

User manual

Windows • utilities • media • SDR radio

EVERYDAY WORK

Taskbar, Outlook, files and diagnostics

MEDIA AND COMMUNICATION

Recording, conversion and messaging

RTL-SDR AND SDRPLAY

Scanning, D-STAR, Yaesu Fusion and Internet audio

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Installation steps, download links and file locations

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Reading this manual: button names match the interface. Links are clickable. Paste paths containing %LOCALAPPDATA% or %APPDATA% into the Windows File Explorer address bar. Both language editions cover the same topics.

01

Getting started

Custom MC Taskbar combines window management, Windows statistics, productivity tools, media features and radio receivers. This manual describes version **2.2.0.1**. Additional components are optional: install the ones required by the features you intend to use.

Installation and requirements

Download the author's [CustomTaskbarMC Setup.exe installer](#) or [Portable ZIP](#). Save the installer in Downloads and run it, choosing an installation folder. Extract the entire ZIP into a folder such as `%LOCALAPPDATA%\Programs\CustomTaskbarMC\`. Keep the DLL files and [Manual](#) alongside `CustomTaskbarMC.exe`; do not run the EXE on its own. Use Windows x64 for the receiver configuration described here. If Windows reports a missing .NET runtime, this application build targets **.NET 7 Windows Desktop**. Download **.NET Desktop Runtime 7.0, Windows x64** from [Microsoft](#) and run its installer from Downloads. Do not copy the installer into Tools. A distribution that includes its runtime does not require this step. .NET 7 is out of support; installing a newer .NET version alone does not change this build's requirements.

Quick start

1. Start the taskbar and check the version and license status in the application information window. Follow any activation steps displayed by the application.
2. Open **Info/Settings** with the gear button. In **General**, choose the clock and visible elements. Confirm with **OK**.
3. Drag a frequently used document, folder or shortcut into the taskbar's shortcut area.
4. Configure Outlook using chapter 5. For radio, start with chapter 16 or 17; for recording and conversion, prepare FFmpeg using chapter 28.

Finding help

The book button on the taskbar and **Options > User Manual** open the **Polski / English** language selector. The PDF opens in the default Windows PDF reader. **Options > Ham Radio** also contains separate D-STAR / Yaesu Fusion and Internet scanner guides, each in Polish and English. The trial and activation screens describe the license state available to your installation. Check that state before troubleshooting a feature that the application will not allow you to open.

Saving settings is not the same as making a backup. Before a major update, preserve your settings and memory banks as described in chapter 29.

02

Taskbar, windows and shortcuts

Position on the screen

Change taskbar position changes the taskbar's position along the monitor edges. After switching displays or scaling, use **Redraw**, described as "Redraw ... on New Monitor", if the layout needs refreshing. The resizing lock is useful during presentations. **Hide Stats** hides or restores the statistics area. **Hide** beside the clock controls the time and date section. These controls help fit the taskbar on a smaller display. **Reload Taskbar** restarts the application; reception and other tasks running inside the taskbar may be interrupted.

Working with open applications

Click an application's window button to activate it or restore it from a minimized state. Its right-click menu lets you assign the application to quick-launch button **1** or **2**, close the window, or terminate the process. Use normal closing first: the application may then offer to save documents. Force termination is intended for an unresponsive process and can lose unsaved work.

Personal shortcuts

1. In File Explorer, select an application, document, folder or shortcut file.
2. Drag it into the taskbar area labelled "Drag a file here to create a shortcut".
3. Click the new button to verify that it opens. Removing the button through its menu removes the taskbar shortcut, not the original file.

A document that has been moved or deleted may no longer open from its old shortcut. Create a new shortcut to its current location.

Other controls

Display Resolution opens the display resolution selector. **Lock / Logout** provides session locking and commands for ending your session or shutting down. **Close** exits the taskbar after confirmation. Hover over an icon to read its tooltip before using it. The global **Ctrl+Shift+Z** shortcut closes Edge, Chrome and Firefox and may force their processes to terminate. Do not use it as an ordinary undo shortcut: unsaved browser data may be lost.

These features require no additional downloads. Documents open in the applications associated with their file types in Windows.

