

Turret Setup User Manual

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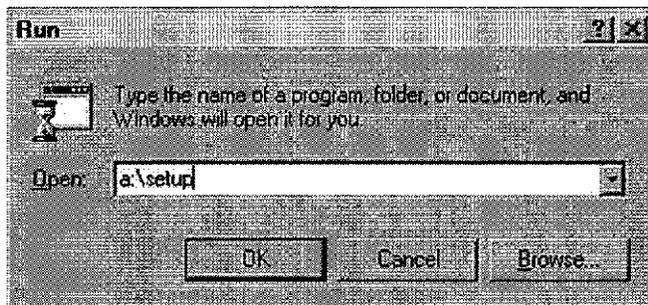
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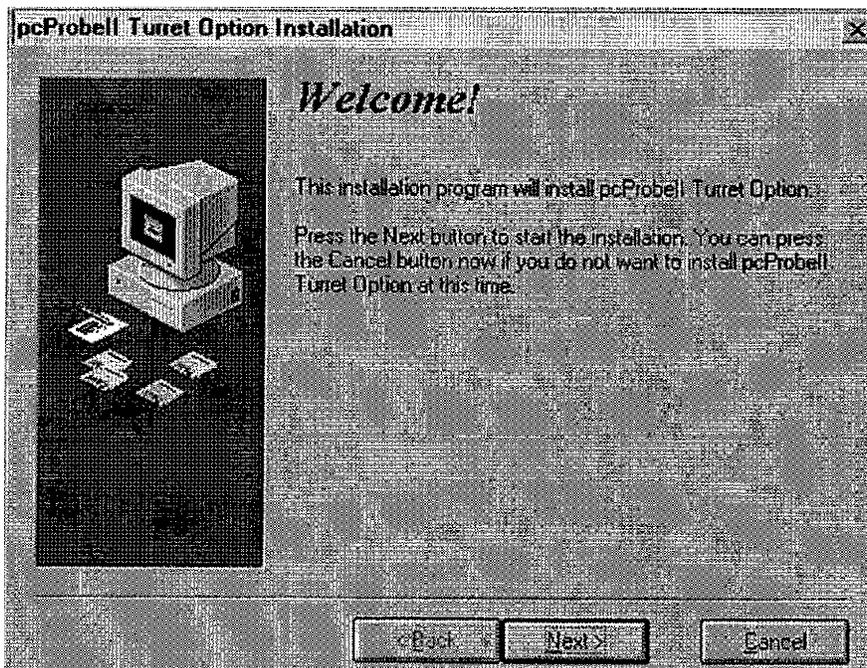
NOTES

1 Software Installation

1. If pcProbe^{II} is running exit it by selecting File/Exit from the pcLaunch menu bar.
2. Insert the pc2-turret diskette in floppy drive a:
3. Select "Start/Run..." from the Windows toolbar. The following screen appears:



4. Type in "a:\setup" in the Open text field and select OK.
5. The setup program looks for the pcProbe^{II} installation on the computer. The following dialog box appears when the installation is found:



6. Select Next > to continue installation. The following dialog box appears:

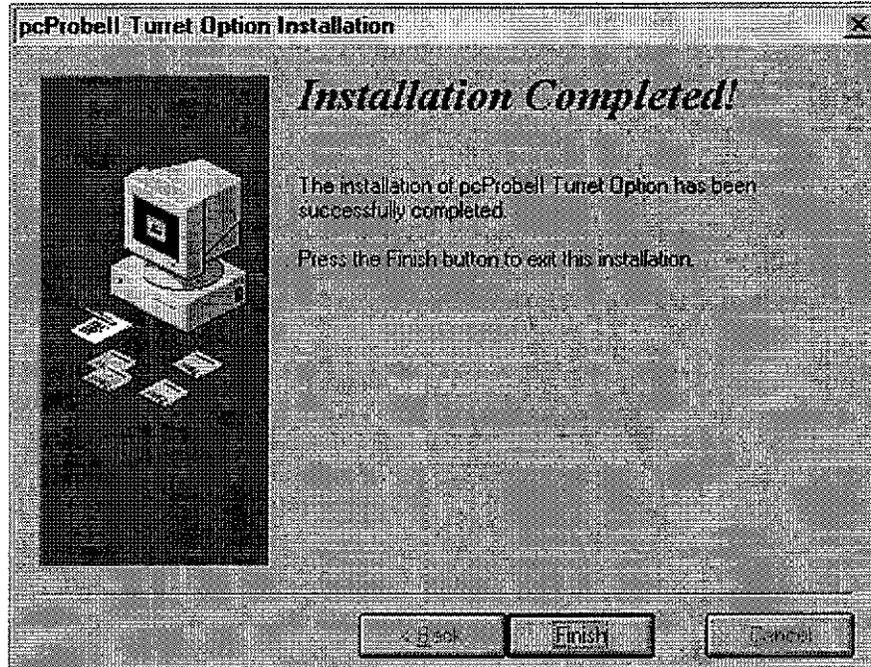


C:\POSLIB is the default directory. The pcProbe^{II} Turret should be installed in the same directory as pcLaunch.

