



CyFlex® Knowledge Article

Installing the CyFlex Developer Tools Extension

Author: Nathan Meyer

May 16, 2025

General Information

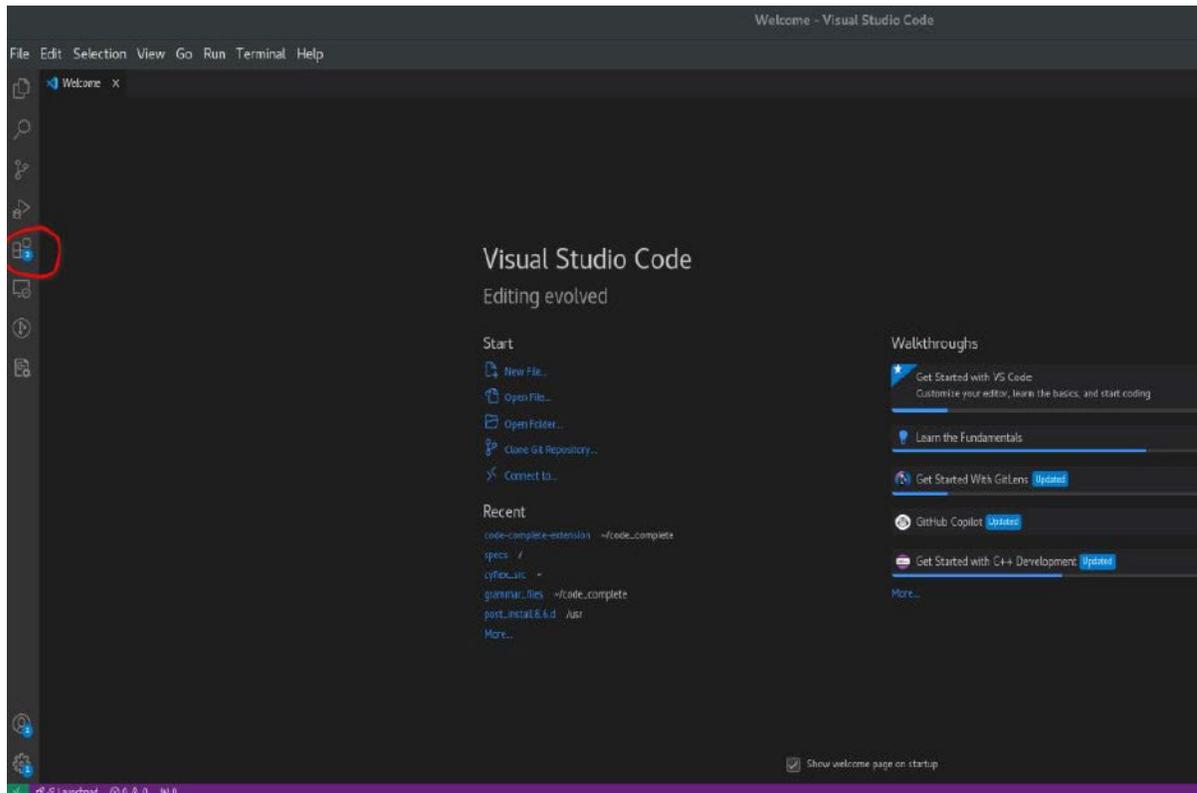
This Cyflex® Knowledge Article describes installation of the `cyflex-developer-tools` extension. This debugging tool helps find problems within a spec file. By highlighting the line where a syntax error is detected, the extension informs the user that there is a problem within the supported spec file. 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

