

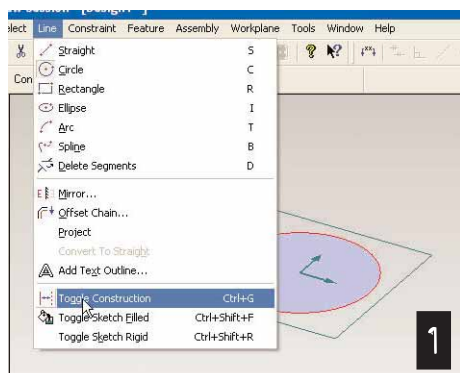


by  
**Steve Smith**

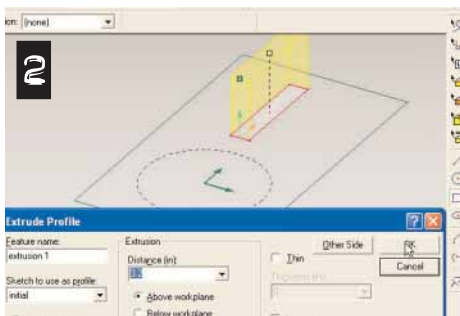
## Creating Circular Patterns with a Single Ring

There will be times when a design project requires the use of a circular pattern. In this example, a single extrusion has been patterned around an axial reference object.

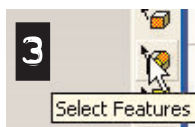
The process of designing a pattern in Pro/DESKTOP will require 2 things. An Axial reference object and an object to be patterned.



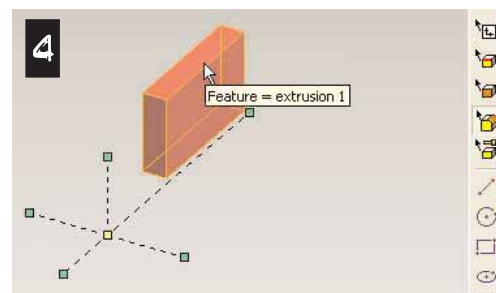
1. The first step is to draw the Axial Reference Object which will take the form of a circle in the center of the page. Select the **Line** menu at the top of the page and drop down to **Toggle Construction**. The circle will become a dotted line.



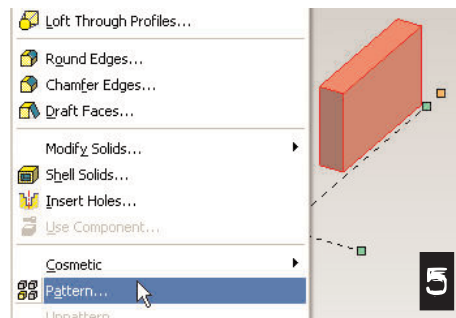
2. Next **draw** and **extrude** the feature that is to be patterned. A simple rectangle has been sketched and extruded just outside of the circle. Notice that the circle has become a dotted line indicating that it is now an **Axial Reference Object**.



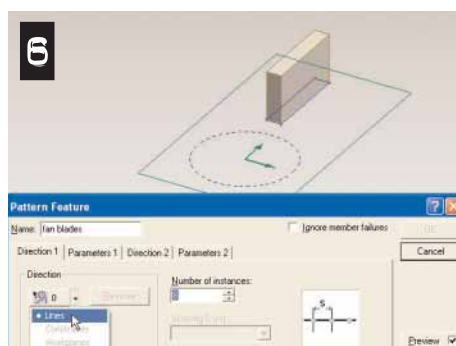
3. On the right hand tool menu click **Select > Features**



4. Click on the feature to be patterned.



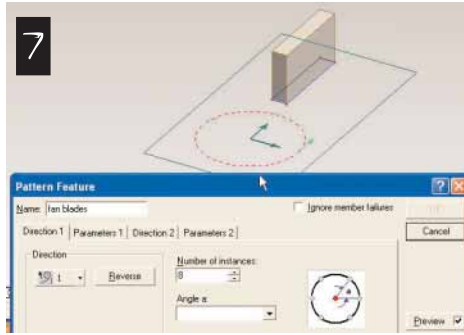
5. Select the **Feature** menu at the top of the page and drop down to **Pattern**.



6. The **Pattern Feature** dialog box will open. Click the **Direction 1** tab. The feature has been renamed fan blades in the Pattern Feature dialog box. At the **Direction** menu select **Lines** from the dropdown.

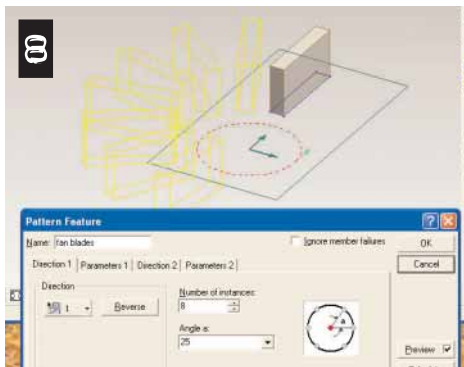
# Pro/DESKTOP Tips

In the *Number* of instances box enter the number of instances of the design extrusion that will be included in the pattern. In this example the number 8 has been entered.



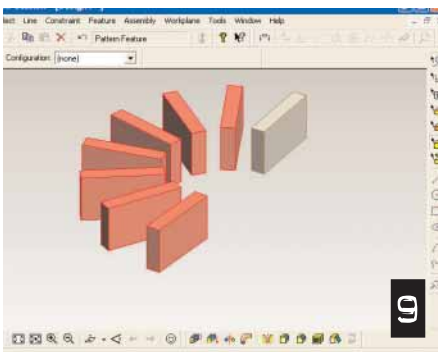
7. Click on the *Axial Reference Object* (dotted circle). It will turn red and the *Angle* box which has until now

been grayed out will open and turn white.



8. Enter the angle between blades. A space of *25 degrees* was chosen for this project.

Click *OK* and the pattern will take shape.



9. **You're done!** Patterns may be combined with other design elements and features in Pro/DESKTOP which may then be utilized in the creation of complex and interesting design projects.

*Steve Smith*

is technology coordinator at Newburyport High School in Newburyport, Massachusetts. He is also a Pro/DESKTOP trainer.



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