



**DISTEC GmbH**

---

# Release Notes

## Artista Driver & Firmware

05 February 2009

The information given in this document is carefully checked and believed to be reliable. However, Distec takes no responsibility for any failure or product damage caused by the application of this information. Please check all connections carefully with the data sheet. Distec products are not intended for use in systems in which failures of product could result in personal injury. All mentioned trademarks are registered trademarks of their owner.

All specifications are subject to change without notification.



# Artista

## Firmware & Driver Release Notes

Author:	tg1
Approved:	sw1
Date:	09/02/09
Page	2 / 16

- 1. ArtistaUSB firmware release notes .....3
  - 1.1 ArtistaUSB firmware version- definition .....3
  - 1.2 History: .....4
- 2. ArtistaNET firmware release notes .....7
  - 2.1 ArtistaNET firmware version- definition.....7
  - 2.2 History: .....7
- Artista Windows driver release notes .....10
  - 2.3 Driver version number management .....10
  - 2.4 Version 1.2.2.0 .....10
    - 2.4.1 Firmware compatibility .....10
    - 2.4.2 Improvements: .....10
    - 2.4.3 Feature additions:.....11
  - 2.5 Version 1.2.3.0 .....11
    - 2.5.1 Firmware compatibility .....11
    - 2.5.2 Improvements: .....11
    - 2.5.3 Feature additions:.....12
  - 2.6 Version 1.2.4.0 .....12
    - 2.6.1 Firmware compatibility .....12
    - 2.6.2 Improvements: .....12
    - 2.6.3 Feature additions:.....12
  - 2.7 Version 1.4.0.633.....12
    - 2.7.1 Firmware compatibility .....12
    - 2.7.2 Improvements: .....12
    - 2.7.3 Known issues:.....13
  - 2.8 Version 1.5.5.713.....13
    - 2.8.1 Firmware compatibility .....13
    - 2.8.2 Improvements: .....13
  - 2.9 Version 2.0.0.7104.....14
    - 2.9.1 Firmware compatibility .....14
    - 2.9.2 Improvements: .....14
  - 2.10 Version 2.1.2.7724.....14
    - 2.10.1 Firmware compatibility .....14
    - 2.10.2 Improvements: .....14
  - 2.11 Version 3.0.0.9093.....15
    - 2.11.1 Firmware compatibility .....15
    - 2.11.2 Improvements: .....15
  - 2.12 Version 3.0.1.9320.....15
    - 2.12.1 Firmware compatibility .....15
    - 2.12.2 Improvements: .....15



 DISTEC GmbH	<b>Artista</b> <b>Firmware &amp; Driver Release Notes</b>	Author:	tg1
		Approved:	sw1
		Date:	09/02/09
		Page	3 / 16

## 1. ArtistaUSB firmware release notes

### 1.1 *ArtistaUSB firmware version- definition*

V <Major Number>. <Minor Number>

Major Number means that general functional features were changed, removed or added. Hardware changes are possible. (\*)

Minor Number means that no general function calls were changed but bug fixes were made or customized functions were added or adapted.

Note(\*): There was an exception with ArtistaUSB MCU firmware V03.01!

---

	<h1>Artista</h1> <h2>Firmware &amp; Driver Release Notes</h2>	Author:	tg1
		Approved:	sw1
		Date:	09/02/09
		Page	4 / 16

## 1.2 History:

- V01.xx: 1st firmware release. Was intended for ArtistaUSB-320 cards only. There was no driver for this firmware revision.
- V02.xx: First firmware series intended for ArtistaUSB 320, 640 & 800 with driver support
- Touch screen data is since this release handled over a separate logical USB interface.
  - The display ID was increased from one byte to 128 bits to be able to handle GUIDs, which are needed for proper diver usage.
- V03.xx: Switching to a new USB microcontroller to suit new ROHS regulations. The firmware is now being able to handle ArtistaUSB-800-LVDS cards for the first time.
- Hardware version rev1.2 was implemented.
  - The new microcontroller has now more memory to increase the filter depth in the touch screen dejitter filter.
  - Firmware is incompatible with the old hardware revision
- V03.01: Hardware and firmware bug fix: Solves problems with start-up behavior of some panels (this was observed using LG panels; it can also become an issue when using new panels in the future; currently all available kits are not affected by this problem, as far as we know.)
- A small hardware change was done and the firmware was fitted accordingly.
  - Compatible hardware versions
    - o ZU-02-110\_A1
    - o ZU-02-111
    - o ZU-02-120\_A1
    - o ZU-02-130\_A1
    - o ZU-02-140
  - The firmware versions are incompatible to prior hardware versions.  
**Warning: On older hardware revisions it is possible to harm the hardware by using the new firmware version V03.01! Don't use it there!**
-



