

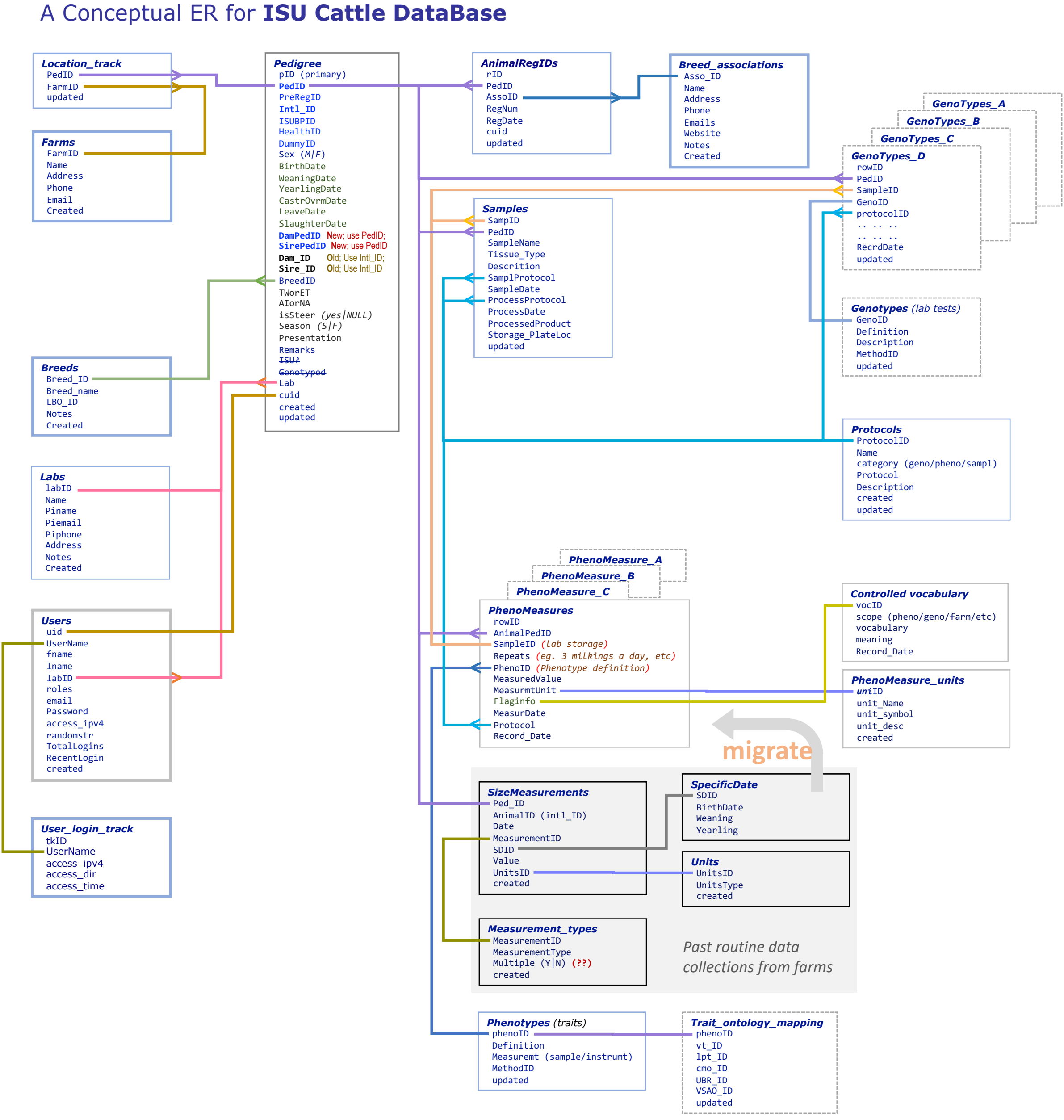
### Default values

- Pedigree named fields:**
1. PedID: Pedigree ID - Animal primary unique identifier
  2. ISUBPID:
  3. PreRegID: temporary pseudo "intl\_ID" by a temp serial together with 'ISU' after essential parts of an Intl\_ID; To be replaced by Intl\_ID.
  4. HealthID:
  5. DummyID:
  6. Data ownership: Data "ownership" is represented by BOTH 'labID' and 'UserID' because (1) responsibility will be traceable to individuals; (2) personal changes - eventual owner is 'lab'. For this reason when a user works for both labs, s/he needs to have 2 separate accounts.
  7. DamPedID/SirPedID: Added in 2024, replacing (old)Dam\_ID/Sir\_ID which use Intl\_IDs. The current DamPedID/SirPedID are looked up and filled by PedID composed following above rules matching their Intl\_IDs.
  8. Flag - Controlled vocabulary
    - i. Pheno\_measures:
      - At birth
      - At weaning
      - At yearling
    - ii. Farm operations:
      - implant
  9. more

### Basic structural types:

- Styles of table box borders:**
1. Thick lines: key info tables.
  2. Solid lines: existing tables
  3. Dotted lines: conceptually proposed (not yet implemented)
  4. Gray lines: existing tables
  5. Black lines: existing and potentially to improve
  6. light cyan lines: newly created tables since year 2000.

### Fit data flows:



### Development history

- 2023.01.21 introduced "Birth\_ID" as the unique animal identifier.
- 2023.01.25 Created "Breeds" table
- 2023.01.26 Created "Labs" and "Users" tables.
- 2024.01.19: Created table "Farms" to record animal locations (go with birth, sampling data etc).
- 2024.01.19 Created a "AnimalRegIDs" table, to accommodate multiple breed association register IDs.
- 2024.01.15 Created "Breed\_associations" table.
- 2024.01.26 Added "Phenotypes" table to hold phenotype definitions
