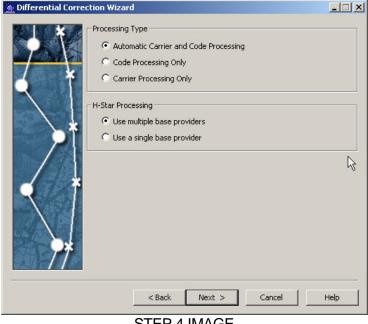
## Create a NEW Base station properties for the City of Madison MAON CORS 2009

- 1. Run Trimble Pathfinder Office and open SSF file or files to be corrected
- 2. Select menu option Utilities → Differential Correction
- 3. Be sure you have an .SSF file or files selected for correction, then press NEXT

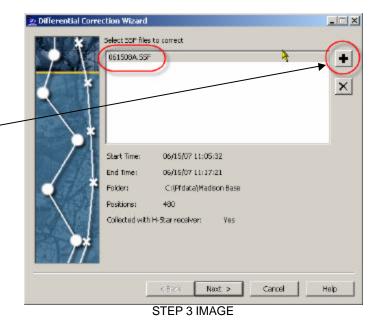
---if no file or files appear, press the "Plus sign" to add files, navigate to the SSF then press OPEN

4. Select User preferences. Typically, users select Automatic Carrier and Code Processing. If your GPS receiver is H-star capable (GeoXH, ProXH etc), select single or multiple base providers depending on your distance from single base then press NEXT



**STEP 4 IMAGE** 

5. Set the "Correct Settings" appropriately then press NEXT



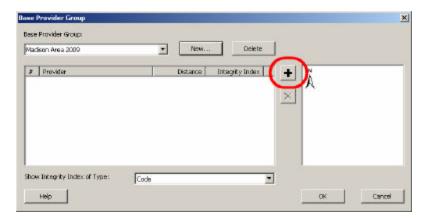
👱 Differential Corre	n Tion Wizard			_IIX
	- Correct Sattings Rover processing with velocit Rover Ritering with data cale Correct velocity records Re-correct real-time code pos No audit files Standard base processing	ction settings	)	•
				Change
	< Back	Next >	Cancel	Help

STEP 5 IMAGE

- 6. If running H-Star and selected 'Use multiple base providers' at Base Provider Group dialogue box, press **Select**
- 7. Set Base provider Group Name, press **NEW**, name the group *Madison Area 2009* then press **OK**

New Base Provide	er Group	×
Group Name:	Madison Area 2009	
Help	ОК	Cancel

8. To add Reference Stations to this Base Provider Group press the "**Plus sign**", then Press **UPDATE LIST** button to get the current list from the Trimble website.



Frander		Distance	Integrity Index
🙇 City of Madison Engineering Divi	sion	3 mi	
& COOP_CORS, Seller - Watertow	n, WI	32 mi	
👗 COOP_CORS, Seiler - Pelmyre, 1	M1	41 mi	
👗 COOP_COR5, Rock River, IL		53 mi	
🗴 CORS, Blue River WI		60 mi	
尤 COOP_CORS, Seiler - Brookfield	WE	62 mi	
📩 CORS, Mequan, WI		65 mi	
how Integrity Index of Type:	Single Frequency Carrier		
how Base Providers of Type:	Altypes	*	Update List
Base Provider			<u> </u>
New Copy	Properties	Delate	
Copyer			

2 Differential Corr	ection Wizard	
	Base Provider Group:	Select
	Reference Poston C Use reference poston from base files C Use reference poston from base providers	L3
74	Confirm base data and position before processing	
	< Back Next > Cancel	Help
	STEP 6 IMAGE	

9. If running "Use a single base provider" option, under Base Data  $\rightarrow$  Base Provider Search press **Select** then, Press **Update List** button

<b>@ Differential Correction Wizard</b>		x	
Base Data C Base Provider Search City of Madison Engir C Folder Search		Select Base Provider	×
C:\Pfdata\Nov Class\	Base Select	Frowder	Distance Integrity Index +
CLINT110210A.SSF	Browse	▲ City of Madison Engineering Division ▲ COOP_CORS, Saller - Watertown, WI ▲ COOP_CORS, Saller - Palmyne, WI	3 mi 32 mi 41 mi
Reference Position		COOP_CORS, Rock River, IL     CORS, Blue River WI     CORS, Blue River WI     COOP_CORS, Seiler - Brookfield, WI     CORS, Mequan, WI	53 mi 60 mi 62 mi 65 mi
City of Madison Engineric	eering DivisionSelect	Show Integrity Index of Type: Single Prequency Canto Show Base Providers of Type: Altypes Base Provider New Copy Properties	er Vodete List
< Back	Next > Cancel Help		OK Cancel

