1. Enum

1.1 Enum syntax

Enum ENUM_NAME {
  (*enum_stmt*)+
}
enum_stmt =
  ENUMERATOR_NAME (=INITIALIZER),

Enum: Start of an enum block.

ENUM_NAME: Required name of the enum block. This name applies scope to the enumerator elements within the enum block.

ENUMERATOR_NAME: Required name of the enumerator element. Each enumerator name within the enum block must be unique.

INITIALIZER: Optional assignment value for the enumerator. If the initializer is omitted, the enumerator takes on the value of the previous enumerator + 1. The first enumerator, if not assigned with an initializer, is assigned the starting value of 0. Each enumerator value within the Enum block must be unique, and must be assigned a positive integer value.

```
Enum FailMode {
      # Jim's addition – what value would we want to use for
      # NOT_EXECUTED?  Per above, values must be > 0; do we want to
      # allow =0 or <0 as well?  Or assign a fairly high integer > 0?
      NOT_EXECUTED = -1,   #?? What value for NOT_EXECUTED?
      PASS = 0, // 0
      EXCEPTION_SOFT = 1, // 1 Software exception, e.g., divide by 0
      EXCEPTION_HARD = 2, // 2 Hardware exception
      FAIL_UNITS = 3, // 3 Units mismatch
      FAIL_FNC = 4, // 4 Functional or functional part of parametric
      FAIL_PRM = 5, // 5 Parametric, e.g., search endpoints
      FAIL_BOTHLIM = 6, // 6 Lower and upper limit
      FAIL_HILIM = 7, // 7 Upper limit
      FAIL_LOLIM = 8, // 8 Lower limit
      INDETERMINATE = 9, // 9 Limits compared to result None
}
```