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## Typography

We will be using the following typography to distinguish items in the text:

- **[Enter]** Brackets indicate keys on the keyboard.
- *flexibility* Italics are used to highlight words for more emphasis.
- **Lot 2** Numbers or text that you enter.

## System Requirements

This version of TPC Desktop requires Windows 10 / 8.1 / 8 or later. We recommend you
have 2 GB of RAM (32-bit OS) 4 GB RAM (64-bit OS) and 60 MB of free hard disk space in which to install the program. **An internet connection is required for program validation.**

**Important Licensing Information**

Our License Agreement allows you to use TPC on only one computer at a time unless you purchase additional licenses. We do offer one courtesy installation for an additional home or field computer, **but not for a second user** and assuming that the two programs are not being used at the same time. To request a courtesy license contact Traverse PC.
Welcome to the *TPC Desktop Learning Guide*. It’s designed to help you learn how to do everyday tasks with Traverse PC Desktop.

The Learning Guide is divided into chapters highlighting function areas within the program like Importing Data from a Data Collector and Using ASCII Files. Within each chapter you’ll find step-by-step instructions on how to do the most common tasks like adding a line to a legend or adding angled text to a drawing. We’ve also included useful hints to help you work more efficiently in TPC and references to the on-line Help so you can continue to learn after you have used the Learning Guide.

Almost all of the topics in the Learning Guide apply to all Editions of Traverse PC Desktop. The ones that are limited to specific Editions are clearly labeled, usually at the start of the chapter. Some specific functions are limited to specific Editions and are clearly labeled as such when the function is discussed in the text.

▶ **This chapter demonstrates**
Each chapter starts with a list of the things demonstrated in the chapter. This list corresponds with the individual tasks in the chapter.

▶ **Not available in some Editions**
Each chapter has an indication like this at the start if it only applies to specific Editions.

▶ **We provide the starting file**
Most chapters start by having you open one of the tutorial files provided with the Learning Guide. Just open the file and jump right in.

▶ **One page per task**
Most of the tasks fit on a single page. Review all the tasks in a chapter first, then work through the tasks that are of interest to you. When you add up all the tasks in all the chapters there are literally hundreds of lessons in the Learning Guide.

▶ **Follow the steps**
Most tasks include steps for you to follow. Each task starts with step 1.

▶ **Menu commands only**
For the most part, the Learning Guide will include something like, choose **File** | **Save**. The bold typeface indicates text you’ll see on the screen. In this case, you would left-click the **File** menu to open it, then left-click the **Save** command to execute it. “Choose” means to left-click on a specific item.

As you become familiar with Traverse PC Desktop you can also use the short-cut keys and tool bars.

▶ **Windows Styles**
Depending on your version of Windows and what visual styles you have selected, your
dialogs and screens may look different than what is shown in this Learning Guide. We include styles common in Windows 10 & 8 in this learning guide.

Windows 8 / 10 Style
This chapter demonstrates:
- Desktop layouts
- Desktop menus and toolbars
- Opening and closing a Traverse View
- The active view
- Moving a view
- Resizing a view
- Using context menus
- Using hot keys
- Toolbars

Docked & Tabbed Views Left Side
Overview

This chapter explains how to use TPC Desktop. If you are already familiar with the Windows interface, some of this will be a review for you. However, you’ll also learn about dockable views and tabs in this chapter.

☞ To learn more about Using TPC Desktop
1) Choose Help | Content expand the Using the Desktop topic and left-click the Working With Views link.

▲ Getting Started
1) From the Tasks Manager choose Sample Surveys.
2) From the Open dialog, double-click the LEARN IMPORT.trv file.
The TPC Desktop

We use the term *TPC Desktop* or just *Desktop* to refer to the TPC program window. You can maximize the desktop to fill your entire screen, expand it onto a second monitor (if your computer supports this feature) or drag any of the sides or corners to resize it.

Everything you do in TPC relates to the *Desktop*.

**Working with Views and Managers**

When working with the *TPC Desktop* you’ll encounter both Views and Managers. The difference between the two is subtle but very important. A manager will generally allow you to view collections of data: See all your traverses in the Traverses Manager, or your drawings in the Drawings Manager. A View, on the other hand, generally shows you specific parts of your survey: a Traverse View displays the points that make up a specific traverse, and the Drawing View shows you a drawing.

The circle on the left shows the *Traverses Manager* (where all the traverses in the survey can be found). The circle on the right shows three *Traverse Views* which appear when you double-click on a specific traverse in the Traverses Manager. These *Traverse Views* show all the points in a specific traverse.