03

Options, clock and appearance

Info/Settings has three main tabs: **General**, **Outlook** and **Ham Radio**. Confirm changes with **OK**; **Cancel** closes the window. Do not assume that changing every checkbox immediately saves it permanently.

General

Setting	Effect
Enable analog clock	Enables the analog clock display.
Skeleton mechanical mode	Shows the clock mechanism with synchronized gears.
Clock position	Chooses the clock position within the available layout.
Show Ask AI box	Shows the quick question field for the selected AI service.
Default AI service	Selects the service opened when you submit a question.
Enable Auto Hide (Vertical Taskbar)	Automatically hides the vertical taskbar on the left or right. Point at its visible part to expand it.
Show social media buttons	Shows shortcuts to online services.
Show weather and alert banner	Shows the weather and information banner.
Enable CPU & RAM 100% alerts	Enables notifications about full resource utilization.

A readable layout

On a smaller screen, reduce the number of visible banners and shortcuts. Hide the statistics or clock section rather than making every element harder to read. After a resolution change, check that the taskbar is positioned on the intended monitor.

Startup and updates

If the taskbar does not start when you sign in, check Windows startup settings and the options used by your installer. You can put a shortcut to the installed application in the folder opened by `shell:startup` in **Win+R**. Do not copy the entire application there or create a second shortcut if a startup entry already exists. Check the installed version in the application information window. Install updates using the application package supplied by the author; do not replace individual libraries while the taskbar is running.

04

Statistics, network and weather

Reading the statistics

CPU shows processor load, **RAM** shows memory use, and **NET** shows network traffic. History graphs help distinguish a brief spike from sustained load. Download and upload are separate values; always check the units displayed beside them. Transfer counters have their own saved state. Do not treat them as your Internet provider's billing records or assume that every counter resets at every launch. Clicking the relevant statistic or graph opens its associated detail view.

Local network devices

Click the element with the **Click to see your network** tooltip. **Local Network Devices** lists discovered IP addresses, host names and available user information. **Rescan** repeats discovery. Enter part of an IP address, host or user name in the search box and press Enter. A device that is switched off, blocked by a firewall or unreachable from the current network may not appear. A missing entry does not prove that the device is physically absent. The feature uses Windows networking and requires no additional network scanner installation.

Disks and temporary files

Disk info shows capacity and free space on available drives. Additional SMART information depends on hardware and permissions. After confirmation, **Clean temp files** removes files from discovered TEMP folders, including the system folder and accessible user profiles. Its report distinguishes deleted, locked and inaccessible files. Do not run cleanup during an installation or important data-processing task.

Weather and location

1. Enable **Show weather and alert banner** in **Options > General** and confirm.
2. Open the weather banner's menu and choose **Configure weather location...**
3. Select the correct town or location, confirm, and wait for the data to refresh.

The banner uses online weather, air-quality and geomagnetic activity sources. Some links open a map in your browser. You do not need to install a separate weather application or save a weather database to disk.

Missing updates may be caused by connectivity or a temporary service outage. Check the location and update time before treating an older message as current information.

05

Outlook and Ask AI

Preparing Outlook

The integration uses installed **classic Microsoft Outlook for Windows** and its mail profile. Outlook in a browser or the new Outlook alone does not provide the COM interface used by this taskbar. Obtain classic Outlook through [Microsoft's installation instructions](#), using your Microsoft 365 or Office entitlement. Run the installer normally. Do not copy Outlook files into Tools.

1. Open classic Outlook separately, configure your account, and check mail and calendar synchronization.
2. Open **Options > Outlook** in the taskbar. Enable **Cyclically check Outlook for new emails** and, if required, **Show calendar meetings**.
3. Set the check interval, notification display time and preview word count. The calendar range determines how many days ahead are included.
4. If meetings are missing, check **Show only accepted meetings**. Confirm with **OK**.

The taskbar uses the local Outlook profile; it does not replace account setup in your mail application. Outlook does not need to remain in the foreground, but its profile and components must work correctly.

