

## Advantech AE Technical Share Document

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Category	■FAQ □SOP	Related OS	N/A
Abstract	APAX-5580 ADAM-5560, How to create system clock in Codesys		
Keyword	Codesys, System Clock, Timer		
Related Product	APAX-5580, ADAM-5560		

### ■ Problem Description:

In the MULTIPROG, user could use the system clock in the program. (Figure 1)

For example, they could use “clock\_1s” to control a function block so that the function block will be executed every 1 second.

How to find this system clock in the Codesys? Or how could customer generate these system clock in their own program?

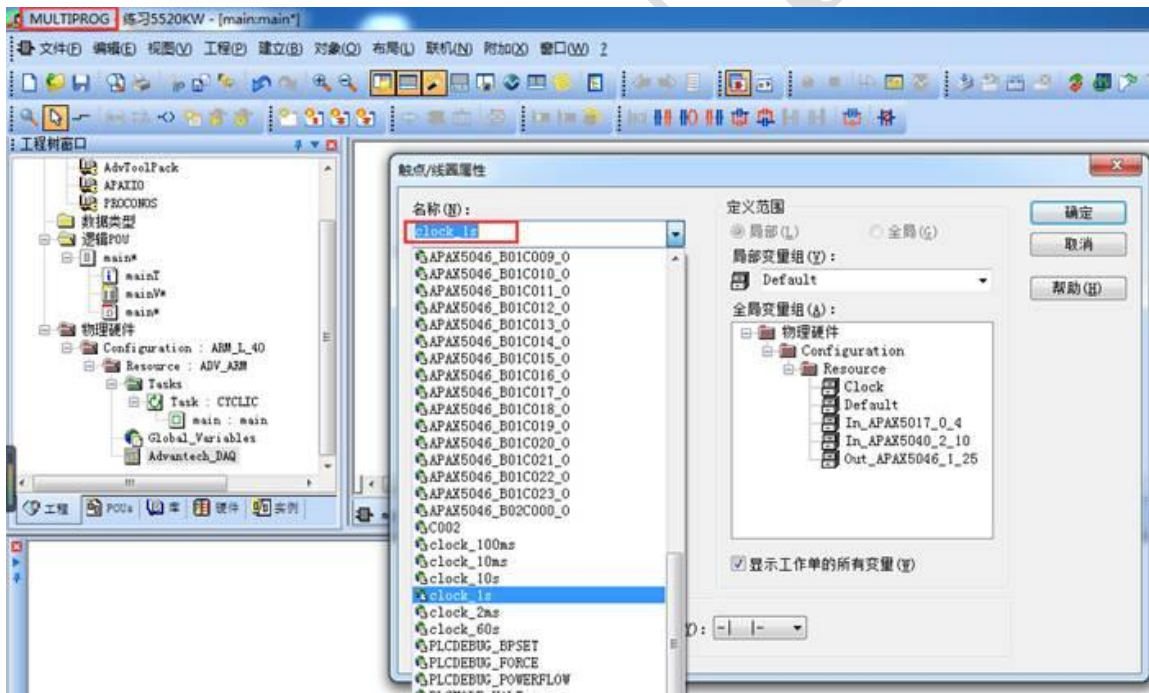


Figure 1

■ **Procedure:**

Unlike MULTIPROG, in the Codesys, users need to generate the system timer on their own. In the following section we will demonstrate detail procedures of how to do so step by step in the Codesys.

**(1) Create a global variable list. (Figure 2)**

Since the system clock may be used in different POU, we will create a global variable list first and announce the variables for system clock as global variable.

