

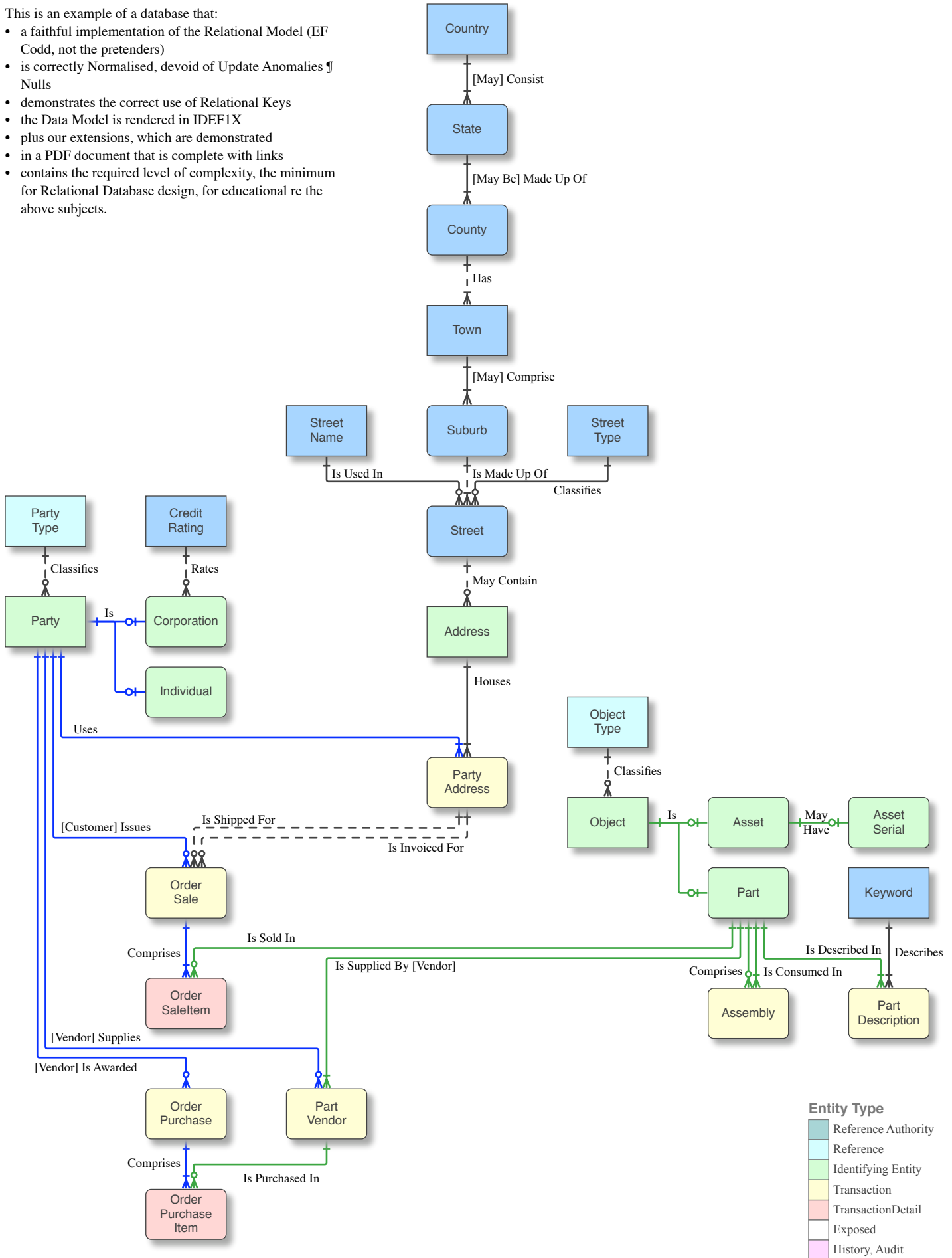
Data Model

Order/Entity Relation



This is an example of a database that:

- a faithful implementation of the Relational Model (EF Codd, not the pretenders)
- is correctly Normalised, devoid of Update Anomalies ¶ Nulls
- demonstrates the correct use of Relational Keys
- the Data Model is rendered in IDEF1X
- plus our extensions, which are demonstrated
- in a PDF document that is complete with links
- contains the required level of complexity, the minimum for Relational Database design, for educational re the above subjects.

