



Inside **OUT**

The ultimate in-depth reference
Hundreds of time-saving solutions
Supremely organized, packed
with expert advice

Windows 10

Ed Bott and **Craig Stinson**

4
FOURTH
EDITION

Windows 10 Inside Out

4th Edition

Ed Bott
Craig Stinson

Windows 10 Inside Out

Table of Contents

Cover

Title Page

Copyright Page

Contents at a Glance

Table of Contents

Introduction

- Who this book is for

- How this book is organized

Stay in touch

Errata, updates, and book support

Part I: Windows 10 essentials

- Chapter 1 What you need to know about Windows 10

 - Windows core features

 - Windows as a service

 - The app landscape

 - Cloud connections

 - The user experience

 - PC hardware

 - Security and privacy

- Chapter 2 Installing, configuring, and deploying Windows 10

 - Before you start

 - Check for potential compatibility problems

 - Back up your data and settings

Table of Contents

Download or create installation media

Choose your installation method

How Windows 10 Setup works

Upgrading from an earlier Windows version

Performing a clean install

Performing an edition upgrade

Activating Windows

Windows licensing options

Do you need a product key?

Managing digital licenses

Troubleshooting activation problems

Product activation and corporate licensing

Managing Windows activation from the command prompt

Configuring a multi-boot system

Tweaking and tuning your Windows 10 installation

Chapter 3 Using Windows 10

An overview of the Windows 10 user experience

Using and customizing the Windows 10 Start menu

Using and customizing Start

Customizing the contents of Start

Adding and arranging tiles

Gathering tiles into folders

Using and customizing the taskbar

Pinning programs to the taskbar

Using Jump Lists for quick access to documents and folders

Changing the order of taskbar buttons

Pinning people to the taskbar

Changing the taskbars size and appearance

Moving the taskbar

Adding toolbars to the taskbar

Configuring the taskbar with multiple displays

Customizing the notification area

Table of Contents

Using and customizing Action Center

- Customizing the Quick Actions panel

- Customizing notifications

Switching tasks

Reviewing, revisiting, resuming with Timeline

Switching between virtual desktops

Managing and arranging windows

Using a keyboard and mouse in Windows 10

- Increasing productivity with keyboard shortcuts

- A shortcut for emojis

- Using alternative keyboard layouts

- Taming your mouse or other pointing device

Using Windows 10 on a touchscreen device

- Working in Tablet Mode

- Using the Touch Keyboard

Using the Windows Ink workspace

- Setting pen options

Working with fonts

- Making text easier to read

- Using font smoothing to make text easier on the eyes

Chapter 4 Personalizing Windows 10

Settings vs. Control Panel

Customizing the visual appearance

- Selecting the desktop background

- Selecting colors

- Customizing the lock screen and sign-in screen

Fine-tuning visual options

- Customizing mouse pointers

- Making other small visual tweaks

Selecting sounds for events

Personalizing with themes

Table of Contents

- Configuring desktop icons
- Eliminating distractions with Focus Assist
- Choosing a screen saver
- Setting date and time, currency, and other regional options
- Overcoming challenges
- Syncing your settings between computers

Chapter 5 Managing updates

- Whats new in Windows Update
- An overview of how Windows 10 update works
 - What you get from Windows Update
 - Finding technical information about updates
- Managing Windows Update
 - Choosing when updates are installed
 - Choosing how updates are installed
 - Fine-tuning network bandwidth usage
- Deferring and delaying updates
- Troubleshooting update problems

Part II: Productivity

Chapter 6 Installing and configuring apps

- Understanding the Windows 10 app landscape
 - Legacy desktop apps
 - Modern apps
 - Packaged desktop apps
 - Progressive Web Apps (PWAs)
- Installing, managing, and uninstalling apps
 - Using and managing legacy desktop apps
 - Using and managing Store apps
 - Deploying line-of-business apps
- Managing programs and processes with Task Manager
 - Terminating a program with Task Manager
 - Finding detailed information about a program