10. Locate CITY OF MADISON ENGINEERING DIVISION then press **Properties...** to confirm all BASE PROVIDER information below is correct. If it is correct then Trimble site has updated the online base to match Madison's new (JANUARY 2009) file locations. Press OK and continue to process your Data

Provider		Distance	Integrity Index
City of Madison Engineering Di	/ision	3 mi	
COOP_CORS, Seiler - Waterto	wn, WI	32 mi	
🕻 COOP_CORS, Seiler - Palmyra,	WI	41 mi	
COOP_CORS, Rock River, IL		53 mi	
CORS, Blue River WI		60 mi	
🕻 COOP_CORS, Seiler - Brookfiel	d, WI	62 mi	
CORS, Mequon, WI		65 mi	
now Integrity Index of Type:	Single Frequency Carrier	•	
iow Base Providers of Type:	All types	-	Update List
	Transfers		
Base Provider			
New Copy.	Properties	Delete	

If it does NOT match continue to next steps to add a Madison the new updated 2009 MAON CORS to your Base Provider list.

11. Locate CITY OF MADISON ENGINEERING DIVISION, click on it to highlight then press **COPY** to create a "BLUE" duplicate, it will open the properties automatically, fill in the information below:

Provider		Detance	Integrity Index
🐍 City of Madison Engineering Dr	vision	3 mi	92.75
🛣 COOP_CORS, Seller - Waterto	wn, 80	32 mi	16.71
🐍 COOP_CORS, Seller - Palmyra,	WE	41 mi	7
& COOP_COR5, Rock River, IL		53 mi	7
🕅 COR5, Blue River WI		60 mi	92.84
COOP_COR5, Seller - Brookfiel	d, WI	62 mi	7
COR5, Mequon, WI		65 mi	2 2
how Entegrity Index of Type:	Code	•	
now Base Providers of Type:	All types		Update List
Base Provider		20	
NeviCopy.	Froperties	Driets	

Confirm the following information is correct on all tabs:

## <u>General tab</u>

Organization:	City of Madison MAON CORS 2009
Station Location:	Madison WI
Postal address:	Engineering Division Office, Emil Street, Madison
Contact Name:	Dave Davis
Web Home page:	http://gis.cityofmadison.com/Madison_GPS/index.htm
Email address:	ddavis@cityofmadison.com
Telephone:	(608) 266-4097
Fax:	(608) 264-9273
BBS number:	None - no bulletin board for this site

Organization:	City of Madison MAON CORS 2009	
Station Location:	Madison WI	
Postal Address:	53703 USA	
Contact Name:	Davis	
Web Page:	http://gis.cityofmadison.com/Madis	Go To
E-Mail Address:	ddavis@cityofmadison.com	Send E-Mail
Telephone:	+1 608 266-4097	
Fax:	+1 608 264-9273	
3BS Number:		

Base Station tab

Receiver type:	Trimble NetR5 receiver and Type II Zephyr Geodetic antenna with groundplane
Base station Type:	Trimble GPSBase software
Other information:	Data is logging hourly and daily DAT RINEX and almanac files 13 degrees elevation mask 6.0 PDOP mask
Select radio button:	Always use the following information
WGS84 Latitude:	Latitude 43 02 12.81150 N
WGS84 Longitude:	Longitude 89 24 34.29504 W
Altitude:	Ellip Ht 247.660 m (ARP)

Genera Base Station Internet Server Security Receiver Type: Geodetic antenna with groundplane Base Station Software: Trimble GPSBase software Other Information: Data is logged hourly and daily, dat	
Base Station Software: Trimble GPSBase software	
Base Station Software: Trimble GPSBase software	
Other Information: Data is logged hourly and daily. dat	
Reference Position (ITRF00 (Epoch 1997.0))	
Latitude: 43 02 12.81150 N	
Longitude: 89 24 34.29504 W	
Altitude (m HAE): 247.660	

**NOTE:** The Reference Position is listed as an ITRF00 (Epoch1997) position. This IS different from the published NAD83(NSRS2007) datum position. The Wisconsin Department of Transportation CORS network WISCORS (<u>wiscors.wi.gov</u>) generated the coordinates to coinside with their whole network . City of Madison staff confirmed these final coordinates sufficiently match the existing City adjustment to use. The actual adjusted coordinates in NAD83(NSRS2007) are Latitude:43° 02' 12.782773" N Longitude: 89° 24' 34.270994" W Ellipsoid Height: Bottom of antenna mount / Antenna Reference Point = 248.694 m If you are doing H-star processing, you should use the "Use reference position from base providers", as you are combining this reference station with other stations and to be consistent, Trimble converts all reference positions to a single reference frame: ITRF 00(Epoch 1997). If you are using single base and are always working in NAD83(NSRS2007), select the "use the Reference position from the base file" option to use the broadcast position.

