



CyFlex® Knowledge Article

Installing the CyFlex Developer Tools Extension

Author: Nathan Meyer

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General Information

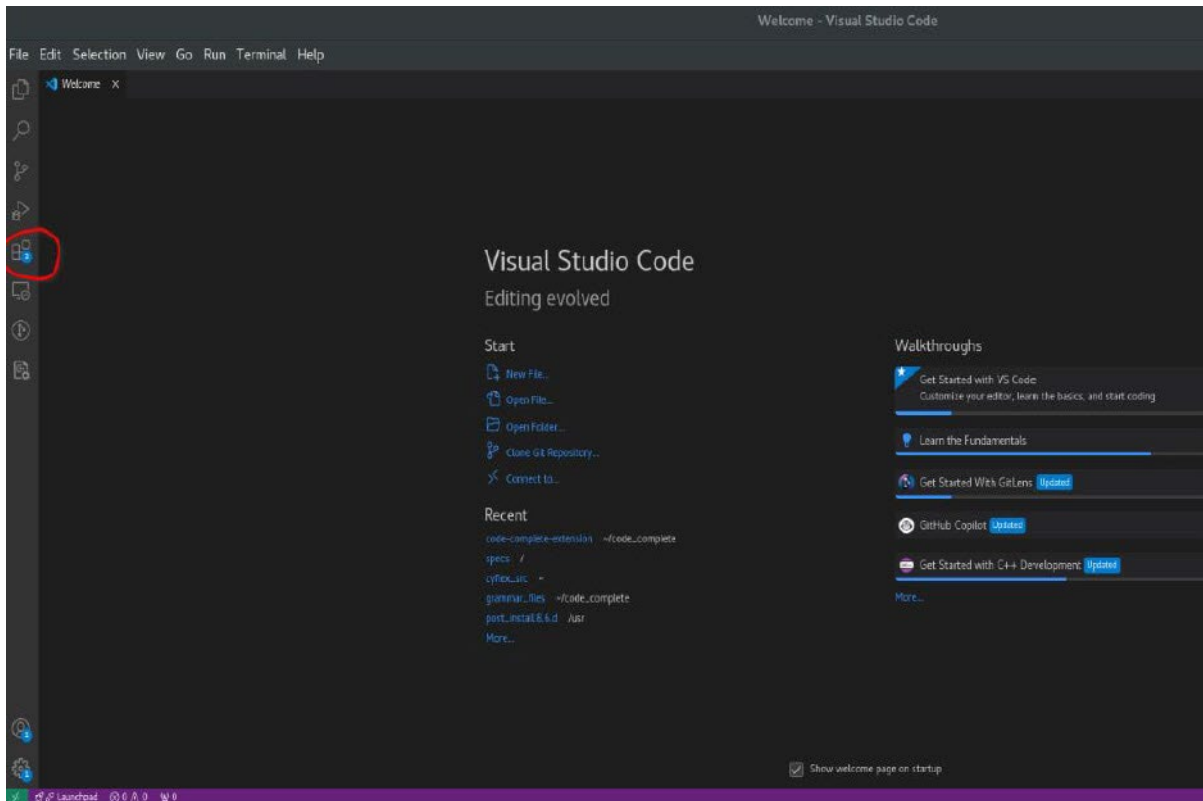
This Cyflex® Knowledge Article describes installation of the `cyflex-developer-tools` extension. This debugging tool helps find problems within a spec file. By highlighting the line where a syntax error is detected, the extension informs the user that there is a problem within the supported spec file. When a syntax error is detected, it is recommended to fix the problems from the beginning of the file to the end. This is because some syntax errors cause multiple errors from one syntax error. When a syntax error is fixed the highlighted line will disappear. Sometimes when a highlighted line disappears another one will appear further down the file. This is due to the parser not knowing how to recover from the previously unresolved syntax error and stopping at that line. Every time the file is changed the file is passed through the grammar file to detect errors in real time. When hovering the cursor over the highlighted line, an error message will appear with what the parser detected as wrong and potential fixes for the error. If the message is not helpful, then the user needs to look around the detected error for context clues as to what should be expected for that location.

