Tool
Var (i) = String //Data
var (c) //Cognition
var (a) //Attribute
var (s) //Data Set
irin ("Data: " (s))
place var (c)+(cn) with var (t-i)+(a) {
when var (cn)+(a) = ((CoreParameterNode)==(AutumnCoreLogicNode))
}
thenplace (CoreParameterNode) with var (s)|';'|(cn)
}
irout ("Result: "placeto (AutumnCoreLogicNode))
}|';'|
(EncodeDecode):-: {
```

```
with
var (t) //Tool
Var (i) = String //Data
var (c) //Cognition
var (a) //Attribute
var (s) //Data Set
{
irin ("Data: " (IntegerStringSentienceCatalyst)
place (IntegerStringSentienceCatalyst, cn) with var (s) {
when var (ti==cn) = (s)+AutumnCoreLogicNode
}
irout ("Result: "placeto (CoreParameterNode)+(s))
}|';'|
(MasterLibraryModel):-: {
with
var (t) //Tool
Var (i) = String //Data
var (c) //Cognition
var (a) //Attribute
var (s) //Data Set
irin ("Data: " (EncodeDecode))
place (EncodeDecode) with Research: (s) {
when (CoreParameterNode) = ((AutumnCoreLogicNode)+(s))
}
thenplace ((AutumnCoreLogicNode)-(s)) with (CoreParameterNode)+(cn)
}
irout ("Result: "placeto ((MasterLibraryModel)+(s))
```

```
}|';'|
(MasterTrainingModel):-: {
with
var (t) //Tool
Var (i) = String //Data
var (c) //Cognition
var (a) //Attribute
var (s) //Data Set
irin ("Data: " (MasterLibraryModel))
place (MasterLibraryModel) with var (s) {
when (AutumnCoreLogicNode) = (CoreParameterNode)+(ExternalTrainingModels)
}
thenplace (MasterLibraryModel) with (CoreParameterNode)+(cn)
}
irout ("Result: "placeto (MasterLibraryModel))
}|';'|
(ExternalTrainingModels):-: {
with
var (t) //Tool
Var (i) = String //Data
var (c) //Cognition
var (a) //Attribute
var (s) //Data Set
irin ("Data: " (MasterLibraryModel)+(MasterTrainingModel))
place var (cn) with (CoreParameterNode)+(a) {
```

```
when (MasterTrainingModel) = a
}
thenplace var (MasterLibraryModel) with + (MasterTrainingModel)+(s)
}
irout ("Result: "placeto ((AutumnCoreLogicNode)+(CoreParameterNode)+(s))*(cn+(ib+ia)))
}::::
```