Heterogeneous Input Reports (XML)

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                              ┌──────────────────────────────┐
                              │  Background Knowledgebase     │
                              └──────────────────────────────┘
        │            │
        │            │
        ▼            ▼
┌──────────────┐         ┌──────────────────────┐
│ FusionEngine │ ◄────── │  Fusion Rules (XML)   │
└──────────────┘         └──────────────────────┘
        │
        ▼
┌──────────────┐
│ ActionEngine │
└──────────────┘
        │
        ▼
```

Merged Output Report (XML)

Figure 1: The basic architecture for a fusion system that merges information in the heterogeneous input reports using a knowledgebase and fusion rules. The FusionEngine and ActionEngine modules are implemented in Java. The fusion engine executes a set of fusion rules (an XML file containing the fusion rules marked up in FusionRuleML [HS03a]), by grounding the fusion rules with textentries from the structured reports, and then checks whether all the conditions of each ground fusion rule are implied by the knowledgebase and, if they are, then the ground actions of the rule are added to the actionlist (a list of actions that specify how the merged report should be constructed). The ActionEngine executes the actionlist to build a merged report.