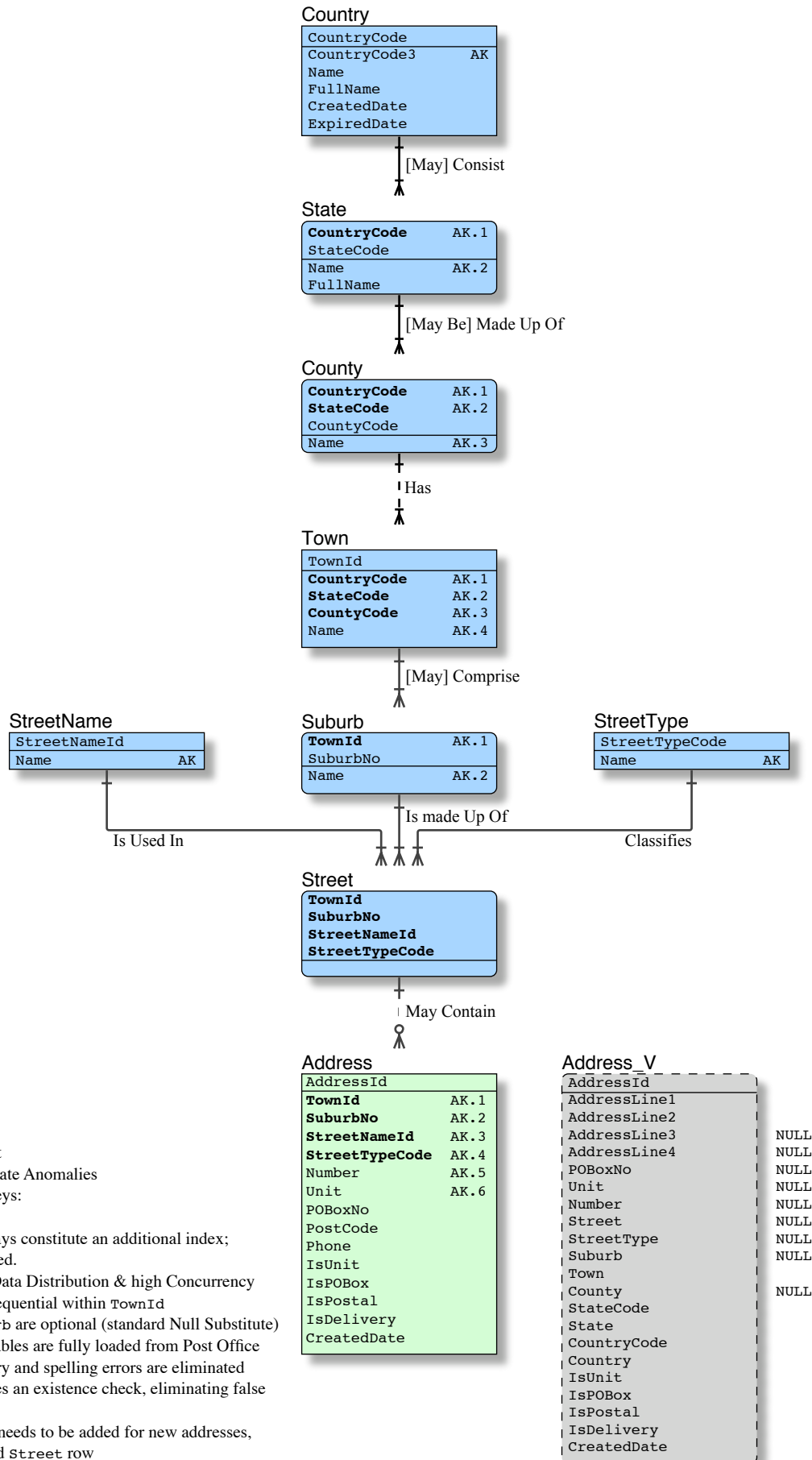


Entity Type

Reference Authority
Reference
Identifying Entity
Transaction
TransactionDetail
Exposed
History, Audit