Important Note: The extension is not able to detect if the `limit_specs` variable or the referenced variables are found in shared memory as of version 1.0.0. Also, due to `units.dat` file being interchangeable, currently the grammar files only check that the units are in a correct format.

Installing the cyflex-developer-tools Extension

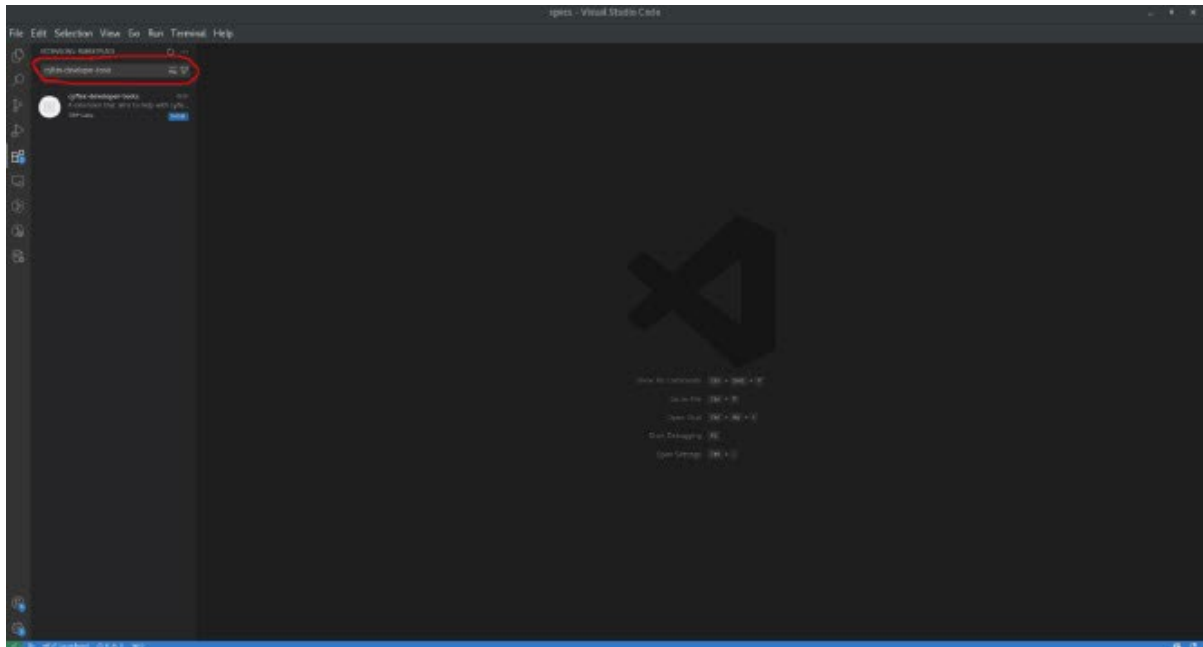
1. Open the Visual Studio Code application.
2. Click the Extensions icon on the resulting screen as in *Figure 1*.