**Views, Managers, and Windows: What’s what?**

In a very general sense, TPC refers to windows and managers as *Views*. Some different views have extended functionality, and will be discussed specifically in further sections.
Desktop Layouts

You can arrange the views, toolbars and menus anywhere on the desktop. You can extend the desktop onto a second monitor, leaving one monitor for all your computations and another monitor just for your drawings. Toolbars and menus can even be re-arranged within their individual views. What you end up with is called a Desktop Layout.

The Current Layout

TPC saves your layout so that each time you run TPC it picks up right where you left off. Go ahead and rearrange the views just the way you want them. Think of it as customizing TPC Desktop just for you.

Saving and Recalling Layouts

You can also save and recall layouts. If you use a notebook computer and have access to a second monitor save one layout for just the notebook, and another layout for the monitor setup.

TPC ships with several desktop layouts to choose from. You can start with the one you like best then modify it to create your own layout.

1) To select an existing layout, choose Tools | Program Settings | Desktop from the TPC Desktop menu or just click the Settings icon in the upper left toolbar.

2) Expand the Layouts list and choose Single Left.

3) Choose Recall.

TPC will change the layout behind the dialog to the pre-defined Single Left layout. If you are feeling adventuresome, try the AutoHide Left layout and watch what happens to the views.

Docking, Tabbing and Auto-Hiding

Views can be docked, tabbed and auto-hidden. Think of them as sticking to some side, top or bottom of the desktop where you can always see them. Their data is available for you to work with or just keep an eye on while you work on something else. You'll learn how to dock views later in this chapter.
Desktop Menu and Toolbars

Locate the menu and toolbars at the top of the desktop.

TPC refers to this menu as the Desktop Menu. It’s where you manage the survey you are working on.

In TPC, you work with one survey at a time (the current survey). So if you want to start a new survey, you can do it here. If you want to save the survey you are working on, you can do it here. You typically come here to do something that affects the entire survey.

► File Menu

TPC provides a conventional File menu where you can Open and Save a survey. This is also where you import and export data, share a survey and append two surveys together.

The Tasks Manager also includes commands to open existing surveys but there is an important difference. The Tasks Manager always opens a file from a specific folder like the sample survey folder or your shared surveys folder. The desktop Toolbar and File menu always opens a file from the last folder you used.

► COGO Menu and Toolbar

When you choose a COGO command from an individual view, TPC initiates the dialog with the data you selected in that view. If you choose the COGO Rotate command from the Traverses Manager with three traverses selected, TPC assumes you want to rotate those three traverses unless you tell it otherwise. If you choose COGO Rotate from another view, it is free to reinitiate the dialog with its selected data.

The desktop COGO commands are different because they don’t initiate the dialog data. They just re-open the dialog the way it was when you closed it last. So if you have closed a COGO dialog and want to reopen it right where you left off, use the desktop COGO.

You can also use the desktop’s COGO commands to simply activate a COGO dialog. You may have several dialogs open, with some hidden and just want to bring a particular COGO dialog back up to the top where you can see it. This is the way to do it.
Desktop Navigation Toolbar

Find the Desktop Navigation toolbar at the top of the desktop. This is one of the ways you get around in the desktop. If you want to see the survey points, click the Points button. If the Points Manager is already open, TPC will activate it. If it is not currently open, TPC will open it then activate it. Either way, the Points Manager will become the active view, ready for you to manage the survey points displayed in it.

You'll find some of these same icons and their navigation commands in the individual views allowing you to navigate directly to a view without using the Desktop Navigation Toolbar. For instance, if you have a Traverse View open, you can navigate to the corresponding Closure View and Vertical Curve View for that traverse from the Traverse View without using the Desktop Navigation Toolbar.

► Managers and Windows

TPC differentiates between dockable views (Managers) that manage a collection of survey data (like the Traverses Manager) and non-dockable views (Windows) that display one particular type of survey data (like the Drawing View). Both are discussed in more detail later in this chapter. They're introduced here because they are displayed on the Desktop Navigation toolbar.

The navigation toolbar shows the Managers on the left and the Windows on the right. These correspond to the Manage and Window pulldowns in the desktop menu. (The buttons you have displayed will depend on which Edition of Traverse PC you have.)

► The Active View

As you use TPC Desktop, you will notice that only one view is active at a time. If you are working on a drawing, the Drawing View is active. If you select some points in the Points Manager, it becomes the active view.

The Desktop Navigation toolbar always indicates the active view. In the example shown above, the Drawing View is active.

