

## STOLL



CE

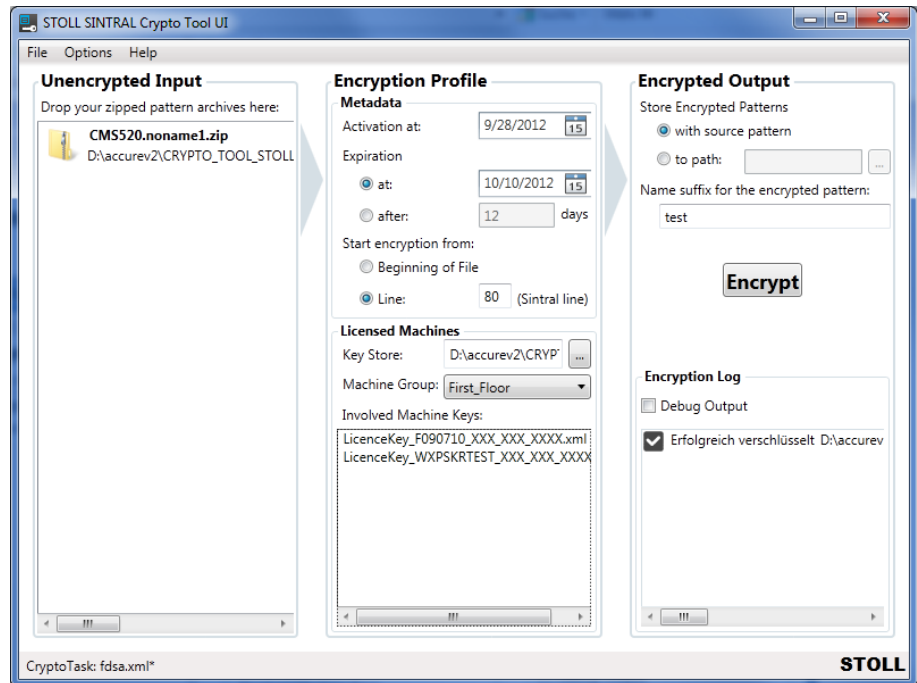


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# 1 The SINTRAL Crypto Tool



Use the SINTRAL Crypto Tool for the following purposes:

- Limiting the pattern with regard to time
- Limiting the pattern to one or more OKC machines
- Avoiding unauthorized production
- Avoiding changes to Sintral or Jacquard.

Requirements:

- CMS machines with operating system V\_OKC\_002.008.00x\_STOLL (or higher)
- How to install the SINTRAL Crypto Tool [ 13]
- How to encrypt patterns [ 15]
- How to generate machine keys on the machine [ 17]

## 1.1 The Encrypted Pattern

**i**

The encrypted pattern turns unusable!

If the pattern was encrypted only for this machine it will be unusable after deleting the machine key or after expiration of its validity.

Store the unencrypted pattern by all means.

Only delete the machine key if no corresponding pattern is to be knitted on this machine.

Encrypt the pattern again if necessary.

**i**

The encrypted pattern cannot be decrypted anymore!

If the pattern was encrypted it will be unusable after deleting the machine key or after expiration of the validity.

Even Stoll is not able to decrypt an encrypted pattern anymore!

Store the unencrypted pattern by all means.

Send the unencrypted pattern with the log file to Stoll if necessary.

- How to install the SINTRAL Crypto Tool [13]
- How to encrypt patterns [15]
- How to generate machine keys on the machine [17]
- How to generate and manage the crypto tasks [6]

## 1.2 How to change the language

1. Call up the "Language..." in the "Options" menu.
  2. Select the desired language in the submenu.
- The user interface will be switched to the desired language.

## 1.3 How to generate and manage the crypto tasks

How to generate the crypto tasks:

- ✓ The "SINTRAL Crypto Tool" main window has the desired settings
1. Call up "Save Crypto Task" in the "File" menu.
    - ▷ The "Save as" dialog box appears.
  2. Specify the file name and path for the crypto task.
  3. Close the dialog box with "Save".
- The settings are saved as crypto task

→ Save the changed tasks with "Save Crypto Task as..." in the "File" menu under a new file name and path.

