NION*ote*: Use Any Tablet or Computer as an NWare Control
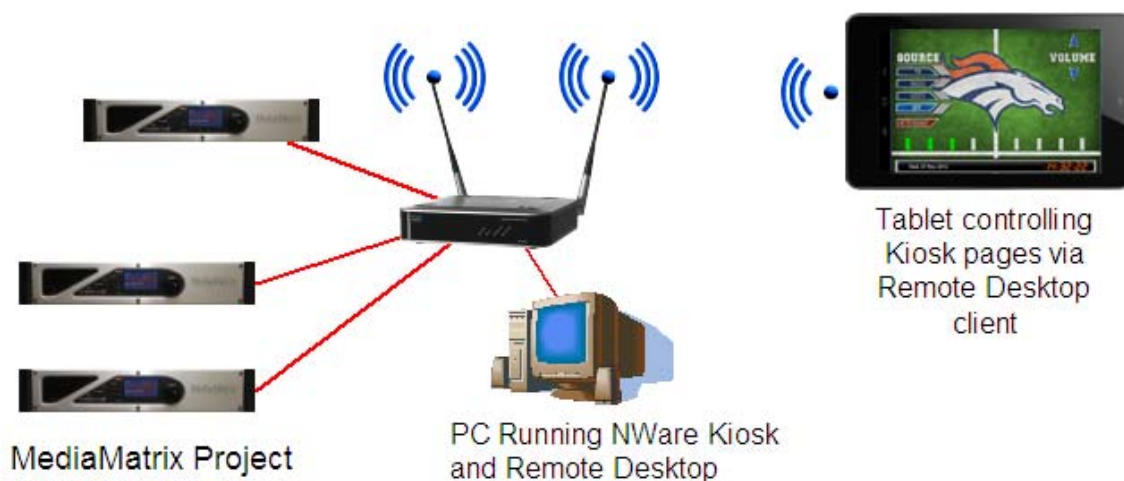
Many have asked if an Android app comparable to NWare Mobile for iOS devices will be released. As of now that answer is no. But that does not mean that an Android phone or tablet, or any other device, cannot be used as a MediaMatrix control surface.

This app note will show how NWare Kiosk can be run on a PC that also has Remote Desktop (RDP) enabled, thus allowing any device, including another PC, iPad, Android tablet, etc...that is running an RDP client to access and control those Kiosk pages. RDP is a Microsoft technology and is optimized for Windows computers.

- More information on the creation and use of Kiosk pages and users can be found here: http://peaveyoxford.com/kc/index.htm#3810
- Many resources are available describing the use of Remote Desktop on a Windows PC and can be easily found by searching the web.

We want to set up the PC and NWare Kiosk so that the pages on the remote device appear full screen with no tabs, borders or scroll bars. This is done by using a properly initialized personality file. We also want NWare Kiosk on the PC to automatically connect to and access the desired project and Kiosk pages. This is done be creating a properly configured password file. We then specify that these personality and password files be used by properly constructing a command used to run NWare Kiosk.
This command line will be then incorporated into an easily usable shortcut.

This example is shown using Windows XP as the operating system of the Kiosk PC. The concepts are the same for other Windows systems such as Vista and Windows 7.

MediaMatrix Project

PC Running NWare Kiosk and Remote Desktop

Tablet controlling Kiosk pages via Remote Desktop client

The following software and files will be needed:

- NWare Kiosk software
- An NWare personality file with the proper contents to run Kiosk full screen is attached and named *fullscreen_kiosk.xml*
- A password file specifying the project name, user name ad password so that Kiosk will automatically connect to the desired exported pages. An editable sample of this file is attached and named *password.xml.*
- A shortcut used to specify the program and command line arguments. A description of how to create this shortcut will be provided.
- An RDP client. Many inexpensive or freeware RDP packages are available. Freeware is typically not allowed for commercial use. Check with your software provider for any necessary fees or licenses. The author uses a client from 2X Software
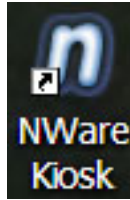
A PC dedicated to running NWare Kiosk will be used:

- The screen of the PC will be locked when in use and not locally accessible
- One RDP client at a time can access the Kiosk pages
- The PC can be an inexpensive or older PC
- The PC could be your own PC or laptop used, when needed, to serve the Kiosk pages to a tablet device when a tablet is needed.
- The Kiosk PC must be connected to the same subnet as the WiFi access point used by the tablet device.
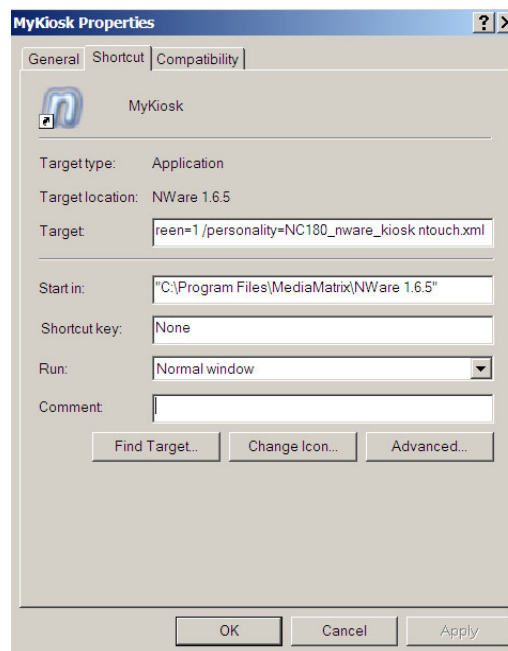
Step by Step:
1. Download and Install NWare Kiosk from here:
   http://mm.peavey.com/downloads/index.cfm
2. Copy the *fullscreen_kiosk.xml* file to the personality folder of the Kiosk installation. This would usually be here in the case of NWare Kiosk 1.6.5:
   C:\Program Files\MediaMatrix\Nware kiosk 1.6.5\personality
3. Copy *password.xml* to the main installation folder where, using the same example, would be here:
   C:\Program Files\MediaMatrix\NWare kiosk 1.6.5
   We will edit this file later.
4. Create a shortcut to NWare Kiosk that can be edited. The easiest way to do this is to right click on the desktop and the select *New / Shortcut*. Then browse to and select the recently installed NWare program. This will be found here:
   C:\Program Files\MediaMatrix\NWare Kiosk 1.6.5 \NwareLaunch.exe

5. The dialog will then ask you to name the shortcut. When finished you will have a shortcut on the desktop that looks like this. Your background color or shortcut name could be different.

6. Now right click on the Shortcut and click on Properties to fill in the needed command line arguments. A 'fullscreen' appearance, the personality file to be used and the password file to be used will be specified.

7. Edit the 'Target' line in the Shortcut tab so it specifies the target software and adds the required arguments. The command line should be as follows:

C:\Program Files\MediaMatrix\NWare 1.6.5\NWareLaunch.exe" /fullscreen=1 /personality=fullscreen_kiosk password.xml

8. Next, Using NWare running on your development system, add a Kiosk device to your project with the page size specified so that the Tablet device is used full screen. This usually takes some trial and error. In the case of Android devices, some upper and lower portion of the screen is usually reserved for status and navigation. For instance, a Kiosk page of 1280x702 works well with a Google Nexus 7 that has a 1280x800 screen

oriented in landscape mode. It will take some experimentation to arrive at the proper Kiosk page sizes depending on the tablet used.
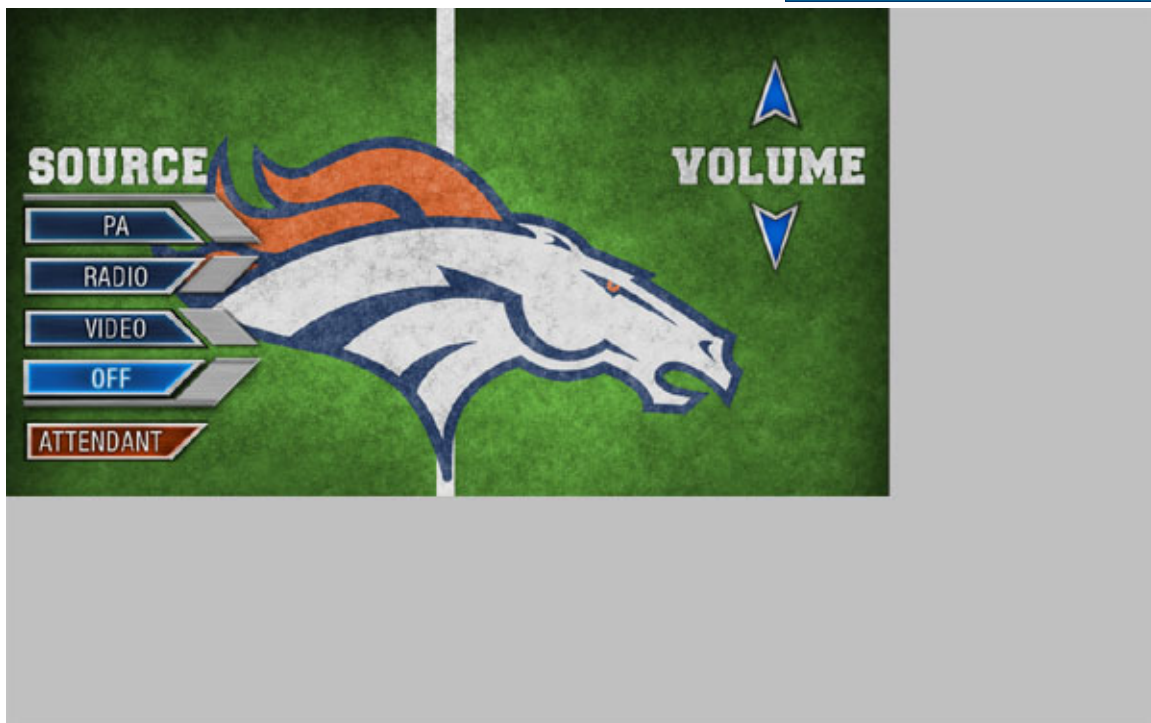
9. The pages will be exported as part of a project and will then be allowed access by a particular user and password. See the Kiosk help page link above for instructions on this process.