Ask AI

Enable **Show Ask AI box** in **Options > General**, select **Default AI service**, and click **OK**. Type a question into Ask AI and press Enter. The taskbar opens the chosen service in your browser with a prepared query; the service may require you to sign in or confirm submission. This feature does not install an AI model on your computer. It requires no local engine, API key or files in Tools. Your account, available features and conversation history belong to the selected service. Changing providers does not transfer conversations between services.

Additional requirements: classic Outlook for mail and calendar; an Internet connection and browser for Ask AI.

06

Assistant: history and Windows tools

The **Assistant** button opens work history, a catalogue of system tools and diagnostics. Tool and tab names appear in English in the interface.

Work History

History helps you find previously used windows and applications. Search for part of a title, name or stored location, then open the chosen entry. Reopening a document depends on the information stored in that entry and on the file still being available. Window-title history is not a complete archive of document contents or a backup of websites. Its data is stored in [work_history.jsonl](#) in the settings folder described in chapter 29. Keep a copy before clearing history if you still need it.

Windows Tools

Group	Purpose
System and devices	System Properties, System Information, Device Manager and Computer Management show configuration and devices.
Administration	Services, Task Scheduler, Registry Editor, group policy, users and certificates open the corresponding Windows consoles.
Settings	Printers, sound, Bluetooth, camera, microphone, Windows Update and power controls open system settings.
Applications and shells	Notepad, Calculator, File Explorer, Command Prompt, PowerShell and Terminal launch local tools.
System folders	Temp, AppData, ProgramData and taskbar configuration shortcuts help locate files.

Finding a tool

Type part of a tool's name into Assistant search and inspect **Search Results**. Read the description before launching it. A shortcut to a system console opens the features available in your edition of Windows. Do not download separate installers for Device Manager or Services. They are Windows components. Some consoles, such as Local Group Policy, may not be available in your Windows edition. Administrative tools may display a UAC prompt.

07

Assistant: diagnostics and reports

Network and Diagnostics

This tab provides network connections and tools for inspecting IP configuration, DNS, the gateway, routes and active connections. **Full IP Configuration** helps identify addresses, DHCP and DNS. **ARP Table** shows known local address mappings, while **Active TCP Connections** helps identify the process using a port. **Flush DNS Cache** clears cached names. Renewing DHCP or resetting TCP/IP can temporarily interrupt connectivity. Use repair commands after reading diagnostic results, especially during remote work.

System Analysis

Report or tool	Use
Complete System Report	Overview of Windows, hardware and configuration.
Top Memory Processes / All Running Processes	Processes, identifiers and resource usage; accumulated process CPU time is not an instantaneous load percentage.
Stopped Automatic Services	Services configured for automatic startup that are not currently running.
Network Configuration / Active Connection Report	Interface configuration, addresses, ports and process identifiers.
Disk Space Report / System Uptime	Free storage and the last Windows startup time.

Smart Diagnostics

The newer tab checks Internet access, DNS, DHCP, the gateway, adapters and routing; disks, RAM, CPU, the page file and startup load; services, Windows Update, device errors, application crashes, pending restarts, time, the firewall and print spooler. Reports contain findings and suggested actions. Reading a result does not mean that a repair has been performed. Save or copy a report with the result window's controls. Assistant reports can be saved under `%LOCALAPPDATA%\CustomTaskbarMC\AssistantReports\`. **Repair System Files** runs SFC, **Repair Windows Component Store** runs DISM, and **Reset TCP/IP Stack** resets networking after confirmation. These are Windows tools. DISM may require Internet access or a repair source; no separate utility download is required.

08

File Commander: everyday operations

Open **Custom MC File Commander** from the taskbar or with **Ctrl+Alt+X**. Its two panes show source and destination folders side by side. Before an operation, click the pane containing the source files.

Copying and moving

1. Open the source in one pane and the destination in the other. Use drive buttons, path history or network locations as needed.
2. Select items. **Insert** toggles selection and advances to the next item. Numeric keypad **+**, **-** and ***** select by mask, deselect by mask or invert the selection.
3. Use **F5 Copy** or **F6 Move**. Check the source, destination and scope in the confirmation dialog.
4. If a name conflict occurs, choose the appropriate action in the conflict window. Monitor progress; cancelling may leave items that have already been copied.