How to load crypto tasks:

✓ The crypto task with the desired settings is saved.

1. Call up "Load Crypto Task" in the "File" menu.

▷ The "Open" dialog box appears.

2. Select the file name and path for the crypto task.

3. Close the dialog box with "Open".

► The settings appear in the "SINTRAL Crypto Tool" main window.



Create the corresponding templates for recurring crypto tasks.

■ How to encrypt patterns [15]

## 1.4 Encryption Profile

Element		Meaning
"Validity"		
	Activation at:	Enter the start date. The pattern can be knit starting with this date.
	Expiration date:	Enter the end date. The pattern can be knit until this date.
	Expiration date by days	Enter number of days. Alternative input of the expiration date.
	<input checked="" type="radio"/> Start encryption with <b>File start</b>	Sintral and jacquard file completely encrypted.
	<input checked="" type="radio"/> Start encryption with <b>Line:</b>	Specify Sintral line number. The Sintral program will be encrypted starting with this line. <b>i</b> : Encrypt Sintral after the comment lines in the header so that comments, setup data and yarn carrier home position remain readable.
"Licensed machines"		
	Key Store:	Enter the directory path or select it via the "..." key. The machine groups with the keys

Element		Meaning
		are saved in this directory. <b>i</b> : Create at least one machine group.
	Machine Group:	The subdirectories in the key store form machine groups. <b>i</b> : The individual keys can be stored in several directories. Create machine groups e.g. for different installation locations, gauges or pattern techniques.
	Involved machine keys	Machine keys of the selected machine group For these machines, the patterns in the "Unencrypted input" field will be encrypted

#### ■ How to encrypt patterns [15]

## 1.5 Overview to EVP

### ■ What is an EVP?

The Extended Value Package (EVP) allows the extension of features which go beyond the standard. These Extended Value Packages are chargeable and may be limited in time of use.

### ■ How EVP can be bought?

You can get EVP by order. There are two options here:

- EVP installed with new machines ex works.
- EVP installed by the customer on existing machines at a later time.
- When ordering EVP the serial number of the machine is required because it is bound to individual machines.
- For the first EVP machines with OKC 3/5 control unit the machine configuration file is required, which is to be sent to Stoll or to be uploaded to the WEB Shop. You have to install machine operating system V\_OKC\_006.002.XXX\_STOLL or higher before copying the configuration.
- You have to specify all machine serial numbers with your order if you want to get the extended features for several machines within this EVP file.

**■ How EVP will be delivered?**

EVP is delivered as installation file.

To be observed:

- The installation file of an order contains all the different Extended Value Packages of this order.
- The installation file of an order contains all the different machines of this order.
- You will get one installation file for all you Stoll machines even with retrospectively created EVPs.

**■ What is to observe before installing?**

The installation file is to be installed on the permitted machines.

Installing and Setting-up EVP

- The machines will get the corresponding features for the permitted period of time after the installation.
- No Extended Value Package will be installed on non-permitted machines.

**■ Which EVPs are available?**

The following EVPs are available at the moment:

- PPS Connector  
This feature enables to participate in the PPS integration and the networking via SNS.
- Extension by auto production mode (APM).  
This feature enables, to run production automatically without manual intervention on the machine.  
This function requires PPS Connector.
- Pattern Decryption  
This function enables the production of encrypted patterns on the respective machine.  
For the encryption use the Sintral Crypto Tool.