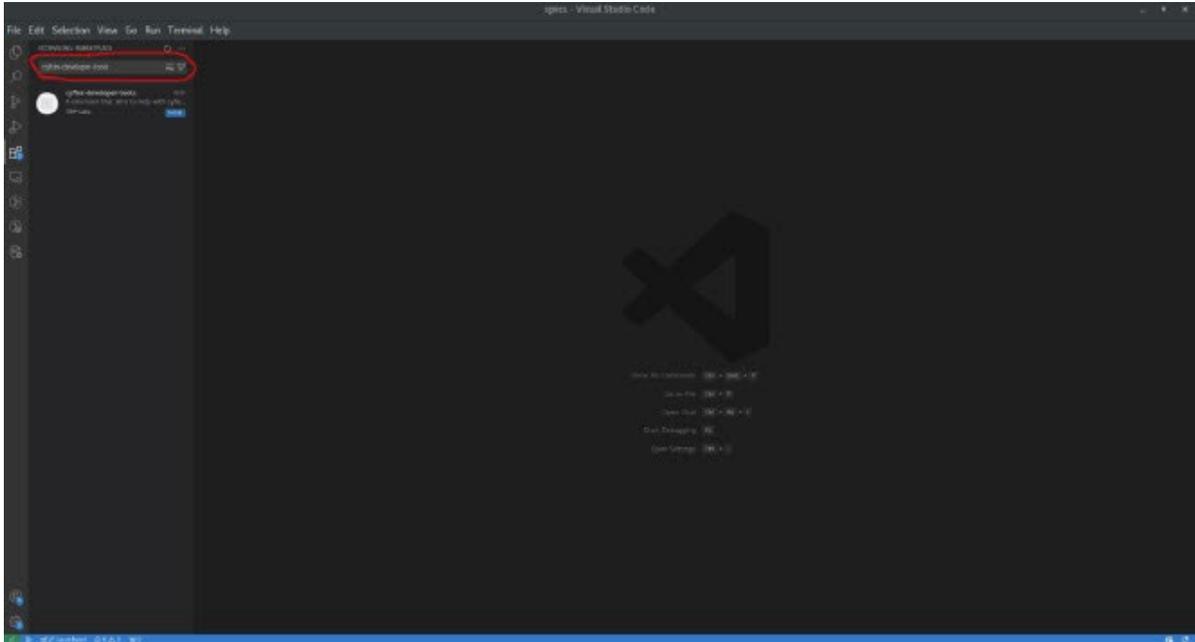
1. Open the Visual Studio Code application.
2. Click the Extensions icon on the resulting screen as in *Figure 1*.

Figure 1: Click Extensions Icon



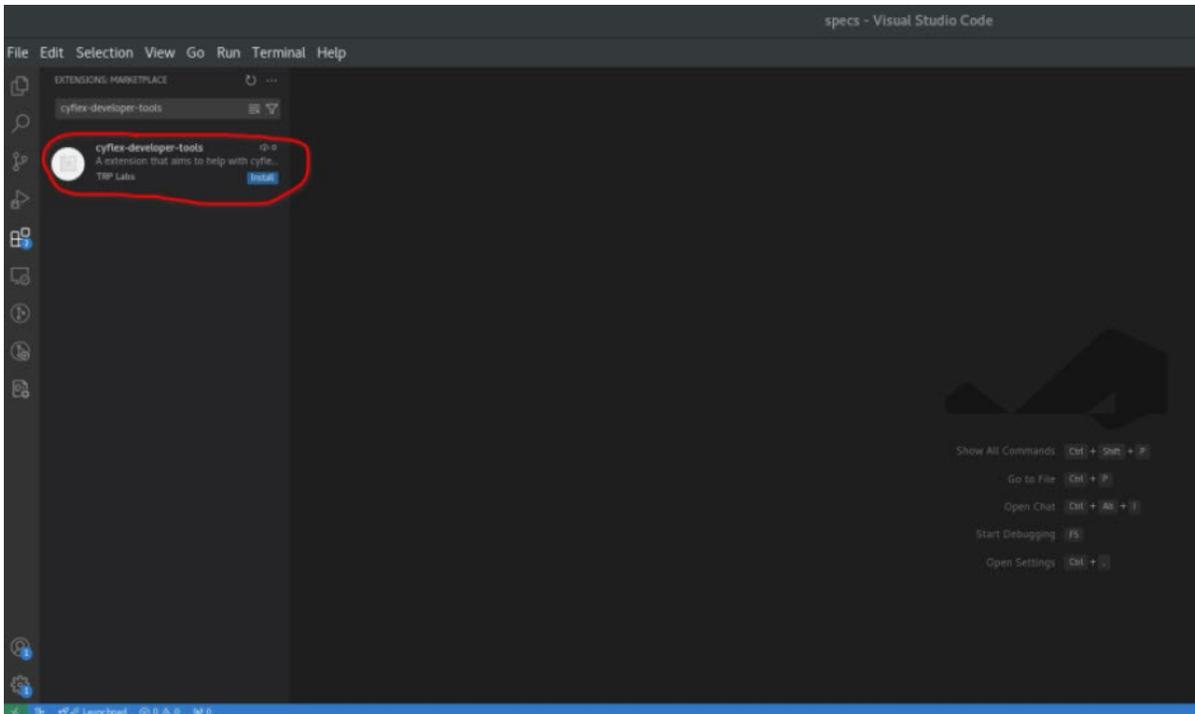
3. Enter `cyflex-developer-tools` in the search box on the resulting screen as in *Figure 2*.

