<u>Tutorial 1</u>

In this tutorial we will use JTDist to generate three random joint sets.

Step 1: Select **3** from **Number of Joint sets to create**

Step 2: Enter the following Joint information as follows:

<u>Joint 1</u>

Mean Dip = 20°
Mean Dip Direction = 320°
Standard Deviation of Cone Angle = 3°
Joint Quantity = 30

<u>Joint 2</u>

Mean Dip = 45°
Mean Dip Direction = 225°
Standard Deviation of Cone Angle = 4°
Joint Quantity = 40

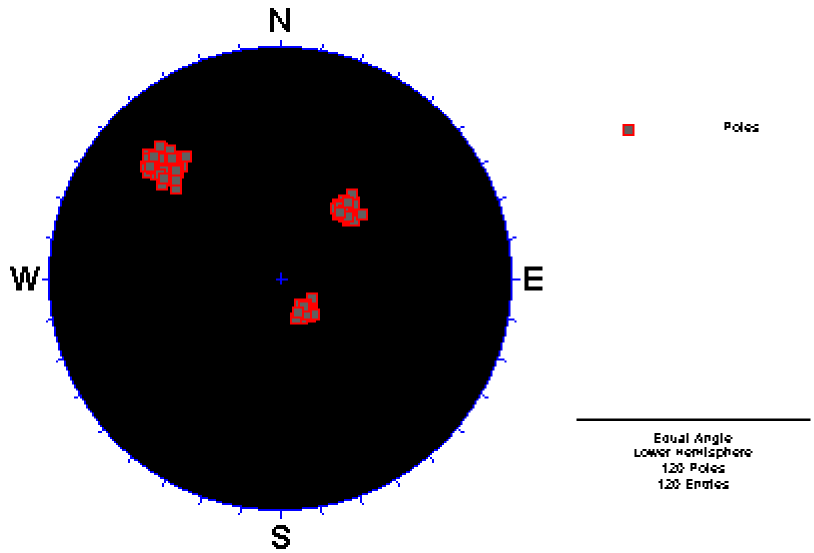
<u>Joint 3</u>

Mean Dip = 70°
Mean Dip Direction = 135°
Standard Deviation of Cone Angle = 5°
Joint Quantity = 50

Step 3: Select **Save File…** and name the file “three.dip”

Step 4: Open Dips and load the three.dip file (select Open from the File menu) and view a pole plot (select Pole Plot from the view menu)

You should have a diagram like this:



The **Save File…** button will create a JTDist file, which contains three groups of poles that are synthetically distributed, according to the **Dip Direction**. The entry of **Standard Deviation of Cone Angle** determines the radius of each group of poles. The Joint Quantity is responsible for the number of poles that are distributed. In the above example, the sum of the each joint's Joint Quantity is 120 (30+40+50), therefore the program will create 120 poles.

Tutorial 2

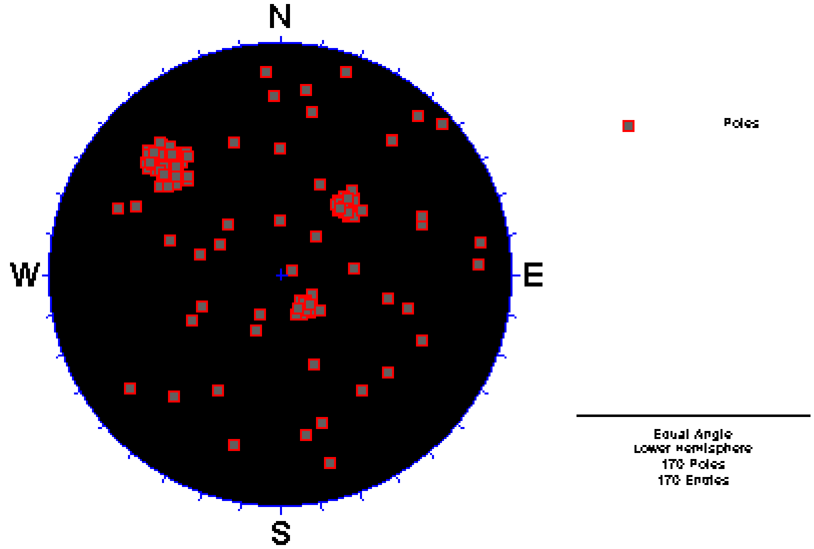
In this tutorial session we will use JTDist file (three.dip) that has been created by Tutorial 1 to apply **Random Joints**. The **Random Joints** will distribute random poles. The number of random poles is equal to the number you enter in the Joint Quantity for Random Joints field.

Step 1: Turn on the **Apply Random Joints** check box and enter 50 in the **Joint Quantity** field.

Step 2: Select **Save File…** and name the file "random.dip"

Step 3: Open Dips and load the file called random.dip (select Open from the File menu) and view a pole plot (select Pole Plot from the view menu)

You should see a diagram like the below one:



Tutorial 3

In this tutorial session we will use JTDist file (three.dip) that has been created by Tutorial 1 and apply **Normal Error**. If this error has been checked, the program will take the JTDist (Dips) file and apply a normally distributed error to the measurements.

Step 1: Turn on the **Apply Error** check box.