## Internet Server tab

Address format field: Copy the following information shown below -(MUST BE EXACTLY AS SHOWN - Use cut and paste) http://gis.cityofmadison.com/Madison\_GPS/Hourly\_DAT\_2/%YYMMDDHH%.dat.zip

Base Server Type: Select radio buttons Other and GPS time (UTC)

Set File time span to 1 hour

**NOTE:** The City of Madison also offers a DAILY zip file of the data created at the end of each work day. To create a second copy of the base, follow instructions above and the only difference will be this Base File Address Format

http://gis.cityofmadison.com/Madison\_GPS/Daily\_DAT\_2/%YYMMDDHH%.dat.zip

Base File Address Format:	format from address printed in directions
ityofmadison.com/Madison_GP	S/Hourly_DAT_2/%YYMMDDHH%.dat.zip
Time Format C Local Time GPS Time (UTC)	File Time Span (Hours):
Station ID: MAON	

## Security tab

Select radio button Public access

- 12. Press **OK** to close *Base Provider Properties* dialogue box and allow Pathfinder Office to add the UPDATED City of Madison reference station to your current base station list.
- 13. Highlight the new reference station then press **OK** to add the "City of Madison Engineering Division Updated" to the base group

L City of Madison Engineering Division Updated	3 mi		
		7	
📕 City of Madican Engineering Division	2 mi		-
🚨 City of Madison MAON CORS 2009	5 mi	?	
A Seller - City or watertown	32 MI		
🛣 Seiler - Palmyra-Eagle High School	41 mi	?	
🛣 UNAVCO, Iowa County, Wisconsin (jfws)*	47 mi	?	
COOP_CORS, Rock River, IL	53 mi	91.58	
how Integrity Index of Type: Single Frequency Carrier	•		
how Base Providers of Type: All types	-	Update Li:	st

Base Provider Group	×
Base Provider Group: Madison Area 2009  Vew Delete	
# Provider Distance Integrity Index	N N
1 🛣 City of Madison MAON CORS 2009 5 mi ?	A I
×	
	×
	•1 0 2.5 5 mi
	0 2.5 5 mi
Show Integrity Index of Type: Single Frequency Carrier	
Help	OK Cancel

If access is restricted, contact the base provider to obtain a user name and password.		: Access cted Access:		
	usi	er name and passw	provider to obtain	a
Password:	Pa	ssword:		

14. To actually retrieve Base Internet files from Madison Base only, press **OK** and continue with differential correction or press the **PLUS SIGN** to add more reference stations to this Base group for H-star processing- example shows five but three surrounding your project is typical. To leave Internet search without retrieving any files press **Cancel**.

	Provider Group					×
Mad	lison Area 2009	▼ New	. Delete			
#	Provider	Distance	Integrity Index	+	Ņ	
1	& City of Madison MAON CORS 200	5 mi	?	<u> </u>	A	
2	🛣 UNAVCO, Iowa County, Wisconsi	47 mi	?	$\mathbf{x}$		
3	🧟 COOP_CORS, Rock River, IL	53 mi	91.58	$\sim$	.4	
4	🙇 Seiler - City of Watertown	32 mi	?		1 1	
5	🛣 Seiler - Palmyra-Eagle High School	41 mi	?		·2 ·5	
					-3	
					0 25 50 mi	
Shov	v Integrity Index of Type: Single	Frequency Carrier	•		R	
	Help				OK Cancel	

15. To use ITRF00 (Epoch1997) position select *Use reference position from base providers (usually selected when using multiple ref sta)* To use NAD83(NSRS2007) Epoch 2002 position select *Use reference position from base files* 

To continue with differential correction, Press **NEXT** then **START** To exit differential correction without performing a correction press **Cancel**.

	Base Provider Group: Madison Base Select
	Reference Position Use reference position from base files Use reference position from base providers
$\setminus$	

16. The newly added "City of Madison MAON CORS 2009" reference station will appear in the list until Trimble Pathfinder Office is removed or reinstalled even if you UPDATE LIST as you should do on a regular basis.