

Appendix D

Online Editing Memory Limits

Limits exist for the amount of memory reserved for editing programs online. The Editor reserves a default 4096 bytes for editing programs online. However, you can change the amount of memory reserved for online editing. See “Specifying the Amount of Memory Reserved for Editing a Program Online” in this Appendix for more information.

Each rung that was modified or added during an online editing session is checked against the allocated amount of reserved memory when you commit the changes or enter test mode (that is, when you download the rungs to the Processor). If the total number of online changes exceeds the allocated memory, a message box appears to notify you. To continue editing a program online once these limits have been exceeded, save the program to the PC and re-download it to the Processor.

Limitations for Editing Programs Online

You cannot add more than:

- 32 variables
- 8 timers and/or counters
- 16 labels

These limits are checked after you choose Accept from the Online menu. If the changes exceed any limit, the Editor notifies you of the location at which the problem(s) occurred. The changes are not downloaded to the Processor. You can then edit the program to correct the limitation errors and re-accept the program.

Restrictions for Editing Programs Online

While editing a program online you cannot add these types of variables:

- a global variable that is not already used in the configuration
- new or existing array variables
- an element of an array that is larger than the defined Maximum Array Index
- new Software Events

Other restrictions for editing programs online:

- You can change all the properties for a newly added variable, but you cannot add or change a variable description.
- You cannot inline edit variable or rung descriptions.
- You cannot change any Program Properties.

Some instructions use internal buffers to perform their operation. Consequently, the state of the following instructions' operation is stored from program scan to program scan:

- Counter instruction (CTUD)
- Array instructions (AR1, AR2, ARC, ASU, ASD)
- Shift Register instructions (SL, SR, RL, and RR)
- Set Event instruction (SET)

During online editing, the state information is only transferred if you have not added, moved, modified, or deleted any of the instructions. The Editor warns you when state information is not transferred.

Specifying the Amount of Memory Reserved for Editing a Program Online

You can increase or decrease the amount of memory reserved for changes made to an online program by using the Program Info tab of the Program Properties. You must change the program's properties in an offline editing session of the program. The maximum amount of memory you can reserve is 20480 bytes; the minimum is 2048 bytes.

To specify the amount of memory reserved for editing a program online

- Step 1. Make sure you are editing the program **offline**.
- Step 2. Access the Program Properties. See "About Program Properties."
- Step 3. From the Program Info tab, enter the amount of bytes you want to reserve for online changes in the Online Reserved Memory field. Enter a value between 2048 bytes and 20480 bytes. The default amount is 4096 bytes.
- Step 4. Click OK to accept the change.