F7 Make Dir creates a folder. **Shift+F6** renames an item. **F8 DEL** or Delete starts deletion with confirmation. Read the deletion prompt: do not assume that every operation can be undone through the Recycle Bin, especially on remote locations.

Navigation and filtering

Enter or a double-click opens an item. Backspace goes to the parent folder. **F1 Filter** enables the filter field. Enter ***.pdf**, ***.xlsx** or part of a name. Filtering narrows the view without deleting files. Click a column header to change sorting. File colours help distinguish file types. **Space** on a folder calculates its size; a large directory tree can take time. The area beneath each pane shows item counts, selection and disk space.

Dragging and previewing

Drag and drop works between the panes and Windows File Explorer. Hold Alt while dragging to create a shortcut. **F3 View** opens the text viewer and **F4 Edit** opens editing. **F2 Explorer** opens the location in File Explorer.

Normal copying, filtering and navigation need no additional applications. Archives and FTP are described on the next page.

09

File Commander: archives, FTP and keys

Preparing 7-Zip

Download the **7-Zip x64** installer from 7-zip.org/download.html. Run it from Downloads and perform a normal installation. By default, Commander looks for `C:\Program Files\7-Zip\7z.exe`. If 7-Zip is installed elsewhere, close Commander and save the full path to **7z.exe** as a single line in `%APPDATA%\CustomTaskbarMC\7zip_path.ini`. Point to the executable, not the installer or just a directory. **Alt+F5** packs selected items into a 7z archive. Check its name and location in the confirmation dialog. Extraction depends on the formats supported by the installed 7-Zip; being able to read RAR does not mean that RAR creation is supported.

FTP and network shares

Choose an FTP connection in Commander, add a server profile and enter its profile name, host, user name and password. Obtain connection details from the server administrator. Once connected, select the appropriate pane and check the transfer direction. Edit profiles in the connection management window. The FTP client is built into the application. You do not need another client or a local server merely to connect to an existing server. This module is an FTP client; do not assume SFTP support. Windows shares such as `\\server\share` are a different connection type.

Essential shortcuts

Key	Action in Commander
F1 / F2 / F3 / F4	Filter / Explorer / view / edit.
F5 / F6 / F7 / F8 / F9	Copy / move / new folder / delete / attributes.
Shift+F5 / Shift+F6	Duplicate file / rename.
Alt+F1 / Alt+F2	Select the drive for the left / right pane.
Alt+F5 / Alt+F7	Pack to 7z / search.
Enter / Backspace / Space	Open / parent folder / folder size.

F2 does not rename files in the current Commander. Use Shift+F6 to rename.

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Search and data mapping

Quick Search

The **Search files or web** button opens Quick Search. Enter a command and press Enter. The description below the field shows the recognized mode. Plain text starts a local file search on C:.

Input	Result
g: antenna or . antenna	Google search.
b: antenna, yt: antenna	Bing or YouTube.
wiki: radio, map: Warsaw	Wikipedia or Google Maps.
ai: explain FM	Opens a ChatGPT query.
f: report, c: report, d: report	Searches files on the specified drive.
path: C:\Data, app: notepad.exe	Opens a folder or application.
url: https://example.com	Opens a website.
cmd: ..., ps: ...	Executes a CMD or PowerShell command.

Shell commands perform real operations on your computer. Enter them only when you understand their effect. No additional search application is needed; online results open in your browser.

Data Mapping Assistant

Data Mapping Assistant opens three tables: source data at the top, control steps on the left, and field names and values on the right. It prepares data and transfers it into an external application.

1. Use **Paste** to insert data into the selected table. Check columns and record order.
2. Set MouseX/MouseY coordinates, delays, Tab(s) and **Rewrite Column No.** The column number selects the source value; "No" skips rewriting in that step.
3. Use **Mouse Test** to check the position. Test a single sample record first, keeping the destination window layout unchanged.
4. **Save / Load** store and restore the tables as JSON at a chosen location. **Rewrite** starts the sequence; Esc interrupts it.

Mapping requires no separate automation tool or Excel installation just to read clipboard text. During Rewrite, do not move the destination window or use the mouse for another task.