Figure 1: Click Extensions Icon



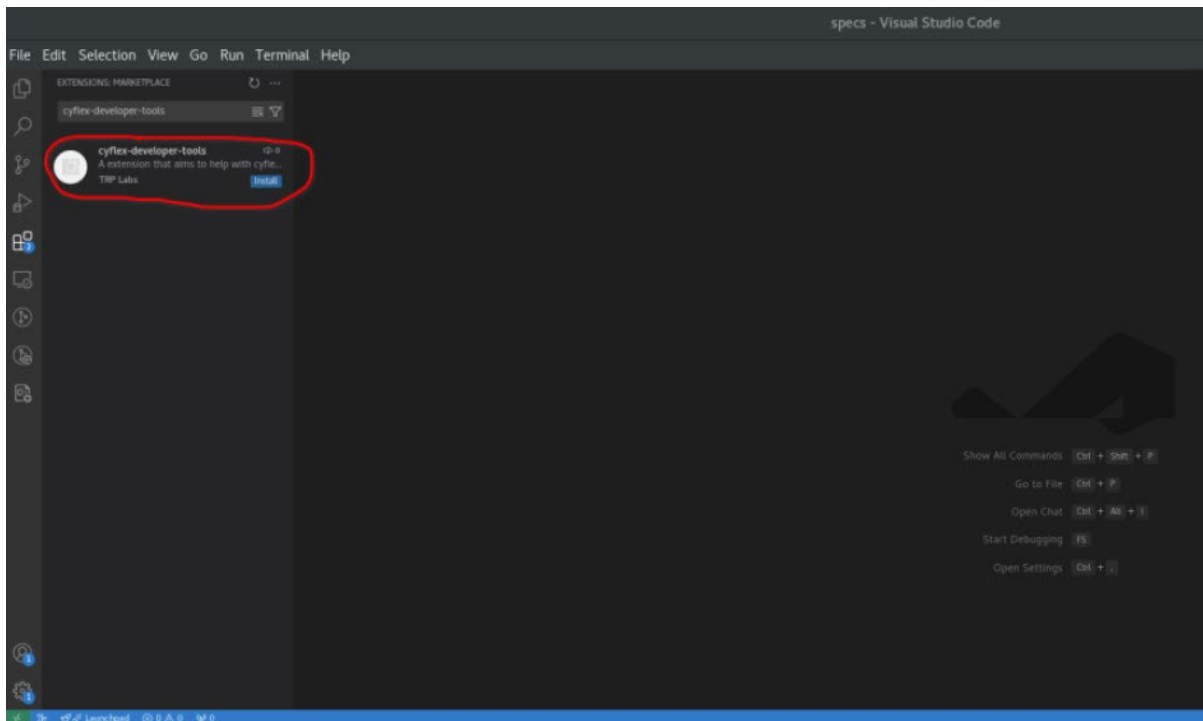
3. Enter `cyflex-developer-tools` in the search box on the resulting screen as in *Figure 2*.

