ATSPackage user manual

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1   Introduction

ATSpackage is a collection of build scripts written in Haskell. There are three things it accomplishes:

1. Distributed builds. ATSPackage allows users depend on libraries that are hosted elsewhere.

2. Simplified builds. As ATSPackage contains scripts to download the compiler, builds are easier for potential contributors.

3. Haskell integration. ATSPackage has first-class support for building ATS code that depends on Haskell libraries.

With that in mind, it is worthwhile to enumerate some things that it does *not* accomplish:

1. Package management. ATSPackage does allow for *reproducible* builds, but it does not resolve dependencies. Future support for package management is planned.

2. Full flexibility of C. As ATSPackage is intended to simplify builds, it does not expose everything. This will likely not cause problems, provided that the libraries dependend on are written in C, ATS, or Haskell.

2   Builds

ATSPackage supports three build types: binary, dynamic library, and static library.

2.1 Binary Builds with Haskell Dependencies

ATSPackage allows binary builds with Haskell dependencies by allowing a package to depend on an object file generated by GHC. The object file can be generated by cabal, so this is a flexible approach.

ATSPackage can also generate data types for ATS based on Haskell types. You can use this to eliminate some of the work involved in writing FFI bindings, and particularly to avoid ATS' lack of generics.