Table of Contents

Reviewing history

Managing startup programs

Other ways a program can be made to run at startup

Suspending or removing startup items

Advanced tools for managing startup items

Setting default programs and file-type associations

Using a nondefault program on a case-by-case basis

Turning Windows features on or off

Setting AutoPlay options

Chapter 7 Using and managing built-in Windows apps

Apps included with Windows 10

Windows system apps

Provisioned Windows apps

Installed apps

Mail, Calendar, and People

Setting up and using Mail

Setting up and using Calendar

Adding or editing contacts with People

Using Skype

Using OneNote

Using Maps

Searching for places and services

Getting directions

Sharing maps and creating reminders

Downloading maps for offline use

Performing screen captures with Snip & Sketch

Music, photos, and movies

Music

Photos and videos

Watching movies, recorded TV shows, and video clips

Projecting to another screen

Chapter 8 Using the new Microsoft Edge

Table of Contents

An overview of the new Microsoft Edge

Choosing an Edge release channel

Managing Edge updates

Specifying your default browser

Setting up Microsoft Edge

Managing Edge profiles and sync

Customizing the new tab page

Privacy and tracking prevention

Customizing the startup page

Using the built-in password manager

Adding and using extensions

Finding and organizing information

Changing the default search provider

Saving, editing, and organizing Favorites

Saving and sharing your research as Collections

Finding previously visited pages in History

Managing tabs

Silencing a noisy tab

Pinning tabs for quick access

Privacy and security issues

Controlling site permissions

Protecting your privacy

Controlling Flash content

Making webpages easier to read

Using Microsoft Edge to read and edit PDFs

Chapter 9 Storage and file management

Organizing personal data with user profile folders and libraries

Whats what (and where) in your user profile

Relocating personal data folders

Using libraries

Using OneDrive to store, sync, and share files

How OneDrive and OneDrive for Business work

Table of Contents

- Setting up and using OneDrive
- Syncing files and folders
- Sharing OneDrive files and folders
- Using Personal Vault

Mastering File Explorer

- Using the navigation pane
- Navigating faster with Quick Access shortcuts
- Layouts, previews, and other ways to arrange files
- Using compressed (zipped) folders

Sorting, filtering, and grouping in File Explorer

- Sorting a folders contents
- Filtering folder contents
- Grouping folder contents

Managing disk space

- Changing default save locations
- Cleaning up unneeded files

Recovering lost, damaged, and deleted files and folders

- Restoring files and folders
- Purging the Recycle Bin

Managing existing disks and volumes

- Extending a volume
- Shrinking a volume
- Deleting a volume
- Converting a FAT32 disk to NTFS
- Assigning or changing a volume label
- Assigning and changing drive letters
- Mapping a volume to an NTFS folder
- Permanently wiping all data from a disk

Working with virtual hard disks

Chapter 10 Cortana and Windows search

- Using Windows search
- What you can (and can no longer) do with Cortana

Table of Contents

Removing Cortana

Configuring the Windows search index

Which files and folders are in the index?

