Natural language parsing can contribute to improving our knowledge of less-studied languages as the rigor involved in building a formal description allows the linguist’s hypotheses to be tested and validated against actual data. However, linguistic field workers who are working to describe less-studied languages typically have different skills and needs than computational linguists. Thus, they do not have a good track record for taking advantage of parsers like those used by computational linguists. This paper addresses the parsing requirements of an ordinary working linguist and then describes a morphological parser we have developed to meet those requirements. The resulting parser is integrated into Language Explorer, the lexicon and text component of the SIL FieldWorks suite of tools which is designed to be used by a field linguist on a Windows laptop.