

# SIMOTION inside the TIA Portal > Details

General hints and information about versions  
December 2016



# Agenda

1	<b>SIMOTION SCOUT TIA // TIA Portal</b>	2
2	SIMOTION SCOUT TIA V4.4.x // TIA Portal V13 .x	5
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### Delivery, license:

- SCOUT and SCOUT TIA are both included in one delivery package. Same order number, same license.
- From a functional viewpoint, there exists no “SCOUT TIA stand-alone”.  
This means that the TIA Portal framework needs to be installed beforehand by another client of the TIA Portal (e.g. Step7, WinCC, Startdrive).  
It is recommended to install the newest TIA Portal Update.  
Hint: The delivery package SCOUT stand-alone contains also the SCOUT TIA, a separate order is not necessary.
- Automatic installation in the already existing engineering environment (SIMATIC Manager or/and TIA Portal)

### “side-by-side” installation (possibilities):

- SCOUT and SCOUT TIA form version V4.4 onwards. Only one SCOUT license is necessary.
- Different main versions of TIA Portal (see general information about TIA Portal framework / clients). There are no exceptions if SCOUT TIA is used inside the TIA Portal.

## Migration of SCOUT projects:

**An automatic migration is possible by means of the existing “Migration Tool” of/inside the TIA Portal. SCOUT TIA offers a “Migration Tool” Plug-In especially for SIMOTION. It’s content of delivery package and installation.**

### Preconditions:

- The SCOUT project to be migrated must have at least the project version V4.4 .
- Step 7 Professional is installed.
- The migration is only possible “with hardware” (Hint: “Unspecific devices” don’t exist for SIMOTION)
- The content of the project to be migrated must meet the migration conditions of TIA Portal / Step7 / WinCC /... (see there) and of SIMOTION (see this slides and documentation: e.g. no SIMOTION D4xx < D4xx-2 / < RT V4.3 / no DCC-charts)

Additional hint: If you build the HWCN (device/communication) inside the TIA Portal by yourself and the same “name” is used for the hardware as in the SCOUT project, then it’s possible to export the SCOUT data and import into the SCOUT TIA via XML – Export/Import.

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# SIMOTION SCOUT TIA V4.4.x // TIA Portal V13.x (in general)

## Supported Runtime, Project version, Operating system and Hardware

### Supported Runtime / Project version / Operating system:

- Runtime-versions: V4.3, V4.4 (and “SIMOTION Drives” of the type SINAMICS S120 V4.5, V4.7)
- Project version (SCOUT TIA): V4.4
- Operating system for SCOUT TIA:  
Win7 SP1 (Professional, Enterprise, Ultimate) (32/64 bit) ; Win8.1 Enterprise (32/64 bit)

### Supported Hardware (included in the delivery package - part SCOUT TIA):

- SIMOTION D4xx-2 / CX32-2
- SIMOTION Drives: SINAMICS S120, only if this drive is connected to a SIMOTION-CPU via PROFIBUS/PROFINET
- SIMOTION C240 / C240 PN

Hint: The upcoming generation of SIMOTION P (P320-4 (Embedded, Standard)) will be integrated later on.

Hint: Of course, the Startdrive-G120-drives inside the TIA Portal can also be used in conjunction with SIMOTION.

But the Drives of Startdrive and GSD-drives do not support F-Proxy concept.

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# SIMOTION SCOUT TIA V4.4 HF1/2 // TIA Portal V13 (September 2014)