Monitoring the index and tuning indexer performance

Managing file properties and metadata

Searching from File Explorer

Advanced search tools and techniques

Searching by item type or kind

Changing the scope of a search

Searching for item properties

Using multiple criteria for complex searches

Using wildcards and character-mode searches

Searching nonindexed locations

Saving searches and clearing search history

Part III: Managing Windows 10

Chapter 11 Managing user accounts, passwords, and credentials

Creating and managing user accounts

Choosing an account type

Changing account settings

Deleting an account

Making the sign-in process more secure

Adding security with multi-factor authentication

Using Windows Hello

Using a picture password

Setting or changing a password

Managing a physical security key

Signing out, switching accounts, or locking your computer

Using Dynamic Lock

Sharing your PC with other users

Adding a user to your computer

Controlling your familys computer access

Restricting use with assigned access

Table of Contents

Introducing access control in Windows

- Permissions and rights

- User accounts and security groups

Chapter 12 Performance and power management

Viewing details about your system

- Systeminfo

- Windows Management Instrumentation command-line utility

- System Information

Managing services

- Using the Services console

- Starting and stopping services

- Configuring services

- Managing services from Task Manager

Monitoring performance with Task Manager

Using Resource Monitor to pinpoint performance problems

Power management on desktop systems

- Configuring power options from the command line

Chapter 13 Windows networking

Windows 10 networking essentials

- Checking the status of your network

- Network management tools

- TCP/IP configuration

- Mobile hotspots and other metered connections

Setting the network location

Connecting to a wireless network

- Connecting to a hidden network

- Wireless security

- Using Hotspot 2.0

Transferring pictures, links, and other items between nearby devices

Connecting to another computer with Remote Desktop

- Installing Remote Desktop client software

- Enabling inbound remote desktop connections

Table of Contents

Using the Remote Desktop app

Using Remote Desktop Connection

Sharing files, printers, and other resources over a local network

Understanding sharing and security models in Windows

Configuring your network for sharing

Sharing files and folders from any folder

Sharing a printer

Finding and using shared resources on a Windows network

Working with mapped network folders

Connecting to a network printer

Troubleshooting network problems

Network troubleshooting tools

Troubleshooting TCP/IP problems

Chapter 14 Hardware and devices

Adding, configuring, and removing hardware devices

Installing a new Plug and Play device

How device drivers and hardware work together

Getting useful information from Device Manager

Enabling and disabling devices

Adjusting advanced device settings

Setting up Bluetooth devices

Managing USB devices

Updating and uninstalling drivers

Disabling automatic driver updates

Updating a device driver manually

Rolling back to a previous driver version

Uninstalling a driver

Printers and print queues

Managing hard disks and other storage devices

Running Disk Management

Managing disks from the command prompt

Setting up a new hard disk

Table of Contents

Working with solid-state drives

Using Storage Spaces

Configuring displays and graphics adapters

Changing display settings

Controlling scaling on high-DPI displays

Using multiple displays

Night Light

Speakers, microphones, and headsets

Chapter 15 Troubleshooting, backup, and recovery

Getting to know your troubleshooting toolkit

Built-in troubleshooters

Windows Error Reporting

Feedback and diagnostics

Reliability Monitor

Event Viewer

Types of events

Viewing logs and events

Customizing the presentation of tabular data in Event Viewer

Filtering the log display

Working with event logs on a remote computer

Dealing with Stop errors

Customizing how Windows handles Stop errors

Whats in a Stop error

Isolating the cause of a Stop error

Troubleshooting in Safe Mode

Checking disks for errors

Windows 10 backup and recovery options

Using a recovery drive

Using File History to protect files and folders

Using the Reset option to recover from serious problems

Using the Windows 7 Backup program

Configuring and using System Restore

Table of Contents

Rolling back to a previous restore point

Part IV: For IT professionals and Windows experts

Chapter 16 Hyper-V

Getting started with Hyper-V on Windows 10

Setting up Hyper-V

Using Hyper-V Manager

Whats in a virtual machine?

Machine generation

Memory

Storage controllers and virtual disks

Networking

Using Windows Sandbox for instant VMs

Creating and managing virtual machines

Using Quick Create to configure a new VM

Using the New Virtual Machine Wizard

Changing settings for a virtual machine

Fine-tuning virtual memory usage

Adding, removing, and adjusting virtual disks

Advanced security options

Automatic start and stop actions

Running a virtual machine

Working with Virtual Machine Connection windows

Using enhanced session mode

Working with checkpoints

Importing, exporting, and moving VMs

Alternatives to Hyper-V

Chapter 17 Managing business PCs

Using a domain-based network

Managing computers with Group Policy

Using Local Group Policy Editor

Changing policy settings

Table of Contents

Management tools for enterprise deployments

- Microsoft Intune

- Microsoft Endpoint Configuration Manager

- Windows Server Update Services (WSUS)

Managing apps

- Managing app distribution in an organization

- Securing apps with AppLocker

Managing the browsing experience

Managing special-purpose computers

- Using shared PC mode

- Setting up a kiosk device

Chapter 18 Windows security and privacy

Understanding security threats

New security features in Windows 10

- Securing devices

- Securing data

- Securing identities

- Blocking malware

Configuring privacy options

Monitoring your computers security

Preventing unsafe actions with User Account Control

- What triggers UAC prompts

- Dealing with UAC prompts

- Modifying UAC settings

Blocking malware

- Using Microsoft Defender Antivirus

- Manually scanning for malware

- Dealing with detected threats

- Blocking ransomware with controlled folder access

Stopping unknown or malicious programs with Microsoft Defender SmartScreen

Blocking intruders with Windows Defender Firewall

- Using Windows Defender Firewall with different network types

Table of Contents

Managing Windows Defender Firewall

Restoring default settings

Advanced tools for managing Windows Defender Firewall

Encrypting information

Encrypting with BitLocker and BitLocker To Go

Using the Encrypting File System

Chapter 19 PowerShell and other advanced management tools

Command Prompt or PowerShell?

Using Windows Terminal

Opening and working with tabs

Configuring Windows Terminal

Using the mouse to change text size

An introduction to Windows PowerShell

Starting PowerShell

Interacting with PowerShell

Scripting with PowerShell

Finding additional PowerShell resources

Working in a Command Prompt session

Running with elevated privileges

Starting Command Prompt at a particular folder

Starting Command Prompt and running a command

Using AutoRun to execute commands when Command Prompt starts

Editing the command line

Using command symbols

Editing the Windows registry

Understanding the Registry Editor hierarchy

Registry values and data types

Browsing and editing with Registry Editor

Backing up and restoring parts of the registry

Automating registry changes with .reg files

Registry virtualization

Automating tasks

Table of Contents

Task Scheduler

Automating command sequences with batch programs

Automating tasks with Windows Script Host

Using Microsoft Management Console

Chapter 20 Maximizing productivity on mobile devices

Managing battery life

Battery Saver and other power management options

Monitoring long-term battery life and capacity

Mobile connectivity

Storage

Windows 10 and your mobile phone

Part V: Appendixes

Appendix A Windows 10 editions and licensing options

Windows 10 editions at a glance

Retail and OEM editions

Windows 10 Home

Windows 10 Pro

Windows 10 Pro for Workstations

Editions for organizations

Windows 10 Enterprise

Windows 10 Enterprise E3

Microsoft 365 E3 and E5

Windows 10 Enterprise LTSC/LTSC

Editions for educational institutions

Windows 10 Education

Windows 10 Pro Education

Appendix B: The Windows Insider Program

How the Windows Insider Program works

Joining the Windows Insider Program

Keeping track of whats in each preview build

Submitting and tracking feedback

Table of Contents

Appendix C Help and support resources

- Online help

- Online reference material from Microsoft

 - Microsoft Docs

 - Microsoft Knowledge Base

 - Microsoft IT Pro Center

 - Microsoft Learn

- Getting technical support

 - Microsoft Community

 - TechNet forums

 - Free and paid support from Microsoft

- The Windows roadmap

Index