# Translation Use Case
# Validate

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Version: 1

August 14, 2012

- Primary actor: an editor
- Goal: confirmation that the dataset is valid, according to the internal consistency rules

## Main Success Scenario

To achieve the goal the actor will:

1. Run the validation rules on the dataset
2. Obtain feedback on each validation failure:
    - listing shards are involved in the failure
    - for each shard, which validation rule they failed

## Validation Rules

### Terms

- Namespace: MO-UM:
    - MO-UM.STASH:
        - Met Office STASH Code
    - MO-UM.FC:
        - Met Office Field Code
- Namespace: CF
    - CF.SN:
        - CF standard_name
    - CF.CU:
        - CF canonical unit
- Namespace: WMO-GRIB
    - WMO-GRIB.PC:
        - WMO-GRIB Parameter Code
- Namespace: MO-NI
    - MO-NI.PC:
        - Met Office NIMROD Parameter Code

## Rules

1. No attribute may have a value of '': an empty string
2. MO-UM.STASH to CF.SN:
   (a) one MO-UM.STASH shard to many CF.SN shards is banned
3. MO-UM.FC to CF.SN:
   (a) one MO-UM.FC shard to many CF.SN is banned
   (b) many MO-UM.FC shards to one CF.SN is banned
4. WMO-GRIB.PC to CF.SN:
   (a) one WMO-GRIB.PC shard to many CF.SN is banned
5. WMO-NI.PC to CF.SN:
   (a) one MO-NI.PC shard to many CF.SN shards is banned
   (b) many MO-NI.PC shard to one CF.SN shard is banned
6. No closed paths may exist between namespaces:
   (a) directed acyclic graphs only
7. All units of measure which link to CF shards must be able to be transformed to the relevant CF.CU

## Preferred Routing

Where validation rule 6 requires a deprecation change, the preferred path is through the CF namespace.