## Non supported features (Overview)

### Main non supported features of SCOUT TIA regarding SCOUT (SIMATIC Manager) and TIA Portal:

- DCC (Drive Control Chart) – SIMOTION / SINAMICS
- Scripting of HWCN data TIA Portal (devices, communication). Therefore SIMOTION “project generator” and “device update tool” cannot be used.
- XML – Export/Import of HWCN data is not supported inside TIA Portal (Hint: XML- Export/-Import of the SCOUT TIA data is possible)
- “Readiness Check Tool” of the TIA Portal
- Upload of HWCN data TIA Portal of SIMOTION devices (Hint: Upload of the SCOUT TIA data is possible)
- PROFIBUS: F-Proxy as I-Slave, PROFIsafe slave -to- I-slave communication (F-DX, F-CPU to drive, e.g. ET-2xx F<>SIMOTION drive S120), slave -to- slave communication (DX)  
Hint: F-Proxy as I-Device (PROFINET) in the same project is possible
- PROFINET: Media redundancy MRPD (Hint: MRP-Client is possible), Shared-I-Device, Shared device (e.g. S120 or ET2xx) below a SIMOTION-CPU, F-Proxy via GSDML (That means: F-Proxy only in the same project via property configuration is possible as RT-I-device or non clock cycle IRT-I-device), F-Proxy on D410-2, Max. 32 sub-slots on the I-Device interface (this also means max. 32 Safety axes)



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# SIMOTION SCOUT TIA V4.4 HF4 // TIA Portal V13 (December 2014)

## Main new features of HF4 compared to HF1/2 (Overview)

SIEMENS

### Main new features of V4.4 HF4 compared to V4.4 HF1/2:

- PROFINET: F-Proxy on D410-2. (I-Device / Safety)
- PROFINET: Max. 128 sub-slots (only 32 inside HF1/HF2) on the I-Device interface. (I-Device / Safety)  
But of these max. 32 Safety axes (Hint: max. 64 Safety axes is planned for HF5).

# SIMOTION SCOUT TIA V4.4 HF4 // TIA Portal V13 (December 2014)

## Non supported features (Overview)

### Main non supported features of SCOUT TIA regarding SCOUT (SIMATIC Manager) and TIA Portal:

- DCC (Drive Control Chart) – SIMOTION / SINAMICS
- Scripting of HWCN data TIA Portal (devices, communication). Therefore SIMOTION “project generator” and “device update tool” cannot be used.
- XML – Export/Import of HWCN data is not supported inside TIA Portal (Hint: XML- Export/-Import of the SCOUT TIA data is possible)
- “Readiness Check Tool” of the TIA Portal
- Upload of HWCN data TIA Portal of SIMOTION devices (Hint: Upload of the SCOUT TIA data is possible)
- PROFIBUS: F-Proxy as I-Slave, PROFIsafe slave -to- I-slave communication (F-DX, F-CPU to drive, e.g. ET-2xx F<>SIMOTION drive S120), slave -to- slave communication (DX)  
Hint: F-Proxy as I-Device (PROFINET) in the same project is possible
- PROFINET: Media redundancy MRPD (Hint: MRP-Client is possible), Shared-I-Device, Shared device (e.g. S120 or ET2xx) below a SIMOTION-CPU, F-Proxy via GSDML (That means: F-Proxy only in the same project via property configuration is possible as RT-I-device or non clock cycle IRT-I-device), Max. 128 sub-slots on the I-Device interface, but of these max. 32 Safety axes (instead of 64 Safety axes like SCOUT/SIMATIC Manager)

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**TIA Portal framework V13 SP1 requires from all clients (Step7/WinCC/Startdrive/....) a new version. Therefore you need at least the version SCOUT TIA V4.4 HF5 to handle SIMOTION inside V13 SP1.**

## Hints:

- TIA Portal framework V13 SP1 does not work with an installed SCOUT TIA < V4.4 HF5 .
- The same applies to the Migration-Tool V13 SP1. This requires the SIMOTION SCOUT Migration-Tool Plugin V4.4 HF5.
- “side-by-side” installation of SCOUT V4.4 HF2 or HF4 and SCOUT TIA V4.4 HF5 is possible.

# SIMOTION SCOUT TIA V4.4 HF5 // TIA Portal V13 SP1 (February 2015)

## Main new features of HF5 compared to HF4 (Overview)

### Main new features of V4.4 HF5 (V13 SP1) compared to V4.4 HF4 (V13):

- PROFINET: F-Proxy via GSDML. (I-Device / Safety)  
For example in the case of using inside another project and as clock cycle IRT-I-device.
- PROFINET: Max. 128 sub-slots on the I-Device interface, of these max. 64 Safety axes. (I-Device / Safety)  
And so, it is like SIMOTION SCOUT inside SIMATIC Manager.
- ONLINE: Access via alternative access point (Device interface)
- “Readiness Check Tool” of the TIA Portal: The SIMOTION devices are integrated from V13 SP1 onwards

