Integer Sij(\#ports,\#ports) ! allocate space for handles for each Framis in the full matrix Sij(1:\#ports,1:\#ports)=0 ! initialize all Framis to null
! Treat all text after [Sparse Matrix Mapping] until next [] keyword as a single string called String

Colon_Number = $0 \quad$ ! initialize colon number to null
For (each : in String)
Colon_Number = Colon_Number + 1 ! this must be <=
[Number of Framis] ; else an ERROR
Verify that ":" is preceded by an integer number ==
Colon_Number ; else an ERROR
For each "(" following this ":", and before the next ":" Find matching ")" ; else an ERROR Parse (i,j) for $i$ and $j$; else an ERROR Verify i, and j are >0, and <= \#ports ; else an ERROR Verify Sij(ij)==0, or == Colon_Number ; else an ERROR Sij(i,j)= Colon_Number If (Matrix is symmetric)

Verify Sij(ji)==0, or == Colon_Number ; else ERROR Sij(j,i)= Colon_Number

## Endif

Endfor
Endfor
Verify Colon_Number==[Number of Framis] ; else an ERROR
Good practice would be to require the number preceding the ":" be on the same line as the ":", but the above pseudo code does not require it. This can be enforced by changing:

Verify that ":" is preceded by an integer number == Colon_Number ; else an ERROR
To
Verify that ":" is preceded by an integer number before the next preceding <lf> or <cr> and this number == Colon_Number ; else an ERROR

