

MobileMapper Office Tech Note: Using the NAD83-CORS96 Datum in State Plane Coordinate Systems

21 March 2007

You can use MobileMapper Office (MMO) to set up a US State Plane coordinate system using the NAD83/COR96 datum by following the steps below. The example shown is for North Carolina, but the procedure applies to other states' systems and zones as well.

- 1. In the MMO main menu, click **Options > Select Coordinate System**
- 2. On the **Select Coordinate System** window, click the down arrow to the right of the **Spatial Reference System** field and select **New** at the bottom of the pull-down menu:

Select Coordinate System		×
Spatial Reference System		
E UTM/WGS 84/UTM zone 07N	•]
GS_1984_UTM_Zone_18N	^	
tGCS_WGS_1984~1		
Le NC State PRJ		
CDA_1994_MGA_Zone_56		
t € USA/NAD83-HARN/Virginia (South)		14
t_≆ USA/NAD83/North Carolina~1		
🟥 🗊 USA/NAD83/Arizona (East)		
📮 USA/NAD27/Alaska (Zone 9)		
tr≆ USA/NAD83/North Carolina	=	
L 🛱 NAD83_CORS96		
LG NAD83_CORS96_Ellipsoid		
🚛 🛱 NAD83_CORS96_Geo03		
L [™] i UTM/WGS 84/UTM zone 07N		
Life UTM/NAD83/UTM zone 07N		
KNew> N	~	
ht		

3. You will now see the **Coordinate System Wizard - Welcome** window. With the **SELECT a PRE-DEFINED system** option selected, click the **Next** button.

Coordinate System Wizard - Welcome						
Welcome to Coordinate System Wizard						
This wizard will help you :						
C SELECT a PRE-DEFINED system						
Define a NEW PROJECTED system (EASTING, NORTHING, HEIGHT)						
C Define a NEW GEOGRAPHIC system (LATITUDE, LONGITUDE, HEIGHT)						
<back next=""> Cancel Help</back>						



4. Select **USA/NAD83** on the left of the next window and the state/zone on the right pane. Then click **Finish** at the bottom of the screen

🖻 🍸 NETHERLANDS	Name	Datum	1
🗉 🏆 NEW ZEALAND	Last) LSA/NAD83/New Mexico (East)	NAD83	
🗈 🕎 NORWAY	L [™] ≩USA/NAD83/New Mexico (West)	NAD83	
POLAND	L [™] ≩USA/NAD83/New York (Central)	NAD83	
	L [™] ⊊USA/NAD83/New York (East)	NAD83	
	Land Long Island)	NAD83	
	L ^N ≩USA/NAD83/New York (West)	NAD83	
	🖧 USA/NAD83/North Carolina	NAD83	
	Lange SA/NAD83/North Dakota (North)	NAD83	
	L € USA/NAD83/North Dakota (South)	NAD83	
	Lange Line Line Line Line Line Line Line Lin	NAD83	
	L ISA/NAD83/Ohio (South)	NAD83	
	L [™] ≩USA/NAD83/Oklahoma (North)	NAD83	
🗄 🕎 UPS	Land South SA/NAD83/Oklahoma (South)	NAD83	
🗄 🕎 USA	Lange LSA/NAD83/Dregon (North)	NAD83	
NAD83	L ^N ≩USA/NAD83/Dregon (South)	NAD83	
WAD27	T ^N FUSA/NAD83/Pennsulvania (North)	NAD83	1
🕂 🐨 UTM	×]<		2

5. You will probably wish to edit some of the parameters of the state plane coordinate system you have selected. To edit them, click the "three dots" button on the **Select Coordinate System** window:

Select Coordinate System	
Spatial Reference System	Y
L ^M ≩ USA/NAD83/North Carolina	
OK Cancel	



6. On the Projected System screen there are three tabs: Datum, Projection and System, with the System tab open. On the System tab you will see that the Vertical Datum field's default value is Ellipsoid. If you wish to use HAE heights, leave this as is. If you wish to use orthometric heights you will need to select a geoid model, so click the down arrow to the right of the field and select a model. If you do not know which model is appropriate for your state, select Geoid03:

Projected System [USA/N	AD83/North Caroli	na *]	
Datum Projection System			
System Name : USA/NA	.D83/North Carolina		
East	→ East	-	
North	1 North	-	
Ellips height	© Up	Ŧ	□ With vertical correction H => H local
Unit Name :	Meter	•	
Meters p	er unit : 1		
Vertical Datum :	😑 Ellipsoid	•	
Vertical Unit Name :		^	
Meters p	S ICD_200		
🔽 Set Vertical	S 30SJULY Alaska99 DVR90		
	Geoid03 Geoid03 Geoid99		
	GGF97 GGR99 GSD95	~	OK Cancel Apply Help

7. Click the down arrow next to the **Vertical Unit Name** field and select the proper units for you state. Note: this is almost always "Survey Feet."

Projected System [USA/NAD83/Nor	th Carolina *]				
Datum Projection System					
System Name : USA/NAD83/North C	arolina				
East 🗕	_				
North 1 North					
Ellips height 🛛 🛛 Up		🔲 With vertica	l correction H =>	H local	
Unit Name : Meter					
Meters per unit : 1					
Vertical Datum : 🚫 Geoid0:	3 🗾				
Vertical Unit Name : Meter	-				
Meters p Foot_US					
Set Vertical Meters					
Survey Fee	L.				
	.0				
		ОК	Cancel	Apply	Help



8. Click the **Datum** tab and click the down arrow next to the **Datum Name** field. Click on **NAD83-CORS96** and then click **OK** at the bottom of the screen.

Projected System	[USA/NAD83/North Carolina *]					X
Projected System Datum Projection Datum Name : Ellipsoid In DX to W DX to W DZ to W RX to W RX to W RZ to W K to WGS8	IUSA/NAD83/North Carolina *] System NAD27-NADCON-South_Dakota NAD27-NADCON-Tennessee NAD27-NADCON-Tennessee NAD27-NADCON-Virginia NAD27-NADCON-Virginia NAD27-NADCON-Virginia NAD27-NADCON-Virginia NAD27-NADCON-Virginia NAD27-NADCON-Washington_Oregon NAD27-NADCON-West_Virginia NAD27-NADCON-Wisconsin NAD27-NADCON-Wisconsin NAD27-NADCON-Wisconsin NAD27-NADCON-Wisconsin NAD27-NADCON-Wisconsin NAD27-NADCON-Wisconsin NAD27-NADCON-Wisconsin NAD27-NADCON-Washington_Oregon NAD83-Alabama NAD83-Alabama NAD83-Arizona NAD83-Arizona NAD83-Colorado NAD83-Georgia NAD83-HARN NAD83-HARN NAD83-HARN					
	NAD83-Illinois NAD83-Indiana	~	ОК	Cancel	Apply	Help

9. Click **OK** on the **Select Coordinate System** screen.