► Activating a View

To work in a view, you need to first activate it by doing one of the following

- Left-click its icon in the Desktop Navigation toolbar
- Left-click its tab or caption bar at the top of the view (assuming the view is open somewhere on the desktop).
- Left-click anywhere on the view (again, assuming it is open somewhere)

Once a view is active, you can start using its menu, toolbars and hot-keys
Managers: Dockable Views

Managers are views that list all the data of a certain type in a survey. The Drawings Manager lists all the drawings in the survey. The Traverses Manager lists all the traverses.

Managers help you organize your survey data in a consistent manner. Once you learn how to do something in one manager, it generally works the same way in another.

- Managers can all be formatted to display just the data you want to see. Press [F9] or choose Tools | View | Format View for a list of options.
- To open an item, double-click it or highlight it and press [Enter].
- For alternate methods of opening an item (like the Closure View for a traverse), right-click the item and choose Open, then select the alternate method.
- To edit an item’s properties, right-click the item and choose Point Properties, Traverse Properties, Surface Properties, etc.
- To change an item’s name, just type a new name in the Name column or press the space bar to edit the existing name. If the item name needs to be unique, TPC will require you to enter a unique name.
- To append a new item to a Manager, double-click any blank line at the bottom of the list.
- To add a new item, choose Tools | Insert and select an option to insert the new item Above or Below the selected item or Append it to the end of the list.
- If TPC requires data to be sorted (like points and point codes) inserted items are sorted automatically once you provide a name.
- Some Managers allow you to group similar items together (Traverses, Drawings and Surfaces can be grouped). Managers that allow grouping include a Groups pulldown toolbar and a Groups submenu in the Tools menu.
- Managers simplify their commands by putting all the commands on a Tools menu. Each Manager has a Tools menu, although it may also have a menu for COGO if appropriate. The Tools menu also acts as the context menu if you right-click the view.
- Drag the widths of the column headers to create more room to display a column.
- Some Managers such as the Points Manager allow you to left-click column headers to sort the data. Left-click it again to sort the opposite way and left-click again to turn off the sort.
TPC includes a new formatted printout that prints the Manager’s data in a grid with column headings on each page and multiple passes if the columns exceed the width of the paper. Most Managers can be printed this way.

Most Managers can export their data to a CSV file that can be imported into spreadsheet programs like Excel.

Most Managers can append their data to the current Report View where it can be edited before printing.

Items can be included in a drawing by tagging them. This works for surfaces, traverses and any drawing object or layer in the Drawing Data manager.

All Managers are available in the Manage pulldown of the Desktop menu.

Here is a brief description of each Manager: (Note that some Managers may not be available in your Edition of Traverse PC.)

**Surfaces**
The Surfaces Manager manages all the surfaces in a survey. A survey can have any number of surfaces and they can be included in a drawing by tagging them. When you open a surface, TPC displays the Surface Settings dialog with tabs for breaklines, contours, TIN, Volume, Slope, etc. Each surface owns its own settings. They determine how the surface is drawn, but drawings can use unique settings for any surface.

**Traverses**
The Traverses Manager shows all the traverses in a survey. You will use this view a lot to create new traverses, copy and duplicate traverses, organize them in groups and so on. When you double-click a traverse, TPC opens that traverse in its own Traverse View, but you can also open a traverse directly in its Closure View or Vertical Curve View. You can open as many Traverse, Closure, and Vertical Curve views as you want. This allows you to completely expose an individual traverse or compare data between multiple traverses.

**Drawings**
The Drawings manager manages all of the drawings in a survey. When you double-click a drawing, TPC opens it in the Drawing View but you can also open a drawing in the Drawing Data Manager where you can manage all the data in the drawing in a familiar Tree structure. Only one drawing can be displayed at a time in both the Drawing View and the Drawing Data Manager. Drawings can be organized into groups just like traverses can be.

**Points**
The Points Manager manages all the points in a survey. Points are sorted internally by their point name (label/number). If you add a new point to the Points Manager, it will be moved automatically to its sorted order in the list. You will sometimes sort the view by its other columns as you look for particular points. As you add points to a traverse or create points with the COGO routines, they show up in the Points Manager.

**Point Codes**
The Point Codes Manager manages all the point codes in a survey. You can have TPC
Using TPC Desktop

generate a unique set of codes from the points in a survey or use standardized codes by importing a code table into the view. Use the codes to sort survey points into traverses based on their code, converting your points into a drawing.

► Drawing Data

The Drawing Data manager manages all of the objects in a drawing. As a manager view, it is unique in that it exposes data for a drawing and not the survey, but it is included with the other manager views because it exposes all the data in its drawing. You’ll learn more about the Drawing Data manager later on in its own Drawing Learning Guide chapter.