## 1.5.1 On the Machine

Requirements to Install a EVP:

**■ Software Operating System:**

- V\_OKC\_006.002.000\_STOLL or higher
- V\_EKC\_001.002.000\_STOLL or higher

**■ Control Hardware:**

- All EKC Machines
- Control generation OKC3 or higher
- OKC3 control generation is not fully compatible to the auto productions mode
- How to detect the Control Generation of the OKC Machine

## EVP and the behavior of the machine

**i** Machines having V\_OKC\_006.002.000\_STOLL but without Extended Value Package are not concerned.

General behavior of the machine with expiring Extended Value Packages

■ Cyclic hints about the expiry of each Extended Value Packages

- Error messages with hints for remedy on time
- Implemented as count down

■ With PPS Connector

- No connection to the PPS-server available
- The current fabric gets completed.  
Not the complete quantity of pieces!

■ Each of the Extended Value Packages will be treated individually

■ With expiry of the timelock feature

- Machine works at reduced creep speed MSECCO only.

**i** The following cases occur at non-synchronous machine time (e.g. due to empty battery).

Behavior of the machine with non-expiring Extended Value Packages

■ Extended Value Packages installed without time limit work as usual.

Behavior of the machine with expiring Extended Value Packages

■ All functions of the Extended Value Package are blocked

■ Remedy: Re-certifying the System Time

Special Case of Timelock Extension

■ With expiry of the feature:

- Machine works at reduced creep speed MSECCO only.

1. The customer requests a time extension from the financial service provider.

(according to contract agreement)

2. Your financial service provider specifies a new expiry date via WEB interface.

The financial service provider specifies a new expiry date via WEB interface (financial service provider needs access to customer net)

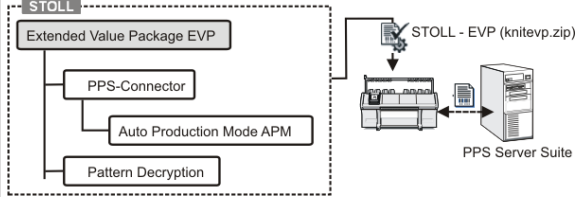
3. STOLL creates the new EVP based on the newly specified expiry date and makes it available for download.

4. The customer downloads the new EVP and installs it on the machines.

Extended Value Package  
"PPS  
Connector" (Production  
Planning System)

What is an "Extended Value Package"?

The "Extended Value Package" is a machine functionality that goes beyond the standard range of functions of the machine.

	<p>The "Extended Value Package" must be ordered and paid additionally.</p>
<p>Which are the machines that can be used with the "Extended Value Package"?</p>	<p>Machines with control unit:</p> <ul style="list-style-type: none"> <li>♦ OKC6.0</li> <li>♦ OKC5.0</li> <li>♦ OKC3.0 (from March 2009 on)</li> <li>♦ Auf allen neueren Steuerungen</li> </ul>
<p>Why EVP?</p>	<p>The EVP (Extended Value Package) is requested to use the PPS (Production Planning System) on the machine.</p> 
<p>Which variants exists?</p>	<ul style="list-style-type: none"> <li>♦ PPS-Connector This feature enables to participate in the PPS integration. <ul style="list-style-type: none"> <li>– Auto Production Mode APM This feature enables, to run production automatically without manual intervention on the machine.</li> </ul> </li> <li>♦ Pattern Decryption This function enables the production of encrypted patterns on the respective machine. For the encryption use the Sintral Crypto Tool.</li> </ul>

## 1.5.2 In the STOLL Customer-Net

← → ↻ [stoll.com/kundennet/evp-en/8](http://stoll.com/kundennet/evp-en/8)

Apps

# STOLL

**Choose a EVP-Service:**

- ☒ Monitor 1
- ☐ Download 2
- ☐ Request certified system time 3
- ☐ Request new time lock expiration date 4

**Choose a language:** 5

- ☐ Deutsch
- ☒ English
- ☐ 中文


Back Start

Select EVP Service:


1. Monitor  
Shows the current state of your EVPs.
2. Download  
Provides EVPs for download to you.
  - This page is available even without login to the customer-net.  
[http://evp.stoll.com/request\\_evp\\_download/index.html](http://evp.stoll.com/request_evp_download/index.html)
  - All you EVPs are available for download till expiry of validity.
3. Request certified system time  
Transmit the synchronisation file to STOLL here.
4. Request new time lock expiration date  
For financial service provider
5. Select a Language:
  - Deutsch
  - English
  - □□