- V04.00: Firmware supports first time the ArtistaUSB-II cards.  
The firmware contains now new additional features.
- Compatible hardware versions
    - o ZU-02-110\_A1
    - o ZU-02-111
    - o ZU-02-120\_A1
    - o ZU-02-130\_A1
    - o ZU-02-140
    - o ZU-02-170
  - USB serial number
    - o By using the USB serial number, the preinstalled driver can now install an Artista device. This way, a once installed Artista card installs itself only one time, no matter on which USB port it is hooked up.
    - o By using the USB serial number, a new feature of the desktop driver V1.2.2 is now available. With the new feature "static assignment" will one Artista device be referenced to one Windows desktop and act as an individual monitor. Therefore, the Artista can now act like a standard graphics card in terms of hardware presence. The desktop area and content will now still be available for this device, even when it is unplugged and again replugged.
    - o This feature can still be turned off when producing customer based solutions.  
Warning!: Only when ordered explicitly, (NRE costs!)
  - Auto touch screen detection
    - o When a touch panel is being connected to an Artista card so it will be automatically detected during the next power-up phase. This way, the touch driver will be also installed when the touch is present.
    - o When no touch panel is connected to the specific Artista card, the driver will also notice this fact.
    - o Caution! The ArtistaUSB-320 will be produced without a touch controller in the future! So, the touch screen support of this device will always detect the touch as not present and therefore no touch driver will ever be installed for those devices.
    - o This feature can still be turned off when producing customer based solutions.  
Warning!: only when ordered explicitly, (NRE costs!)
- V04.01: Bug fix: touch screen was jittering in some situations.
- Compatible hardware versions
    - o ZU-02-110\_A1
    - o ZU-02-111
    - o ZU-02-120\_A1
    - o ZU-02-130\_A1
-



- ZU-02-140
- ZU-02-170

V05.00: Bug fix: touch screen was jittering in some situations.

- Compatible hardware versions
  - ZU-02-170 (ArtistaUSB-II)
- added new function calls
  - 64 character client name
  - 256 character description field
  - 64 byte reserved user data memory
  - get resolution information
  - back buffer picture transmission with manual back buffer to front buffer change event
  - get verbose firmware version information
- change in touch screen data handling to avoid theoretical race conditions and blocking touch data queue

V06.00:

- Compatible hardware versions
  - ZU-02-170 (ArtistaUSB-II)
- added new function calls
  - VX\_CUSTOMER\_DATA. 64 Byte memory for general purpose
  - VX\_CONFIGURATION\_VERSION
- changed length of VX\_CONFIGURATION\_ID from 16Byte to 20Byte
- manual switch from back to front buffer only possible if a picture is transmitted

V06.01:

- Compatible hardware versions
  - ZU-02-170 (ArtistaUSB-II)
- fixed a bug in touch screen handling

V06.02:

- Compatible hardware versions
  - ZU-02-170 (ArtistaUSB-II)
- fixed a bug which could corrupt USER\_DATA

---

	<b>Artista</b> <b>Firmware &amp; Driver Release Notes</b>	Author:	tg1
		Approved:	sw1
		Date:	09/02/09
		Page	7 / 16

## 2. ArtistaNET firmware release notes

### 2.1 *ArtistaNET* firmware version- definition

V <Major Number>. <Minor Number>

Major Number means that major functional features were changed, removed or added. Hardware changes are possible.

Minor Number means that minor function calls were changed, bug fixes were made or customized functions were added or adapted.

### 2.2 *History:*

V00.x: Firmware on prototypes und pre series

V01.0: Firmware for Driver release V1.2.1.0

V01.1: Firmware For driver release V1.2.2.0

- Vendor-calls added to net client to improve the compatibility for ArtistaUSB devices.
- Revised the browser configuration to improve system stability.
- Bug fix: Gateway IP properties were reset after firmware update (boots to the rescue system and back)
- Bug fix: Touch driver gives out constant touch pressure values over the entire range of the touch field
- Bug fix: Interrupt-handling changed in kernel software – this improves system reaction times.

