Kramer Electronics, Ltd.



Kramer K-UPLOAD Guide Revision 2

Intended for Kramer Technical Personnel or external System Integrators. To check that you have the latest version, go to the DOWNLOADS section of our Web site at: <u>http://www.kramerelectronics.com/support/downloads.asp</u>

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1 Introduction

This document describes the functionality of the K-UPLOAD application which can upload a multi-file package (*.kpt or a single file, such as *.kfw (firmware), *.rbf (FPGA binary) and so on, depending on the specific device) to a device.

Kramer's high quality machines usually require the uploading of several files, such as firmware version, FPGA version (sometimes more than one), different binary files, and so on.

Uploading each of these files separately may cause version mismatches which can lead to irregular machine behavior. To solve this problem, all new utility uploads are prepared in one upload package (*kpt) that includes all the data needed to upgrade the machine to a new version.

2 Using K-UPLOAD

Upgrade should be carried out by skilled technical personnel. Failure to upgrade correctly will result in the malfunction of the machine

To use K-UPLOAD:

- Download the software from the Internet
- Connect the PC to the machine

2.1 Downloading from the Internet

The latest version of K-UPLOAD and installation instructions can be downloaded from the Kramer Web site at <u>www.kramerelectronics.com</u>

You can download the up-to-date file from the Internet. To do so:

- 1. Go to our Web site at <u>www.kramerelectronics.com</u> and download the file: "kUpload.msi" from the Technical Support section.
- 2. Install the Program.

2.2 Connecting the PC to the Machine

To use K-UPLOAD you have to connect the PC to the machine via RS-232, USB or the Ethernet (defined in the user manual of the machine).



3 Using the utility

The following sections describe how to use K-UPLOAD.

1. Double click the K-UPLOAD desktop icon. The main screen appears:

Device Propert	ies	Upload File	
Connection	Not connected	Select File:	
Unit Name		File Type: UNKNOWN	Browse
Unit Model		File CRC: UNKNOWN	
Serial Number		Progress	
UDP Local Por		0%	
TCP Local port			
K-Net-ID		Do not check CRC	Upload
MAC			
IP	000 000 000 000		
Gateway	000 . 000 . 000 . 000		
Mask	000 . 000 . 000 . 000		
Firmware			

Figure 1: The Main Screen

2. Click the **Connect** button to connect to the machine. The connect dialog appears:

🔟 Connect		×
Connection M	ethod	
Ethernet	IP: (192 . 168 . 001 . 03	9
	Port: 50000	
	Default	
C Serial	СОМЗ	•
O USB	COM10 Refresh Ports	
	Connect	cel

Figure 2: Connect to the Machine

3. Select the connection method and click **Connect**. If the connection fails, an error message appears:

Using the utility

K-UPLOA	D					_ ×
File Help						
Connect						
Device Propert	ties	Connect		×		
Connection	Not connected	Connection M	othod]
Unit Name		© Ethernet		. 001 . 030		Browse
Unit Model	<u> </u>		Port: 50000			
Serial Number		Error		×)
UDP Local Por	t	Conned	ion time out			
TCP Local port		Connect	ion ume out	CLOSE		UPLOAD
K-Net-ID		U USD	ГСОМТО)	
MAC	(Refres	h Ports		
IP	(000 . 000 . 000 .					
Gateway	000 . 000 . 000		Connect	Cancel		
Mask	(000 . 000 . 000 .	. 800])		
Firmware	(
Sa	ve Cano	cel				Exit

Figure 3: Communication Error Message

Click CLOSE and then check that the network is functioning, that you used the correct communication method, that the required cables are connected and that the machine is powered.

Click Connect.

K-UPLOAD)	_ *
File Help		
Disconnect		
Device Properti	es	Upload File
Connection	UDP on 192.168.001.039	Select File:
Unit Name	KRAMER_1225	File Type: UNKNOWN Browse
Unit Model	PL-50	File CRC: UNKNOWN
Serial Number	30003331225	Progress
UDP Local Port	50000	0%
TCP Local port	5000	Do not check CRC Upload
K-Net-ID	01	
MAC	00-1d-56-00-81-4a	
IP	(192 . 168 . 001 . 039)	
Gateway	000 . 000 . 000 . 000	
Mask	255 . 255 . 000 . 000	
Firmware	00.09.00.4633	
Sav	e Cancel	Exit

Figure 4: Save Device Properties

4. If required, you can change the device properties data and then click the **Save** button to save the changes, or click **Cancel** to cancel the changes (The Cancel button is actually a refresh button that reads the device properties data).



4 Kramer Package Upload Process

You can upload any of the following files:

- KFW, KFWS : Firmware binary file
- **RBF**: FPGA binary file
- MF, MFS: Memory File
- KPT: the Kramer Package that includes one or more files to upload to a specific unit

You can also upload other files or add them to the **KPT** package; these files will upload via the **LOAD** command only if recognized by K-UPLOAD.

