

GraphLang: DMRS graph description language

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General

- Lower-case (if not mentioned otherwise)
- Variable-length spaces
- #/### stands for an arbitrary value or special value
- % stands for a special value (see below)

DMRS graphs

- [Line] → [Node] (ContLine)
- [ContLine] → [Link] [Node] (ContLine)
- [ContLine] → ; (Line)
- [ContLine] → \n (Line) (\n: new line)

Nodes

- [Node] → (Id:)node(sort)% (underspecified node)
- [Node] → (Id:)[Pred] (Sortinfo)
- [Node] → (:Id) (predicate name is default id)
- [Pred] → (")[Predicate] (")(_rel)(Carg)
- [Id]: Arbitrary name, potentially with node type marker brackets: [###] anchor, (###) optional, {###} subgraph

Predicates

- pred(sort)%: Underspecified predicate
- _#_#_: RealPred
- _#_: RealPred with unspecified sense
- _#_#_#_: RealPred with underspecified POS
- _#_#_#_#_: RealPred with underspecified sense
- _#_: POS RealPred with underspecified lemma and sense
- #: GPred

Carg

- In brackets, (###) or ("###"), lower-case not required

Sortinfos

- i: Fully underspecified sortinfo
- e, x: Unspecified event/instance sortinfo
- e?, x?: Underspecified event/instance sortinfo
- e[...], x[...]: Specified event/instance sortinfo
- [#####]: Full shortform value specification (length exactly 5, _ for unspecified, ? for underspecified)
- [#=#, ...]: Partial shortform key-value specification
- [###=###, ...]: Partial key-value specification
- _: Unspecified value

Event values (shortform in square brackets)

- Sentence force ([s]f): [p]rop, [q]ues, prop-[o]r-ques, [c]omm
- Tense ([t]ense): [u]ntensed, [t]ensed, [p]res, p[a]st, [f]ut
- Mood ([m]ood): [i]ndicative, [s]ubjunctive

- Perfect tense ([p]erf): +, -
- Progressive form (p[r]og): +, -, [b]ool

Instance values (shortform in square brackets)

- Person ([p]ers): 1, 2, 3, 1-[o]r-3
- Number ([n]um): [s]g, [p]l
- Gender ([g]end): f, m, n, m-[o]r-f
- Individuated ([i]nd): +, -
- Pronoun type (p[t]): [s]td, [r]efl, [z]ero

Links

Link head Either starts with <... or ends with ...>

Link line Either - or = on both sides of the label

Implicit label (if length ≤ 2)

- Argument structure (with 'x' either 1-4 or 'n' for underspecified ARG)
 - -x->: ARGx/NEQ
 - =x=>: ARGx/EQ
 - -xh->: ARGx/H
 - =xh=>: ARGx/HEQ
- Quantifier:
 - -->: RSTR/H
- Coordination (with 'x' either 'l' or 'r'):
 - -x->: x-INDEX/NEQ
 - =x=>: x-INDEX/EQ
 - -xh->: x-HNDL/H
 - =xh=>: x-HNDL/HEQ
- EQ link:
 - ==>: None/EQ
- Underspecified links (with 'x' either one character or empty, either - or =):
 - -?->: All

Explicit label (if length ≥ 3, no -/= distinction)

- -#->: Only rargname
- -#/#->: Rargname and post

Special values

- Syntax: Symbol followed by an optional identifier
- Underspecification: ?
- Query: ? and identifier
- Equality constraint: =

Example

“Every big angry dog barks loudly.”

```
_every_q --> subj:_dog_n.1 x[3s.+] <-1- _bark.v.1 e[ppi...];
:_bark.v.1 <=1= _loud.a.1 e[pui...];
_big.a.1 e[pui...] =1=> :subj <=1= _angry.a.at e[pui...]
```