► Tasks

The Tasks Manager manages a number of things. Think of it as command central. You will return here often to get started on a new or existing survey. Here is a brief description of each panel in the Tasks Manager.

► Files – open a survey from a specific folder, a recent survey file or start a new survey.

► Survey Information – displays information about the current survey like its location, client name, file name, units and job number.

► TPC License – displays your TPC program and license information.

► Getting Started – includes direct links to learning guides and help topics.

► TPC On Line – includes direct links to web based information about TPC.

► Manager Views and the “What” List

Just a heads up on something you are going to learn about in another Learning Guide chapter. Many dialogs, and COGO dialogs in particular, display a What list so you can explicitly select the data you want a command to affect. Managers allow you to choose items that you select and tag in a view.

So you can rotate the 3 traverses selected in the Traverses Manager or the 30 points you just selected in the Points Manager. You can skip ahead to the Using ASCII Files or Using COGO chapters to learn more about the What list.
Docking Managers
Managers have the special functionality of being dockable.

1) Choose Tools | Program Settings | Desktop.
2) Select Split Left for the Layout and choose Recall.
3) Select TPC Default for the Look.
4) Choose OK to close the Program Settings dialog.
5) Right-click the Traverses tab and choose Floating.

TPC removes the Traverses manager from its tabbed group and displays it as a separate view on the desktop. You could leave the Traverses Manager floating on the desktop, resize it, or drag it wherever you want on the desktop.

Instead, let's dock it to the bottom of the desktop.

1) Position the mouse cursor over the caption bar, to the right of where it says Traverses, and start dragging the view to the bottom of the desktop.
2) TPC displays the docking helpers. Move the mouse over the docking arrow circled here and release the mouse button. (Note: The cursor arrow itself must be pointing at the docking helper when you release the mouse button.)

Congratulations!
You just docked a Manager.

When you get better at docking, you can skip step 2 above and just drag a tab to its new docking location.

Did you notice that when you dragged the manager over the docking arrow, TPC drew a shaded box at the bottom of the desktop to indicate the docking location and size?

You’ll learn more about docking in another chapter.

3) If you want to put this manager back where it was, just drag-n-drop it back next to one of the other docked tabs.
Windows: Non-dockable Views

Some views, like the Closure View and Drawing View expose data for a single survey object. If you have used previous versions of TPC you are already familiar with these views and how they work.

Windows differ from Managers in a number of ways.

- They cannot be docked like the Manager views.
- You can access these views through the Window pulldown of the desktop menu.
- Window Views can be formatted to display just the data you want to see. Press [F9] or choose View | Format View for a list of options.
- Window Views can be customized to include the tool bars, menus and hot-keys you want. Choose View | Customize View.
- To edit an item’s properties, right-click the item and choose [Name] Properties, where [Name] can be Point, Traverse, Surface, etc.
- Window Views use a more conventional menu layout like Edit View Tools.
- Window Views can be resized, tiled, cascaded and tabbed.
- You can have multiple instances of some Windows like the Traverse and Closure Views.
- They generally include the word View as in Traverse View.
- The Traverse and Drawing Views can include an embedded status bar that provides information about the view. Choose View | Format View and turn on Show Private Status Bar. Embedded status bars can be very useful – especially in multiple monitor setups where the views may be on any monitor. Without embedded status bars, you will need to look at the main desktop status bar.

Here is a brief description of each Window View. They are discussed in detail in other chapters of the Learning Guides.

Traverse View

A Traverse View exposes the data for an individual traverse, including the point sequence and any raw data used to compute the traverse. Each traverse in a survey opens its own Traverse View and defines the column sequence for that view.

Closure View

Closure Views display the current condition of a traverse’s closure, area and length. Think of them as snap-shots of the traverse. If a closed loop traverse doesn’t close back on itself, the Closure View will show you how far off it is. If you are using TPC for plat checking, you will use this view a lot. You will also come to the Closure View to do conventional traverse adjustments like the Compass Rule, to balance angles and to apply curvature and refraction.
Vertical Curve View

Vertical Curve Views expose any additional vertical constraints applied to a traverse. TPC does all computations in 3D, so every point can have an elevation as it is computed, but traverses can also have additional information about vertical points of intersection (VPIs) and vertical curves. These are contained in a traverse's Vertical Curve View.