7. Select Next > to continue installation. The following dialog box appears:



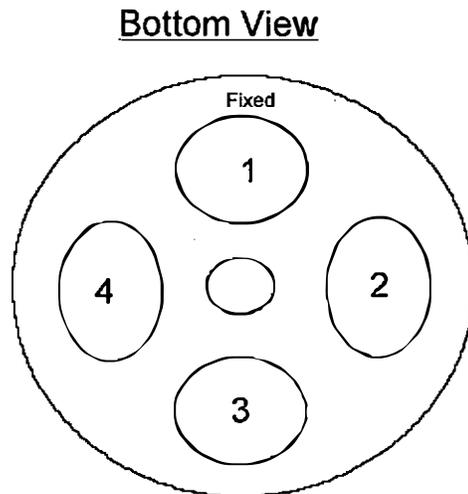
8. Select Next > to continue installation. The turret option is installed on the computer to the selected directory. When the installation is completed the following dialog box is shown. Select **Finish** to complete the installation.



2 Installation of Objectives

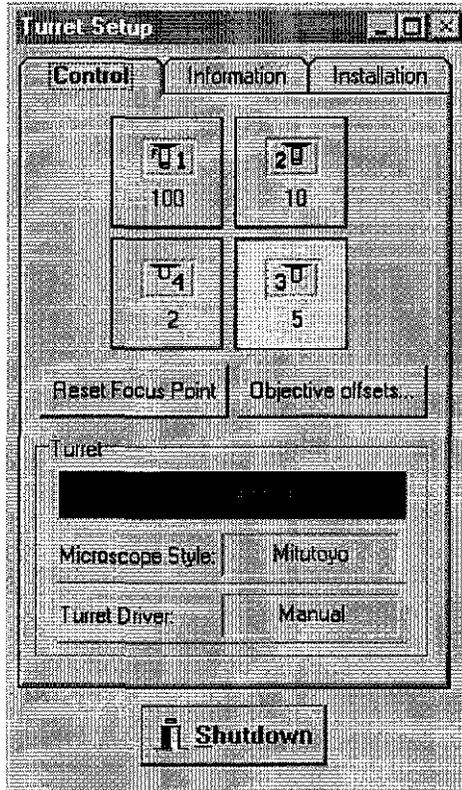
2.1 Physical Objective Installation

Although any microscope turret slot may contain any objective, it is recommended that the highest power objective be placed in the fixed slot (1). Objectives are mapped to slots by simply matching the physical slots to those used by the software. If a selected objective is already mapped to another slot the new selection is used and the other slot is mapped to <empty>. The physical slots are arranged as follows:

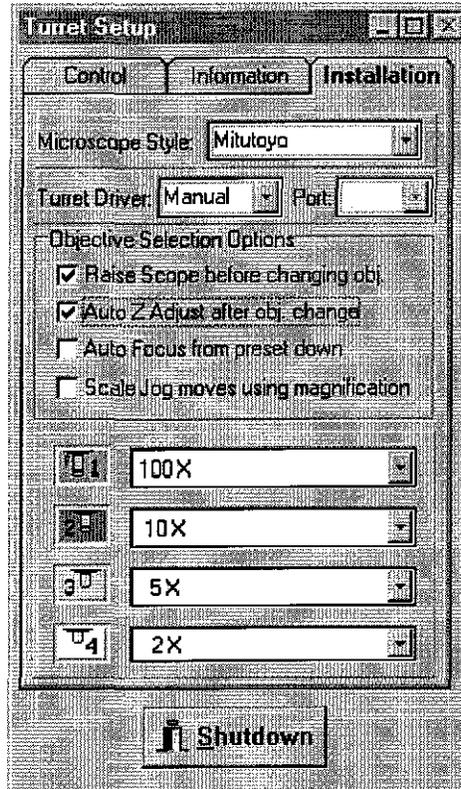


2.2 Software Objective Installation

1. Start pcProbe^{II} by clicking on the pcLaunch icon .
2. Start the Turret Setup program by double clicking its icon . The Turret setup boots to the following screen:



