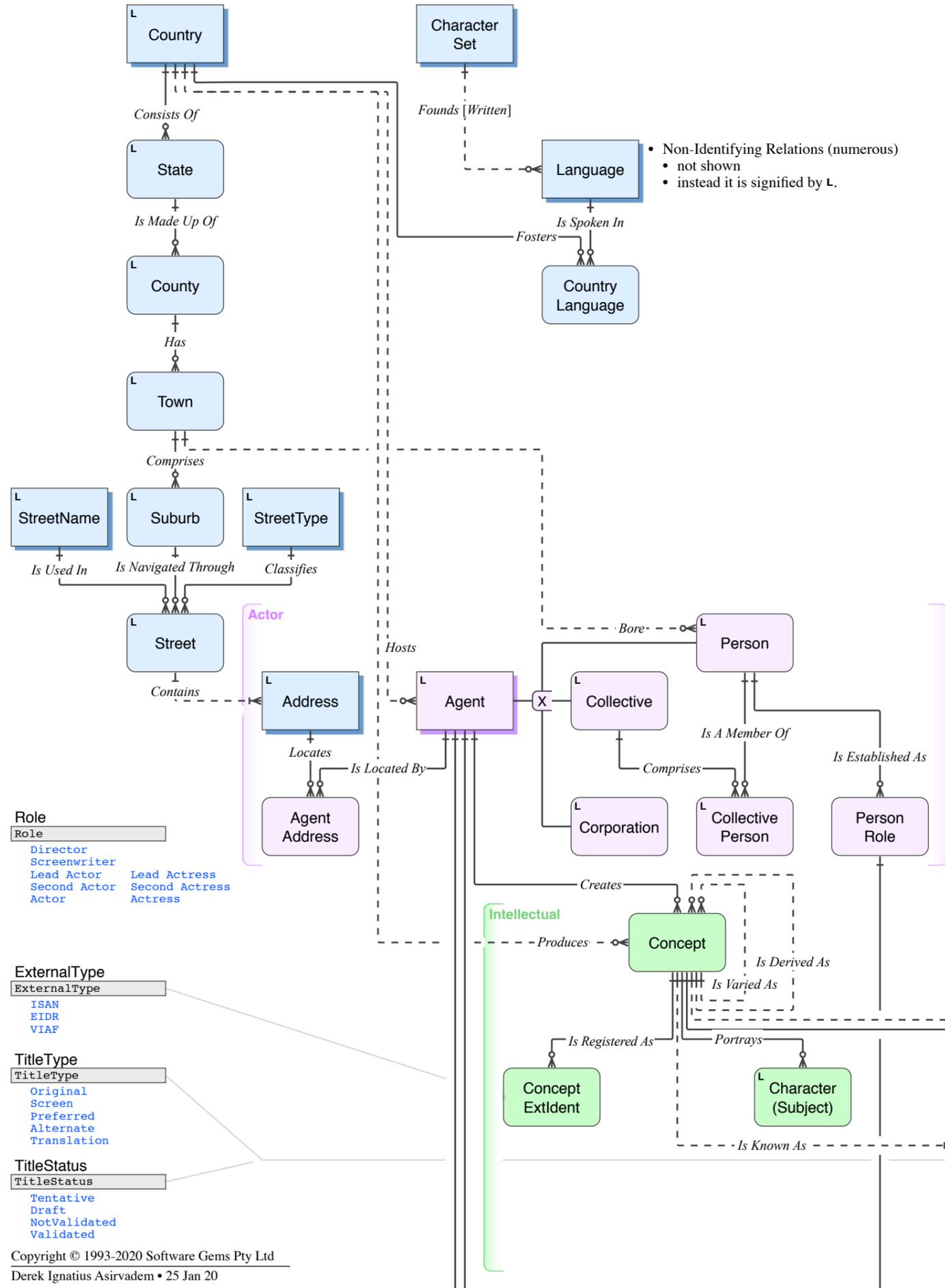Logical stage, showing tables and relations, equivalent to the theoretical "conceptual model" minus the isolation and limitations.

SOFTWARE GEMS

Scope

Relational Model [Codd] vs Anti-Relational Muddle [Date/Darwen/Fagin/et al] • How to identify a movie?
Metadata Standards for Cinematogrpahic Work - EN 15744
The FRBR/FIAF/IFSA documents are not definitive, taken as serious consideration only.

