

## Skapa egna koordinatsystem

en MicroStationguide från

surell consulting ab

## SKAPA KOORDINATSYSTEM

I MicroStation kan man tala om vilket koordinatsystem som används för en ritning. När man har angivit ett koordinatsystem kan man sedan ansluta filer i andra koordinatsystem och få dessa att passa mot den aktiva filen.

För att skapa nya namngivna koordinatsystem krävs Bentley Map men även i standard MicroStation kan man definiera ett koordinatsystem från kända referenspunkter och sedan spara detta i filen. När detta är gjort kan man sedan ansluta filer som använder andra koordinatsystem och få dessa att passa mot den aktiva filen. Om man skapar detta koordinatsystem i en seedfil kan man få ett korrekt, lokalt koordinatsystem, i alla nya filer.

## DEFINIERA ETT ANPASSAT KOORDINATSYSTEM

För att definiera ett lokalt koordinatsystem måste man ange ett antal referenspunkter i kartan. Detta görs med kommandot *Define Placemark Monument* i paletten [Tools – Geographic].

- 1. Starta kommandot Define Placemark Monument.
  - Följande visas i Tool Setting:



Här kan man välja att skapa sina placemarks manuellt eller använda placemarks skapade i Google Earth. Skapar man dem i Google Earth lagras long/lat-positionerna automatiskt och man behöver bara placera dem på korrekt plats i sin designfil. I detta exempel ska vi dock skapa dessa markeringar manuellt.

2. Välj *Longitude and Latitude Values* från listan och fyll i korrekta värden för den position som ska markeras.

🚯 Define Placem	nark Monument	- • -
Source:	Longitude and Latitude Value	s 🔻
Datum:	WGS84 👻	
Longitude:	17.980100000°	
Latitude:	59.380200000°	
Elevation:	13.30000000	
Placemark Name:	Placemark-1	

3. Placaro markäran på matavaranda <u>plata i filan</u>



- 4. Upprepa detta för ytterligare positioner så det finns minst tre placemarkers i filen. Dessa bör vara väl definierade och gärna utspridda över området för att minimera fel.
- 5. Välj Select Geographic Coordinate System från paletten Geographic.



6. Klicka på ikonen From Placemarks.

Följande dialogbox öppnas:

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lace	mark	Monu	ments foun	d						
#	¢	Use	Name	Lo	ongitude	Latitude	Х	Y	Distance Error	
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2		~	Position 2	2	0.969°	67.072°	4866.95	8186.71	3.48 / 445.18 (0	.8%
3		~	Position 3	2	0.962°	67.084°	3469.45	8165.29	0.87 / 1065.54 (	0.08
Cool	rdinat	e Sys	tem calcula	ated from Placemark	III Monuments					
			Projection:	Azimuthal Equal Area		Azimuth:	77.737°			
			Longitude:	20.962°		False Easting:	4507.37			
			Latitude:	67.075°		False Northing:	7924.25			
Ν	laximu	ım Ang	le Distortion:	0.189°		Maximum Scale Distortion:	0.0002%			
								<u>O</u> K	Cancel	

7. Tryck på Ok för att spara koordinatsystemet till filen.

Nu är koordinatsystemet sparat till filen vilket syns i dialogboxen *Geographic Coordinate System*.



- 8. När detta är gjort kan man ansluta filer i andra, väldefinierade koordinatsystem, och få dessa att passa den aktiva filen.
- Anslut önskad fil, t.ex. i Sweref 99 18 00 och ange Geographic Reprojected under Orientation när filen ska anslutas (detta förutsätter att man angivet detta koordinatsystem i referensfilen).

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10. Om allt har gått bra kommer den anslutas så att den passar ritningen i den aktiva filen.

Genom att på detta sätt skapa en koordinatsystemsdefinition i filen kan man sedan ansluta filer i andra koordinatsystem och få dessa att passa den aktiva filen.