

# Microsoft Access 2007 Implementation Notes

## 1. Referential Integrity

- a. All relationships have referential integrity enforced with cascade delete and cascade update except for references to or from the contract relation
- b. The contract relation has referential integrity enforced but will take no action on an update or deletion of an ICP or Creator
  - i. Contracts will continued to be stored in the database even if an ICP or Creator is deleted so that any remaining party to the contract can still have access to the records
  - ii. Contracts will not be updated if ICP or Creator ABNs change because it is assumed that new contracts will need to be negotiated when the nature of the company changes.

## 2. Domain Constraints

- a. ABN for ICPs and Creators are restricted to Numbers
- b. ICPName (for ICPs) and CNname (for content creators) are indexed with no duplicates
  - i. These are registered business names and so will be (must be) unique
- c. AcctBal (account balance) for Users, ICPs, and Content Creators are restricted to currency
- d. Gender for Users is restricted to "M" or "F"
- e. PhoneNum for ICPs, Creators, and Users is restricted to Numbers
  - i. The formatting is not checked because different countries use different formats for phone numbers (this check can be done at the application level)
- f. Rank of Contracts is restricted to any number
  - i. Different ICPs may have different ranking systems but they will all be numeric
- g. Effective for Contracts is restricted to Boolean "Yes/No"
- h. All dates are restricted to Date/Time
- i. Price recorded in a Request and Price of Wholesale are restricted to Currency
- j. Material type is restricted to

## 3. Key and Entity integrity constraints

- a. Access handles this given the defined relationships between tables

## 4. Semantic constraints as given in the Universe of Discourse

- a. My interpretation of the Universe of Discourse led to specific relationships with certain attributes
- b. My assumptions plus my interpretation of the Universe of discourse generated an ER Diagram which incorporates semantic constraints