Note
- *That* a Realisation *is* a Variant of another Realisation, is a separate fact. Provided as single-parent tree.
- Thus Variant is not the concept in FRBR/FIAF/IFSA/etc, but an instance of Realisation.
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- The default Language & CharacterSet (eg. Italian, Western Europe) are used throughout.
- Where a single attribute (eg. `Name`, `Description`, etc) that is in a non-default Language, it is stored as an **Atom** [`Language_Name, Nane`]
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Keys (to be Confirmed)
- To begin with, all componets of Keys are in the default Language
  - Where a Key component is in a non-default Language, the Atom [`Language_ Component Component`] is in the Key, so that it is carried wherever it may be a Foreign Key
- **Language** [`LanguageCode`] → `CharSetCode`
- **Country** [`CountryCode`] → Default `LanguageCode`
- **Concept** [`TitleReduced, Creator, Year`] → `Title, Country`
  - The `TitleReduced` component of the Key is in the default Language & CharacterSet.
  - The `TitleReduced` component of the Key is reduced by removing prepositions; conjunctions; etc, resulting in a `TitleReduced` that is composed exclusively of Keywords (at the least)
  - the un-reduced `TitleReduced` is a Descriptor, in the default Language (FD)

- **ConceptTitle** [`TitleReduced, Creator, Year, Language_CT, TitleReduced_CT`] → `Title_CT`
  - The `TitleReduced_CT` component of the Key is in `Language_CT`.
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  - **ConceptTitle** [AK[`Language_CT, TitleReduced_CT, Creator, Year`]] → `Title_CT`
  - PK & AK switched (AKNF), making **ConceptTitle** Independent.
  - **ConceptTitle** [`Language_CT, TitleReduced_CT, Creator, Year`]]
  - **ConceptTitle** [AK[`TitleReduced, Creator, Year, Language_CT, TitleReduced_CT`]]

- **Realisation** [`Language_CT, TitleReduced_CT, Creator, Year, Differentiator`]
  - the un-reduced `TitleReduced_CT` is `Concept.Title`, in `Language_CT` (FD)
- **RealisationTitle** [`Language_CT, TitleReduced_CT, Creator, Year, Differentiator, Language_RT, TitleReduced_RT`] → `Title_RT`
  - the un-reduced `TitleReduced_RT` is a Descriptor, in `Language_RT` (FD)
  - **RealisationTitle** [AK[`Language_RT, TitleReduced_RT, Creator, Year, Differentiator`]]
  - PK & AK switched (AKNF), making **RealisationTitle** Independent.
  - **RealisationTitle** [`Language_RT, TitleReduced_RT, Creator, Year, Differentiator`]
  - **RealisationTitle** [AK[`Language_CT, TitleReduced_CT, Creator, Year, Differentiator, Language_RT, TitleReduced_RT`]]

- **Edition** [`Language_RT, TitleReduced_RT, Creator, Year, Differentiator, EditionType, EditionDate`]
- **Instance** [`Language_RT, TitleReduced_RT, Creator, Year, Differentiator, EditionType, EditionDate, InstanceName`]

SOFTWARE GEMS

Purpose

Purpose
Industrial
Training
Scientific
Amateur
Ethno-anthropological
Advertising
Experimental

Genre

Genre

Duration

Duration

Length

Length

Audience

Audience

CrewRole

CrewRole
Creator
Cinematograhper
Director
Presenter
Producer
ProductionCompany

CastRole

CastRole
Lead Actor
Actor
Lead Actress
Actress
Cast
Cast Minor

MediumType (Format)

MediumType
8mm
Super8
Video ?
Half inch open reel
U-Matic
VHS
DVD
FileMP3...