Screenshots and screen recording

Capture screen

Capture screen launches the Windows snipping interface. Select a region and use the clipboard or saving options offered by the system tool. This is separate from recording a video. It does not require FFmpeg. If screen snipping does not work, check the Windows Snipping Tool rather than installing codecs for the taskbar.

Record screen

The recorder uses **ffmpeg.exe**. Prepare the file as described in chapter 28 at:

`%LOCALAPPDATA%\CustomTaskbarMC\Tools\ffmpeg.exe`

1. Click **Record screen** on the taskbar. When the interface opens, select the screen region to record.
2. Check the selected area and audio option. Built-in audio capture records system playback; it is not automatically a microphone track.
3. Start recording with the recorder's control. Keep the required windows inside the selected region.
4. Stop recording and wait for the output file to be finalized. Check the result before closing the taskbar.

Finding the videos

The default destination is **Videos > Custom MC Taskbar** in your user profile. Its actual path can differ if Windows redirects the Videos folder. The FFmpeg installer is not a recording; look for completed videos in the recorder's output folder.

Missing or incorrect output

- Missing FFmpeg: check the full path and make sure the file is named `ffmpeg.exe`, not `ffmpeg.exe.exe`.
- Video without sound: check the audio option and the device through which Windows is actually playing sound.
- Incorrect framing: select the region again after changing resolution or monitors.

Before a long session, make a short test recording and check free disk space. The recorder captures the actual content of the selected screen region.

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Audio and video converter

Open **Audio and Video Converter** from the taskbar. It requires two files from the same FFmpeg package: **ffmpeg.exe** and **ffprobe.exe**, placed directly in `%LOCALAPPDATA%\CustomTaskbarMC\Tools\`. Chapter 26 explains the download steps.

Choose an operation

Mode	Purpose
Convert video / Convert audio	Changes the format or parameters of video or audio.
Extract audio from video	Saves only the audio track.
Cut media fragment	Extracts a section between selected start and end points.
Merge video / Merge audio	Joins files in the order shown in the list.
Split media into parts	Splits by part duration or number of parts.
Remove audio from video	Creates a video without sound.

Workflow

1. Choose a mode and add input with **Add file / Add files**. For merging, arrange the sequence with **Move up / Move down**.
2. Choose the output folder and name. Check the output format and video and audio settings.
3. For video, adjust codec, quality, resolution and frame rate. A lower CRF generally means a larger file and higher quality for a given codec.
4. For audio, choose codec, bitrate, sample rate, and mono or stereo. Normalization adjusts loudness; it does not restore missing parts of a transmission.
5. Click **START OPERATION**. Monitor progress, then use **Open output folder** to check the result.

Fast operations

Copy without conversion and fast cutting, splitting or merging reduce re-encoding. They require compatible streams and containers. Cutting without re-encoding may start at the nearest key frame rather than at the exact requested time. If fast merging fails, use matching parameters or re-encode. If the chosen FFmpeg package lacks a codec, use a package that includes it; changing a file extension does not add codec support.

Contacts and messaging

The messaging button opens contacts and available devices belonging to Custom MC Taskbar users. This feature needs Internet access and the application's communication service. The client is built in: no separate messenger or local server installation is required.

Adding a contact

1. Use **Copy my ID** to copy your user identifier. Share it with the intended person through an agreed channel.
2. To add someone else, choose **Add contact**, enter their identifier and use **Send request**.
3. The recipient uses **Accept** or **Decline**. **Refresh** updates the list and availability status.
4. Open a conversation from the contact or an available device. If several devices are listed, check which one you are addressing.

Conversations and files

Type a message and click **Send**. **File** selects an attachment from disk, **Clipboard** inserts clipboard text for sending, **Time** inserts the time, and **Clear** clears the editor. Sending a file and sending text are separate actions. **History folder** opens the local history. Open a received file from its conversation entry and check that it came from the expected contact. Read the clipboard contents before sending them.

Managing access

The contact menu provides conversation opening, copying identifiers, blocking or unblocking a user, removing a contact and refreshing status. If no device is available, the other person may not have started the taskbar or may have lost connectivity. **Send ID by email** uses the sending service configured in the application. If it reports an SMTP configuration problem, use **Copy my ID** and your own mail application. This error does not require installing Gmail or saving a mail password in Tools.

