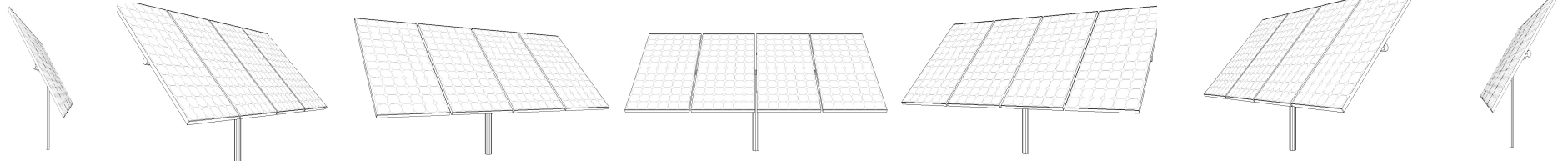


Tracker Types

The purpose of this page is to describe various types of trackers graphically and show their daily motion. There are many geometries or kinds of possible trackers. Tracstar makes azimuth including alt-azimuth, which is a dual-axis version of azimuth trackers, that mount on a single pole and linear trackers which are a row or rows of modules mounted on more than one pole. All graphics are for 40 degrees latitude.

Azimuth Tracker

An azimuth tracker rotates around a vertical axis facing east in the morning, south at noon and west in the evening. It is a very effective single axis tracker especially at higher latitudes and is the standard dual-axis tracker with the addition of an elevation drive. As a single axis tracker the elevation is adjusted for the latitude during installation. Note that the view is from the south and the graphics are to be read from left to right representing the progression of a day. The sunrise and sunset positions would be for early about October and March. If this was an alt-azimuth dual-axis tracker the elevation would change from vertical early and late to the maximum elevation at noon.



Sunrise

Early Morning

Late Morning

Noon

Early Afternoon

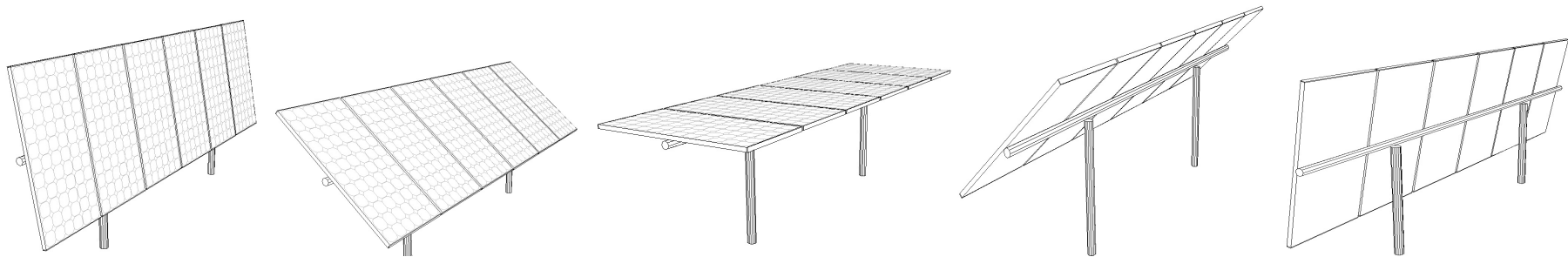
Late Afternoon

Sunset

Linear Trackers

Linear trackers are rows usually running north-south that rotate from east to west. Traditionally they are built as what we call a simple linear with the modules parallel with the axis and edge to edge. As this type of tracker has poor winter performance Tracstar builds a version with the modules tilted south either at a fixed angle, adjustable for winter and summer, or continuously adjusted automatically which is a true dual-axis tracker. Note that the view point in these graphics is from south-south west and from an elevation to better show the movement. A dual-axis version not shown would adjust the tilt south of the sets of modules continuously. In practice there is little adjustment throughout a day but significant adjustment from summer to winter as is also evident in the adjusted linear graphics.