C EditionType
C ConceptType
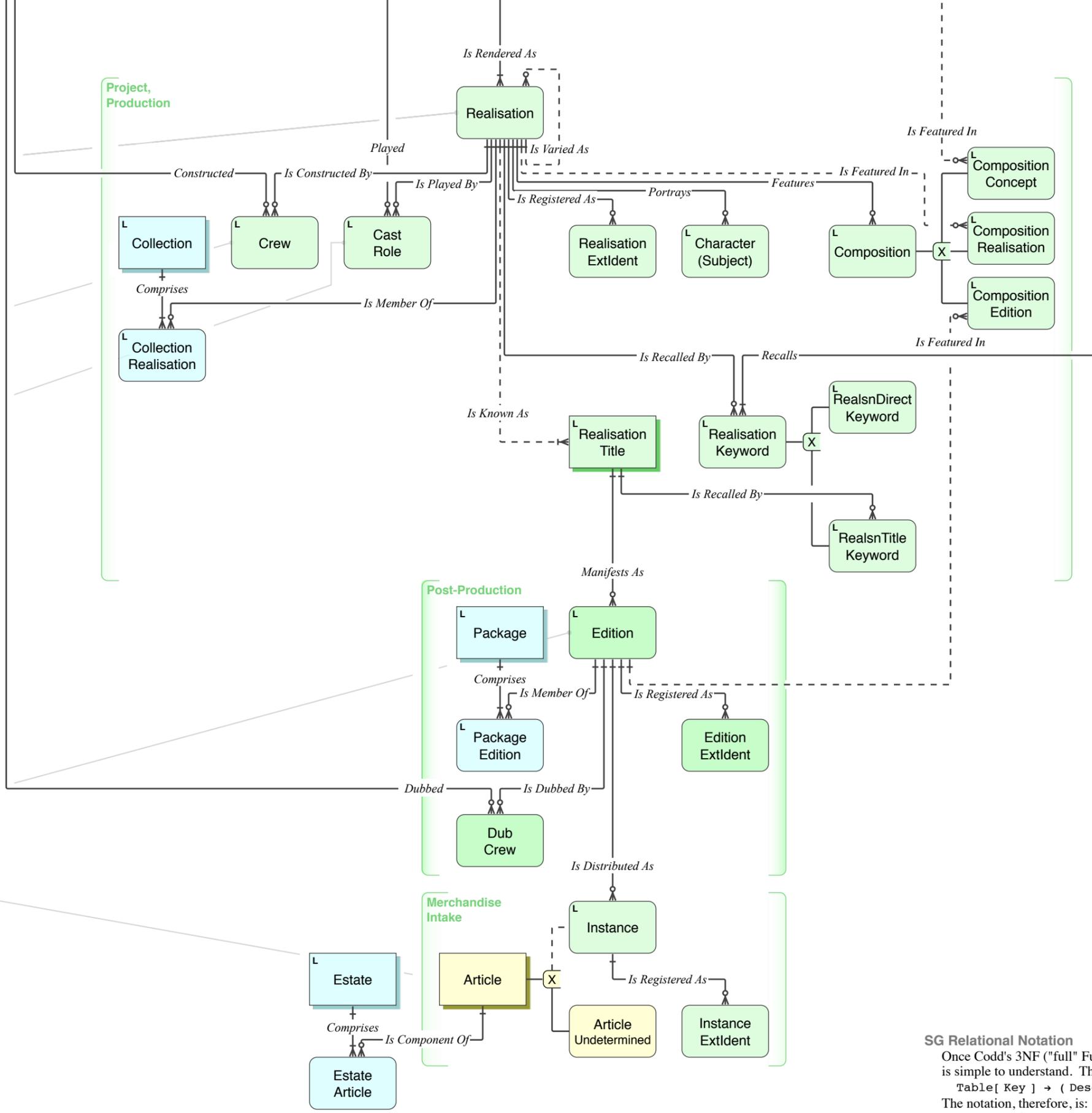C ConceptExtIIdentType
C RealisationExtIIdentType
C EditionExtIIdentType
C InstanceExtIIdentType

D ArticleType
D AgentType
D CompositionType
D ConceptExtIIdentType

Project, Production

Is Rendered As

Realisation

Is Varied As

Played — Is Played By

Constructed — Is Constructed By

Collection

Crew

Cast Role

Is Registered As — Portrays

Realisation ExtIdent

Character (Subject)

