

List of all files.

----- Files that are modified for different models

### **setup.c**

An include file for cmain.c

Sets the model parameters

- molecule to be modeled

- number of lines

- number of levels

- number of lambda iterations

- accelerated lambda

- dust continuum

- photodissociation

- channel width

- velocity range

- minimum line width

- maximum line width

- radius, physical size of the model

- number of nested boxes

- grid sizes for each box

- cell size for each box

- number rays distributed in longitude and latitude

- output viewing angles

- number of cells in output grid

- cell size of output grid

- convolving beam

### **nlines\_C.h**

### **nlines\_f77.h**

These two header files specify the number of lines and levels that must match those specified in setup.c

### **define\_model.c**

Defines the density, temperature, velocity, and abundance for the model. Must be modified for each model.

----- Files associated with the hydrodynamic model for L1544

### **read\_lynds.c**

Reads the hydrodynamic model for L1544

### **hydro\_std\_2E7**

A binary file produced by a hydrodynamic code for L1544. Read by read\_lynds.c and define\_model.c. Used to define the density, temperature, velocity, and abundance copied to define the model of L1544.

----- Output files

**Cnotes0**

**Cnotes1**

Output files produced by the C program. Cnotes0 is written by the parallel master and Cnotes1 written by parallel slave 1. Cnotes0 contains most of the useful information. Cnotes1 is mostly used for debugging.

**Convergence0**

Used to plot the convergence. Not normally used.

**Fnotes0**

**Fnotes1**

Output files produced by the fortran program. Fnotes0 is written by the parallel master and Fnotes1 written by parallel slave 1. If the program fails, these files sometimes record the reason at the end of the files.

**ModelCube0**

Binary output file containing the radiative transfer model. Read by the IDL program read\_model.pro.

**Search\_history**

Output containing model parameters. Only used for automatic model optimization.

----- Header files for C programs and include files for Fortran that are not normally modified

**definitions.h**

**cmain.h**

**global.h**

The 3 above are not normally modified

----- Makefile and executable

The Makefile needs to be modified for different installations.

**Makefile**

**c.x**

----- C and Fortran files that are not normally modified

**ch3cn.f**

**cmain.c**

**define\_model.c**

**fion.f**

**fsub.f**

**hcn.f**  
**lamdbh2o.f**  
**nh3.f**  
**rate.f**  
**subcritical.f**

There are additional files in the directory for the IDL programs that read the output.  
See the Directions\_for\_MOLLIE.