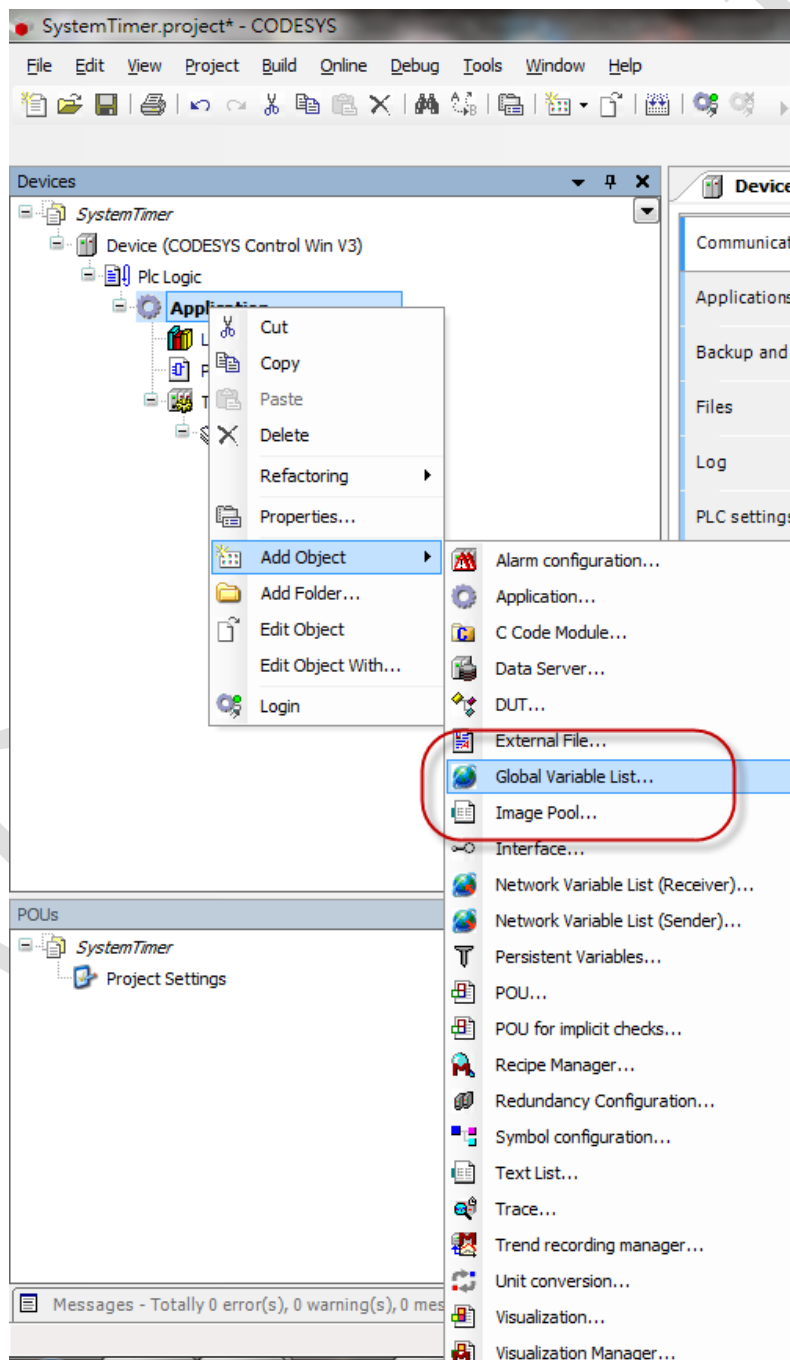


Figure 2

## (2) Create a POU for constant clock pulse.

As shown in the *Figure 3*, user could create a separate POU for system variables.

We would suggest user create an independent task to perform calculation of these variables.