Features

Composition

Is Featured In

Composition Concept

Composition Realisation

Composition Edition

Is Featured In

Comprises — Is Member Of

Collection Realisation

Is Recalled By — Recalls

Is Known As

Realisation Title

Realisation Keyword

RealsnDirect Keyword

Is Recalled By

RealsnTitle Keyword

Post-Production

Manifests As

Package

Edition

Comprises — Is Member Of

Is Registered As

Package Edition

Edition ExtIdent

Dubbed — Is Dubbed By

Dub Crew

Is Distributed As

Merchandise Intake

Instance

Estate

Article

Is Registered As

Comprises — Is Component Of

Article Undetermined

Instance ExtIdent

Estate Article

SG Relational Notation

Once Codd's 3NF ("full" Functional Dependency) is understood, the notation is simple to understand. The Functional Dependency is declared thus:
    Table[Key] → (Descriptor[Value], ...)
The notation, therefore, is:
    Table { + | - } [Key] = (Descriptor[Value], ...)
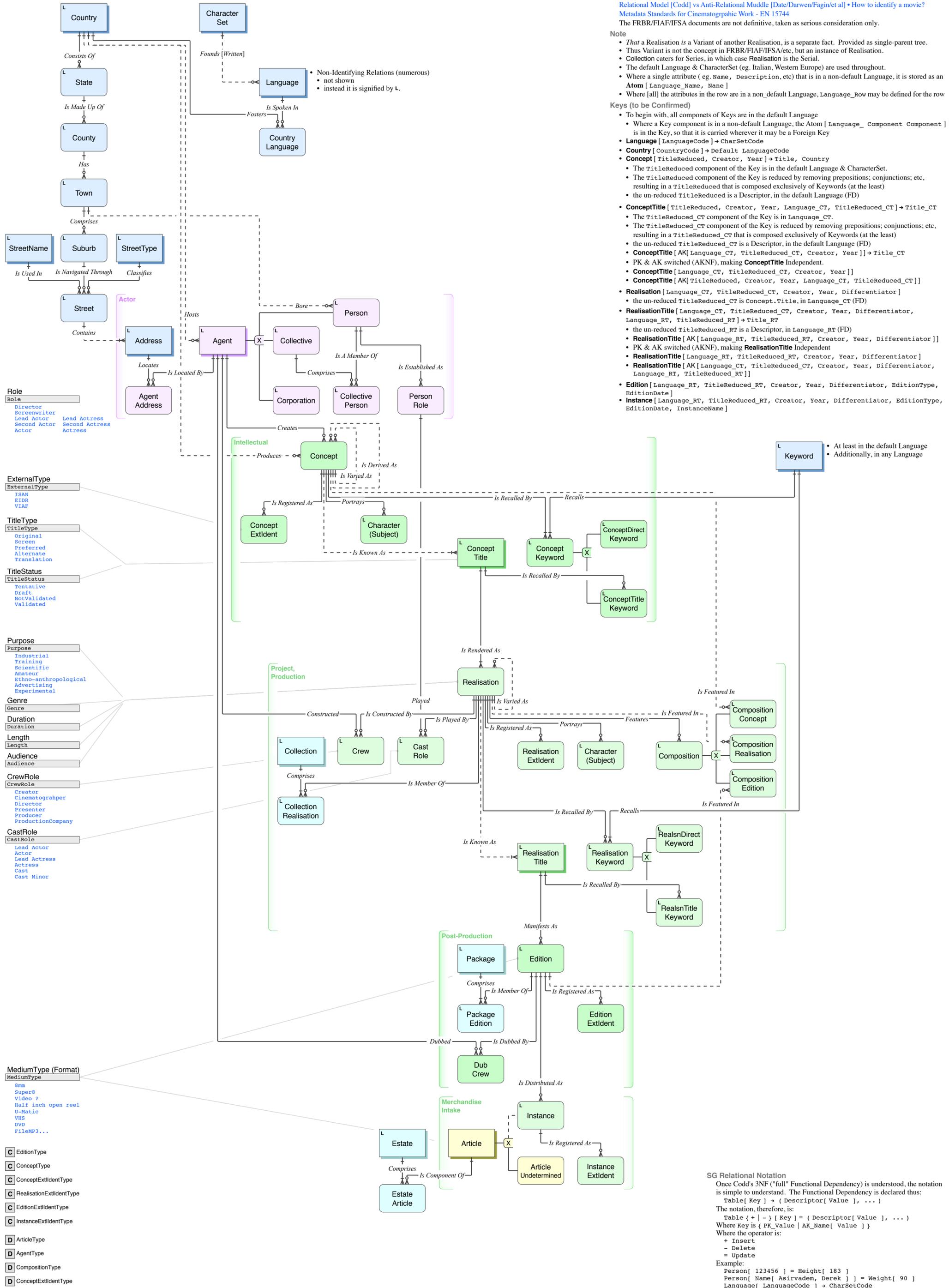Where Key is { PK_Value | AK_Name[Value] }
Where the operator is:
    + Insert
    - Delete
    = Update
Example:
    Person[123456] = Height[183]
    Person[Name[Asirvadem, Derek]] = Weight[90]
    Language[LanguageCode] → CharSetCode

Logical stage, showing tables and relations, equivalent to the theoretical "conceptual model" minus the isolation and limitations.