Figure 2: Search Box Entry



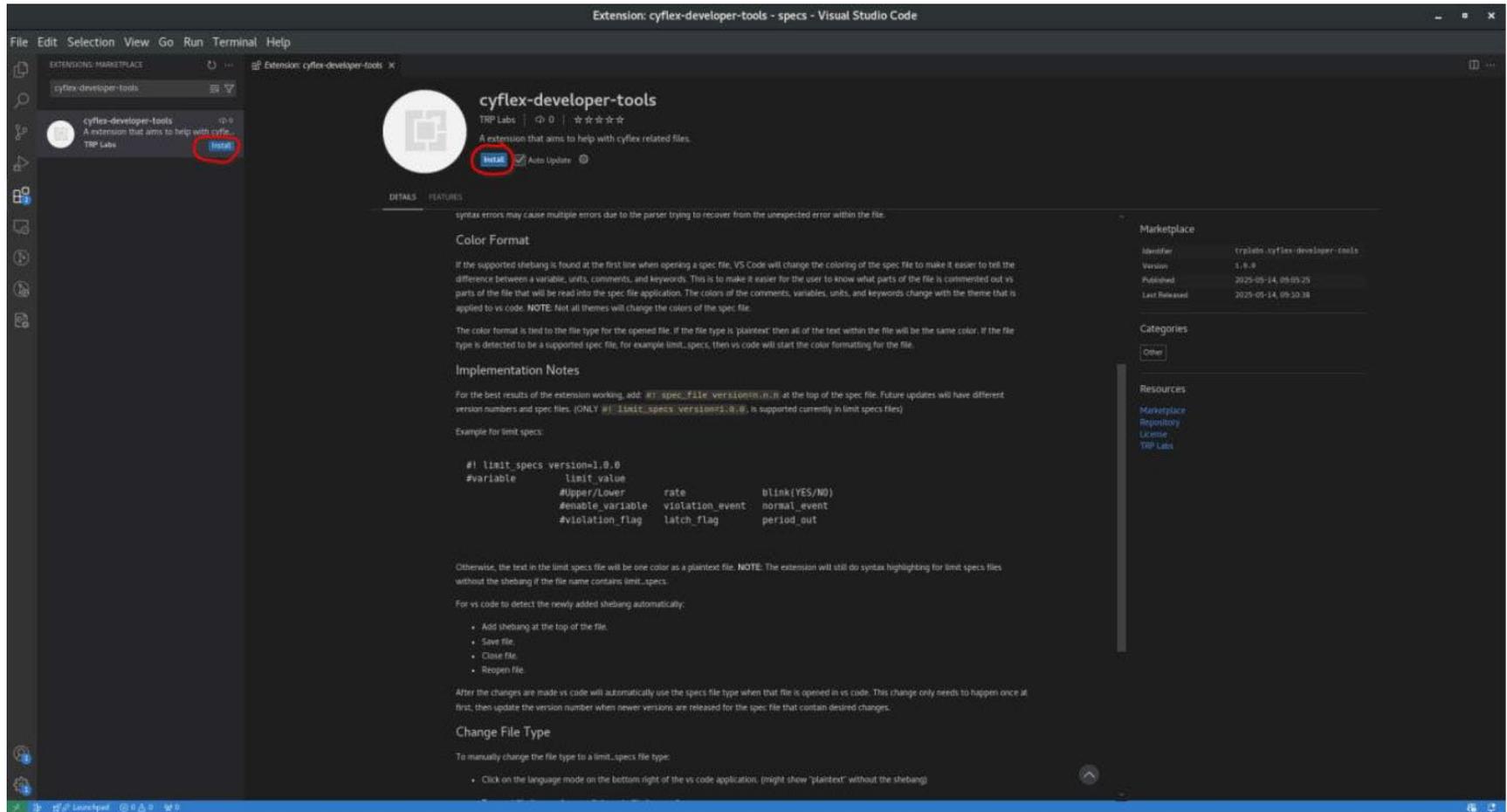
4. Click **cyflex-developer-tools** on the resulting screen as in *Figure 3*.