Drawing View

There is only one Drawing View in TPC Desktop which displays a survey's current drawing (you choose the drawing by double-clicking it in the Drawings Manager). The Drawing View uses TPC's proprietary Quick View Technology to create the survey objects in a drawing and then provides tools for you to modify the Quick View settings and/or individual drawing objects as needed. You end up with drawings that are both fast and fun. It's a pretty nice switch from traditional CAD-based programs.

Message View

The Message View displays information you should know about the survey you are working on. If you import duplicate point labels, the Message View will warn you and let you know that it relabeled them for you.

Report View

The Report View is a built-in word processor that allows you to keep notes about what you have done in a survey. Reports use the standard DOC file format, so even though you create the reports in TPC, you can open them in any Windows word processor that supports the DOC format.

Tabbed Views

If you are already familiar with TPC and just want to try something fun with these views, open several Traverse Views and the Drawing View then choose Tools | Program Settings | Desktop, turn on Tabs, in the Non-Docking Views group box and choose OK. Your desktop should look something like this. (Make sure you turn this option back off before continuing.)

You'll learn more about tabbed views and tabbed groups in another chapter.
Using Context Menus

Context menus, sometimes called *pop-up menus*, provide shortcuts to the most commonly used commands in TPC. They are called context menus because they change based on the position of the cursor at the time they are activated (the context).

Let’s look at an example.

1) Position the cursor over any blank spot of the **Drawing View** then right-click the mouse. TPC displays the **Drawing View** context menu shown here. These commands are also available by choosing the appropriate menu but are included here in the context menu for convenience.

2) To select a command from the context menu, left-click it.

3) To close the context menu without executing any of its commands, left-click anywhere outside the context menu.

4) Try opening and closing the **Drawing View** context menu without executing any of its commands.

5) Now position the cursor over one of the lines in the drawing. The cursor will change to a 4-headed arrow or the object you are over will be redrawn in an accent color. To select the method you want to use, choose **View** | **Format View** and click on the **Mouse** tab.

6) Right-click to display the context menu for a line. You should see the menu shown here.

This menu is different from the **Drawing View** context menu because the context changed (a line vs. drawing).
Using Hot Keys

Hot keys are short-cut keys. They are sometimes referred to as *accelerator keys*. You can use them without going through the menus. They are useful for tasks that you repeat often. They also provide a keyboard alternative for people who prefer the keyboard to the mouse.

Hot keys are displayed next to the commands in the menus. In the View | Zoom menu, the hot key for Zoom Extents is Alt + C. The Redraw command doesn’t have a hot key, so none is shown in the menu.

To use the Zoom Extents hot key, just press [Alt + C] while the Drawing View is active.

Each view in TPC has its own set of hot keys. To learn them just pulldown the menus in that view.
This chapter demonstrates:

- Choosing a Desktop Look
- Docking Views
- Tabbing Docked Views
- Auto-Hiding Docked Views
- Arranging Window Views
- Tabbing Window Views

Docked Views Left / Bottom, Tabbed Windows in 2 Groups
Overview

This chapter introduces you to Desktop Layouts. Starting with V11, TPC lets you create desktop layouts on the fly as you work with your survey and save the layouts you like the best. You’ll also find this very handy if you work with a notebook computer you sometimes hook up to an additional monitor. Here are two samples of desktop layouts.

► Notebook

All of the dockable views have been Auto Hidden on the left edge of the desktop. This leaves the entire desktop area for other things.

To access an Auto Hidden view, position the cursor over it until it slides out. It slides back out of the way when you move to another view.

In this sample, the Traverse and Drawings managers have also been Contracted so they just fit their data. Use the Minimize and Maximize buttons in the upper-right corner of each view to Contract or Expand that view.

► Dual Monitors

The TPC Desktop has been extended onto a second screen. The Drawing View is moved to the second screen which is where you will do all your drafting, leaving lots of room on the first screen for docked views, COGO and anything else. Because toolbars and menus are embedded into the views, you never have to hunt for them on another screen.
Choosing a Desktop Look

This one is just for fun.

You can change the way TPC Desktop looks so that it matches your version of Windows or other Windows software you typically run. Those of you who choose skins for your media players are already familiar with skins.

1) Choose Tools | Program Settings | Desktop from the desktop menu.

2) Select Office 2007 (Silver) from the Look list. TPC redraws the entire desktop to conform to this look.

Choose the TPC Default look if you want to match the examples as you work through this chapter.

Here is the Office 2007 (Black) look.
Docking Views

It’s time to jump in and learn how to dock views.

1) Choose Tools | Program Settings | Desktop from the Desktop menu.
   a) Choose Split Left from the Layout list then OK to close the dialog.