Select any shadowed Entity to show further detail

IDEF1X Notation



Note

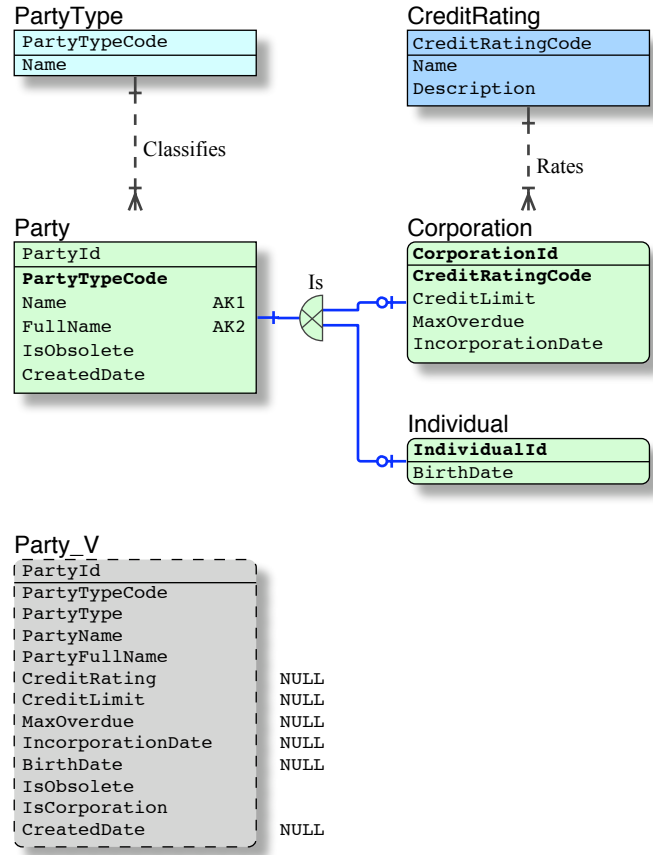
- IDEF1X compliant
- Pure 5NF; No Update Anomalies
- Note Relational Keys:
 - Natural Keys
 - Surrogates always constitute an additional index; only five are used.
 - This provides Data Distribution & high Concurrency
 - SuburbNo is sequential within TownId
- County and Suburb are optional (standard Null Substitute)
- These Reference tables are fully loaded from Post Office data; both data entry and spelling errors are eliminated
 - Street provides an existence check, eliminating false addresses
 - Only Address needs to be added for new addresses, requiring a valid Street row
- Views are typically used to provide the entire cluster in a denormalised form; they contain Nullable columns
- SG extensions: Hierarchical Layout; etc.
- Physical (eg. TimeStamp, UserStamp) not shown

Entity Type

- Reference Authority
- Reference
- Identifying Entity
- Transaction
- TransactionDetail
- Exposed
- History, Audit

Data Model Order/Party

[Return to the previous level](#)



Note

- IDEF1X compliant
- Pure 5NF; No Update Anomalies
- Note Relational Keys:
 - Natural Keys
 - Surrogates always constitute an additional index; only five are used.
 - Keys are migrated and used as roles as per IDEF1X:
 - PartyId
 - CorporationId
 - IndividualId
 - This provides Data Distribution & high Concurrency
- SG extensions: Hierarchical Layout; etc.
- Physical (eg. TimeStamp, UserStamp) not shown

