

常问问题 • 07/2018

# 如何暂停GRAPH 程序块

S7-GRAPH, TIA, S7-1500, FB

<https://support.industry.siemens.com/cs/cn/zh/view/109758904>

**描述：** Graph 程序在运行过程中，某些情况下需要将 Sequence 暂停去解决问题，当问题解决后，需要接着当前的步继续执行 Graph 程序。而 OFF\_SQ 这个引脚只能将 Sequence 停止，这时就需要使用 HALT\_SQ 暂停这个引脚。

下面介绍操作步骤：

1. 打开 Graph 程序，在 Edit 菜单中的 Interface Parameters 中选择 Maximum interface parameters。

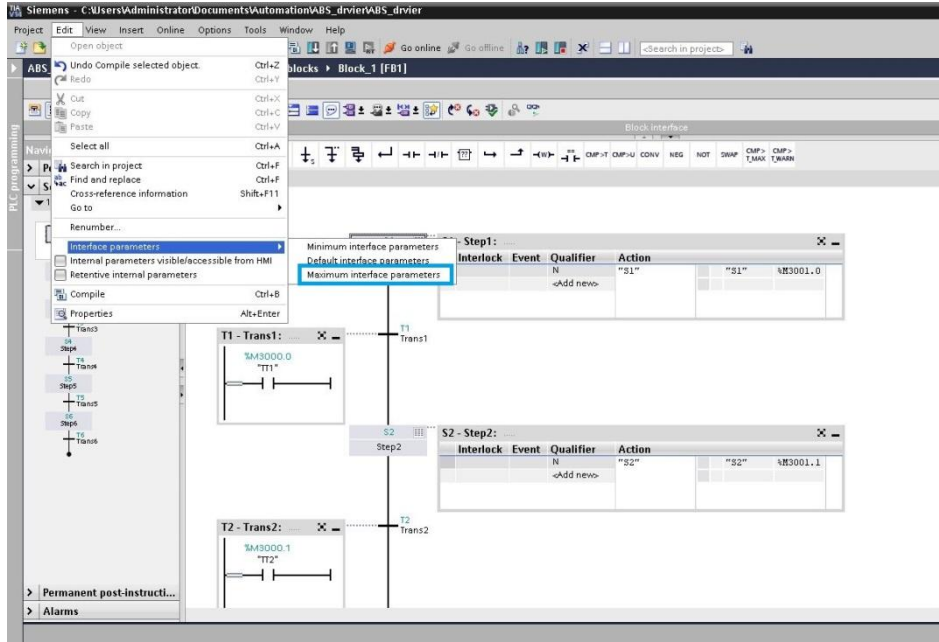


图 1 选择接口参数

2. 编译程序后，可以在 Input 中找到 HALT\_SQ 这个引脚。

Name	Data type	Default value	Retain	Accessible ...	Writes...	Visible in ...	Setpoint	Supervisi...	Comment
Input									
OFF_SQ	Bool	false	Non-retain						Turn sequence off
INIT_SQ	Bool	false	Non-retain						Set sequence to initial state
ACK_EF	Bool	false	Non-retain						Acknowledge all errors and faults
REG_EF	Bool	false	Non-retain						Register all errors and faults
ACK_S	Bool	false	Non-retain						Acknowledge step indicated in S_NO
REG_S	Bool	false	Non-retain						Register the step indicated in S_NO
HALT_SQ	Bool	false	Non-ret...						Halt sequence immediately
HALT_TM	Bool	false	Non-retain						Halt timers immediately
ZERO_OP	Bool	false	Non-retain						Set all operands assigned with N, L, D t...
EN_IL	Bool	false	Non-retain						Activate interlocks
EN_SV	Bool	false	Non-retain						Activate supervision processing
EN_ACKREQ	Bool	false	Non-retain						Activate mandatory acknowledgment
EN_SSKIP	Bool	false	Non-retain						Enable "Skip step"
DISP_SACT	Bool	false	Non-retain						Display active steps only
DISP_SEF	Bool	false	Non-retain						Display only steps with errors and disru...
DISP_SALL	Bool	false	Non-retain						Display all steps
S_PREV	Bool	false	Non-retain						Output previous step in parameter S_NO
S_NEXT	Bool	false	Non-retain						Indicate next step in parameter S_NO
SW_AUTO	Bool	false	Non-retain						Automatic mode
SW_TAP	Bool	false	Non-retain						Semiautomatic/switch with transition
SW_TOP	Bool	false	Non-retain						Semiautomatic/ignore transition
SW_MAN	Bool	false	Non-retain						Manual mode
S_SEL	Int	0	Non-retain						Select step to be output to S_NO
S_SELOK	Bool	false	Non-retain						Enter value from S_SEL in S_NO
S_ON	Bool	false	Non-retain						Activate step indicated in S_NO
S_OFF	Bool	false	Non-retain						Deactivate step indicated in S_NO