10. After the pages have been created and exported, the password.xml file on the Kiosk PC must be edited to specify the project, user and password. In this example a project was created with a name of **RDP_nexus**. Kiosk pages were exported and granted access by a user created with the name of **rdp_user** and a password of **mudshark**

    Therefore the **password.xml** file would be edited to appear as follows:

```
<?xml version="1.0" encoding="utf-8"?>
<kiosk>
    <name value="RDP_nexus" />
    <username value="rdp_user" />
    <password value="mudshark" />
    <hide_root_tab value="false" />
    <hide_cursors value="false" />
</kiosk>
```

    Note the two additional lines not related to the project or user. Leave these as is to insure a clean screen appearance without cursors or tabs.

11. It is now time to test the pages on the Kiosk PC. Deploy (or emulate) the project. Then double click the shortcut created on the Kiosk PC. NWare Kiosk should launch, automatically connect to the project and display the exported pages. The Kiosk resolution may be less than the native screen resolution, in which case the display should take up the full screen with the active portion being the tablet/Kiosk size specified and in the upper left with the remainder blank; similar to this:

If this is not displayed properly then check that the command line in the shortcut target field is correct and that the name, user name and password are correct in the project.xml file. **You can right click on the screen to exit full screen mode which will then allow the program to be exited**

12. Next enable the remote desktop capability on the Kiosk PC. Right click on My Computer, click on Properties and then on the Remote Tab. Click on the checkbox to allow users to connect remotely to the computer. Then select the remote users allowed to access the computer. A great deal of help is available on the web this topic. Search on "enable windows RDP" for more information on setting up RDP.

13. Now install the RDP package of your choice on the tablet you will be using. How that package is initialized is a function of the package used… but it will always require the address of the PC, user name and password. Other parameters, such as port number etc should not matter. FYI RDP uses port 3389 by default.

14. At this point the project should be running or emulated and RDP will have been enabled on the Kiosk PC. Start Kiosk again by double clicking on the shortcut. Then run the RDP client on the tablet and all of the Kiosk page(s) should appear full screen on the tablet with no borders or scroll bars, just the control surface. If the size is not quite right then go back to the project and alter the Kiosk page sizes in the Devices properties of the Kiosk device and re-deploy.

Apple iPad 2 | OS: iOS 5 | 9.7 inch screen 1024 x 768

Samsung Galaxy Player 4.2 | OS: Android 2.3 (Gingerbread) | 4.2 inch screen 800x480

Google Nexus 7 | OS: Android 4.1 (Jellybean) | 7 inch screen 1280x800

Notes:

- The PC Desktop will be resized to the dimensions of the target device when running Remote Desktop. This will re-arrange the desktop icons. This could be inconvenient when not using a dedicated PC for the purpose. Use of a freeware program, such as DesktopOK, to manage and restore desktops could be useful.
- The technique of running Kiosk full screen is useful when controlling pages from a tablet. But the exact same technique can be used w/o using a tablet or Remote Desktop to simply present full screen Kiosk pages while running on any type of PC connected to the network in any manner.
- A file identical to fullscreen.xml is also included in current releases of the full version of NWare and is found here:
  C:\Program Files\MediaMatrix\NWare 1.6.5\personality\NC180_nware_kiosk.xml
- The Kiosk PC can also be set to boot up and automatically log in to the Kiosk pages by copying the shortcut we created to the Startup folder of *All Users* **C:\Documents and Settings\All Users\Start Menu\Programs\Startup** Then allow your system to boot and auto login to a user of your choice and privilege level. In this way the system will always work properly with the tablet and exported pages in the event of a power failure. This same principle applies to a PC simply running Kiosk with no Remote Desktop in use for tablet support.