

SemLink 1.2

PropBank → VerbNet → FrameNet

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Components

- PropBank to VerbNet mapping file (Classes and Arguments)
- VerbNet to FrameNet Class mapping file
- VerbNet to FrameNet Argument mapping file
- Annotated WSJ instances

PB-VN Mapping

Contains mappings from PropBank frames to VerbNet classes, as well as mappings from PropBank numbered ARGs to VerbNet roles.

Built from PropBank frame files that contain mapping information.

PB-VN Mapping Example

```
<predicate lemma="add">
  <argmap pb-roleset="add.01" vn-class="37.7">
    <role pb-arg="0" vn-theta="Agent" />
    <role pb-arg="1" vn-theta="Topic" />
  </argmap>
  <argmap pb-roleset="add.02" vn-class="22.1-2">
    <role pb-arg="0" vn-theta="Agent" />
    <role pb-arg="1" vn-theta="Patient" />
    <role pb-arg="2" vn-theta="Co-Patient" />
  </argmap>
</predicate>
```

VN-FN Class Mapping

Many to many mappings between VerbNet classes and FrameNet Frames.

```
<vncls class="10.10" vnmember="can" fnframe="Firing" fnlexent="" versionID="vn3.2"/>
<vncls class="10.10" vnmember="dismiss" fnframe="Firing" fnlexent="" versionID="vn3.2"/>
<vncls class="10.10" vnmember="drop" fnframe="Body_movement" fnlexent=""
  versionID="vn3.2"/>
<vncls class="10.10" vnmember="drop" fnframe="Change_position_on_a_scale" fnlexent=""
  versionID="vn3.2"/>
<vncls class="10.10" vnmember="drop" fnframe="Change_posture" fnlexent=""
  versionID="vn3.2"/>
```

VN-FN Role Mapping

Mappings from VerbNet Roles to FrameNet Frame Elements for a given class.

```
<vncls class='9.1' fnframe='Placing'>
  <roles>
    <role fnrole='Agent' vnrole='Agent'/>
    <role fnrole='Cause' vnrole='Agent'/>
    <role fnrole='Goal' vnrole='Destination'/>
    <role fnrole='Theme' vnrole='Theme'/>
  </roles>
</vncls>
```

Wsj Instances

- Verbs in WSJ annotated with PropBank group/VerbNet class/FrameNet frame.
- FrameNet frame can be derived from VNC-FNF file if mapping is one to one.
- Arguments also annotated with PB args, VerbNet roles.
- VerbNet to FrameNet argument mappings derived from VN-FNRoleMapping file.

Wsj Instances

The WSJ files are in the following format:

(document_id) (sentence number) (token number) (standard) (verb-v)
(VerbNet class) (FrameNet Frame) (PB grouping) (SI grouping)
(tense/aspect/mood info) (ArgPointer)-ARGX=(VN Role);(FN
Role/Optional Extra Fn Roles)

For example:

```
nw/wsj/00/wsj_0001.parse 0 8 gold join-v 22.1-2-1
Cause_to_amalgamate join.01 null vf--a 0:2-ARG0=Agent;Agent
7:0-ARGM-MOD 8:0-rel 9:1-ARG1=Patient;Part_1 11:1-ARGM-
PRD 15:1-ARGM-TMP
```

Wsj Instance examples

nw/wsj/00/wsj_0001.parse 0 8 gold join-v 22.1-2-1 Cause_to_amalgamate join.01 null vf--a
0:2-ARG0=Agent;Agent 7:0-ARGM-MOD 8:0-rel 9:1-ARG1=Patient;Part_1 11:1-ARGM-
PRD 15:1-ARGM-TMP

Pierre Vinken , 61 years old , will join the board as a
nonexecutive director Nov. 29.

nw/wsj/00/wsj_0020.parse 0 4 gold claim-v 37.7-1 Statement claim.01 2 p---a 0:1*3:1-
ARG0=Agent;Speaker 4:0-rel 5:2-ARG1=Topic;Message/Topic

The U.S. , claiming some success in its trade diplomacy , removed
South Korea , Taiwan and Saudi Arabia from a list of countries it is
closely watching for allegedly failing to honor U.S. Patents ,
copyrights and other intellectual – property rights .

Other instances

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nw/wsj/00/wsj_0020.parse 0 12 gold remove-v 10.2 Removing remove.01 null ---- 0:1*3:1-
ARG0=Agent;Agent/Cause 3:2-ARGM-ADV 12:0-rel 13:2-ARG1=Theme;Theme 20:1-
ARG2=Source;Source

nw/wsj/00/wsj_0020.parse 0 29 gold watch-v 30.2 Perception_active watch.01 null ---- 24:1*25:1*30:1-
ARG1=Stimulus;Phenomenon 26:1-ARG0=Experiencer;Perceiver_agentive 29:0-rel 31:1-ARGM-CAU
24:1*25:1-LINK-SLC

nw/wsj/00/wsj_0020.parse 0 34 gold fail-v 75-1-1 NF fail.01 null ---- 32:1*35:1-ARG1 33:1-ARGM-ADV 34:0-rel
35:2-ARG2

nw/wsj/00/wsj_0020.parse 0 37 gold honor-v 33 NF honor.01 null ---- 32:1*35:1-ARG0=Agent 37:0-rel 38:1-
ARG1=Theme

Further Work

- Annotating instances with FrameNet frame.
- Expanding VerbNet coverage to include more instances.
- Reannotation of VerbNet instances where groupings have changed.