V01.2: Firmware for driver release V1.2.4.0

- Boot logo
  - fixed Bug in WXGA Backlight driver (using WXGA Kits, the brightness control was inverted)
  - optimized web front-end (Network configuration will be displayed dynamically)
  - optimized vendor calls to improve compatibility
-

	<h1>Artista</h1> <h2>Firmware &amp; Driver Release Notes</h2>	Author:	tg1
		Approved:	sw1
		Date:	09/02/09
		Page	8 / 16

### V02.0: Firmware for driver release V1.4.0.633

- added new function calls
  - o 64 character client name
  - o 256 character description field
  - o 64 byte reserved user data memory
  - o get resolution information
  - o back buffer picture transmission with manual back buffer to front buffer change event
  - o get verbose firmware version information
- Auto touch screen detection
  - o When a touch panel is being connected to an Artista card so it will be automatically detected during the next power-up phase. This way, the touch driver will be also installed when the touch is present.
  - o When no touch panel is connected to the specific Artista card, the driver will also notice this fact.
- ArtistaNet touch screen calibration is now similar to ArtistaUSB devices. To calibrate the touch the package CalibSetup.exe has to be used now.
- optimized web front-end
  - o fixed known issue regarding browser cache problems

### V03.0:

- added 1920x1080 resolution to firmware
  - bugfix in VX\_USER\_DATA (set USER\_DATA stops if 0x00 is present in VendorTransferBuffer)
  - minor changes in VendorCalls
    - o AUTO\_CHANGE\_ENABLE
    - o DEVICE\_FEATURES (suspend mode) to achieve ArtistaUSB compliance
  - added new Vendor Calls
    - o VX\_FIRMWARE\_UPDATE
    - o VX\_CONFIGURATION\_ID to enable field updates of ArtistaNET
-

	<h1>Artista</h1> <h2>Firmware &amp; Driver Release Notes</h2>	Author:	tg1
		Approved:	sw1
		Date:	09/02/09
		Page	9 / 16

#### V04.0: Firmware for driver release V2.0.x and ArtistaSDK-II

- bugfix VX\_SET\_DISPLAY\_GUID (only internal used)
- bugfix VX\_DESCRIPTION (wrong index handling)
- bugfix VX\_SET\_BACKLIGHT (solved problem with stored brightness)
- added new Vendor Calls
  - o VX\_CUSTOMER\_DATA
  - o VX\_CONFIGURATION\_VERSION
- changed length of VX\_CONFIGURATION\_ID from 16Byte to 20Byte
- improved bootsplash to show Network configuration of ArtistaNet
- Backlight configuration in Webfrontend show current and stored backlight settings
- improved performance of backbuffer to frontbuffer blit (VX\_DEVICE\_EVENT)

#### V04.0.1: Bugfix release

- fixed "pixel garbage bug" in case of device event

#### V04.0.2:

- HD (1920x1080) resolution is now fully supported
  - Changed webfrontend style to new DD-Group CI
-

	<h1>Artista</h1> <h2>Firmware &amp; Driver Release Notes</h2>	Author:	tg1
		Approved:	sw1
		Date:	09/02/09
		Page	10 / 16

## Artista Windows driver release notes

### 2.3 Driver version number management

V <Architecture>. <Major>. <Minor>.<Package> - <build>

A new versioning scheme will start with version V1.3.0.xxx!

V <Architecture>. <Major>. <Minor> .<Build>

The architecture number will be changed on general architectural changes.

Major Number means that major functional features were changed, removed or added. Maybe new hardware will be supported.

Minor Number means that minor internal function calls were changed, bug fixes were made or customized functions were added or adapted.

=> interfaces from and to the driver are not changed!

Build Number is for Distec internal handling purpose only.

### 2.4 Version 1.2.2.0

#### 2.4.1 Firmware compatibility

##### 2.4.1.1 ArtistaNET

- needs firmware version V1.1

##### 2.4.1.2 ArtistaUSB

- The driver is backward compatible up to ArtistaUSB firmware version V02.03
- The new features of the driver will be supported using ArtistaUSB firmware version V04.00 and higher.

#### 2.4.2 Improvements:

- The problems of the touch screen support using the ArtistaNET is now resolved.
  - Improvements of the Network protocol to improve connection stability.
-

	<h1>Artista</h1> <h2>Firmware &amp; Driver Release Notes</h2>	Author:	tg1
		Approved:	sw1
		Date:	09/02/09
		Page	11 / 16

### 2.4.3 Feature additions:

- "static assignment" added
  - o During the installation of the driver you can now choose between
    - "dynamic assignment"
    - "static assignment"
  - o "dynamic assignment" acts like a standard USB driver to set the focus more on „Plug & Play“ behavior.
  - o "static assignment" acts like the Artist is being handled like a standard „graphics adaptor“ (monitor-like behavior).
  - o "static assignment" requires ArtistaUSB firmware V04.00 and higher
  
- Touch screen synchronization added
  - o In order to use more than one Artista touch screen on one system.
  - o When one Artista touch screen is being pressed, the other ones are being disabled during the duration of the pressing period. This way, when more users are working with these touches, first comes first. Since most pressing periods are quite short, this effect cannot retraced so easily and will in most cases not be detected by the user. By handling the touch in this manner, more users can use the system almost simultaneously. This synchronization is a common method which is also implemented by other touch controller drivers.