图 2 查找 HALT\_SQ 引脚

3. 给 HALT\_SQ 这个引脚上升沿，可以使 Sequence 暂停。

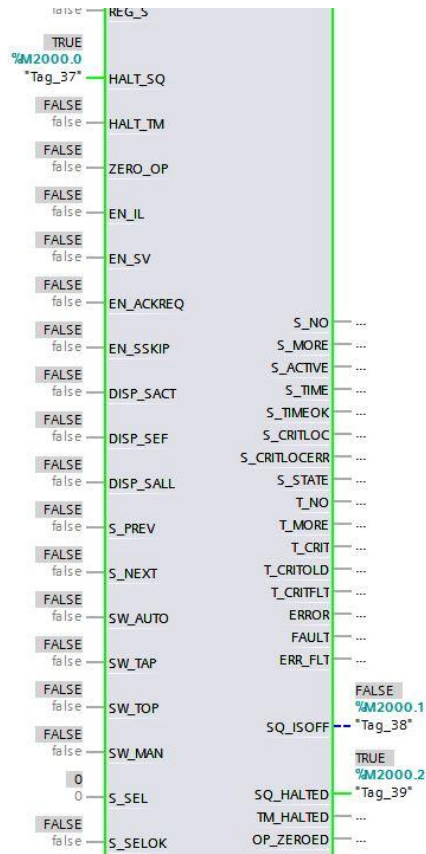


图 3 Graph 的输入输出状态

可以看到即使 T1 条件满足，也不会跳转到 S2 步

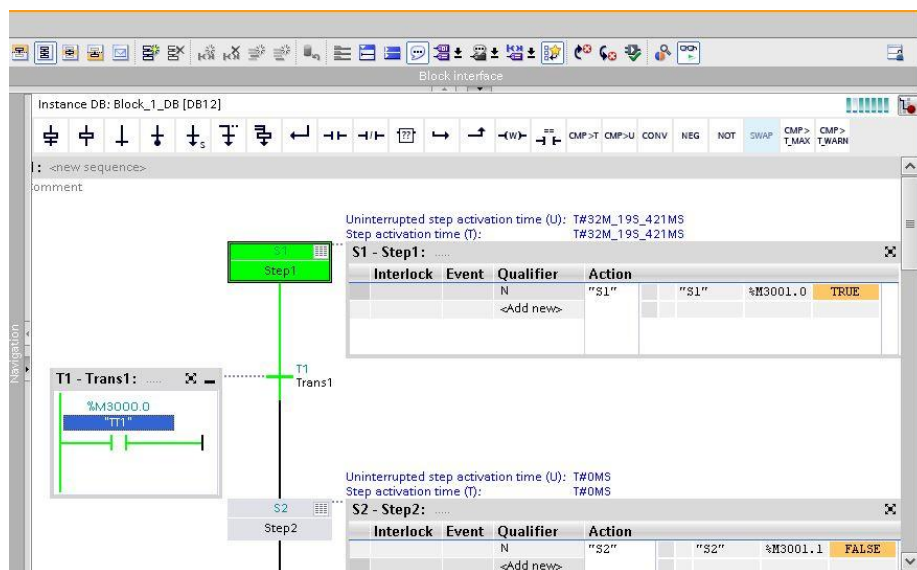


图 4 暂停的 Sequence

4、保持当前状态，再次给 HALT\_SQ 上升沿，可以看到 S1 步停止，S2 步激活。

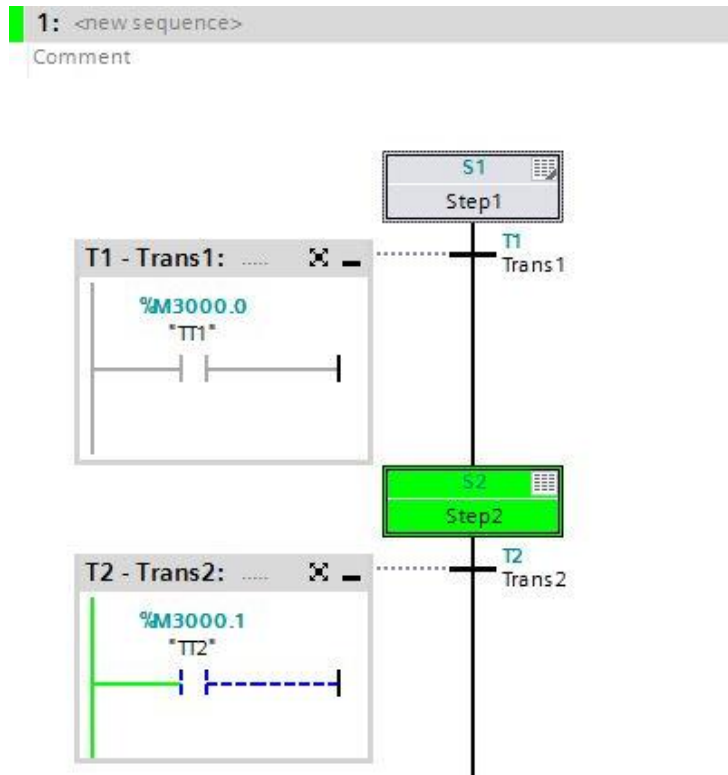


图 4 暂停恢复的 Sequence

总结：当需要暂停 Sequence 时，给 HALT\_SQ 引脚一个上升沿，Sequence 暂停运行。需要继续运行时，再次给 HALT\_SQ 引脚一个上升沿，Sequence 恢复正常运行状态。