3. Click on the Installation tab. The following screen is shown:

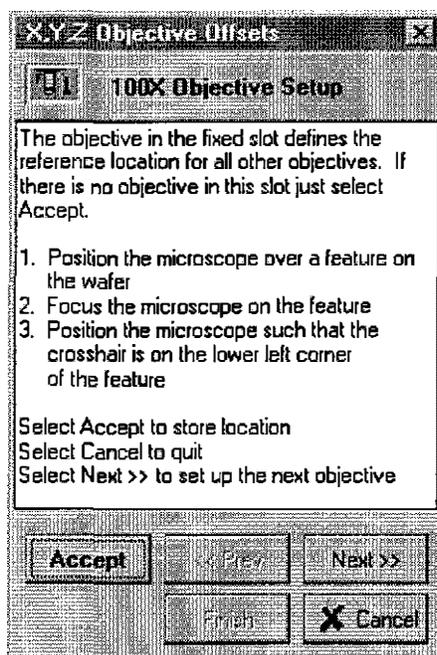


4. Select the microscope style to determine the available objectives. Currently only the Mitutoyo and USMC scopes are supported.
5. Select the turret driver. The options are **Manual**, **TNP** or **Mitutoyo**. The TNP option communicates through the selected RS-232 port to the TNP MT-405 motorized turret. The Mitutoyo option communicates through the selected RS-232 port to the Mitutoyo Power Revolver motorized turret.
6. Selection of a new objective requires different actions in different probing scenarios. With this in mind, there are four optional actions available whenever a new objective is selected by the user. These are:
 - ✓ Raise microscope before changing objective
 - ✓ Auto Z Adjust after changing objective
 - ✓ Auto focus from preset down (Only available with the Pattern Recognition Option)
 - ✓ Scale jog move speed according to objective magnificationTypically, the first two are selected to prevent objectives from contacting probes or probe cards.
7. For each turret slot select the installed objective from the drop down list. For example, select a 100X objective for slot 1. Select the **Control** tab when done.

3 Setting Objective offsets

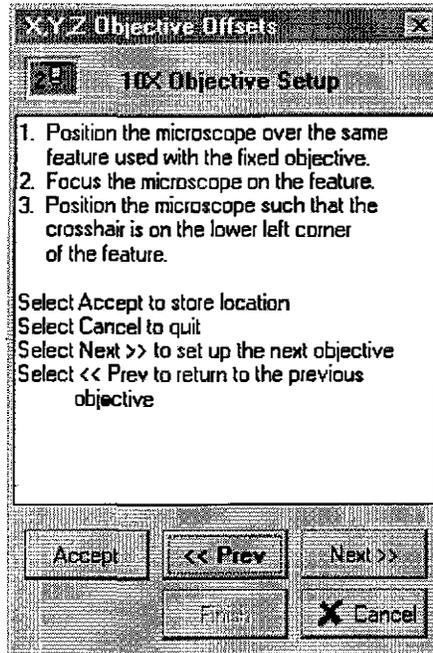
In order for a DUT feature to stay in focus (parfocalized) and in the field of view (parcentered) of the microscope when changing objectives it is necessary to store X,Y,Z offsets of the objectives. The procedure for this is:

1. Click on the **Control** tab and select **Objective offsets....** If the fixed slot is not already selected, it is selected at this time. (Note: The microscope will raise and lower if **Raise scope before changing obj** is enabled in the installation options.) The following dialog is displayed:

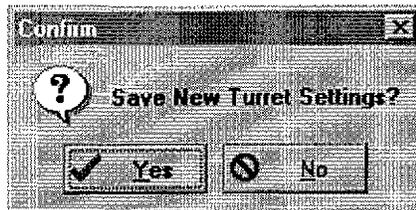


2. Perform the displayed steps and select **Accept** to store the XYZ position.

3. Select **Next >>** to set up the next objective. The following dialog is shown:



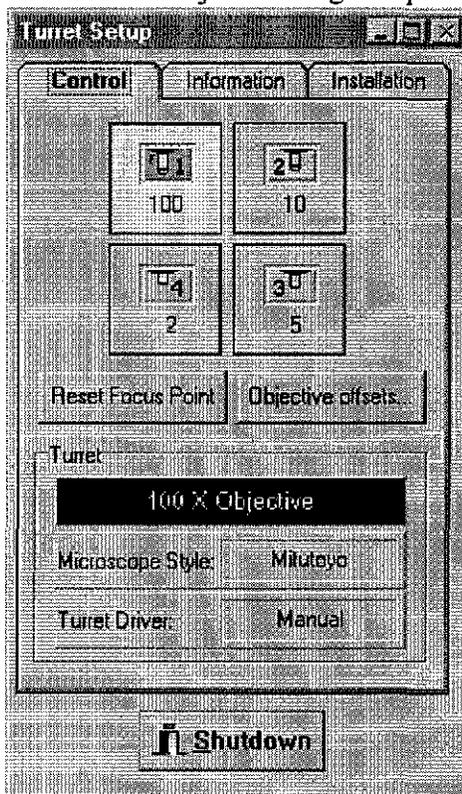
4. Perform the steps on the objective and select **Accept** and then **Next>>**.
5. Repeat steps 3 and 4 until all objectives are installed. Select **Finish** to complete the installation. The following dialog is shown:



Select **Yes** to store the changes.

4 Selecting Objectives

The turret control program displays the available objectives on buttons in the **Control** tab as shown below. Clicking on a button selects that objective using the options set earlier.



The **Reset Focus Point** button adjusts the focus point for the objectives. This value is saved for use by all installed objectives. **Reset Focus Point** is only functional when the objective in the fixed slot is selected.

Note: If the **Auto Focus From Preset Down** option in the installation options is enabled, resetting the focus point will set the Z-up and Z-down positions for the microscope (in pcNav) to the current position.

5 Objective Information

The optical information for the active objective is accessible by selecting the **Information** tab. The following screen is displayed:

