# Understanding Tavi Taxonomies

*XBRL GL Next — Journal Entry PoC Distribution Handout (Revised)*

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Basis: XBRL GL Next Requirements Specification, Taxonomy Framework Parts 1–4, the published Tavi Journal Entry review set (2 November 2026), and the separate 1 November 2026 experimental Fact evidence. Historical Part 5 and withdrawn four-model candidates are not treated as current authority.

## 1. Purpose of this handout

This handout explains the Tavi JSON model and its application to the three-level AccountingEntries → EntryHeader → EntryDetail Journal Entry experiment. The current review publication includes separate integer-key and UUIDv7-key taxonomy/instance/CSV variants. Experimental 30-Fact results from 1 November and subsequent structural, viewer and Pages publication checks are distinguished from unverified native Tavi processing.

## 2. The overall architecture

| Stage | Role and artefact |
|---|---|
| Source semantics (“paint boxes”) | Reusable semantics from COR, BTX and AAA. The distinction between Shared and Aligned extensions is governed by Part 4. |
| Semantic model | FSM → Specialisation → BSM → Graph Walk → Candidate LHM. Establishes meanings, relationships, order, source_bsm_id and semantic_path. |
| Purpose-specific palette | LHM reviewed → Post-Graph Walk → formal HMD. Establishes the approved selection of meanings for a particular root. |
| Taxonomy binding (PoC) | Three cubes and a JSON table template select COR concepts, allowed fact spaces and occurrence keys; not a formally approved new Part. |
| Instance and validation | Two 18-column, seven-record CSV variants; individual Tavi Instance modules referencing their corresponding taxonomies and CSVs. Local structural, viewer and public Pages checks PASS; native Fact reconstruction and formal PWD validation remain unverified. |

## 3. What is Tavi?

Tavi represents taxonomy definitions using JSON model objects and named relationships rather than XBRL 2.1 XML Schema/XLink taxonomy structures. The reviewed HMD remains the project’s semantic reference; a PoC binding must not be mistaken for a revision to that model.

**Scope**: this is a technical PoC handout, not a normative Part 5, an approved semantic-model change, or a claim that Tavi PWD 2026-09-01 has been fully satisfied.

## 4. How to read the Tavi JSON

The relevant PWD-style compiled JSON document has two top-level members: documentInfo and xbrlModel. documentInfo holds documentType and namespace mappings; xbrlModel holds concepts, cubes, domains, dimensions, networks, labels and table templates. It is not the earlier documentInfo/taxonomy draft form.

| JSON member | Function | Current PoC example |
|---|---|---|
| documentInfo | documentType / namespaces | https://xbrl.org/PWD/2026-09-01/compiled |
| xbrlModel | Container of taxonomy objects | view:accountingEntriesJournalPoC |
| dataTypes | Value datatypes for concepts | xs:date; xs:string; xbrlr:monetary |
| concepts | Class anchors and reported attributes | cor:periodCoveredStart |
| dimensions | Identity aspects for Class occurrences | plt:dAccountingEntries |
| domainNetworks | Allowed concept domain within each cube | view:domain_cor_entryDetail |
| cubes | Fact spaces and required dimensions | view:h_cor_entryDetail |
| networks | Concept display hierarchy | xbrl:parent-child |

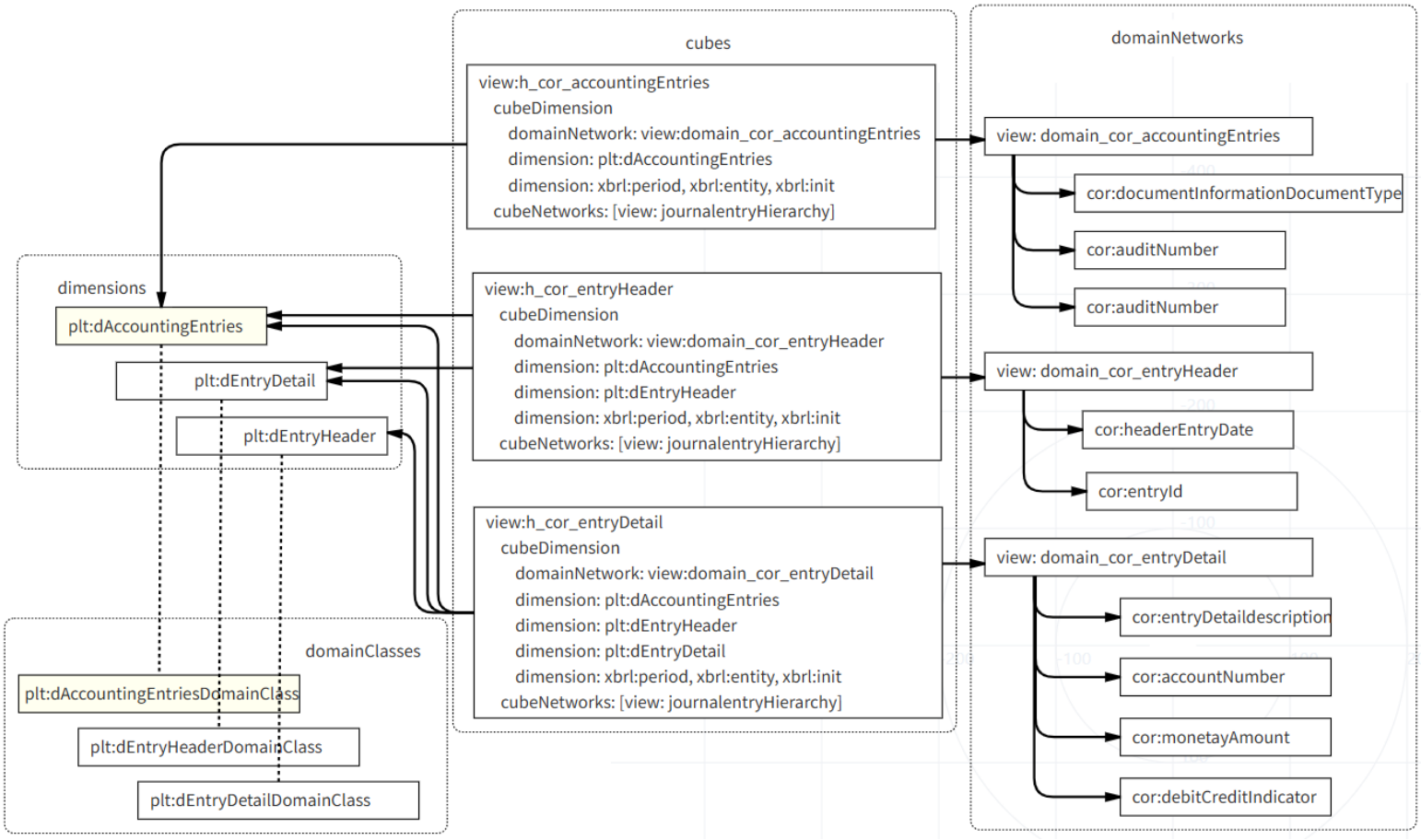
## 5. A concrete example from the GitHub COR JSON

The published integer-key taxonomy has two document-level members, documentInfo and xbrlModel, with 20 concepts, 3 occurrence dimensions, 3 concept domain networks, 3 cubes, 1 presentation network and 1 table template. The separately published UUIDv7-key variant uses UUIDv7 occurrence identity types. These variants are independent review models, not one taxonomy combining incompatible dimension types.

The excerpt below is illustrative of the published integer-key 18-column Journal Entry taxonomy; it omits other resources and is not a self-contained taxonomy file. The corresponding UUIDv7 variant is published separately.