## 2.5 Version 1.2.3.0

### 2.5.1 Firmware compatibility

#### 2.5.1.1 ArtistaNET

- Needs Firmware version V1.1

#### 2.5.1.2 ArtistaUSB

- The driver is backward compatible up to ArtistaUSB firmware version V02.03

### 2.5.2 Improvements:

- Fixed potential problem of display content scrolling after disconnecting USB-Memory-Sticks
  - Improved IOCTL functions
-

	<h1>Artista</h1> <h2>Firmware &amp; Driver Release Notes</h2>	Author:	tg1
		Approved:	sw1
		Date:	09/02/09
		Page	12 / 16

### 2.5.3 Feature additions:

- Support of ArtistaUSB-II cards with resolutions SVGA, XGA, WXGA

## 2.6 Version 1.2.4.0

### 2.6.1 Firmware compatibility

#### 2.6.1.1 ArtistaNET

- Needs Firmware Version V1.1 and higher

#### 2.6.1.2 ArtistaUSB

- The driver is backward compatible up to ArtistaUSB firmware version V02.03

### 2.6.2 Improvements:

- Nothing changed

### 2.6.3 Feature additions:

- Support of ArtistaUSB-II cards with resolutions SXGA

## 2.7 Version 1.4.0.633

### 2.7.1 Firmware compatibility

#### 2.7.1.1 ArtistaNET

- Needs Firmware Version V1.1 and higher.
- Touch Screen is supported by Firmware Version 2.0 and higher

#### 2.7.1.2 ArtistaUSB

- The driver is backward compatible down to ArtistaUSB firmware version V02.03
- For "static" assignment with ArtistaUSB devices a ArtistaUSB Firmware Version V04.00 and higher is necessary.

### 2.7.2 Improvements:

- Fixed bug in assignment management
  - Fixed bug in frame buffer mapping
  - Improved debugging features (internal use only)
  - Improved performance of picture transfer IOCTL
  - Fixed BSOD while transmitting picture to a prior switched off Artista device
  - Fixed BSOD while surprise removal
-

 DISTEC GmbH	<h1>Artista</h1> <h2>Firmware &amp; Driver Release Notes</h2>	Author:	tg1
		Approved:	sw1
		Date:	09/02/09
		Page	13 / 16

- Improved and fixed friendly name in device manager. It shows resolution now.
- Installer improvements. Removed "driver" directory at "DRVSTORE". Some cleanups.
- fixed bug in rights permissions.
- Versioning scheme changed.  
V <Architecture>. <Major>. <Minor> .<Build>
- Touch screen calibration tool supports ArtistaNET too
- support for HD resolution 1920x1080p added

### 2.7.3 Known issues:

- Driver update from former versions needs the manual deinstallation of the old driver and the usage of ArtistaRegCleaner.exe before installation.
- For correct touch screen functionality of ArtistaNET a ArtistaNET Firmware V2.0 or higher is needed.
- Using ArtistaNet with external firewall programs like FSecure™ or (Sunbelt) Kerio™ - unlike the Windows™ firewall may cause a system crash. It is not enough to disable the programs. Deinstallation is crucial.
- TCP Port can not be changed at the moment. Only port 28242 can be used for now.
- For "static" assignment with ArtistaUSB devices a ArtistaUSB Firmware Version V04.00 and higher is necessary

## 2.8 Version 1.5.5.713

Preliminary Windows Vista release without Desktop Graphics driver. Tested with Windows Vista only.

### 2.8.1 Firmware compatibility

#### 2.8.1.1 ArtistaNET

- Needs Firmware Version V1.1 and higher.
- Touch Screen is supported by Firmware Version 2.0 and higher

#### 2.8.1.2 ArtistaUSB

- The driver is backward compatible down to ArtistaUSB firmware version V02.03
- For "static" assignment with ArtistaUSB devices an ArtistaUSB Firmware Version V04.00 and higher is necessary.