## 2 How to install the SINTRAL Crypto Tool

### System Requirements

- Supported operating systems:
  - Windows 7
  - Windows 8
  - Windows 10
- .NET Client Profile 4.0
  - Will be installed subsequently if internet is accessible.
  -  Administrator or administrator rights required

### Installing the SINTRAL Crypto Tool:

- Start the setup.exe
- ▶ The SINTRAL Crypto Tool Setup Wizard starts and guides you through the installation.
  1. Start the installation with "Next".
  2. Confirm the path of installation and continue the installation with "Next".
  3. Finish the installation with "Close".
- ▶ The application is installed.
- The SINTRAL Crypto Tool [ 5]



### 3 How to encrypt patterns

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**i**

The encrypted pattern cannot be decrypted anymore!

If the pattern was encrypted it will be unusable after deleting the machine key or after expiration of the validity.

Even Stoll is not able to decrypt an encrypted pattern anymore!

Store the unencrypted pattern by all means.

Send the unencrypted pattern with the log file to Stoll if necessary.

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- ✓ The keys for the desired machines are generated.
  - ✓ Keys are saved to one machine group (directory).
  - ✓ The pattern files (sin; set; jac) are zipped available.  
\*.zip
1. Drag the ZIP archive from the "Windows Explorer" to the "Unencrypted Input" field for unencrypted patterns.  
- or -  
Drag a directory with ZIP archive from the "Windows Explorer" to the "Unencrypted Input" field for unencrypted patterns.
  2. Specify the encryption profile.
  3. Specify the options for the output of the encrypted pattern.  
Directory  
Name Suffix
- 

**i**

The encryption cannot be started without a file name suffix.

Enter meaningful suffixes to be able to recognize the machines to which it belongs by reading the machine name.

Avoid special characters \ / : ? < > |

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4. Start the encryption with "Encrypt".
  5. In the "Encryption Log" field appear the encrypted patterns.
- How to generate and manage the crypto tasks [▢ 6]
  - The Encrypted Pattern [▢ 6]
  - Encryption Profile [▢ 7]





## 4 How to generate machine keys on the machine

How to generate a machine keys for OKC:

- ✓ The OKC machine is switched on.
- ✓ Operating system V\_OKC\_002.008.00x\_STOLL (or higher).
- ✓ "EVP Pattern Decryption" is installed on the machine

1. Call up the "Sintral Editor" with .

2. Call up the keys of the 2nd level with .

3. Start generating a machine key with  "Save encryption key"  
▷ The "Select path for saving the encryption key" input window appears.

4. Select the desired path.




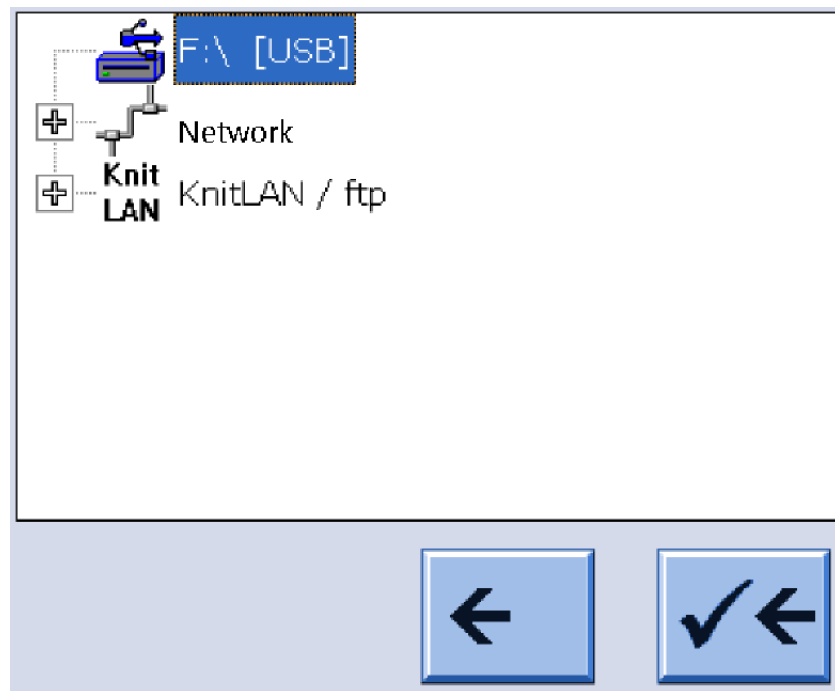
Enter speaking names to be able to recognize the machines to which it belongs by reading the machine name.