4.1 Upload a Kramer Package File

In the following example, a package file is used to upgrade the Kramer PL-50 machine:

1. Click the **Browse** button to select the package file (or, if required, a single file). The Open window appears:

K-UPLOAD					_ × `
File Help					
Disconnect	Open				<u>?×</u>
Device Properties	Look in:	FIRMWARE		J 0 0 12	<u></u>
and the second		PL-50_4633_	Web.kpt		
Connection UD					
Unit Name					
Unit Model	-5 Desktop				
Serial Number 🛛					
UDP Local Port 50	My Documents				
TCP Local port 50					
K-Net-ID 01	My Computer				
MAC 🔟					
IP (19	2 My Network Places	File name:	PL-50_4633_Web.kpt	Ī	Open
Gateway 00		Files of type:	Kramer Files	•	Cancel
Mask (25	5 . 255 . 000 . 000]			
Firmware 🔟	.09.00.4633	1			
Save	Cancel	l.			Exit

Figure 5: Select a Package File

 Select a package file (for example, PL-50_4633_Web.kpt, downloaded from our Web site at <u>www.kramerelectronics.com</u>) and click Open. This package file includes 37 files.

Note that you can upload each of the files separately, but to avoid file version problems, it is recommended to use the package file

The selected file appears in the Select File area (the program recognizes the file type and is ready to upload it).

Check the "Do not check CRC" box if you want to force file upload.

Otherwise, if the same version is already running on the device, K-UPLOAD will check the current version with the new one: if the current version is the same as the new one, it will not upload that specific file; if the current version is different (older or newer), the new version will be uploaded.

3. Click Upload to upload the files. The following message appears:



Figure 6: Device Upgrade Message

4. Click OK to start the upload process.

Disconnect		
Device Properti	ies	Upload File
Connection	UDP on 192.168.001.039	Select File: C: FIRMWARE PL-50_4633_Web.kpt
Unit Name	KRAMER_1225	File Type: PACKET Browse
Unit Model	(PL-50	File CRC: 317d
Serial Number	(30003331225	Progress (3/37)
UDP Local Port	50000	Sending (29%)
TCP Local port	5000	Do not check CBC Upload
K-Net-ID	01	Do not check CRC
MAC	00-1d-56-00-81-4a	
IP	(192 . 168 . 001 . 039)	
Gateway	000 . 000 . 000 . 000	
Mask	255 . 255 . 000 . 000	
Firmware	00.09.00.4633	

Figure 7: File Upload

The Upload area shows the file upload progress (which file number is uploaded of the total number of files. For example, 3 files of 37) and the uploaded file status (for example, Sending (29%)):



Kramer Package Upload Process

K-UPLOAD)	_ x
Disconnect		
Device Properti	es	Upload File
Connection	UDP on 192.168.001.039	Select File: C:/FIRMWARE/PL-50_4633_Web.kpt
Unit Name	KRAMER_1225	File Type: PACKET Browse
Unit Model	PL-50	File CRC: 6131
Serial Number	30003331225	Progress (37/37)
UDP Local Port	50000	Updating. Please wait
TCP Local port	5000	Do not check CRC Upload
K-Net-ID	01	
MAC	00-1d-56-00-81-4a	
IP	192 . 168 . 001 . 039	
Gateway	000 . 000 . 000 . 000	
Mask	255 . 255 . 000 . 000	
Firmware	00.09.00.4633	
Save	e Cancel	Exit

Figure 8: File Upload Progress

5. Upon completion of this process, you will be asked to restart the unit. Click Restart now:

K-UPLOAD	כ		- *
File Help			
Disconnect			
Device Properti	es	Upload File	
Connection	UDP on 192.168.001.039	Select File: C:'FIRMWARE'PL-50_4633_	Web.kpt
Unit Name	KRAMER_1225	File Type: PACKET	Browse
Unit Model	(PL-50	File CRC: 6131	
Serial Number	30003331225 Resta	t Unit ×	
UDP Local Port	50000	Do you want to restart the unit now?	
TCP Local port	5000	Restart now Cancel	UPLOAD
K-Net-ID	(01	Caller	
MAC	00-1d-56-00-81-4a		
IP	192 . 168 . 001 . 039		
Gateway	000 . 000 . 000 . 000		
Mask	255 . 255 . 000 . 000		
Firmware	00.09,00.4633		
Sav	e Cancel		Exit

Figure 9: Restart the Unit

The machine will restart and then power up.

When the restart process is complete, the unit is updated.

5 System Security

K-Upload can be security disabled or enabled:

- If the system is security disabled, the upload process can be carried out without using any password
- If the system is security enabled (by the administrator), you can enter K-Upload as a User or Administrator (password is required)

g In	3
Log in type	
💿 USER	
Password	
C	

Figure 10: K-Upload Log-in

When logging in as an administrator (ADMIN) you can upload new firmware and change the device properties. When logging in as a user (USER) you can connect to the machine to view the device properties but cannot change them or upload any files:

🔣 K-UPLOAI	D	3	- ×
File Help			
Disconnect	Only an ADMIN authorized us	er can make changes to this unit	
Device Properti	ies	Upload File	
Connection	UDP on 192.168.001.039	Select File:)
Unit Name	KRAMER_1225	File Type: UNKNOWN Browse	n.
Unit Model	PL-50	File CRC: UNKNOWN	
Serial Number	30003331225	Progress	٦
UDP Local Port	(50000	0%	
TCP Local port	5000		
K-Net-ID	01	Do not check CRC	
MAC	00-1d-56-00-81-4a		
IP	(192 . 168 . 001 . 039)		
Gateway	000 . 000 . 000 . 000		
Mask	(255 , 255 , 000 , 000)		
Firmware	00.09.00.4633		
Sav	e Cancel	Exit	D

Figure 11: User Enabled Screen