Figure 2: Search Box Entry



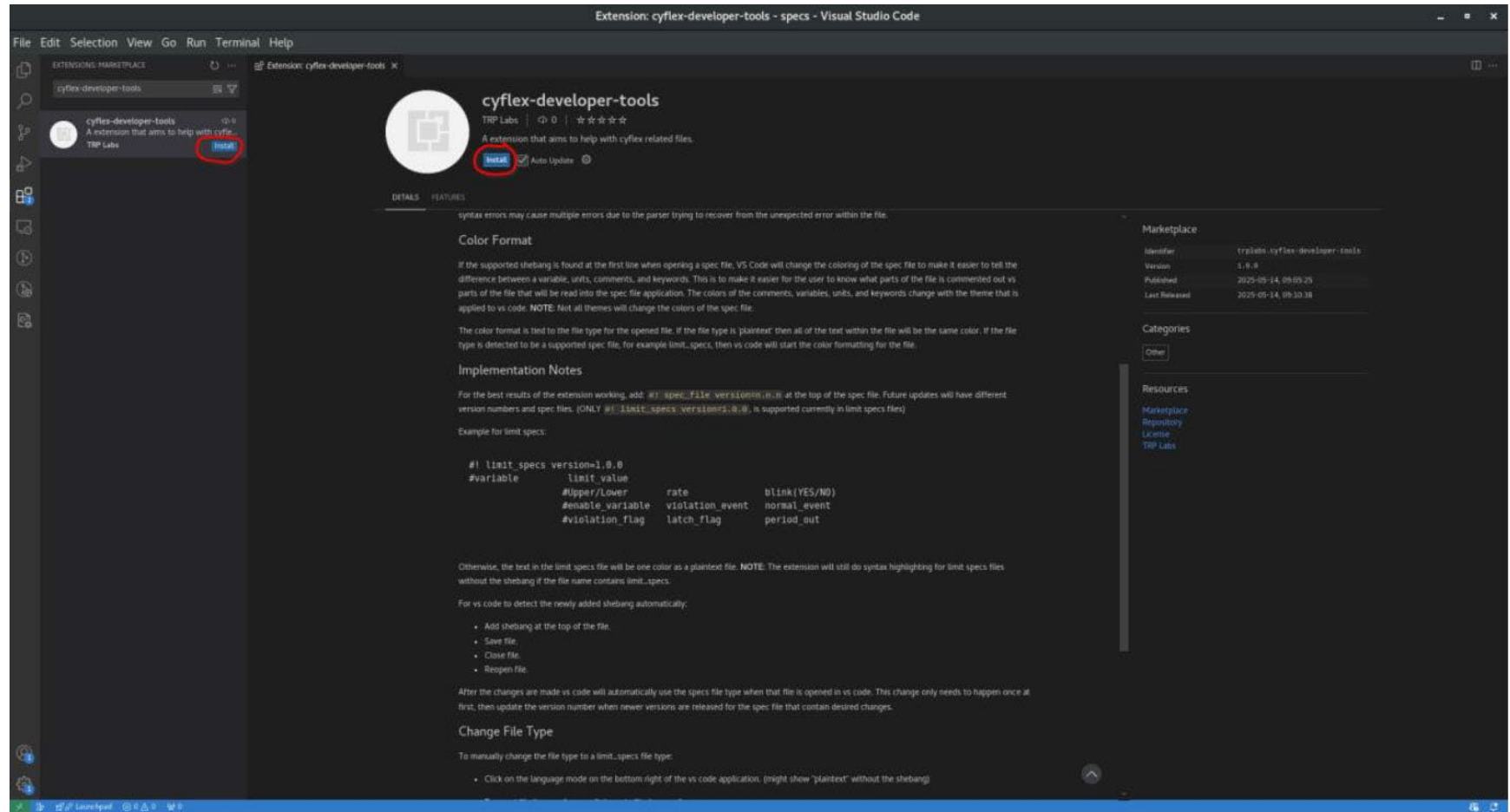
4. Click **cyflex-developer-tools** on the resulting screen as in *Figure 3*.

Figure 3: Click cyflex-developer-tools



5. Click either **Install** button on the resulting screen as in Figure 4.

Figure 4: Install



6. After the installation completes, add: `#! limit_specs version=1.0.0` to the top of the limit specs file. This will enable the Visual Studio Code application to automatically open the file as a `limit_specs` file type.
7. Refer to *Working Extension Examples* on page 6 for examples of the working extension.