Simple Linear



Sunrise

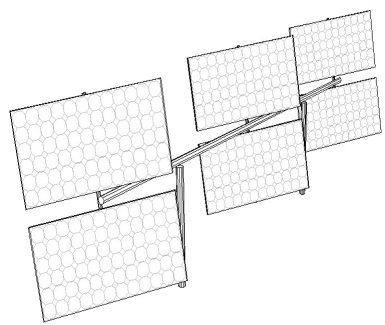
Mid Morning

Noon

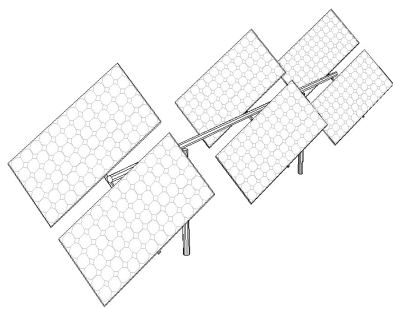
Mid Afternoon

Sunset

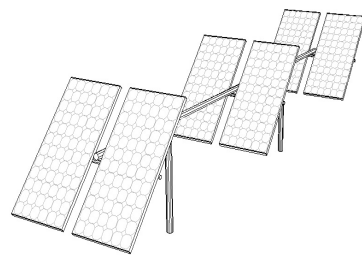
Adjusted Linear Winter Adjustment



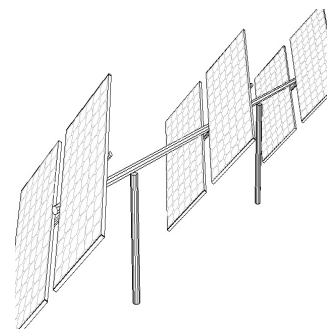
Sunrise



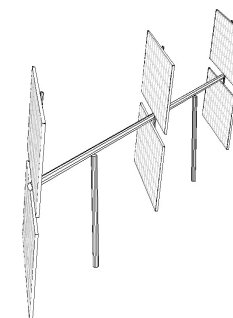
Mid Morning



Noon

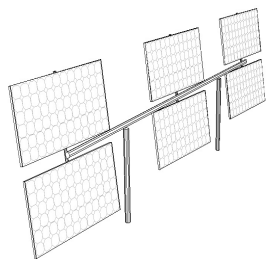


Mid Afternoon

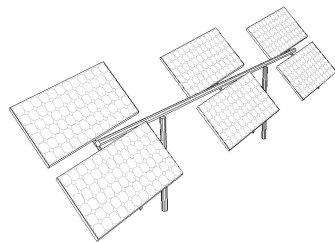


Sunset

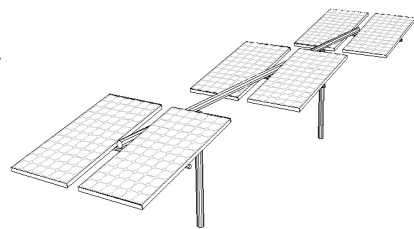
Adjusted Linear Summer Adjustment



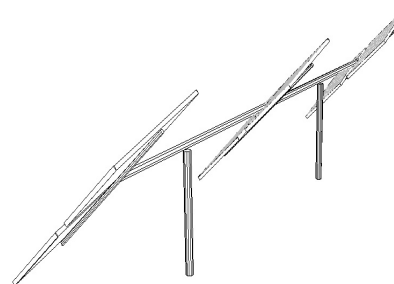
Sunrise



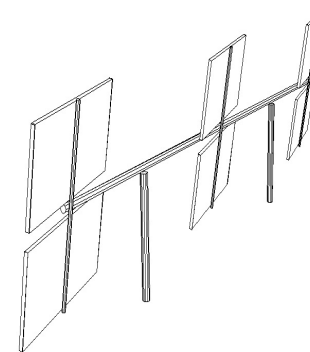
Mid Morning



Noon



Mid Afternoon



Sunset

Fixed Linear

This graphic of a fixed linear in the noon position is just to show that the overall length and distance between sets of modules is slightly less than for an adjusted version.