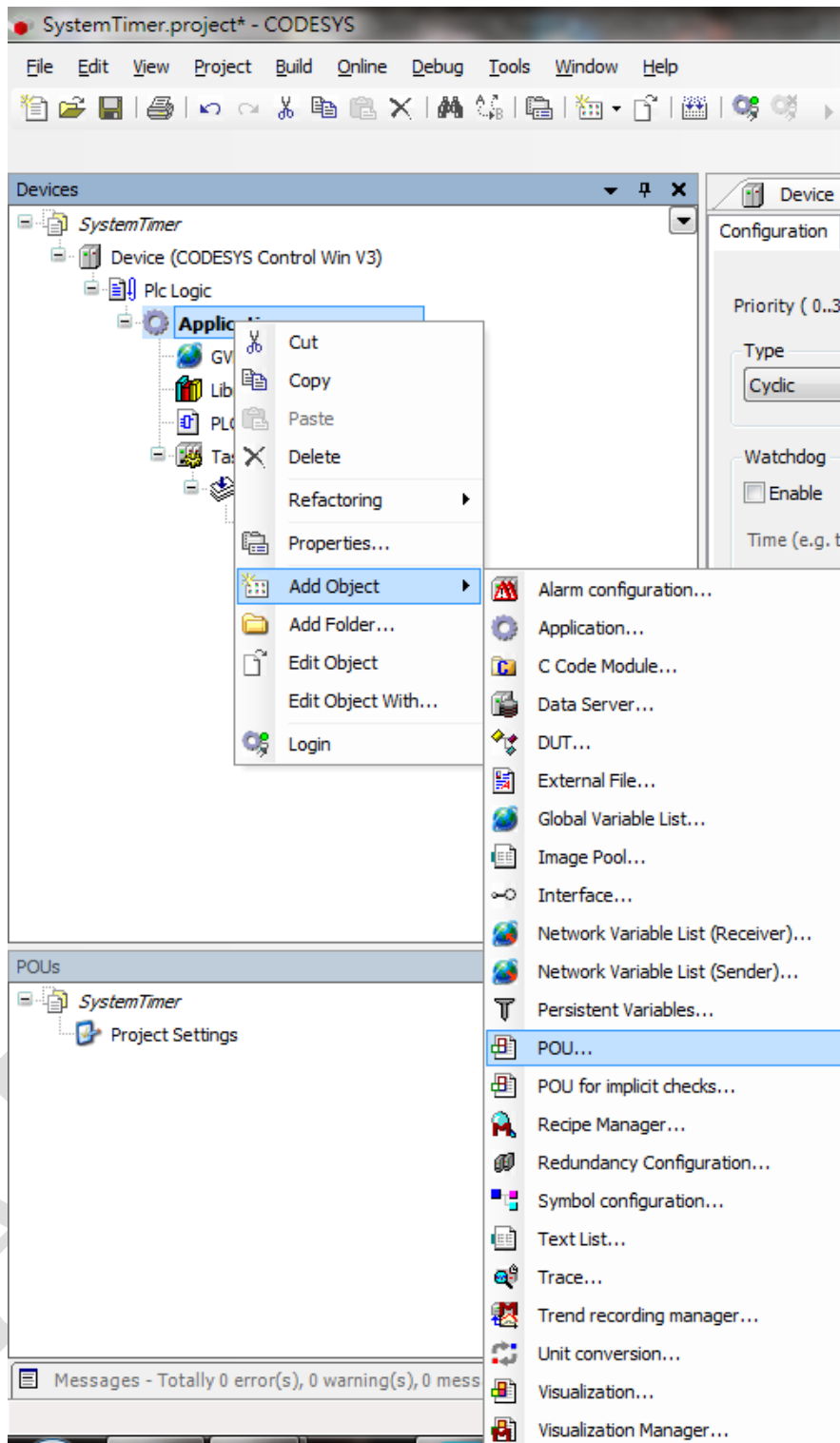


Figure 3

**(3) Create a periodic pulse signal with timer.**

We will generate a BOOL which actually is a 2 second continuously pulse signal (1 second on and 1 second off) as the example for system timer.

AS shown in the Figure 4, user could use two timer to control the BOOL so that it will continuously on and off with expected duration.

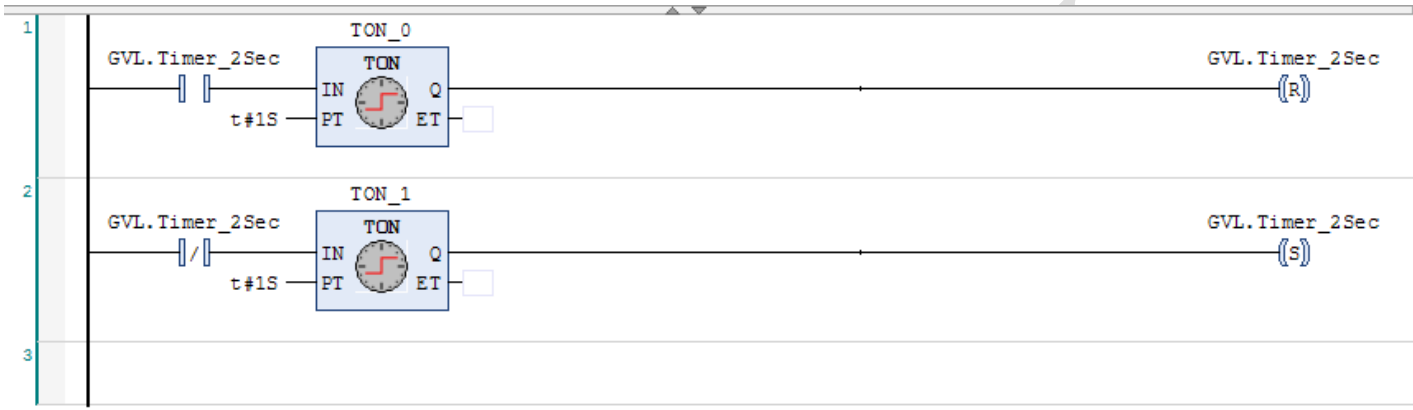


Figure 4

For more information, please download the Codesys example project in the following Dropbox link.

<https://www.dropbox.com/s/i03hc6vr0n8pq5x/SystemTimer.project?dl=0>