### 2.8.2 Improvements:

- new installer to support Windows Vista
-

	<h1>Artista</h1> <h2>Firmware &amp; Driver Release Notes</h2>	Author:	tg1
		Approved:	sw1
		Date:	09/02/09
		Page	14 / 16

- added HD resolution 1920x1080 for ArtistaNET
- improved touch screen driver error handling

## **2.9 Version 2.0.0.7104**

### **2.9.1 Firmware compatibility**

#### **2.9.1.1 ArtistaNET**

- Needs Firmware Version V1.1 and higher.
- Touch Screen is supported by Firmware Version 2.0 and higher

#### **2.9.1.2 ArtistaUSB**

- The driver is backward compatible down to ArtistaUSB firmware version V02.03
- For "static" assignment with ArtistaUSB devices an ArtistaUSB Firmware Version V04.00 and higher is necessary.

#### **2.9.2 Improvements:**

- Windows Vista Desktop support (no Aero supported)
- Last ACC and ADP pictures will stay after power down of host PC
- ArtistaSDK V2.0 support

## **2.10 Version 2.1.2.7724**

### **2.10.1 Firmware compatibility**

#### **2.10.1.1 ArtistaNET**

- Needs Firmware Version V1.1 and higher.
- Touch Screen is supported by Firmware Version 2.0 and higher

#### **2.10.1.2 ArtistaUSB**

- The driver is backward compatible down to ArtistaUSB firmware version V02.03
- For "static" assignment with ArtistaUSB devices an ArtistaUSB Firmware Version V04.00 and higher is necessary.

#### **2.10.2 Improvements:**

- added resolution 1024x600
-

	<h1>Artista</h1> <h2>Firmware &amp; Driver Release Notes</h2>	Author:	tg1
		Approved:	sw1
		Date:	09/02/09
		Page	15 / 16

## **2.11 Version 3.0.0.9093**

### **2.11.1 Firmware compatibility**

#### **2.11.1.1 ArtistaNET**

- Needs Firmware Version V1.1 and higher.
- Touch Screen is supported by Firmware Version 2.0 and higher

#### **2.11.1.2 ArtistaUSB**

- The driver is backward compatible down to ArtistaUSB firmware version V02.03
- For "static" assignment with ArtistaUSB devices an ArtistaUSB Firmware Version V04.00 and higher is necessary.

### **2.11.2 Improvements:**

- Lift Network handling into user space. This solves some crashes with desktop firewalls.

## **2.12 Version 3.0.1.9320**

### **2.12.1 Firmware compatibility**

#### **2.12.1.1 ArtistaNET**

- Needs Firmware Version V1.1 and higher.
- Touch Screen is supported by Firmware Version 2.0 and higher

#### **2.12.1.2 ArtistaUSB**

- The driver is backward compatible down to ArtistaUSB firmware version V02.03
- For "static" assignment with ArtistaUSB devices an ArtistaUSB Firmware Version V04.00 and higher is necessary.

### **2.12.2 Improvements:**

- Bugfix of ArtistaNetbus WDF driver (driver hangup on disconnection during touch events from ArtistaNET devices)



DISTEC GmbH

---

Our company network supports you worldwide with offices in Germany, Turkey, Great Britain and the USA. For more information please contact:



**DISTEC GmbH**

**Distec GmbH**

Augsburgerstr. 2

D-82110 Germering

Tel. +49 (0)89/ 89 43 63-0

Fax +49 (0)89/ 89 43 63-131

E-Mail: [info@distec.de](mailto:info@distec.de)

Internet: [www.distec.de](http://www.distec.de)



DATA DISPLAY TEKNOLOJİ

**Data Display Teknoloji Ltd. Sti.**

Elektronik San. Ve

Dis. Tic. Ltd Sti.

Kustepe Leylak Sok.

Nursanlar Is Merkezi

Kat. 6 No: 21

Sisli / Istanbul

Telefon: +90 (0)212/ 356 04 20

Telefax: +90 (0)212/ 356 04 25

E-Mail: [info@datadisplay.com.tr](mailto:info@datadisplay.com.tr)

Internet: [www.datadisplay.com.tr](http://www.datadisplay.com.tr)



DISPLAY TECHNOLOGY

**Display Technology Ltd.**

A2 Spectrum Business Centre

Anthony's Way, Medway City Estate

Rochester, Kent, ME2 4NP

Tel + 44 (0)1634/ 29 55 55

Fax + 44 (0)1634 / 29 55 43

E-Mail: [info@displaytechnology.co.uk](mailto:info@displaytechnology.co.uk)

Internet: [www.displaytechnology.co.uk](http://www.displaytechnology.co.uk)



**Apollo Display Technologies LLC**

85 Remington Blvd.

Ronkonkoma, NY 11779

Tel.: 001 (631)580-43 60

Fax: 001 (631)580-43 70

E-Mail: [info@apolloDisplays.com](mailto:info@apolloDisplays.com)

Internet: [www.apolloDisplays.com](http://www.apolloDisplays.com)

---