**Non-obvious controls:**

* Change the amplitudes by dragging the amplitude bar, clicking where you want it to go, or typing a number into the text box above each bar. Use tab or shift-tab to move between text boxes.
* The **Explanation** in the **Help** menu describes the kind of optical pulse shaping experiment that this simulation models.
* The **Cheat** option in the **Help** menu shows the amplitudes needed to break the molecule apart.
* If you are doing a lecture demonstration, set your screen resolution to 1024x768 so the simulation will fill the screen and be seen easily.

**Important modeling notes / simplifications:**

* Most real optical pulse shaping experiments involve manipulation of the phase as well as the **amplitude**. For simplicity, we neglect the phase.
* The shapes of the molecules and the pulses needed to break them apart do not correspond to real molecules or pulses.

**Insights into student use / thinking:**

* This simulation will probably require more guidance than most PhET simulations for students to understand the physics behind it.

**Suggestions for sim use:**

* For tips on using PhET sims with your students see: [**Guidelines for Inquiry Contributions**](http://phet.colorado.edu/teacher_ideas/contribution-guidelines.php)and [**Using PhET Sims**](http://phet.colorado.edu/teacher_ideas/classroom-use.php)
* The simulations have been used successfully with homework, lectures, in-class activities, or lab activities. Use them for introduction to concepts, learning new concepts, reinforcement of concepts, as visual aids for interactive demonstrations, or with in-class clicker questions. To read more, see [**Teaching Physics using PhET Simulations**](http://phet.colorado.edu/phet-dist/publications/Teaching_physics_using_PhET_TPT.pdf)
* For activities and lesson plans written by the PhET team and other teachers, see: [**Teacher Ideas & Activities**](http://phet.colorado.edu/teacher_ideas/index.php)
* This simulation is designed to be used as a demo for outreach projects explaining optical pulse shaping research to the general public.