Scope
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- **Language** [`LanguageCode`] → `CharSetCode`
- **Country** [`CountryCode`] → `Default LanguageCode`
- **Concept** [`TitleReduced, Creator, Year`] → `Title, Country`
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- **ConceptTitle** [`TitleReduced, Creator, Year, Language_CT, TitleReduced_CT`] → `Title_CT`
  - The `TitleReduced_CT` component of the Key is in `Language_CT`.
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  - the un-reduced `TitleReduced_CT` is a Descriptor, in the default Language (FD)
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  - **ConceptTitle** [AK[`TitleReduced, Creator, Year, Language_CT, TitleReduced_CT`]]
- **Realisation** [`Language_CT, TitleReduced_CT, Creator, Year, Differentiator`]
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  - the un-reduced `TitleReduced_RT` is a Descriptor, in `Language_RT` (FD)
  - **RealisationTitle** [AK[`Language_RT, TitleReduced_RT, Creator, Year, Differentiator`]]
  - PK & AK switched (AKNF), making **RealisationTitle** Independent
  - **RealisationTitle** [`Language_RT, TitleReduced_RT, Creator, Year, Differentiator`]
  - **RealisationTitle** [AK[`Language_CT, TitleReduced_CT, Creator, Year, Differentiator, Language_RT, TitleReduced_RT`]]
- **Edition** [`Language_RT, TitleReduced_RT, Creator, Year, Differentiator, EditionType, EditionDate`]
- **Instance** [`Language_RT, TitleReduced_RT, Creator, Year, Differentiator, EditionType, EditionDate, InstanceName`]

Non-Identifying Relations (numerous)
- not shown
- instead it is signified by **L**.

Keyword
- At least in the default Language
- Additionally, in any Language

Role

Role
Director
Screenwriter
Lead Actor	Lead Actress
Second Actor	Second Actress
Actor	Actress

ExternalType

ExternalType
ISAN
EIDR
VIAF

TitleType

TitleType
Original
Screen
Preferred
Alternate
Translation

TitleStatus

TitleStatus
Tentative
Draft
NotValidated
Validated

Purpose

Purpose
Industrial
Training
Scientific
Amateur
Ethno-anthropological
Advertising
Experimental

Genre

Genre

Duration

Duration

Length

Length

Audience

Audience

CrewRole

CrewRole
Creator
Cinematograhper
Director
Presenter
Producer
ProductionCompany

CastRole

CastRole
Lead Actor
Actor
Lead Actress
Actress
Cast
Cast Minor

MediumType (Format)

MediumType
8mm
Super8
Video ?
Half inch open reel
U-Matic
VHS
DVD
FileMP3...

- C EditionType
- C ConceptType
- C ConceptExtIdentType
- R RealisationExtIdentType
- C EditionExtIdentType
- C InstanceExtIdentType

- D ArticleType
- D AgentType
- D CompositionType
- D ConceptExtIdentType

Entities (diagram labels): Country, State, County, Town, StreetName, Suburb, StreetType, Street, Address, Agent, Agent Address, Character Set, Language, Country Language, Person, Collective, Corporation, Collective Person, Person Role, Concept, Concept ExtIdent, Character (Subject), Concept Title, Concept Keyword, ConceptDirect Keyword, ConceptTitle Keyword, Keyword, Realisation, Realisation ExtIdent, Character (Subject), Composition, Composition Concept, Composition Realisation, Composition Edition, Realisation Title, Realisation Keyword, RealsnDirect Keyword, RealsnTitle Keyword, Collection, Crew, Cast Role, Collection Realisation, Package, Edition, Package Edition, Edition ExtIdent, Dub Crew, Instance, Article, Estate, Article Undetermined, Instance ExtIdent, Estate Article

Group labels: Actor, Intellectual, Project Production, Post-Production, Merchandise Intake

Relationship labels: Consists Of, Is Made Up Of, Has, Comprises, Is Used In, Is Navigated Through, Classifies, Contains, Founds [Written], Is Spoken In, Fosters, Locates, Is Located By, Hosts, Bore, Is A Member Of, Comprises, Is Established As, Creates, Produces, Is Derived As, Is Varied As, Is Registered As, Portrays, Is Known As, Is Recalled By, Recalls, Is Rendered As, Played, Constructed, Is Constructed By, Is Played By, Is Varied As, Features, Is Featured In, Is Member Of, Manifests As, Comprises, Is Dubbed By, Dubbed, Is Distributed As, Is Registered As, Is Component Of

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Where Key is { PK_Value | AK_Name[Value] }
Where the operator is:
`+ Insert`
`- Delete`
`= Update`
Example:
`Person[ 123456 ] = Height[ 183 ]`
`Person[ Name[ Asirvadem, Derek ] ] = Weight[ 90 ]`
`Language[ LanguageCode ] → CharSetCode`

SOFTWARE GEMS