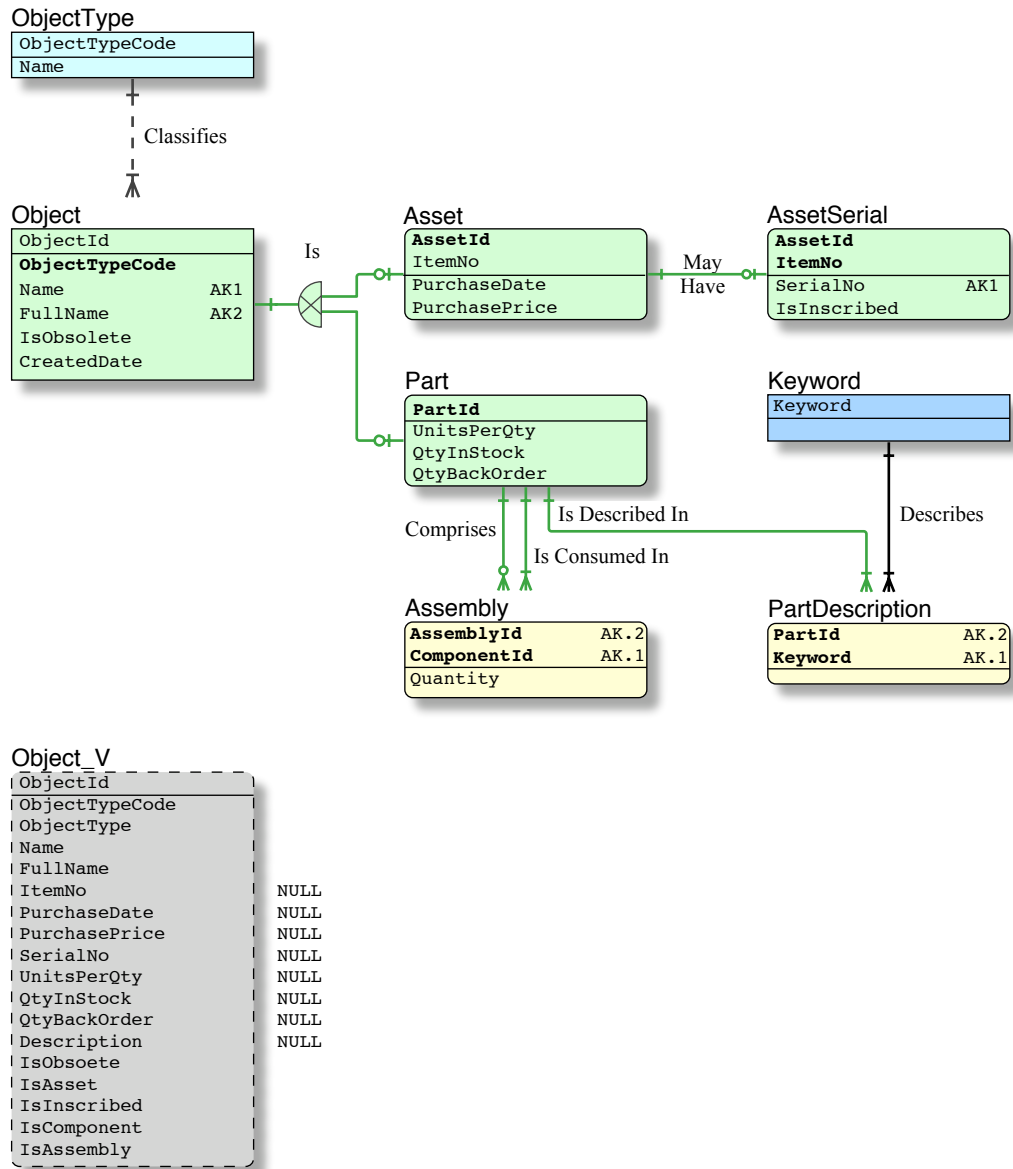
Entity Type	
	Reference Authority
	Reference
	Identifying Entity
	Transaction
	TransactionDetail
	Exposed
	History, Audit

[IDEF1X Notation](#)

Data Model

Order/Object

[Return to the previous level](#)



