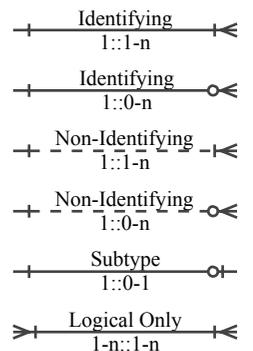


### Business Rule

To assist those who don't know how to read an IDEF1X data model (R Brown 1985, after E F Codd), all Business Rules (predicates) implemented in the model are given in text form:

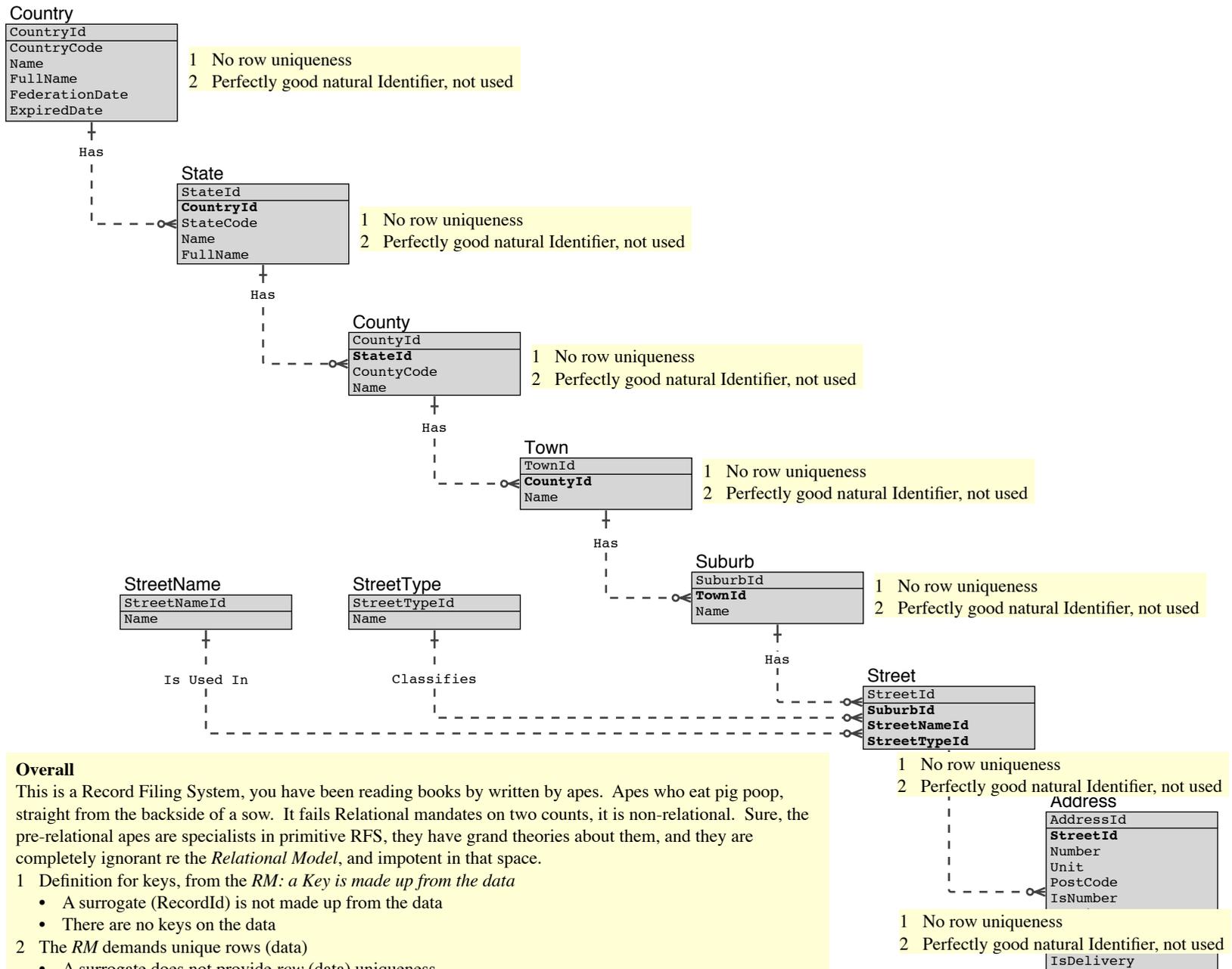
- Address is Independent**  
Address is uniquely Identified by ( AddressId )  
Address is uniquely Identified by ( StreetId, Number, Unit )
- Country is Independent**  
Country is uniquely Identified by ( CountryId )  
Country is uniquely Identified by ( CountryCode )  
Country has 0-n States
- County is Independent**  
County is uniquely Identified by ( CountyId )  
County is uniquely Identified by ( CountyCode )  
County has 0-n Towns
- State is Independent**  
State is uniquely Identified by ( StateId )  
State is uniquely Identified by ( StateCode )  
State has 0-n Counties
- Street is Independent**  
Street is uniquely Identified by ( StreetId )  
Street is uniquely Identified by ( StreetName, StreetTypeCode )  
Street has 0-n Addresses
- StreetName is Independent**  
StreetName is uniquely Identified by ( Name )  
StreetName is used in 0-n Streets
- StreetType is Independent**  
StreetType is uniquely Identified by ( StreetTypeCode )  
StreetType classifies 0-n Streets
- Suburb is Independent**  
Suburb is uniquely Identified by ( SuburbId )  
Suburb is uniquely Identified by ( Name )  
Suburb has 0-n Streets
- Town is Independent**  
Town is uniquely Identified by ( TownId )  
Town is uniquely Identified by ( Name )  
Town has 0-n Suburbs

