



Static Analysis of Dynamic Properties

Automatic Detection of Runtime Errors at Compile Time !

 Test cases

WITHOUT

 Code instrumentation

 Changes in your development process

```
example.adb
149 -- Here we demonstrate PolySpace Verifier's ability to trace numeric
150 -- constraints across many different arithmetic operations.
151 -- The table provided below the example shows the domain of
152 -- values for the expressions in the example.
153 procedure Square_Root_conv (alpha : in float; y : out long_float) is
154 begin
155   y := (1.5 + cos (long_float(alpha)))/5.0;
156 end Square_Root_conv;
157
158 Beta : Long_Float;
159 procedure Square_Root is
160   Alpha : Float := Random.random;
161   Gamma : long_float;
162 begin
163   Square_Root_conv (Alpha, Beta);
164   Beta := Beta - 0.75;
165   Gamma := sqrt(Beta); -- always sqrt(negative)
166 end Square_Root;
```

