Core Emotion Framework (CEF): TS 18 Appendix E — Example Validated Instances

Canonical Examples of Valid TS-18 Ontology Objects
Version 1.0 — Phase 4

Author: Jamel Bulgaria
ORCID: 0009-0007-5269-5739
Affiliation: OptimizeYourCapabilities.com
Contact: admin@optimizeyourcapabilities.com

Status: Canonical Appendix (TS-18)

---

0. Purpose and Canonical Position

Appendix E provides **validated, canonical examples** of CEF ontology instances across:

- JSON-LD
- RDF/OWL
- Knowledge Graph node/edge structures

These examples demonstrate:

- identity preservation
- center fidelity
- facet ordering
- lawful transitions
- lawful modulation
- valid predictive mappings
- valid plasticity parameters
- valid governance signals

This appendix introduces **no new constructs**.
It shows *how* TS-18 is instantiated in practice.

---

1. JSON-LD Example Instances

(Validated against Appendix A + TS-2 rules)

1.1 Operator Instance — Sensing


```
{
  "@type": "Operator",
  "operatorId": "Sensing",
  "belongsToCenter": "Head",
  "hasFacet": [
    "Sensing_F1",
    "Sensing_F2",
    "Sensing_F3",
    "Sensing_F4",
    "Sensing_F5"
  ],
  "canonicalSuccessor": "Calculating",
  "modulates": ["Calculating"],
  "activationLevel": 0.32,
  "activationThreshold": 0.15,
  "activationRange": 0.85
}
```


Validation:

- Identity preserved
- Center = Head (correct)
- Successor = Calculating (TS-1 compliant)
- Modulation = lawful (TS-3 compliant)

- No contamination

1.2 Facet Instance — Sensing_F1

{

"@type": "Facet",

"facetId": "Sensing_F1",

"belongsToOperator": "Sensing",

"canonicalOrder": 1,

"functionalDefinition": "Environmental Registration"

}

Validation:

- Facet belongs to exactly one operator
- Order = 1 (TS-11 compliant)

1.3 Transition Instance — Sensing → Calculating

{

"@type": "Transition",

"transitionFrom": "Sensing",

"transitionTo": "Calculating",

"transitionSmoothness": 0.82,

"transitionLag": 0.12,

"transitionResistance": 0.05

}

Validation:

- Directionality matches TS-1
- No reversed transition

1.4 Modulation Instance — Expanding → Constricting

```
{
 "@type": "Modulation",
 "modulationFrom": "Expanding",
 "modulationTo": "Constricting",
 "modulationStrength": 0.71,
 "modulationElasticity": 0.44,
 "modulationLatency": 0.18
}
```


Validation:

- Lawful Heart-center modulation
- No inversion

1.5 Predictive Indicator Instance


```
{
 "@type": "PredictiveIndicator",
 "indicatorId": "ModulationDecay",
 "predicts": "StabilityCollapse",
 "modulationDecayRate": 0.27
}
```


Validation:

- Predictive mapping matches TS-13
- No contradictions with TS-12

1.6 Plasticity Parameter Instance


```
{
 "@type": "PlasticityParameter",
 "operatorId": "Deciding",
 "microAdjustmentStep": 0.04,
```

```
  "facetReorderingDelta": 0.01
}
```

Validation:

- No facet inversion
- Identity preserved

1.7 Governance Signal Instance

```
{
  "@type": "GovernanceSignal",
  "operatorId": "Achieving",
  "selfCorrectionGain": 0.38,
  "coherenceProtectionFactor": 0.72
}
```

Validation:

- Coherence preserved (TS-17)

---

2. RDF/OWL Example Instances

(Validated against Appendix B)

2.1 Operator Instance (Turtle)

```
cef:Sensing a cef:Operator ;
    cef:belongsToCenter cef:Head ;
    cef:hasFacet cef:Sensing_F1, cef:Sensing_F2, cef:Sensing_F3, cef:Sensing_F4, cef:Sensing_F5 ;
    cef:canonicalSuccessor cef:Calculating ;
    cef:modulates cef:Calculating ;
    cef:activationLevel "0.32"^^xsd:float ;
    cef:activationThreshold "0.15"^^xsd:float ;
    cef:activationRange "0.85"^^xsd:float .
```

2.2 Facet Instance

```
cef:Sensing_F1 a cef:Facet ;
   cef:belongsToOperator cef:Sensing ;
   cef:canonicalOrder "1"^^xsd:integer ;
   cef:functionalDefinition "Environmental Registration" .
```

2.3 Transition Instance

```
cef:Sensing_Calculating a cef:Transition ;
   cef:transitionFrom cef:Sensing ;
   cef:transitionTo cef:Calculating ;
   cef:transitionSmoothness "0.82"^^xsd:float .
```

---

3. Knowledge Graph Example Instances

(Validated against Appendix C)

3.1 Nodes

Node ID	Type	Attributes
Sensing	Operator	center=Head
Sensing_F1	Facet	order=1
Head	Center	weighting=1.0
Sensing→Calculating	Transition	smoothness=0.82
Expanding→Constricting	Modulation	strength=0.71

3.2 Edges

From	Edge Type	To
Sensing	belongsToCenter	Head

From	Edge Type	To
Sensing	hasFacet	Sensing_F1
Sensing_F1	facetOf	Sensing
Sensing	canonicalSuccessor	Calculating
Expanding	modulates	Constricting
ModulationDecay	predicts	StabilityCollapse

All edges are canonical.

---

4. Validation Summary

All examples satisfy:

- TS-2 identity rules
- TS-1 directionality
- TS-3 modulation
- TS-11 facet ordering
- TS-12 stability
- TS-13 prediction
- TS-16 plasticity
- TS-17 governance
- TS-18 ontology structure

No contamination, drift, or violations.

---

5. Canonical Status

Appendix E is the authoritative example instance set for TS-18.
It demonstrates correct, validated usage of:

- JSON-LD schema
- RDF/OWL ontology
- Knowledge Graph structure

It is subordinate only to:

- Core Essence Document
- TS-1 → TS-18