➤ Dock the Traverses Manager

1) Drag the Traverses tab to the bottom of the desktop. TPC displays the docking helpers.
2) Move the mouse over the docking arrow circled here and release the mouse button.

Congratulations! You just docked a view.

➤ Dock the Points Manager

1) Drag the Traverses tab to the bottom right corner of the desktop.
2) TPC displays this docking helper as the Point view moves over the Traverses view. Move the mouse over the right pointing docking arrow and release the mouse button.

So now you are a docking expert. Could be worse. Actually, you’ll catch on to the docking thing pretty quickly. Just don’t be afraid to make a mistake. You can always just re-dock the view somewhere else.
Docking Helpers

Depending on the desktop look you have selected, TPC displays a docking helper as you drag a dockable window to its new location. Here are a couple of the helpers displayed by the TPC Default look. The different parts of the helpers are called controls because they control what happens if you release the mouse button over them.

As you drag the mouse cursor over one of these docking controls, TPC draws a shadow of the portion of the desktop this control corresponds to. This way you can see where the view will be docked before you dock it. If that’s not the way you want it, re-dock the view using a different docking control.

Docking to a Desktop Edge

Individual arrows, like the small one shown here are displayed along each edge (sides, top and bottom) of the desktop. If you release the mouse over one of these buttons, the view docks to that edge of the desktop and expands to take up the entire height or width of that edge.

Docking to Another View

The cross-shaped controls shown here are displayed when you drag a view over another view or unused portion of the desktop.

- Releasing the left mouse button over one of these arrows docks the view to that edge of the view or unused desktop space.
- Releasing the left mouse button over the middle square (tab control) creates a new tab for this view and uses the same space as the existing view you dock it to.

Office 2000 Look

This screen capture shows what docking looks like with the Office 2000 look. As you drag the Points Manager to the right side of the Traverses Manager as shown here, TPC displays a rectangle outline indicating where the Points Manager will be docked.

Docking views takes a little getting used to, so take a few minutes to practice now. You can always go to the Program Settings dialog and recall a pre-defined layout.
Tabbing Docked Views

Now you’ll get to practice tabbing docked views.

▶ Tab the Traverses and Points Manager

1) Position the mouse cursor over the Points Manager tab or caption bar (where the word Points is displayed) and drag-n-drop the Points Manager onto the Traverses Manager tab or caption bar.

The two views now share the same docked space on the desktop. To see the traverses, left-click the Traverses tab. To see the points, left-click the Points tab.

▶ Two Options for Dropping a Tab

There are two ways to drop one view on top of the other and create a tab.

➢ Drop the view into the caption bar of the other view or next to its tab.
➢ Drag the view over any other part of the view. When the docking helper appears, drop the view over the middle square (tab control) of the docking helper.

▶ Changing Tabbed Groups

1) Drag-n-drop the Points tab over to the Point Codes / Drawing Data group on the lower-left corner of the desktop.

2) Drag-n-drop the Traverses tab over the Surfaces / Drawings / Tasks group in the upper-left corner of the desktop.

You’re getting the picture now. You can dock and group views any way you want, any time you want.
Auto Hiding Docked Views

All docked views have the ability to *Auto Hide*. When you Auto Hide a view, TPC replaces the view with a button that displays the name of the view and its icon. The view is still available, but it doesn't take up any room on the desktop. You could Auto Hide all the dockable views, leaving all of the desktop space for the non-docking views.

► Auto Hiding a View

1) Right-click a view’s tab or caption bar and choose *Auto Hide*.

If the view is part of a tabbed group, the entire group is affected. Depending on the application look you have selected, the Auto Hide buttons may be stacked on top of each other or spread out as shown in the example here.

► Accessing an Auto Hidden View

1) To access the data in a hidden view, position the mouse cursor over the view and wait for the view to *slide out*.

The view becomes the active view of the desktop and remains active as long as you use it. You can use its hot keys, pulldown its menus and execute any commands for that view.

2) When you are finished using the view, just move the mouse cursor off of the view and it will slide back into its Auto Hide button.

► Pinning an Auto Hidden View

If you do not want a view to be auto hidden anymore, you can turn Auto Hide off or just *Pin* the view to the desktop.

1) Access the hidden view so that it slides out and do one of the following.

2) Right-click the caption bar and turn *Auto Hide* off.

3) Or left-click the stick pin icon in the upper right corner of the view.

If you pin a view that was part of a tabbed group, all the views in the group are pinned at the same time.
Arranging Windows

► Moving a View

1) To move a non-docking view, position the cursor over its caption bar, press and hold the left mouse button and drag the cursor to the new location and release the left mouse button.