### IEEE Relation Notation



### IDEFIX Notation

IDEFIX Method & Notation		
Item	Definition	Display
<b>Key</b>		
Primary Key:	Unique	Above line
Alternate Key:	Other Unique key	AK
Inversion Entry:	Non-Unique index	IE
<b>Entity</b>		
Independent:	Exists without a parent	Square
Dependent:	Dependent on a parent	Round
<b>Relation</b>		
Identifying:	Parent PK forms child PK	Solid line
Non-Identifying:		Broken line
	Parent PK is <i>always</i> a migrated FK in child	Bold



**Overall**

This is a Record Filing System, you have been reading books by written by apes. Apes who eat pig poop, straight from the backside of a sow. It fails Relational mandates on two counts, it is non-relational. Sure, the pre-relational apes are specialists in primitive RFS, they have grand theories about them, and they are completely ignorant re the *Relational Model*, and impotent in that space.

1 Definition for keys, from the *RM*: a Key is made up from the data

- A surrogate (RecordId) is not made up from the data
  - There are no keys on the data
- 2 The *RM* demands unique rows (data)
- A surrogate does not provide *row* (data) uniqueness

Re Normalisation, (if we consider that outside the *Relational Model*):

3 It breaks Third Normal Form, because in each case, there is no Key for the data to be Functionally Dependent upon (it is dependent, yes, but on a pork sausage, outside the data, not on a Key).

This RFS is nowhere near ready for Normalisation, let alone Relational Normalisation. Stop visiting the barn

**Business Rule**

To assist those who don't know how to read an IDEF1X data model (R Brown 1985, after E F Codd), all Business Rules (predicates) implemented in the model are given in text form:

Address is Independent  
Address is uniquely Identified by ( AddressId )

Country is Independent  
Country is uniquely Identified by ( CountryId )  
Country has 0-n States

County is Independent

stat  
• These are idiotic Business Rules, they merely declare the Records in your Record Filing System. Of course, every File in a RFS is independent, but not so in a Relational Database.

Stre  
• I have told you one hundred times, if you start the design process by sticking RecordId on every box, you cripple yourself and the modelling exercise.

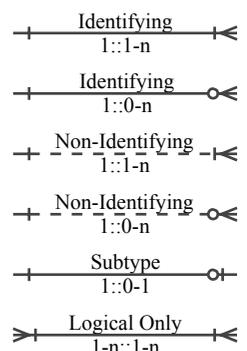
stre  
• IDEF1X is a *Methodology*, not merely a notation. Follow it.  
• Go and discuss with the business, and determine the real Identifiers, the real Business Rules.

Stre  
• Find out what the data is, what it means, how it relates to all other data in this cluster.

Suburb is Independent  
Suburb is uniquely Identified by ( SuburbId )  
Suburb has 0-n Streets

Town is Independent  
Town is uniquely Identified by ( TownId )  
Town has 0-n Suburbs

**IEEE Relation Notation**



**IDEF1X Notation**

IDEF1X Method & Notation		
Item	Definition	Display
<b>Key</b>		
Primary Key:	Unique	Above line
Alternate Key:	Other Unique key	AK
Inversion Entry:	Non-Unique index	IE
<b>Entity</b>		
Independent:	Exists without a parent	Square
Dependent:	Dependent on a parent	Round
<b>Relation</b>		
Identifying:	Parent PK forms child PK	Solid line
Non-Identifying:		Broken line
Parent PK is <i>always</i> a migrated FK in child		Bold