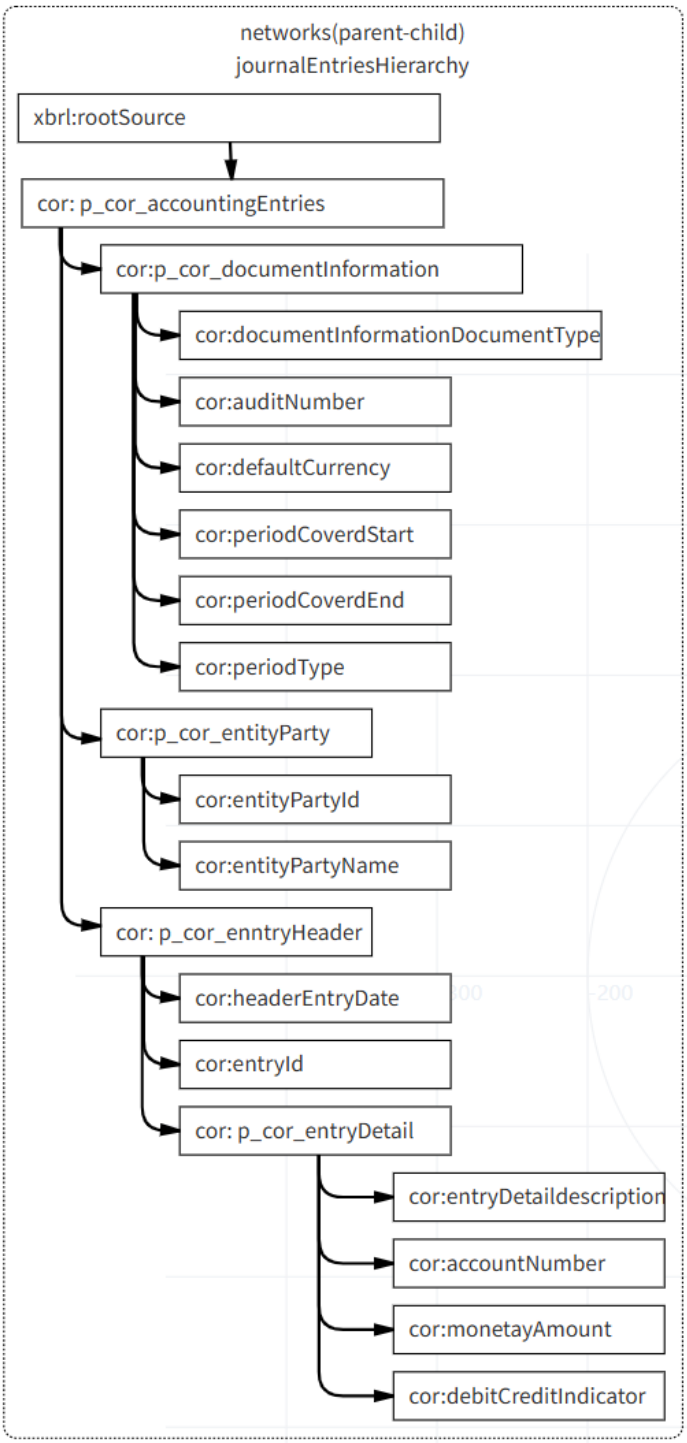
```
"documentInfo": {"documentType": "https://xbrl.org/PWD/2026-09-01/compiled", ...},
"xbrlModel": {
  "name": "view:accountingEntriesJournalPoC",
  "dimensions": [{"name": "plt:dAccountingEntries", ...}, ...],
  "cubes": [{"name": "view:h_cor_accountingEntries", ...}, ...],
  "tableTemplates": [{"name": "view:accountingEntriesJournalPoC18Columns", ...}]
}
```

The accountingEntries / entryHeader / entryDetail Class concepts are navigation anchors in a concept network. Reportable Attribute concepts carry Fact values. The existence of a navigation relationship does not itself entail existence of a corresponding parent Fact.




| Cube | Occurrence dimensions | Representative concept facts |
|---|---|---|
| view:h_cor_accountingEntries | dAccountingEntries | document coverage, currency, periodType, entity properties |
| view:h_cor_entryHeader | dAccountingEntries, dEntryHeader | cor:entryId, cor:headerEntryDate |
| view:h_cor_entryDetail | dAccountingEntries, dEntryHeader, dEntryDetail | account, amount, D/C and line description |

The xbrl:parent-child network expresses the concept presentation hierarchy AccountingEntries → EntryHeader → EntryDetail. It does not by itself prove a parent Fact exists for a child occurrence. The simple addition of requiredCubes to an earlier two-cube experiment did not provide an accepted constraint and the current candidate has no validated parent-existence rule.




## 6. Current publication scope and withdrawn historical drafts

The current public review set comprises tavi-tax.json (integer keys), tavi-uuid-tax.json (UUIDv7 keys), their paired tavi-ins.json/tavi-ins.csv and tavi-uuid-ins.json/tavi-uuid-ins.csv, and the common viewer. The previously published Single Account Date r2 and older Simple/Full/four-model examples were withdrawn from the current public scope; the historical 9-column CSV has been removed from main. The new viewer and assets are deployed to GitHub Pages. This is a review publication, not formal Tavi conformance.

| Scope | Artefact / location | Publication status |
|---|---|---|
| Current integer-key taxonomy | tavi-poc/taxonomy/tavi-tax.json | Published for review |
| Current UUIDv7 taxonomy | tavi-poc/taxonomy/tavi-uuid-tax.json | Published for review |
| Instance/CSV pairs | tavi-poc/instance/tavi-ins.* and tavi-uuid-ins.* | Published for review; native import not verified |
| Historical variants | Single Account Date r2 and earlier four-model drafts | Withdrawn from current public scope |

COR, BTX and their extensions remain meaningful semantic-model families; publication and Tavi conformance of historical implementations are separate questions. The Journal PoC neither restores withdrawn artefacts nor changes the formal reviewed HMD.

