PENKO Engineering B.V.

Your Partner for Fully Engineered Factory Solutions



How to... Encrypt a Flex



PENKO How to... Encrypt a Flex

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Enable encryption and set a key (password)

Open Pi Mach II (version 3.2.9.39 or newer) and open Program Builder. Click on Encryption and click on Enabled.

📌 Program Builder		
File Edit Program/Recipe	Encryption Tabs View Tools	Help
🚔 Read from disk 🛛 🔒 Save	Enabled	Past
Modules I/O La	Edit key	
Variable Indicators Code Sn	Write key to device	
Indicator name	T 1: Task 1	

Click on Edit key.

🥂 Program Builder			
File Edit Program/Recipe	Enc	ryption Tabs View To	ols Help
🛱 Read from disk 🛛 🗜 Save	~	Enabled	Paste
Modules I/O La		Edit key	
Variable Indicators Code Sr		Write key to device	
Indicator name	_	T 1: Task	1

Choice a password and click on OK.

Edit encry	ption key	— ×
xxx		
	Cancel	ОК



Click on Write key to device.

📌 Program Builder				
File Edit Program/Recipe	Enc	ryption	Tabs View To	ools Help
൙ Read from disk 🛛 🔒 Save	•	Enable	ed	Paste
Variable Indicators Code Sp		Edit k	ey	E1:EB:Euncti
Modules I/O La		Write	key to device	
AND			T 1: Task	1
BAKNET			(

The following Pop-up will appear, click on OK.

Warning	
<u>^</u>	Changing the passphrase will clear ALL programs and recipies from device memory, are you sure to continue????
	OK Cancel

Then the following Pop-up will appear, click on OK.

Informati	ion 💽
1	ALL programs and recipes are cleared
	ОК

Download the Program builder and Flex Builder into the Flex. (the normal operation)



Program Builder log in with encryption

Open Program Builder. Click on Encryption and click on Enabled.

🥂 Program Builder	
File Edit Program/Recipe	Encryption Tabs View Tools Help
🖻 Read from disk 🛛 🚽 Save	Enabled
Modules I/O La	Edit key
Variable Indicators Code Sn	Write key to device
Indicator name	T 1: Task 1

Click on Edit key.

π ² Prog	ram Builder						
File E	dit Progran	n/Recipe	Enci	ryption	Tabs Vie	w To	ols Help
📄 🗃 Rea	d from disk	Rave	~	Enable	d		Paste
Module	s I/O	La		Edit ke	y.		
Variable	Indicators	Code Sn		Write I	key to devi	ce	
Indicator r	name		_	-		: Task	1

Log in with your password and click on OK.

Edit encry	ption key	—
xxx		
	Cancel	ОК

Now you can read and write the program from and to the Flex.



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If you log in with the wrong Encryption key and try to read the program, you will get a message that the program is different.



If you click on Yes to read the program, the program will show all question marks.

📌 Program Builder	
File Edit Program/Recipe Encry	ption Tabs View Tools Help
🛛 🗃 Read from disk 🛛 🔚 Save to disk	🐇 Cut 🖻 Copy 🛍 Paste 🗙 Delete 🛛 🔡 Program 🗄 Recipe 🛛 🕸 Debug Mode 🌷
Variable Indicators Code Snippets	Program Overview T1:CB:Code Block 1
Modules I/O Labels	
AND	????? Function Block: 1
BAKNET	7????
CALCSELF	777??
COMMENT	27777
COMP X,Y COMPARE	27777
CURVE	
DIRECTIVE	
DOSE	
DOSEINT	
EDGE	
EMARK EMARKEXT -	
EMPTY&CHECK	
END FILEREAD	
FILEWRITE	

When you try to write the program into the Flex, you will get the following message:

Number of tasks:	16	
Busy with task:	1	
Module count:	4	
Status:	Failed	
rror writing p	rogram to device	



Backup and restore with encryption

Click on Environment and click on Login with Encryption Key.

m ² Flex II, Device Version: 01.09, Build: 04, Serial: 12480026, Module					
File Project	Envi	ronment View Tools Help			
🔰 💕 On-Line	\mathbf{x}	Communication	. Program Builder		
Display	ലീ	Login with Encryption Key	💶 Indicator & Be		
	5	Backup Device			
		Restore Device			

Login with the same key used in the Program Builder and click on OK.

Edit encry	ption key	— ×
XXX	xxx	
	Cancel	ОК

The following message will always show, even when logged in with the wrong code:



Now you can use the Backup or restore functions.

π ² Flex II, Dev	vice V	ersion: 01	.09, Build: 04, Serial: 1	12480026, Mod
File Project	Envi	ronment	View Tools Help	_
🔰 💕 On-Line	22	Commu	nication	Program Build
Displau	ൺ	Login wi	ith Encryption Key	undicator &
		Backup I	Device	
	4	Restore I	Device	



When you try to login with the wrong encryption key and try to make a backup of the Flex you will get the following message:

Backup Encryption failed, please login with right	ght encryp	otion key.
	Abort	Close

When you try to login with the wrong encryption key and try to make a restore of the Flex you will get the following message:

Erasing the Flash takes a while. Do not close the application until ready.		
Restore Encryption failed, please login with	n right encry	ption key.
	Abort	Close





About PENKO

Our design expertise include systems for manufacturing plants, bulk weighing, check weighing, force measuring and process control. For over 35 years, PENKO Engineering B.V. has been at the forefront of development and production of high-accuracy, high-speed weighing systems and our solutions continue to help cut costs, increase ROI and drive profits for some of the largest global brands, such as Cargill, Sara Lee, Heinz, Kraft Foods and Unilever to name but a few.

Whether you are looking for a simple stand-alone weighing system or a high-speed weighing and dosing controller for a complex automated production line, PENKO has a comprehensive range of standard solutions you can rely on.

Certifications

PENKO sets high standards for its products and product performance which are tested, certified and approved by independent expert and government organizations to ensure they meet – and even – exceed metrology industry guidelines. A library of testing certificates is available for reference on:

http://penko.com/nl/publications_certificates.html

PENKO Professional Services

PENKO is committed to ensuring every system is installed, tested, programmed, commissioned and operational to client specifications. Our engineers, at our weighing center in Ede, Netherlands, as well as our distributors around the world, strive to solve most weighing-system issues within the same day. On a monthly basis PENKO offers free training classes to anyone interested in exploring modern, high-speed weighing instruments and solutions. A schedule of training sessions is found on: www.penko.com/training

PENKO Alliances

PENKO's worldwide network: Australia, Belgium, Brazil, China, Denmark, Germany, Egypt, Finland, France, India, Italy, Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Syria, Turkey, United Kingdom, South Africa, Slovakia Sweden, Switzerland and Singapore. A complete overview you will find on: www.penko.com/dealers