Working Extension Examples

Figure 5: Extension Working Example

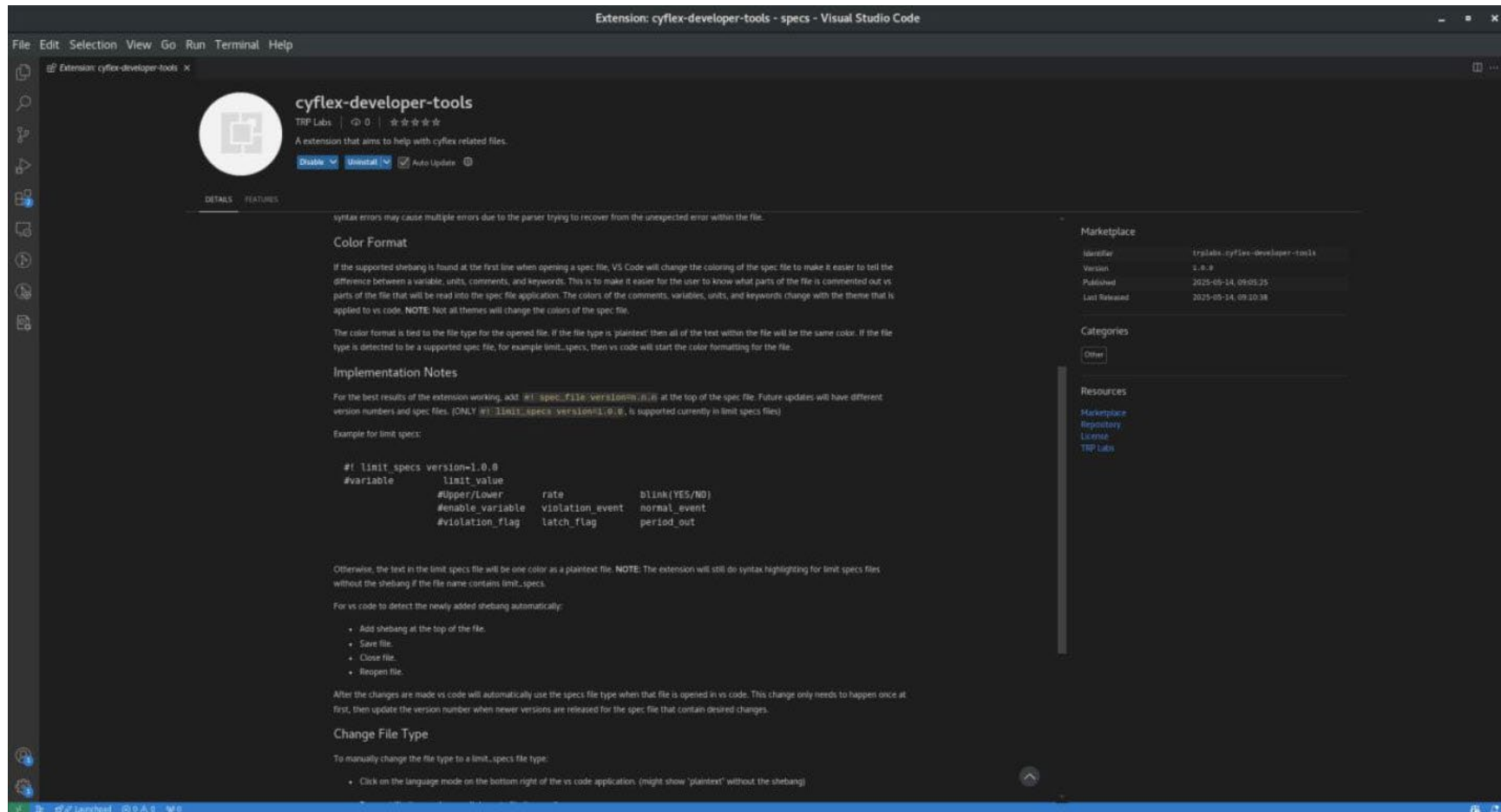
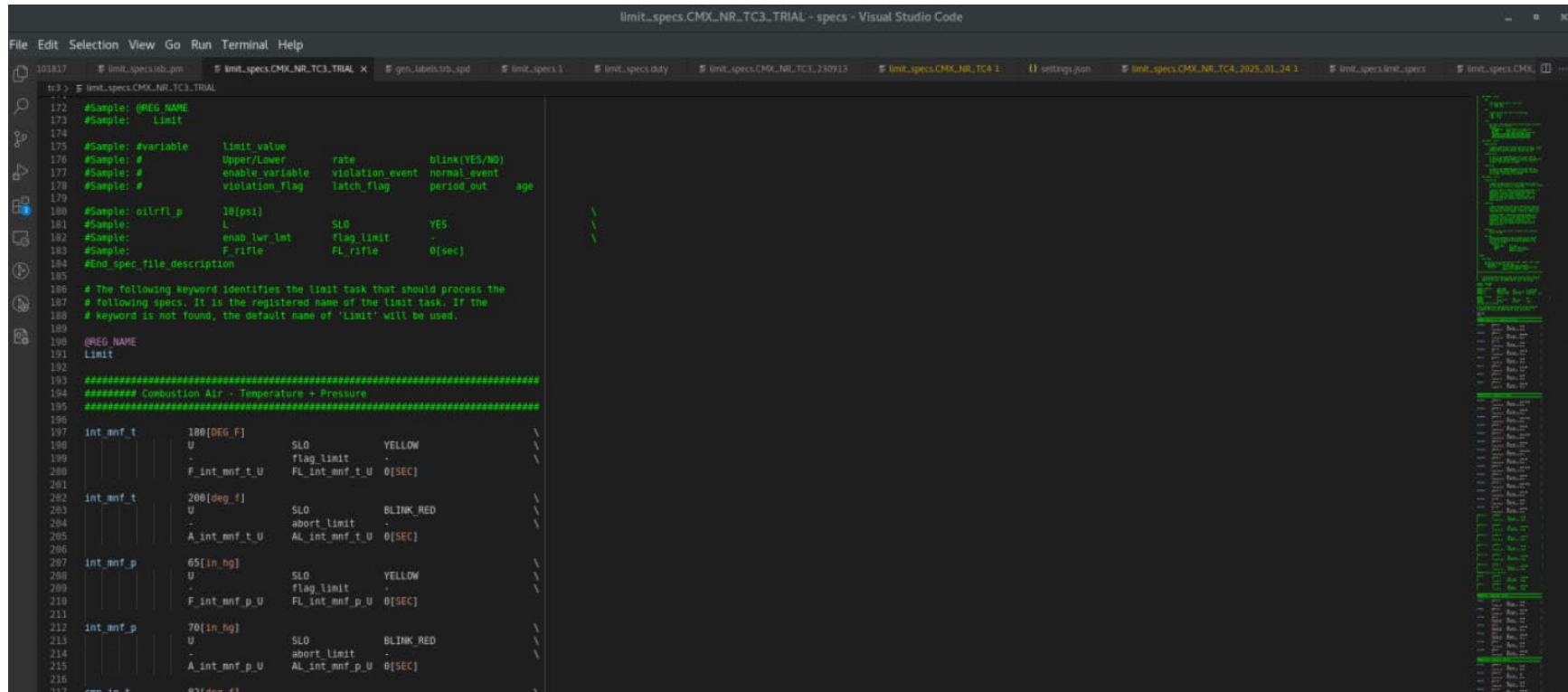