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 Virtual 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

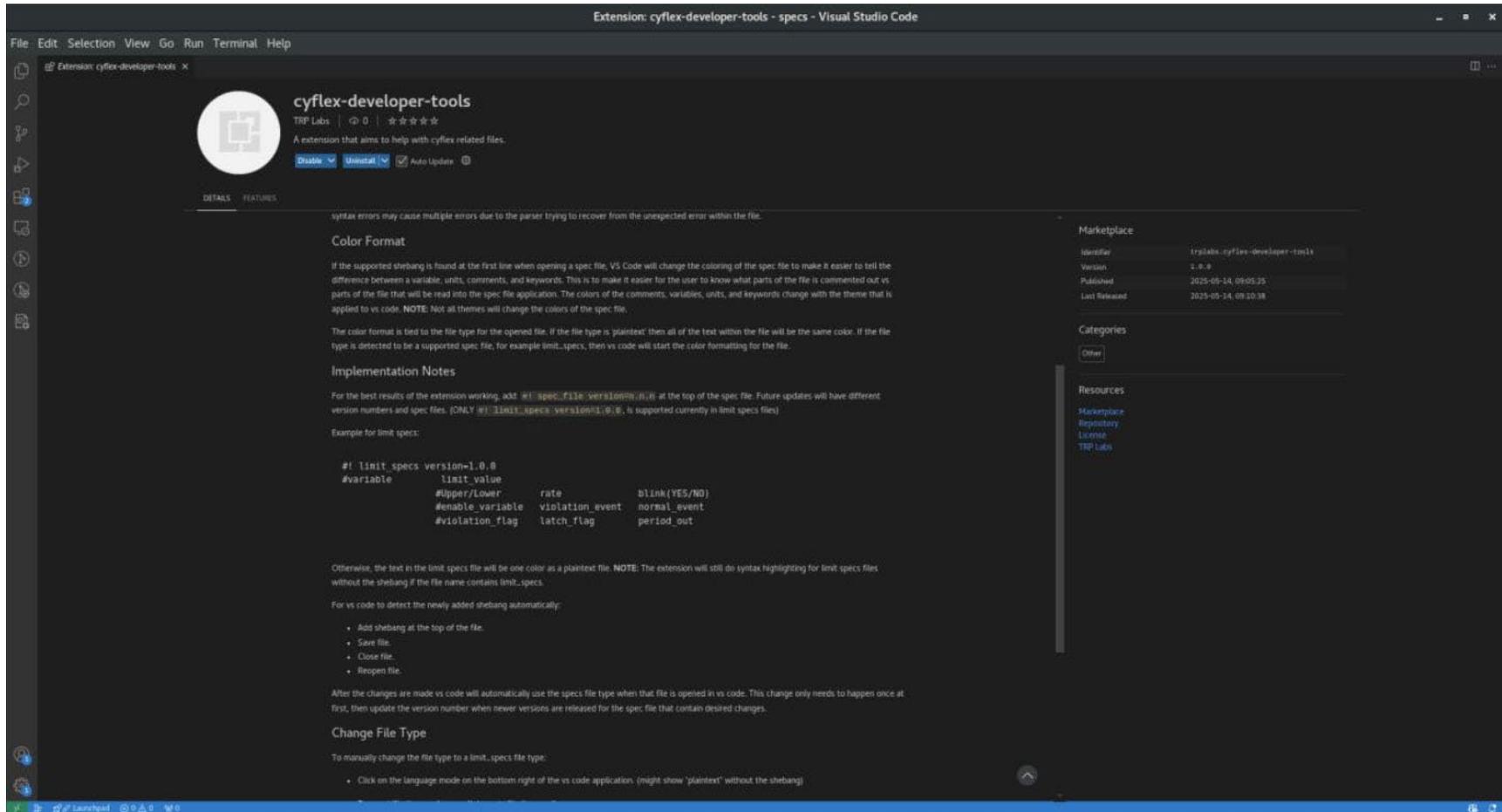
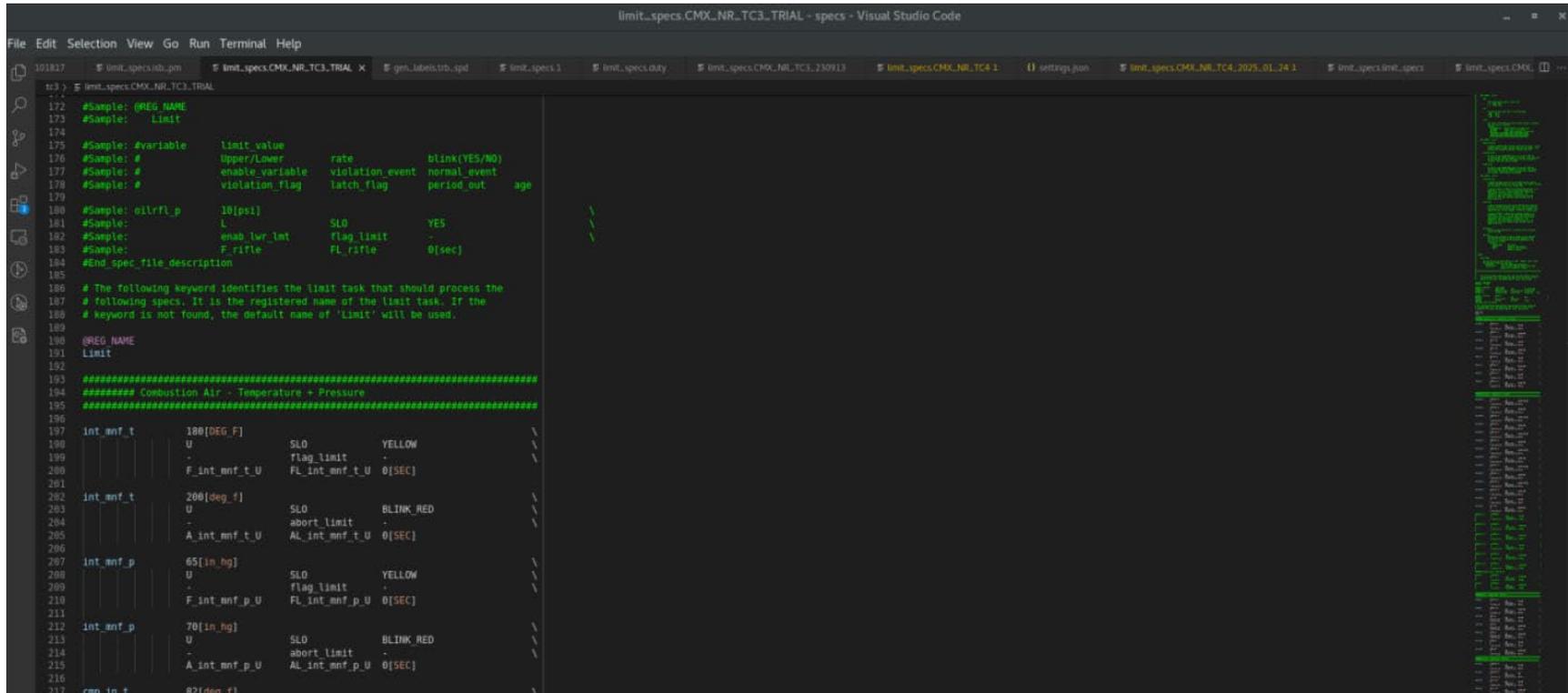