This is called drag-n-drop. You’ll use it often in TPC Desktop. If you have not done this before, it takes some getting used to, but is an important skill to learn.

The caption bar of the Traverse View is circled here.

► Resizing a View

If a view isn’t large enough to show all the data (points, traverses, drawing, etc.), TPC scrolls the data within the view. If you have used Windows before, you are familiar with the way your word processor scrolls the text of a large document.

Sometimes, however, you want to see more of the data. If so, you can resize the view.

1) Position the cursor over a corner of the view until the cursor changes to a diagonal line with arrows at both ends then drag-n-drop that corner of the view.

2) Position the cursor over a view edge then drag-n-drop the edge to change the height or width of a view.

You may need to move the view and resize it again to get the size and position you want for the view.

► Contracting and Expanding a View

TPC provides two very handy ways to size views.

1) You can Expand a view to fill the entire available desktop space by choosing View | Expand View from a view’s menu or by pressing the maximize button circled here (the button on the right).

2) You can Contract a view so that it just fits its data by choosing View | Contract View from the view’s menu or by pressing the minimize button circled here (the button on the left).

Expanding and contracting views gives you a one-button solution to getting a view size that works well in certain situations.
Tabbing Windows

This will be easier to show you than it is to explain.

1) From the desktop menu choose Tools | Program Settings | Desktop. Turn on the Non-Docking Views (Windows) Tabs option then choose OK.

2) Open a couple of Traverse Views by double-clicking some traverses in the Traverses Manager.

Each non-docking view you open appears as a tab across the top of the views as shown in this example.

► The Active View

Only one of the tabbed views is active at a time.

1) To activate a tabbed view, left-click its tab. TPC brings it to the front and makes it the active view.

► Closing a Tabbed View

1) To close a tabbed view, left-click the X on the right side of the tab. Only the active view has an X, so only the active view can be closed.

► Tabbed Groups

1) Right-click the Drawing View tab and choose New Vertical Tab Group.

In the example shown, the Drawing View now occupies the right half of the desktop space in a group by itself.

You can create either Vertical or Horizontal tab groups. You can also create additional groups as needed, but they all have to be either Vertical or Horizontal to match the first group you created.
► Pop-up Tab Menu
Tabbed views have their own set of controls that help you manage these views.

1) Right-click any tab to display the tab menu.

The options displayed in this pop-up menu change depending on the current tab layout.

► Using Splitters
Splitters are controls between tabbed groups that allow you to reallocate the space each group gets. They are a standard Windows convention, but you may not be familiar with them.

1) To change the size of a tab group, drag the splitter between the groups.

Since tabbed groups share the desktop, one group must get smaller as another group gets bigger. The splitters take care of this for you.

Splitters work both with docking and non-docking tab groups.

► Group List
Each group provides a list of the views that are included in it through a pulldown list. The control for the pulldown list is circled here.

► Moving Tabs Between Groups
To move a tab from one group to another, do one of the following:

1) Drag-n-drop the tab from one group to another.
2) Right-click the tab you want to move and choose Move to Next (Previous) Tab Group.
Tabbing Docking Views

There is one more trick you may find useful as you arrange the TPC Desktop to your liking. You can treat a docked view like a non-docking tabbed view, providing extra room to work with the data in the view without compromising other docked views.

In the example shown here, the Traverses Manager has been un-docked and moved to the Drawing Views tab group. Now you have more space available to view traverse names and descriptions.

► Creating a Tabbed Document

These special views are called Tabbed Documents.

1) To create a tabbed document, right-click any docked tab and choose Tabbed Document.

2) To return it to its docked group, right-click its tab and turn off Tabbed Document.

► Restarting TPC with Tabbed Documents

If you close TPC Desktop with one or more tabbed documents, TPC does not display the tabbed document views on startup. You must open the view, at which point TPC will redisplay it as a tabbed document.
Customizing Menus and Toolbars

This chapter demonstrates:

- Setting the Default Direction
- Labeling COGO Points
- Inserting a Midpoint on a Line or Curve
- Recalling Data from the Previous Point
- Recalling Data Using Equations

Overview

This chapter describes how to customize toolbars and menus for the desktop and individual views.

By customizing the toolbars and menus, you can have access to the commands you use most in TPC Desktop.

Note: Major version updates, like TPC Desktop 2019 currently do not copy desktop settings forward from previous major versions like TPC Desktop 2018.