Avoid special characters \ / : ? < > |

Create at least one subdirectory for at least one machine group.

With speaking directory names in order to recognize the machine group by this name.

5. Generate a machine key with  and save it.
  - ▷ The machine key is available in the specified directory.  
<Key name>.xml
6. If necessary, copy the <Key name>.xml into further subdirectories of the key store to create groups.



1. In the "Select path for saving encryption key" input window you can specify the transfer to the key store:
  - USB Memory Stick or other data carriers at the USB port of the machine
  - Connected network drives
  - KnitLAN / ftp



How to generate a machine keys for EKC:

- ✓ "EVP Pattern Decryption" is installed on the machine


- ✓  Senior Operator

- ✓ Operating system V\_EKC\_001.001 (or higher).

1. Open the "Data Transfer" tab.

 Configure Machine ►  System Settings ►  Data Transfer

2. Select Data Type.

 Sintral Crypto Key File

3. Specify the external save location.



External Save Location

- ▷ The Select External Folder entry window is displayed.

4. Select the desired path.



Enter speaking names to be able to recognize the machines to which it belongs by reading the machine name.

Avoid special characters \ / : ? < > |

Create at least one subdirectory for at least one machine group.

With speaking directory names in order to recognize the machine group by this name.

1. Generate machine key.



Generate Sintral Crypto Key File

2. Save machine key.



Export Data

- ▷ The machine key is available in the specified directory.  
<Key name>.xml

3. If necessary, copy the <Key name>.xml into further subdirectories of the key store to create groups.

More buttons:



Delete Sintral Crypto Key File

- Deletes the machine key file which enables to encrypt knitting programs in Sintral Crypto Tool.
- Only available if a Sintral Crypto Key File is available in the specified directory.



Export Data

- Copy the selected data to an external save location.
- Example  
Copy existing Sintral Crypto Key File to a network drive to get it available for the Sintral Crypto Tool.
- How to generate and manage the crypto tasks [ 6]
- How to invalidate a machine key [ 21]



## 5 How to invalidate a machine key



The encrypted pattern turns unusable!

If the pattern was encrypted only for this machine it will be unusable after deleting the machine key or after expiration of its validity.

Store the unencrypted pattern by all means.


Only delete the machine key if no corresponding pattern is to be knitted on this machine.

Encrypt the pattern again if necessary.

How to delete a machine key for OKC:

✓ The OKC machine is running

1. Call up the "Sintral Editor" with .

2. Call up the keys of the 2nd level with .

3. Delete the machine key with  "Delete encryption key".

▷ The prompt "Delete encryption key?" appears.

4. Confirm the prompt with "Yes".

5. Delete the <Key name>.xml file from the key store.

How to delete a machine key for EKC:

✓ "EVP Pattern Decryption" is installed on the machine


✓  Senior Operator

✓ Operating system V\_EKC\_001.001 (or higher).

1. Open the "Data Transfer" tab.

 Configure Machine ►  System Settings ►  Data Transfer

2. Select Data Type.

 Sintral Crypto Key File


3. Delete machine key.

 Delete Sintral Crypto Key File

► File saved locally on the machine (Sintral Crypto Key File) will be deleted.

► Exported files will be kept.

►  Generate Sintral Crypto Key File will get available.

- How to generate machine keys on the machine [ 17]

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