Conversation history and transferred files may contain private information. Include them in your backup policy; do not send your entire configuration folder as an ordinary troubleshooting attachment.

Idle prevention and power schedules

Mouse AutoMove / Anti Screen Saver

This feature limits screen saver activation during inactivity by making a small cursor movement. Enable it when you need to watch the screen during a longer task. The mechanism takes user activity into account. The indicator shows its state: grey means no action is being performed, yellow announces movement, and green confirms it. This feature does not change every Windows locking policy; organizational or system settings may still enforce a lock.

Restarting the taskbar

The **Auto-restart Custom MC Taskbar** section in **Options > General** contains independent application restart times: 01:59:16, 05:59:16, 09:59:16, 13:59:16, 17:59:16 and 21:59:16. Enable only the entries you need and confirm with **OK**. An application restart interrupts its current work. Do not schedule it in the middle of an important recording, conversion or transfer. It is separate from restarting Windows.

Restarting or shutting down Windows

Separate sections provide up to six restart entries and up to six shutdown entries. Each has an enable checkbox and a time selector in 15-minute increments.

1. Enable the required entry, choose its time and confirm with **OK**.
2. Save documents before the scheduled action. The schedule works while the taskbar and computer are running.
3. Windows receives the command with a **30-second delay**. If necessary, cancel the pending shutdown with [shutdown /a](#) before that time expires.

If restart and shutdown are scheduled for the same time, shutdown takes priority. The schedule does not switch on the computer or guarantee that a missed action will run after wake-up.

Required components

These features use Windows mechanisms. No additional scheduler needs to be downloaded. You can also select a power plan from the battery menu if that plan is available on your system.

Ham Radio: online information

In **Options > Ham Radio**, enable the services you need, enter your location and confirm with **OK**. These functions use the Internet. Their banners do not require an SDR receiver, DSD-neo or a virtual audio device.

Propagation and activity

Module	Configuration and use
Ham Radio propagation	General propagation information with links to further details.
Band Propagation	Conditions for amateur bands. Helps plan monitoring but does not guarantee a contact.
DX Cluster	Current station spots. Set the number displayed and check each report's time and frequency.
SOTA activity	Current summit activation reports. Set the maximum number of stations and refresh interval. Click the banner to open activity details.

APRS and its map

Enable **Show APRS stations on taskbar**, then enter your locator, radius in kilometres and refresh interval in minutes. Clicking the APRS information opens a map of nearby stations. An incorrect locator or very small radius can produce an empty list. This module presents network data. It does not mean that an RF APRS decoder has been started on the connected receiver. Maps and location descriptions need online services; you do not install a separate map in the application folder.

Satellite Passes

Enable pass information and enter latitude, longitude, altitude above sea level and minimum elevation. The application downloads orbital TLE data from CelesTrak and calculates passes above the selected location. Check coordinate signs and the Windows clock. A higher minimum elevation excludes more low passes. This feature does not automatically control an antenna or confirm that a satellite will transmit during every pass.

The application downloads the data. You do not need to save TLE files manually or install a DX Cluster client. If a banner stops updating, check connectivity and location settings before changing SDR drivers.

RTL-SDR: receiver installation

RTL-SDR needs the **WinUSB** USB driver and compatible receiver libraries. The complete taskbar package includes [rtlsdr.dll](#) and [libusb-1.0.dll](#) beside the application. DSD-neo is only needed for D-STAR and Yaesu Fusion.

USB driver

1. Connect RTL-SDR and its antenna. Close other applications using the receiver.
2. Download **Zadig** from zadig.akeo.ie and run it from Downloads. The manufacturer's instructions are in the [RTL-SDR Quick Start Guide](#).
3. Enable **Options > List All Devices** in Zadig. Select the RTL-SDR interface, usually **Bulk-In, Interface 0**, checking the device name and identifiers.
4. Select **WinUSB** and install or replace the driver for that interface only. Do not select your keyboard, mouse or SDRplay.
5. Start the taskbar and open **SDR**. Check the detected receiver name. Only one application should use a particular USB receiver at a time.

