

```

13- /**
14  * Common protocol for reasoners.
15  * <p>
16  * Reasoners build the basic block of proof trees: proof rules. Given a sequent
17  * and a (reasoner defined) input, a reasoner returns a proof rule, that is a
18  * list of new sequents to insert as children in the proof tree, or a failure.
19  * </p>
20  * <p>
21  * Reasoners also provide means for serializing and deserializing their input,
22  * so that a proof can be saved to disk.
23  * </p>
24  * <p>
25  * This interface is intended to be implemented by clients who contribute new
26  * reasoners.
27  * </p>
28  *
29  * @author Farhad Mehta
30  * @since 1.0
31  */
32  public interface IReasoner {
33
34      String getReasonerID();
35
36-     void serializeInput(IReasonerInput input, IReasonerInputWriter writer)
37         throws SerializeException;
38
39-     IReasonerInput deserializeInput(IReasonerInputReader reader)
40         throws SerializeException;
41
42-     IReasonerOutput apply(IProverSequent seq, IReasonerInput input,
43         IProofMonitor pm);
44
45  }

```