Figure 6: Another Extension Working Example



```

101817  limit_specs.CMX_NR_TC3_TRIAL
172  #Sample: @REG_NAME
173  #Sample: Limit
174
175  #Sample: #variable      limit_value
176  #Sample: #             upper/lower      rate          bLink(YES/NO)
177  #Sample: #             enable_variable  violation_event normal_event
178  #Sample: #             violation_flag   latch_flag     period_out    age
179
180  #Sample: @slrfl_p      30[psi]
181  #Sample: #             L                 SLO           YES
182  #Sample: #             enab_lwr_lmt      flag_limit    -
183  #Sample: #             F_rifle          FL_rifle      0[sec]
184  #End_spec_file_description
185
186  # The following keywords identifies the limit task that should process the
187  # following specs. It is the registered name of the limit task. If the
188  # keyword is not found, the default name of 'Limit' will be used.
189
190  @REG_NAME
191  Limit
192
193  ##### Combustion Air - Temperature + Pressure
194  #####
195
196  int_mnf_t      180[DEG_F]
197  U
198  -             SLO           YELLOW
199  -             flag_limit    -
200  F_int_mnf_t_U  FL_int_mnf_t_U  0[SEC]
201
202  int_mnf_t      200[deg_f]
203  U
204  -             SLO           BLINK_RED
205  A_int_mnf_t_U  AL_int_mnf_t_U  0[SEC]
206
207  int_mnf_p      65[in_hg]
208  U
209  -             SLO           YELLOW
210  F_int_mnf_p_U  FL_int_mnf_p_U  0[SEC]
211
212  int_mnf_p      70[in_hg]
213  U
214  -             SLO           BLINK_RED
215  A_int_mnf_p_U  AL_int_mnf_p_U  0[SEC]
216
217  rpm_in_t      82[deg_f]
  
```