

## Digital Use Conditions (DUC) Schema.

The Digital Use Conditions schema is designed to be a machine readable consent and use conditions specification.

DUC provides a formal terms structure that makes use of existing vocabulary concepts (without directionality) to be referenced within its structure. What DUC primarily provides are “slots” to define the main condition concept, the rule that applies, and whether the scope of this rule applies to the whole asset or only a part of the asset as well as the free text condition parameter to provide more context for the use statement as a whole.

Hosted by the International Rare Disease Research Consortium (IRDiRC) as a Task Force formed in late 2020, the Digital Use Conditions working group of over 40 international members is completing the development of the “digital use conditions” (DUC) data structure to solve the above limitations.

Using this structure (see figure 1 below for an overview), simple or sophisticated sets of conditions can be designed to make the best use of existing ontology concepts. For instance, resource use that permits general research for a 12 month time limit on use could be expressed as the set of two condition statements:

- conditionTerm: General Research Use (DUO:0000042), rule: Permitted, scope: Whole of asset
- conditionTerm: Time limit on use (DUO:0000025), conditionParameter: Month (UO:0000035), conditionParameterValue: 12, rule: Obligated, scope: Whole of asset.

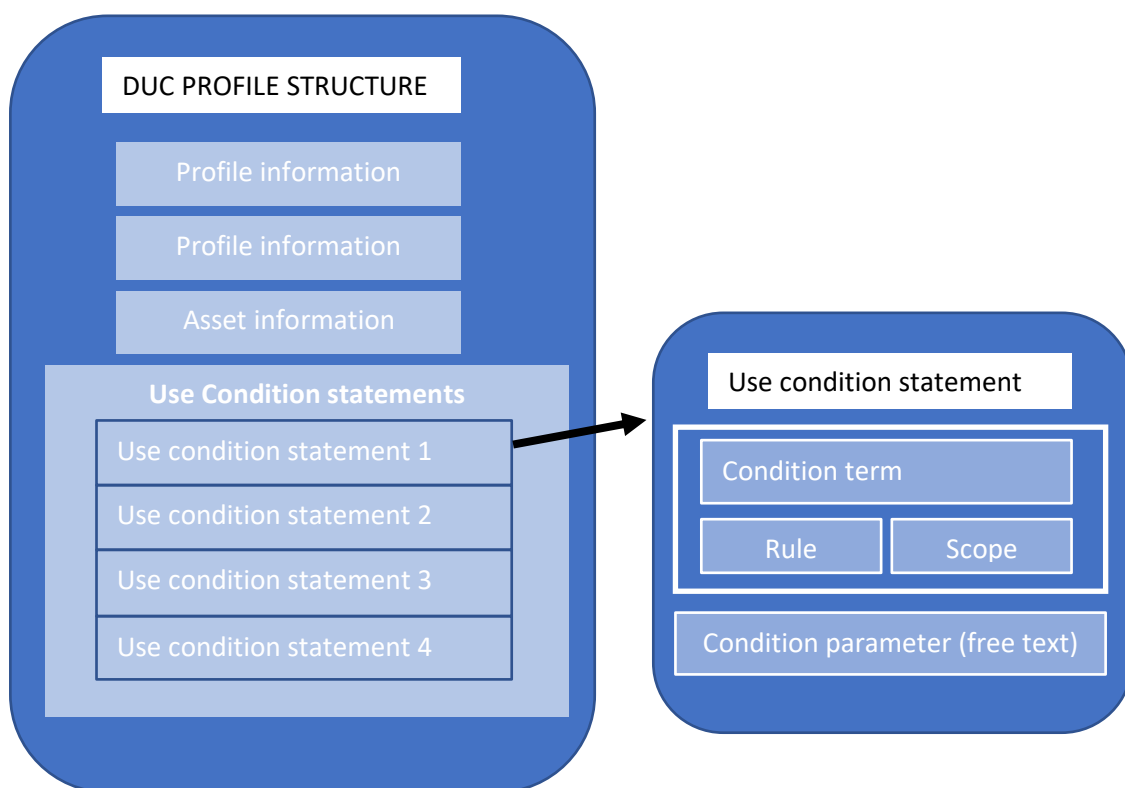


Figure 1: Overview of the DUC schema