# SIMOTION SCOUT TIA V4.4 HF5 // TIA Portal V13 SP1 (February 2015)

## Non supported features (Overview)

### Main non supported features of SCOUT TIA regarding SCOUT (SIMATIC Manager) and TIA Portal:

- DCC (Drive Control Chart) – SIMOTION / SINAMICS
- Scripting of HWCN data TIA Portal (devices, communication). Therefore SIMOTION “project generator” and “device update tool” cannot be used.
- XML – Export/Import of HWCN data is not supported inside TIA Portal  
(Hint: XML- Export/-Import of the SCOUT TIA data is possible)
- Upload of HWCN data TIA Portal of SIMOTION devices (Hint: Upload of the SCOUT TIA data is possible)
- PROFIBUS: F-Proxy as I-Slave, PROFIsafe slave -to- I-slave communication (F-DX, F-CPU to drive, e.g. ET-2xx F<>SIMOTION drive S120), slave -to- slave communication (DX)  
Hint: F-Proxy as I-Device (PROFINET) is possible
- PROFINET: Media redundancy MRPD (Hint: MRP-Client is possible), Shared-I-Device, Shared device (e.g. S120 or ET2xx) below a SIMOTION-CPU

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# SIMOTION SCOUT TIA V4.4 HF6 // TIA Portal V13 SP1 (May 2015)

## Main new features of HF6 compared to HF5 (Overview)

### Main new features of V4.4 HF6 (V13 SP1) compared to V4.4 HF5 (V13 SP1):

- Support of ET 200SP TM Timer DI/DQ and ET 200MP TM Timer DI/DQ  
Time-based I/O: High-precision measuring inputs and output cams.  
Symbolic connection of SIMOTION is possible.
- PROFIBUS: PROFIsafe slave -to- I-slave communication  
(F-DX, F-CPU to drive, e.g. ET-2xx F<>SIMOTION drive S120)

# SIMOTION SCOUT TIA V4.4 HF6 // TIA Portal V13 SP1 (May 2015)

## Non supported features (Overview)

### Main non supported features of SCOUT TIA regarding SCOUT (SIMATIC Manager) and TIA Portal:

- DCC (Drive Control Chart) – SIMOTION / SINAMICS
- Scripting of HWCN data TIA Portal (devices, communication). Therefore SIMOTION “project generator” and “device update tool” cannot be used.
- XML – Export/Import of HWCN data is not supported inside TIA Portal  
(Hint: XML- Export/-Import of the SCOUT TIA data is possible)
- Upload of HWCN data TIA Portal of SIMOTION devices (Hint: Upload of the SCOUT TIA data is possible)
- PROFIBUS: F-Proxy as I-Slave, slave -to- slave communication (DX)  
Hint: F-Proxy as I-Device (PROFINET) is possible
- PROFINET: Media redundancy MRPD (Hint: MRP-Client is possible), Shared-I-Device, Shared device (e.g. S120 or ET2xx) below a SIMOTION-CPU

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# SIMOTION SCOUT TIA V4.4 HF8/HF11 // TIA Portal V13 SP1

## Features of HF8/HF11 compared to HF6 (Overview)

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**The supported and non supported features of V4.4 HF8 (September 2015) and of V4.4 HF11 (December 2015) are the same as V4.4 HF6.**

V4.4 HF8 and HF11 eliminates only various functional restrictions.

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3.1	SIMOTION SCOUT TIA V4.5 HF1 // TIA Portal V14 Upd1	23

# SIMOTION SCOUT TIA V4.5.x // TIA Portal V14.x (in general)

## Supported Runtime, Project version, Operating system and Hardware

### Supported Runtime / Project version / Operating system:

- Runtime-versions: V4.3, V4.4, V4.5 (and “SIMOTION Drives” of the type SINAMICS S120 V4.5, V4.7, V4.8)
- Project version: V4.5/V14
- Operating system for SCOUT TIA:  
Win7 SP1 (Professional, Enterprise, Ultimate) (64 bit) ; Win8.1 (Professional, Enterprise) (64 bit);  
additionally Win10 (Professional, Enterprise) (64 bit) is planned with the upcoming version V5.1/V14 SP1

