This thesis explores annotation of multiword expressions in the Prague Dependency Treebank 2.0. We explain, what we understand as multiword expressions (MWEs), review the state of PDT 2.0 with respect to MWEs and present our annotation. We describe the data format developed for the annotation, the annotation tool, and other soware developed to allow for visualisation and searching of the data. We also present the annotation lexicon SemLex and analysis of the annotation.