Figure 6: Another Extension Working Example



```

101817 # limit_specs.CMX_NR_TC3_TRIAL
172 #Sample: @REG_NAME
173 #Sample: Limit
174
175 #Sample: #variable      limit_value
176 #Sample: #              upper/lower
177 #Sample: #              enable_variable
178 #Sample: #              violation_flag
179 #Sample: #              rate
180 #Sample: #              violation_event
181 #Sample: #              latch_flag
182 #Sample: #              normal_event
183 #Sample: #              period_out
184 #Sample: #              age
185
186 #Sample: oilrf1_p      10[psi]
187 #Sample: L              SLO
188 #Sample: enab_lwr_lmt   flag_limit
189 #Sample: F_rifle        FL_rifle
190 #Sample:                YES
191 #Sample:                0[sec]
192
193 #End_spec_file_description
194
195 # The following keyword identifies the limit task that should process the
196 # following specs. It is the registered name of the limit task. If the
197 # keyword is not found, the default name of 'Limit' will be used.
198
199 @REG_NAME
200 Limit
201
202 ##### Combustion Air - Temperature + Pressure
203 #####
204
205 int_mnf_t      180[deg_F]
206 U              SLO
207 -              flag_limit
208 F_int_mnf_t_U  FL_int_mnf_t_U
209 FL_int_mnf_t_U 0[SEC]
210
211 int_mnf_t      200[deg_f]
212 U              SLO
213 -              BLINK_RED
214 A_int_mnf_t_U  AL_int_mnf_t_U
215 AL_int_mnf_t_U 0[SEC]
216
217 int_mnf_p      65[in_hg]
218 U              SLO
219 -              YELLOW
220 F_int_mnf_p_U  FL_int_mnf_p_U
221 FL_int_mnf_p_U 0[SEC]
222
223 int_mnf_p      70[in_hg]
224 U              SLO
225 -              BLINK_RED
226 A_int_mnf_p_U  AL_int_mnf_p_U
227 AL_int_mnf_p_U 0[SEC]
228
229 rpm_in_t      82[deg_f]
  
```