### Supported Hardware (included in the delivery package - part SCOUT TIA):

- SIMOTION D4xx-2 / CX32-2
- SIMOTION Drives: SINAMICS S120, only if this drive is connected to a SIMOTION-CPU via PROFIBUS/PROFINET
- SIMOTION C240 / C240 PN
- SIMOTION P320-4 (Embedded, Standard) (from runtime-version V4.5 onwards)

Hint: Of course, the Startdrive-G120-drives inside the TIA Portal can also be used in conjunction with SIMOTION.

But the Drives of Startdrive and GSD-drives do not support the F-Proxy concept.

The Startdrive-S120-drives support only the operation with S7-1500.

Hint: An upgrade to TIA Portal V14 is performed exclusively on the basis of TIA Portal V13 SP1 projects.

TIA Portal V14 does not support a compatibility mode.

Hint: SCOUT TIA version V4.5 works with the license (key) of V4.4. New license is not necessary !

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3.1	SIMOTION SCOUT TIA V4.5 HF1 // TIA Portal V14 Upd1	23

# SIMOTION SCOUT TIA V4.5 HF1 // TIA Portal V14 Upd1 (December 2016)

## Main new features of V4.5 HF1 compared to V4.4 (Overview)

### Main new features of V4.5 HF1 (V14) compared to V4.4 (V13 SP1):

- Upload HWCN data (with upcoming V14 Upd2): SIMOTION devices (including SIMOTION drives)
- Hardware: Support of SIMOTION PC-Based (P320-4)
- PROFINET: Shared-I-Device, Shared device (e.g. ET200SP) below a SIMOTION-CPU  
It is possible to use it in separate projects (not inside the same project).  
Shared device is not possible in connection with SINAMICS S120.
- PROFINET: Seamless Media Redundancy MRPD
- PROFINET: Automatic settings via engineered topology
  - Check of VendorID/DeviceID for Automatic Assignment of NameOfStation
- PROFINET: Max. 128 sub-slots on the I-Device interface, of these max. 128 Safety axes. (I-Device / Safety)  
(Exception: SIMOTION PC-Based supports only max. 64 Safety axes)



# SIMOTION SCOUT TIA V4.5 HF1 // TIA Portal V14 Upd1 (December 2016)

## Main new features of V4.5 HF1 compared to V4.4 (Overview)

### Main new features of V4.5 HF1 (V14) compared to V4.4 (V13 SP1):

- Openness: Scripting SCOUT TIA data  
But “Scripting of HWCN data TIA Portal” is not complete.
- PROFIdrive alarms for SIMOTION Drives (S120-CU3x0-2)
- Device Upgrade Tool is supported.

# SIMOTION SCOUT TIA V4.5 HF1 // TIA Portal V14 Upd1 (December 2016)

## Main new features of V4.5 HF1 compared to V4.4 (Overview)

### Main new features of V4.5 HF1 (V14) compared to V4.4 (V13 SP1):

This features are not available with SCOUT (SIMATIC Manager environment)

- PROFINET: Performance Upgrade for SIMOTION D455-2 (IRT+, SendClock 125)  
Only with “Servo-Fast” and ET200SP.
- PROFINET: Automatic settings via engineered topology
  - Overwriting of the NameOfStation
- PROFINET: New feature regarding series and modular machines
  - Adresstailoring for IO-Controller and IO-Devices. Automatic assignment of NameOfStation and IP-Adress of multiple machine instances in the same network without having access to the engineering project