- 2024.01.26 Added "Protocols" table for protocols used in phenotype/genotype and other procedures in the lab.
- 2024.02.05 Created table "Location\_track" to record animal locations and movements (eg. not just birth time location);
- 2024.02.21 Added 'AIorNA' field to Pedigree table to indicate it's from artificial inseminations or natural pregnancy.
- 2024.03.19 added "Phenomeasures" table along with "Samples" table. These work with "Phenotypes" to record phenotype measurements data. (experimenting in DairyDB)
- 2024.04.26 Changed primary animal ID from Birth\_ID to PedID (for 'pedigree ID') to avoid confusings.
- 2024.05.06 added DamPedID and SirePedID (to replace old Dam\_ID/Sire\_ID which uses Intl\_IDs)
- 2024.05.09 Subsequence changes from AnimalBirID to PedID (AnimalPedID) for all tables.
- 2024.06.29 Determined the table structure of old trait measurements ('SizeMeasurements' in relationships to 'Units' (definitions) and 'Measurement' (definitions)).
- 2024.07.03 Modified rules to for PedID: 4 digit 'year' + 4 digit ISU eartag (or 6 digit external 0-padded ID). [obsolete]
- 2024.07.10 Revised the composition of 'PedID' to include 4-digit "year" + 2 digit "location ID" + 4-6 digit "tag ID" (EraTag, Tattoo).
- 2024.08.13 Migrated current 'LocationID' data from "Pedigree" table (which only allowed 1 location for an animal) to "Location\_track" table. Note: Current "location" data was created for known animals in Dec 2023 along with a table 'Farms' (2024.03.05).
- 2025.02.13 A new data field 'isSteer' is added to 'Pedigree' table (default 'yes'/'no'/null) for castrated males.
- 2025.02.15 Sex codes changed from 5 letters (F, M, C, B, S) to 2-letter system (M, F). Information carried in 'S - steer' is not recorded in 'isSteer' field.
- 2025.02.19 Renamed table 'Measurements' to 'Measurement\_types'