

```

∇QUEUE[∅]∇
[0]  XX←K QUEUE N;A;Q;B;C;D;E;C2;F;J;L;I;∅IO
[1]  A alphabet size K, at most N palindromes (incl empty word)
[2]  A the output is in Grail format
[3]  ∅IO←1
[4]  N←N-1
[5]  XX←'(START) |- 1',CR
[6]  SEEN←Q←,c(10)(10)
[7]  L1:
[8]  →(0=pQ)/DONE
[9]  ∑(0≤1000|(pQ),pSEEN)/'∅'←(pQ),pSEEN'
[10] A→Q[1]
[11] Q←1↓Q
[12] B→A[1]
[13] C→A[2]
[14] D←-1
[15] L2:
[16] D←D+1
[17] →(D≥K)/L1
[18] E←B,D
[19] C2←SORT∪C,PALSIN E
[20] E←(-(1+2×N)↓pE)†E
[21] →((pC2)>N)/L2
[22] F←E C2
[23] →((cF)∈SEEN)/L3
[24] Q←Q,cF
[25] SEEN←SEEN,cF
[26] L3:
[27] J←SEEN↓cF
[28] L←SEEN↓cA
[29] XX←XX,(≠L),' ','(≠D),' ','(≠J)',CR
[30] →L2
[31] DONE:
[32] I←0
[33] L4:
[34] I←I+1
[35] →(I>pSEEN)/0
[36] XX←XX,(≠I),' -| (FINAL)',CR
[37] →L4

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