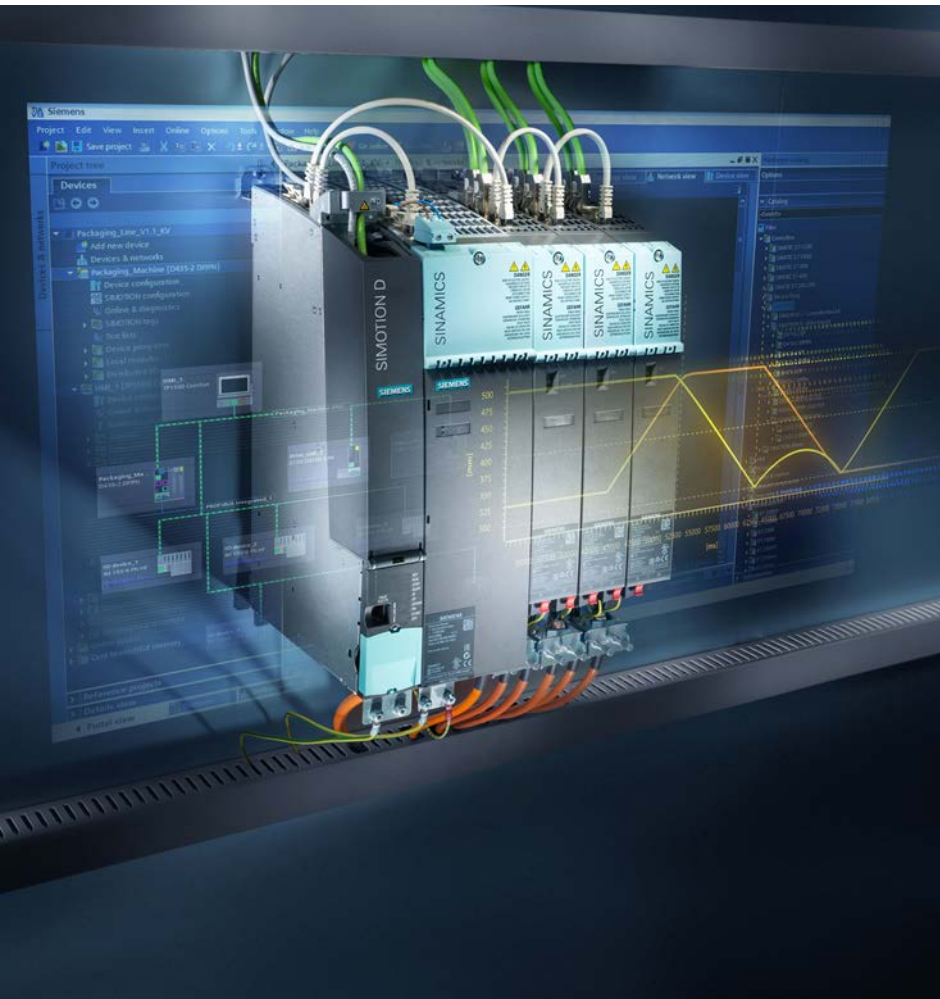
# SIMOTION SCOUT TIA V4.5 HF1 // TIA Portal V14 Upd1 (December 2016)

## Non supported features (Overview)

### Main non supported features of SCOUT TIA regarding SCOUT (SIMATIC Manager) and TIA Portal:

- DCC (Drive Control Chart) – SIMOTION / SINAMICS
- XML – Export/Import of HWCN data is not supported inside TIA Portal  
(Hint: XML- Export/-Import of the SCOUT TIA data is possible)
- PROFIBUS: F-Proxy as I-Slave, slave -to- slave communication (DX)  
Hint: F-Proxy as I-Device (PROFINET) is possible
- Openness (Scripting) of HWCN data TIA Portal (devices, communication). For example if you have PROFINET isochronous IRT. Therefore SIMOTION “project generator” cannot be used.
- PROFINET: Shared device in connection with SINAMICS S120 below a SIMOTION-CPU

Thank you for the attention



## DF FA PMA SP1

Uwe Schmidt

Siemens provides automation and drive products with industrial security functions that support the secure operation of plants or machines. They are an important component in a holistic industrial security concept.

With this in mind, our products undergo continuous development. We therefore recommend that you keep yourself informed with respect to our product updates. Further information can be found at: <http://support.automation.siemens.com>. You can also register for a product-specific newsletter there.

To ensure the secure operation of a plant or machine it is also necessary to take suitable preventive action (e.g. cell protection concept) and to integrate the automation and drive components into a state-of-the-art holistic industrial security concept for the entire plant or machine. Any third-party products that may be in use must also be taken into account.

Further information can be found at: <http://www.siemens.com/industrialsecurity>

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