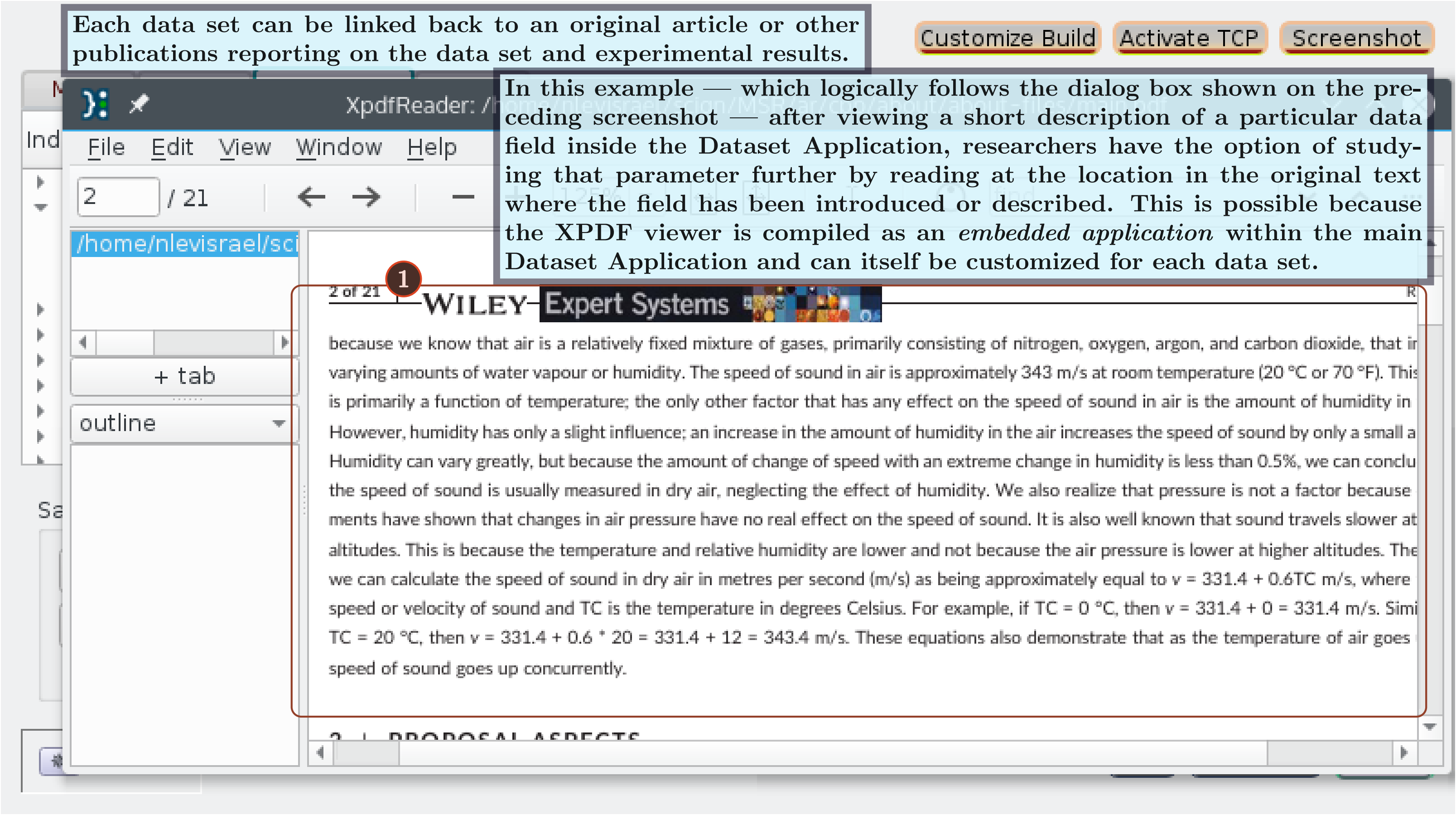
Each data set can be linked back to an original article or other publications reporting on the data set and experimental results.
Customize Build
Activate TCP
Screenshot
In this example — which logically follows the dialog box shown on the preceding screenshot — after viewing a short description of a particular data field inside the Dataset Application, researchers have the option of studying that parameter further by reading at the location in the original text where the field has been introduced or described. This is possible because the XPDF viewer is compiled as an *embedded application* within the main Dataset Application and can itself be customized for each data set.
XpdfReader: /
File
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because we know that air is a relatively fixed mixture of gases, primarily consisting of nitrogen, oxygen, argon, and carbon dioxide, that i
varying amounts of water vapour or humidity. The speed of sound in air is approximately 343 m/s at room temperature (20 °C or 70 °F). Thi
is primarily a function of temperature; the only other factor that has any effect on the speed of sound in air is the amount of humidity in
However, humidity has only a slight influence; an increase in the amount of humidity in the air increases the speed of sound by only a small a
Humidity can vary greatly, but because the amount of change of speed with an extreme change in humidity is less than 0.5%, we can conclu
the speed of sound is usually measured in dry air, neglecting the effect of humidity. We also realize that pressure is not a factor because
ments have shown that changes in air pressure have no real effect on the speed of sound. It is also well known that sound travels slower at
altitudes. This is because the temperature and relative humidity are lower and not because the air pressure is lower at higher altitudes. The
we can calculate the speed of sound in dry air in metres per second (m/s) as being approximately equal to v = 331.4 + 0.6TC m/s, where
speed or velocity of sound and TC is the temperature in degrees Celsius. For example, if TC = 0 °C, then v = 331.4 + 0 = 331.4 m/s. Simi
TC = 20 °C, then v = 331.4 + 0.6 * 20 = 331.4 + 12 = 343.4 m/s. These equations also demonstrate that as the temperature of air goes
speed of sound goes up concurrently.