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' File: TI2SX4.bas
' Abstract: Four Input-Driven Dual (Two-Step) Timers
' Revision: 0.1
' Author: Joe Stone
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```
SYMBOL PROP1_IN = PIN0
SYMBOL PROP1_OUT = 4
OUTPUT PROP1_OUT
SYMBOL prop1_step = BIT0
SYMBOL prop1_timer = W1
SYMBOL PROP1_MAX_STEPS = 2
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```
SYMBOL PROP2_IN = PIN1
SYMBOL PROP2_OUT = 5
OUTPUT PROP2_OUT
SYMBOL prop2_step = BIT1
SYMBOL prop2_timer = W2
SYMBOL PROP2_MAX_STEPS = 2
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```
SYMBOL PROP3_IN = PIN2
SYMBOL PROP3_OUT = 6
OUTPUT PROP3_OUT
SYMBOL prop3_step = BIT2
SYMBOL prop3_timer = W3
SYMBOL PROP3_MAX_STEPS = 2
```

```
SYMBOL PROP4_IN = PIN3
SYMBOL PROP4_OUT = 7
OUTPUT PROP4_OUT
SYMBOL prop4_step = BIT3
SYMBOL prop4_timer = W4
SYMBOL PROP4_MAX_STEPS = 2
```

```
SYMBOL time = W5
SYMBOL next_step = B12
SYMBOL prop = B13
```

```
' *****
' ***** Begin Input-Driven Dual Timer Block *****
' *****
```

```
PROP1:
```

```
IF PROP1_IN = 0 AND prop1_timer = 0 THEN NEXT_PROP
```

```
IF prop1_timer > 0 THEN PROP1_RUNNING
```

```
TOGGLE PROP1_OUT
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```
PROP1_RUNNING:
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```
prop1_timer = prop1_timer + 1
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```
LOOKUP prop1_step, (100, 100), time
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```
IF prop1_timer <= time THEN NEXT_PROP
```

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next_step = prop1_step + 1

IF next_step >= PROP1_MAX_STEPS THEN PROP1_DONE

prop1_step = next_step

prop1_timer = 1

TOGGLE PROP1_OUT

GOTO NEXT_PROP

PROP1_DONE:

prop1_step = 0

prop1_timer = 0

GOTO NEXT_PROP

' *****
' ***** End Input-Driven Dual Timer Block *****
' *****

' *****
' ***** Begin Input-Driven Dual Timer Block *****
' *****

PROP2:

IF PROP2_IN = 0 AND prop2_timer = 0 THEN NEXT_PROP

IF prop2_timer > 0 THEN PROP2_RUNNING

TOGGLE PROP2_OUT

PROP2_RUNNING:

prop2_timer = prop2_timer + 1

LOOKUP prop2_step, (100, 200), time

IF prop2_timer <= time THEN NEXT_PROP

next_step = prop2_step + 1

IF next_step >= PROP2_MAX_STEPS THEN PROP2_DONE

prop2_step = next_step

prop2_timer = 1

TOGGLE PROP2_OUT

GOTO NEXT_PROP

PROP2_DONE:

```

```

prop2_step = 0

prop2_timer = 0

GOTO NEXT_PROP

| *****
| ***** End Input-Driven Dual Timer Block *****
| *****

| *****
| ***** Begin Input-Driven Dual Timer Block *****
| *****

PROP3:

IF PROP3_IN = 0 AND prop3_timer = 0 THEN NEXT_PROP

IF prop3_timer > 0 THEN PROP3_RUNNING

TOGGLE PROP3_OUT

PROP3_RUNNING:

prop3_timer = prop3_timer + 1

LOOKUP prop3_step, (100, 300), time

IF prop3_timer <= time THEN NEXT_PROP

next_step = prop3_step + 1

IF next_step >= PROP3_MAX_STEPS THEN PROP3_DONE

prop3_step = next_step

prop3_timer = 1

TOGGLE PROP3_OUT

GOTO NEXT_PROP

PROP3_DONE:

prop3_step = 0

prop3_timer = 0

GOTO NEXT_PROP

| *****
| ***** End Input-Driven Dual Timer Block *****
| *****

| *****
| ***** Begin Input-Driven Dual Timer Block *****
| *****

```

' *****

PROP4:

IF PROP4_IN = 0 AND prop4_timer = 0 THEN NEXT_PROP

IF prop4_timer > 0 THEN PROP4_RUNNING

TOGGLE PROP4_OUT

PROP4_RUNNING:

prop4_timer = prop4_timer + 1

LOOKUP prop4_step, (100, 400), time

IF prop4_timer <= time THEN NEXT_PROP

next_step = prop4_step + 1

IF next_step >= PROP4_MAX_STEPS THEN PROP4_DONE

prop4_step = next_step

prop4_timer = 1

TOGGLE PROP4_OUT

GOTO NEXT_PROP

PROP4_DONE:

prop4_step = 0

prop4_timer = 0

GOTO NEXT_PROP

' *****

' ***** End Input-Driven Dual Timer Block *****

' *****

TIME_DELAY:

PAUSE 100

NEXT_PROP:

prop = prop + 1

BRANCH prop, (PROP1, PROP2, PROP3, PROP4, TIME_DELAY)

prop = 0

goto PROP1