

Aldor FriCAS Interaction

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Goal

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The Axiom Library should be extendable by writing and compiling Aldor code.



Former Work

- ...
- `srcaldor2` (Peter Broadbery, 2005)
- `srcaldor3` (Peter Broadbery, 2008)



- Aldor files (from Aldor distribution)
 - axiom.as
 - lang.as, minimach.as, stub.as
 - axlit.as, axlextend.as
- boolean0.as
- FriCAS attributes
- src/interp/ax.boot (makeAxExportForm)
- gendepap.lsp
- initlist.as
- cliques.as



Main Problems

- `axlit.as`, `axextend.as` depend on FriCAS types
- FriCAS types form large cliques



Process of Building libaxiom.al

- ① Compute .ap files from initlist.as
- ② Compute dependencies for initlist domains
- ③ Compute dependencies for FriCAS types.
- ④ svn cat some .as files from Aldor repository
- ⑤ Construct attrib.as from FriCAS data
- ⑥ Compute dependencies for Aldor files
- ⑦ Compute cliques.mk from dependency files
- ⑧ Create .ap files for FriCAS types
- ⑨ Compile .ao files from .ap files
- ⑩ Create the archive libaxiom.al



Cliques

```
MEMBERS_SETCAT =
SETCAT init_STRING
MEMBERS_ABELGRP =
ABELGRP ALGEBRA BMODULE COMRING ENTIRER INTDOM
LMODULE MODULE RING RMODULE RNG init_INT
MEMBERS_A1AGG =
DFLOAT FLOAT FRAC INT STRING SUP SYMBOL A1AGG
ALAGG ALIST AMR ANY BOP DIFEXT DIVRING ELAGG
FAMR FEVALAB FIELD FLAGG FLINEXP FPATMAB FPS
FRETRCT INS LNAGG LSAGG PATAB PATMAB PATRES
PATTERN PFECAT POLYCAT QFCAT RADCAT RNS SEX
SRAGG STAGG STRICAT UPOLYC init_FRAC
MEMBERS_COMPCAT =
COMPCAT COMPLEX
```



To Do

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Add Makefile targets to produce .lsp and .o files from libaxiom.al.