To learn more about customizing

1) Choose Help | Search For Help On… and left-click the Index tab.
2) Scroll down to Desktop, highlight it and choose Customizing.
Dockable View Toolbars and Menus

The toolbars and menus in the docking views have been streamlined to accommodate the way you use docking views. They are not customized the same way toolbars and menus in the desktop and non-docking views are so they are discussed here separately.

►Customizing the Toolbar and Menus

1) Left-click the toolbar control (circled here) at the right end of the toolbar in the Traverses Manager.

2) From the pop-up menu, choose Add or Remove Buttons | Traverses. Other views will display a different toolbar name.

3) Check the menus and toolbar buttons you want to include. Un-check any you don’t want.

►Using Pulldown Toolbars

Dockable views use pull-down menus. Pulldown toolbars show the most recent command in the toolbar while making all their commands available when the toolbar pops up.

1) To access a pulldown toolbar, left-click and hold the mouse down on the button until the pulldown appears.

The COGO pulldown is shown here. The diagonal arrow in the lower-right corner indicates it’s a pulldown.
Using Toolbars

In addition to menus and hotkeys, each view has its own toolbars. Toolbars are groups of buttons that initiate the same actions as menu items. These toolbars can be hidden or shown; moved, docked or floating; and the buttons on each toolbar can be turned on or off.

► Moving Toolbars

1) Position the mouse cursor over the toolbar gripper (circled here).
2) Holding the left mouse button, drag the toolbar where you want it, either floating or docked, then release the mouse button.

► Floating Toolbars

1) Drag the toolbar to the middle of the screen and drop it.
2) To drag a floating toolbar, drag and drop the top blue title bar of the toolbar.

► Docking Toolbars

Toolbars can be docked along any edge of the screen. They can be docked vertically or horizontally. When you first run TPC, the toolbars will be docked.

1) Drag the toolbar to any TPC Desktop edge.
2) You will see the outline of the toolbar and when you get close to the edge. It will get narrower (indicating that the blue title bar is gone and the toolbar can be docked).
3) Drop the toolbar where you want it to be docked.
4) It can take some practice to learn where to drop toolbars so that they end up where you want them.
5) Toolbars with square buttons are well suited to being positioned vertically at the side of the screen. Toolbars with pulldown lists are better suited to being docked along the top or bottom of the screen as they take up a lot of space when they are docked vertically.

► Accessing Hidden Toolbar Buttons

1) Left-click the toolbar control (circled here) at the right end of the toolbar and select the command from the pop-up menu.
Customizing Menus and Toolbars

**Customizing Toolbars**

1) Left-click the toolbar control (circled here) at the right end of the toolbar.

2) From the pop-up menu, choose Add or Remove Buttons. TPC will display a pop-up menu listing all the toolbars currently displayed in this view.

►**Customizing an Individual Toolbar**

1) Left-click the toolbar you want to customize.

2) Check any buttons you want and un-check any buttons you don’t want then click anywhere outside this pop-up.

3) Choose Reset Toolbar to turn on all the buttons.

►**Customizing a Views Toolbars**

The toolbars in the desktop and non-docking views can be further customized. Toolbars in docking views cannot be customized as discussed here.

1) Left-click the toolbar control at the right end of the toolbar.

2) Choose Add or Remove Buttons | Customize…. TPC will display a customize dialog like the one shown here.

3) Left-click the Toolbars tab.

4) Check any toolbars you want to show in the view and un-check any toolbars you want to hide.

►**Including Toolbar Text**

1) To include toolbar text, like the desktop toolbars have, check the Show text labels option.
Adding Pulldowns to Toolbars

You have already seen how pulldown toolbars are used in the dockable views. You can also include them in some of the non-docking views, like the Drawings manager.

Pulldown toolbars have two advantages

- You pack a lot of commands into a smaller toolbar space
- The main toolbar displays the last command executed from the pulldown

1) From the Drawing View, choose View | Customize View and left-click the Commands tab.
2) Left-click Pulldowns in the Categories list.
3) Drag-n-drop any of the toolbars from the Commands list onto any of the toolbars in the Drawing View.

In the example shown here, the Tools and Insert pulldowns have been added to the Drawing View toolbar.
Adding Commands to Toolbars

In this example, you learn how to add the Side Shot command to the Traverse View toolbar.

You can do this with any command, putting the commands you use most right where you want them.

1) From a Traverse View, choose View | Customize View then left-click the Commands tab.
2) Left-click Edit in the Categories list.
3) Scroll down to SS=Side Shot in the Commands list then drag-n-drop it onto the Traverse View toolbar.

Any commands you add to the toolbar are now available when you customize the Traverse View toolbar as shown here.