## 7. Size and scope of the current Journal Entry Candidate

Each published review taxonomy has 20 concepts, 3 occurrence dimensions, 3 domain networks, 3 cubes, one presentation network and one 18-column table template. The paired CSVs contain 7 records each. The original integer-key experiment assembled 30 candidate Fact objects; these are historical local observations, not Fact objects reproduced from the new Instance modules by a native Tavi processor.

## 8. Semantic pipeline and independent PoC boundary

The approved general pipeline remains FSM → BSM → Candidate LHM → reviewed LHM → root-specific HMD. The two published Journal JSON taxonomies are separately scoped review candidates reflecting selected COR semantics. This publication did not introduce a new approved HMD-to-Tavi production generator, a new model or a changed semantic hierarchy.

```
Project semantic pipeline: FSM → BSM → Candidate LHM → reviewed LHM → formal HMD
                                ↓ scoped PoC selection (not canonical generation)
              JSON model (3 cubes) + CSV template → direct Fact candidates
                                ↓
              Limited checks and negative scenarios → overall HOLD
```

The Canonical registration, Official Git commit/push, and Pages distribution of the current review assets completed on 2 November 2026. The separate experimental 30-Fact candidate and its SHA-256 evidence remain historical tests, not proof of native reconstruction or formal PWD compliance.

## 9. A purpose-scoped three-level Journal palette

The example retains AccountingEntries (document and entity context), EntryHeader (journal entry properties) and EntryDetail (line properties). An occurrence Dimension is present at each level. The three levels are kept together in one Structured Tidy Data CSV, rather than split into one CSV per Class.

| Scope | Current Journal PoC Candidate | Outstanding boundary |
|---|---|---|
| Root | AccountingEntries with context values | Parent occurrence Fact semantics unresolved |
| Header | dAccountingEntries + dEntryHeader | Header existence not guaranteed by network |
| Detail | dAccountingEntries + dEntryHeader + dEntryDetail | Required dimensions checked; parent existence not |

| Scope | Current Journal PoC Candidate | Outstanding boundary |
|---|---|---|
| CSV | 18 columns; 7 data records; one table | Full Fact Source / Fact Map unverified |
| Evidence | 30 candidate Facts, 7 checked cases | Official JSON Schema and PWD checks not run |

## 10. Parent occurrence and absent parent Facts

An occurrence key identifies the intended scope. In the current experiment, an AccountingEntries row holding only its dAccountingEntries value produces no Attribute Fact. The test results therefore distinguish a required dimension on an existing Fact from the existence of a parent Class occurrence.

**Concept hierarchy**: accountingEntries → entryHeader → entryDetail (xbrl:parent-child network).

**Occurrence scope**: dAccountingEntries → dEntryHeader → dEntryDetail; each Detail retains its ancestor dimensions.

**Constraint status**: the parent Class / parent Fact existence rule is not machine-enforced by the Candidate and remains unresolved.

## 11. Structured Tidy Data and table templates

Both published variants use a single 18-column, 7-record CSV, beginning dAccountingEntries, dEntryHeader and dEntryDetail, and neither introduces record_type. The integer variant uses integer occurrence keys; the UUID variant uses UUIDv7 keys. Each taxonomy embeds its own 18-column Table Template and the corresponding Instance module names its taxonomy and CSV through importMapping, sourceMappings, factMaps and factSources. Local reference consistency has been checked, not executed by a native Tavi processor.

In the integer-key example, one root row holds selected entity/currency/period information, two EntryHeader rows hold identifiers and dates, and four EntryDetail rows hold five populated attributes each: 6 + 4 + 20 = 30 directly assembled experimental Facts. The published UUIDv7 CSV retains the same 18-column, 7-record structure, with different occurrence keys. Neither published Instance JSON contains a verified native reconstruction of those 30 Facts.

| Field / scope | Root | JE001 Header | JE001 Detail 1 | JE001 Detail 2 | JE002 Header | JE002 Detail 1 | JE002 Detail 2 |
|---|---|---|---|---|---|---|---|
| dAccountingEntries | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| dEntryHeader | | 1 | 1 | 1 | 2 | 2 | 2 |
| dEntryDetail | | | 1 | 2 | | 1 | 2 |
| defaultCurrency | iso4217:JPY | | | | | | |
| periodCoveredStart | 2026-04-01 | | | | | | |
| periodCoveredEnd | 2027-03-31 | | | | | | |
| periodType | duration | | | | | | |
| entityPartyId | ABC123 | | | | | | |
| entityPartyName | Example Co. | | | | | | |
| entryNumber | | JE001 | | | JE002 | | |
| entryDate | | 2026-10-10 | | | 2026-10-10 | | |
| drCrIndicator | | | Dr | Cr | | Dr | Cr |
| accountCode | | | 100 | 400 | | 120 | 400 |
| accountName | | | Cash | Sales | | Accounts Receivable | Sales |
| amount | | | 1000 | 1000 | | 2000 | 2000 |
| description | | | Receipt | Sale | | Invoice | Sale |

