



Asteroid Shooter

The game Asteroid Shooter shows how to connect a joystick to the Soft PLC CODESYS Control Win V3 and how to use visualization and object oriented programming in CODESYS.

Product description

The example Asteroids.project shows with help of the game Asteroids how to connect a joystick to the Soft PLC CODESYS Control Win V3. For this purpose the IoDrvJoystickWin.d11 must be on the control.

The example also shows the effective usage of object oriented programming and visualization in CODESYS.

Joystick: The device Joystick uses the channels X, Y, Z, R, U, V and Buttons (see IO-Mapping). These channels can be assigned to existing variables directly. The mapping of the channels depends on the type of the joystick and must be adapted if necessary.

PLC_PRG: The Sequential Function Chart (SFC) contains the processing logic of the program.

CollisionManager: Function block to register potential collision objects and to check collisions.

EventController: Mapping of the keyboard and joystick events.

Every moving object on the screen has its own function block and visualization. These objects are derived from MovingObject.

The library asteroids_help_library contains some necessary mathematical functions.

Important Information

In order to make this example work, the CODESYS Control1 CFG file has to be extended. Change in your CODESYS installation folder to GatewayPLC/. Open the file CODESYSControl1.cfg and add new component as IoDrvJoystickWin. See the screenshot below.

```

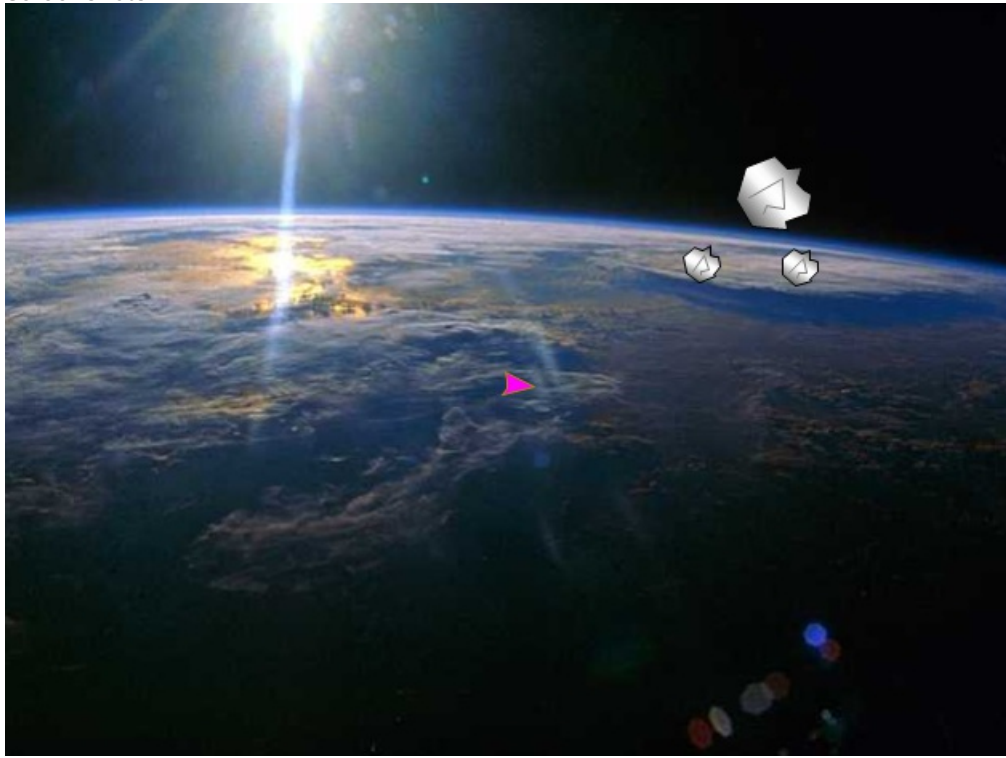
CODESYSControl - Editor
Datei Bearbeiten Format Ansicht ?
[ComponentManager]
Component.1=CmpTargetvisustub
Component.2=CmpCodeMeter
Component.3=IoDrvJoystickWin
;Component.3=CmpwebServer
;Component.4=CmpwebserverHandlerV3
;Component.5=CmpHilscherCIFX
;Component.6=CmpPUSBCanDrv
;Component.7=CmpBlkDrvCanServer

[CmpSettings]
;SplitDatabases=0
FileReference.0=SysFileMap.cfg, SysFileMap

[CmpRouter]
EnableLoopDetection=1
NumRouters=1
;MaxRouters=1

[CmpBlkDrvCom]
;Example for a configuration of this block driver:
  
```

Screenshots



General information

Manufacturer:

3S-Smart Software Solutions GmbH
 Memminger Strasse 151
 87439 Kempten
 Germany

Support:

<https://support.codesys.com>

Item:

Asteroid Shooter

Item number:

000028

Sales:

CODESYS Store

<https://store.codesys.com>

Included in delivery:

- CODESYS software and / or license key with billing information
- For training courses and events: Booking confirmation

System requirements and restrictions

Programming System	CODESYS Development System Version 3.5.6.0 or higher
Runtime System	CODESYS Control Version 3.5.6.0
Supported Platforms/ Devices	Note: Use the project "Device Reader" to find out the supported features of your device. "Device Reader" is available for free in the CODESYS Store.
Additional Requirements	Adding the IoDrvJoystickWin.dll as component to ~/GatewayPLC/CODESYSControl.cfg
Restrictions	64 Bit controls are not supported

Note: Not all CODESYS features are available in all territories. For more information on geographic restrictions, please contact sales@codesys.com.

Note: Technical specifications are subject to change. Errors and omissions excepted. The content of the current online version of this document applies.