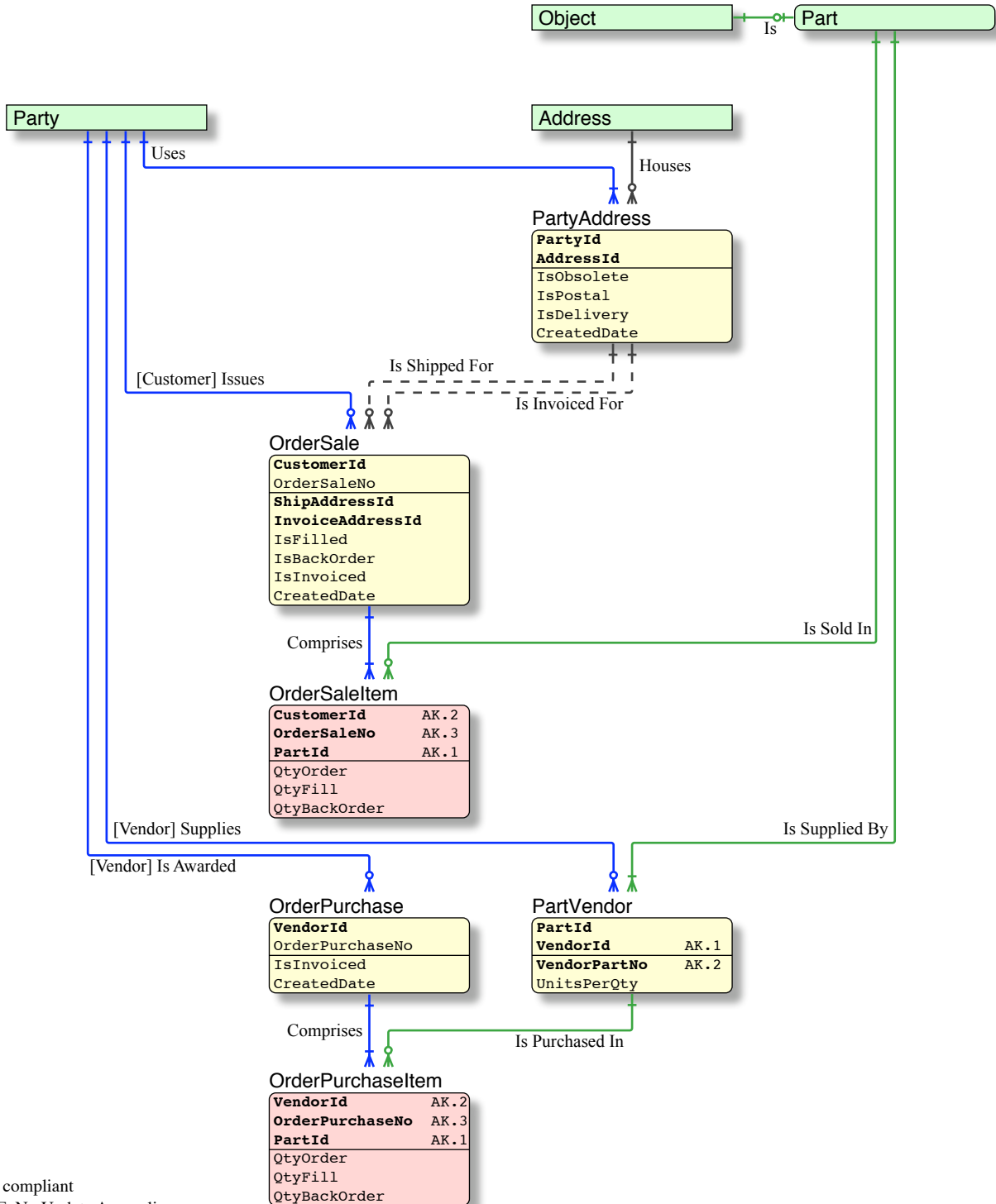
Note

- IDEF1X compliant
- Pure 5NF; No Update Anomalies
- Null Foreign are not permitted
- Null data values are eliminated by 6NF (AssetSerial)
- Note Relational Keys:
 - Natural Keys
 - Surrogates always constitute an additional index; only five are used.
 - Keys are migrated and used as roles as per IDEF1X:
 - ObjectId
 - AssetId
 - PartId
 - AssemblyId
 - ComponentId
 - This provides Data Distribution & high Concurrency
- Treatment of Asset allows an Unique constraint on SerialNo
- SG extensions: Hierarchical Layout; etc.
- Physical (eg. TimeStamp, UserStamp) not shown

Entity Type

Reference Authority
Reference
Identifying Entity
Transaction
TransactionDetail
Exposed
History, Audit

[IDEF1X Notation](#)



Note

- IDEF1X compliant
- Pure 5NF; No Update Anomalies
- Note Relational Keys:
 - Natural Keys
 - Surrogates always constitute an additional index; only five are used.
 - Keys are migrated and used as roles as per IDEF1X:
 - AddressId
 - PartyId
 - CustomerId
 - VendorId
 - ObjectId
 - PartId
- This provides Data Distribution & high Concurrency
 - OrderSaleNo is sequential within CustomerId
 - OrderPurchaseNo is sequential within VendorId
- SG extensions: Hierarchical Layout; etc.
- Physical (eg. TimeStamp, UserStamp) not shown

[Select any collapsed Entity to show further detail](#)

Entity Type

- Reference Authority
- Reference
- Identifying Entity
- Transaction
- TransactionDetail
- Exposed
- History, Audit

[IDEFIX Notation](#)