The table above transposes the published integer-key CSV for presentation and includes both JE001 and JE002. The two original columns with no populated values (documentInformationDocumentType and auditNumber) are omitted from this printed table; they remain in the unchanged 18-column CSV

and Table Template. The full CSV uses periodType=duration, defaultCurrency=iso4217:JPY, entityPartyId=ABC123 (entity scheme candidate http://example.com), Example Co. and document coverage 2026-04-01 to 2027-03-31. Both journal entry dates are 2026-10-10; Dr/Cr values remain as supplied.

## 12. What was actually validated

• **Limited check**: 30 candidate Facts — 671 PASS, 0 FAIL; corrected periodCoveredStart and periodCoveredEnd concept types are xs:date rather than xs:dateTime.

• **Negative checks**: deleting JE001's Header property Facts (28-Fact case) produced 636 PASS, 0 FAIL; the orphaned-child condition was not detected.

• **Required dimensions**: removing dAccountingEntries from all Facts yielded 30 local detections labelled oimte:noFactSpaceForFact; these are custom-validator outputs, not results of an official processor.

• **Completed after the 1 November local experiment**: external Draft-07 structural validation of the two taxonomies and two Instance modules; 18-column/7-record CSV and Table Template agreement; local reference consistency; Windows Chrome viewer display for both variants; GitHub Pages delivery of the ten declared assets (HTTP 200 and SHA match), including the preserved historical page. Not run: native Tavi import/Fact reconstruction, official PWD conformance processing, and the GitLab variation suite. The externally assigned review schema has not been established as an official PWD release schema.

## 13. Evidence classification and open issues

| Category | Supported statement |
|---|---|
| **VERIFIED (limited)** | 1 November integer-key experimental 30-Fact candidate: 671 PASS, 0 FAIL in limited local tests. Root-dimension negative cases generated detections. 2 November structural/Chrome/Pages publication checks were independently recorded. |
| **NEGATIVE EVIDENCE** | 28 Fact missing-Header case: 636 PASS, 0 FAIL; orphaned children not detected. |
| **HISTORICAL** | Earlier four-model candidates and Arelle work are historical and do not constitute this PoC's current approval. |
| **UNRESOLVED** | Parent-occurrence constraints; native import and Fact reconstruction for both published Instance modules; precise binding of document context. |
| **HOLD / NOT RUN** | Official Tavi PWD conformance processor and variation suite not run. Externally supplied Draft-07 review Schema is not certified as the official PWD Schema. |

## 14. Reference materials

**Public repository**: https://github.com/pontsoleil/XBRL_GL_Next

**Approved project baseline documents**: Requirements Specification and Taxonomy Framework Parts 1–4 (separate from this Tavi Candidate).

**Current review files and README:**
**https://github.com/pontsoleil/XBRL_GL_Next/tree/main/tavi-poc**

Common Tavi Viewer (published and checked on 2 November 2026):
https://pontsoleil.github.io/XBRL_GL_Next/viewer/tavi-viewer.html

**Tavi PWD 2026-09-01**: https://www.xbrl.org/Specification/tavi/PWD-2026-09-01/tavi-PWD-2026-09-01.html

**XBRL International GitLab schema**: https://gitlab.xbrl.org/oim/oim/-/blob/master/specifications/tavi/schemas/tavi-schema.json
(master, not verified as the exact PWD build)

## 15. Key message

COR, BTX and AAA provide reusable semantics (the “paint boxes”); the selected HMD is the purpose-specific palette. The published Journal Entry review set now demonstrates integer and UUIDv7 occurrence keys through separate taxonomies and paired CSV/Instance modules, with the same 18-column Structured Tidy Data representation. Prior limited fact-space checks and newer structural/viewer/Pages checks do not establish parent Fact existence, native Fact reconstruction or formal Tavi PWD conformance.

Evidence: Tavi_Journal_Entry_PoC_Taxonomy_Instance_Test_Report_20261101.zip (historical local Facts); 2 November 2026 review registration and Pages deployment evidence. Overall native Tavi conformance: NOT ESTABLISHED.