Step 2: Enter the following error information as follows:

Dip Error = 5°

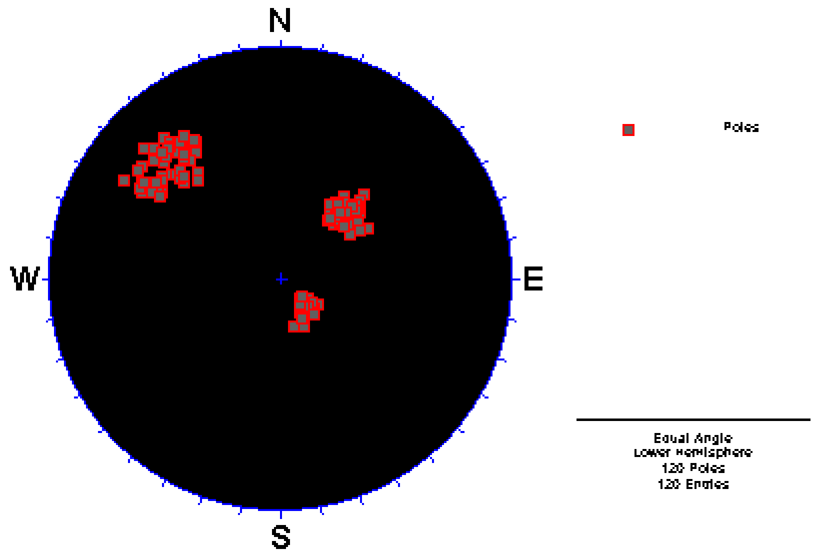
Dip Direction Error = 10°

Step 3: Choose **Normal Error** from the Error Type box.

Step 4: Select **Save File…** and name the file “normal.dip”

Step 5: Open Dips and load the file called normal.dip (select Open from the File menu) and view a pole plot (select Pole Plot from the view menu)

You will have the following diagram.



Tutorial 4

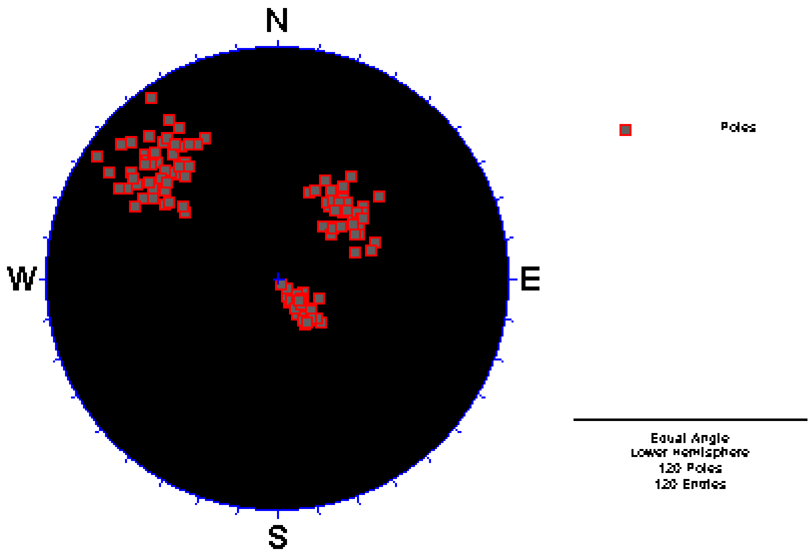
In this tutorial session we will use JTDist file (three.dip) that has been created by Tutorial 1 and apply **Uniform Error**. If this error has been checked, the program will take the JTDist (Dips) file and apply a uniformly distributed error up to +/- error.

Step 1: Repeat Tutorial 3, and choose **Uniform Error**.

Step 4: Select **Save File…** and name the file “uniform.dip”

Step 5: Open Dips and load the file called uniform.dip (select Open from the File menu) and view a pole plot (select Pole Plot from the view menu)

You should have the following diagram.



Tutorial 5

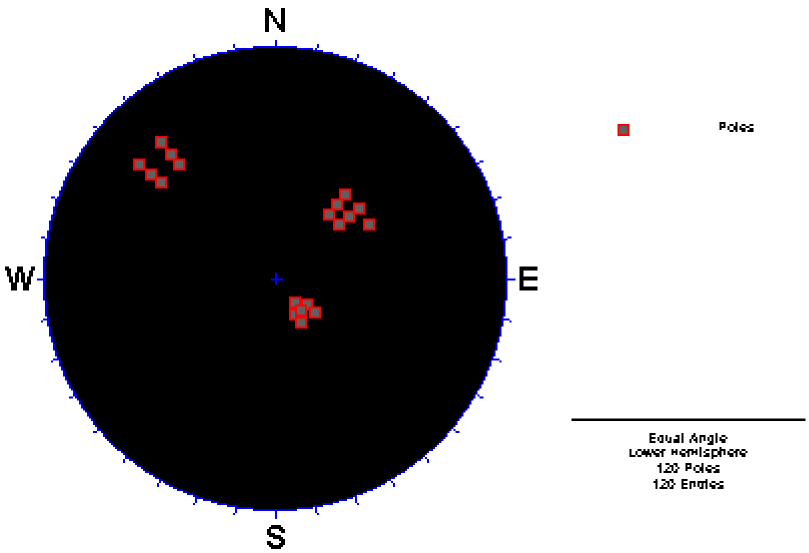
In this tutorial session we will use JTDist file (three.dip) that has been created by Tutorial 1 and apply **Round Off Error**. If this error has been checked, the program will take the JTDist (Dips) file and apply a round-off error to the measurements. It will round off the dip and dip direction to whole numbers.

Step 1: Repeat Tutorial 3, and choose **Round Off Error**.

Step 4: Select **Save File…** and name the file "round.dip"

Step 5: Open Dips and load the file called round.dip (select Open from the File menu) and view a pole plot (select Pole Plot from the view menu)

You will have the following diagram.



NOTE: The output files (Dips) can be analyzed with any version of Dips.