RTL-SDR Blog V4

The V4 needs a compatible library version. If you have a complete, working taskbar package, keep its libraries. If an update is required, follow the [V4 instructions and manufacturer's release link](#). Close the taskbar, then copy **x64 rtlsdr.dll** from the manufacturer's package beside [CustomTaskbarMC.exe](#), keeping a backup of the previous file. Include any dependencies required by that package. Do not replace application libraries with files taken from DSD-neo.

First reception test

Select a known active frequency and the correct modulation. Start with moderate Gain; a strong nearby transmitter may require less gain. For D-STAR or YSF, continue with chapters 21-22.

Zadig installs a driver in Windows. You do not need to copy Zadig into Tools. Receiver libraries go beside the taskbar EXE; the digital decoder goes into its separate DSDNeo subfolder.

SDRplay: receiver installation

The taskbar configuration described here covers the **SDRplay RSP1B**. SDRplay uses its own **Hardware API** and system service. It does not use the WinUSB driver installed through Zadig for RTL-SDR.

What to download and where to install it

1. Open [SDRplay Hardware API](#) and follow the [Windows installer page](#).
2. For the described configuration, use API **3.15** if available. The RSP1B needs at least API 3.14. Choose the Windows API installer, not just SDRconnect.
3. Save the installer to Downloads and run it. Keep the standard SDRplay component locations under **Program Files**. The installer places the libraries and service in the system; do not extract it into DSDNeo.
4. Complete installation according to the manufacturer's prompts. Connect the receiver and check that the SDRplay API service is running.
5. Close other applications using the RSP1B, start the taskbar and open **SDR**. Check that the receiver view refers to SDRplay.

Memories and settings

SDRplay has its own banks, profiles, skips, statistics and recordings. Initial memories may be created from the RTL-SDR configuration, but later changes are not automatically shared between the two receivers. In **MEMORY**, use **Apply + save default** to apply changes and save the SDRplay default set. Saved configurations let you maintain separate sets for different antennas or monitoring locations.

Level controls

IF gain, **IF AGC** and **RF attenuation** have different meanings from RTL-SDR Gain and RTL AGC. Do not copy the same numerical values between the devices. **ADDITIONAL** contains receiver settings, including RF attenuation and analog FM settings. Digital voice additionally needs the shared DSD-neo folder described in chapter 21. A second decoder installation is not required for SDRplay.

If the device is missing, check the API, SDRplay service, USB connection and other applications holding the receiver. Installing Zadig is not a repair step for SDRplay.

Scanner interface and memory banks

RTL-SDR and SDRplay have similar scanner layouts. The top area shows the bank, frequency, channel name, modulation and receiver state. Check it to confirm what you are currently receiving.

Tabs

Tab	Contents
SCAN	Scan state, current reception and channel controls.
SETTINGS	Receiver parameters, supporting features and profiles.
MEMORY	Banks and individual memories with per-channel settings.
ACTIVITY / CHANNEL INTELLIGENCE	Activity history and channel summaries.
SCAN HEATMAP / SPECTRUM	Activity distribution and signal spectrum.
RECORDINGS / SIGNAL MAP	Recordings and a view of observed signals.
ADDITIONAL (SDRplay)	Additional SDRplay hardware settings.

Adding a frequency

1. Open **MEMORY** and select or create a bank. Enable its **SCAN** checkbox.
2. Add a memory with a name, frequency in **MHz**, and **MODULATION**. An entry of 145.550 means 145.550 MHz, not 145550 MHz.
3. Enable **ENABLED**, clear **SKIP** and check any temporary skip. Set volume, squelch and HANG to suit the channel.
4. For RTL-SDR, use **Apply to scanner** and **Overwrite Startup Default** to preserve the startup set as well. For SDRplay, use **Apply + save default**.

Holding versus stopping the receiver

Scanner STOP stops stepping through memories while reception continues on the current channel. **Scanner START** resumes scanning. **Stop receiver** shuts down the receiver and is a different command. **Scan Next Channel** moves on. **Memory+ / Memory-** select memories while scanning is held. Temporary skip buttons exclude a nuisance channel for a chosen time; merely being present in the list does not mean that a skipped entry is being visited. **Receiver window shortcuts:** Ctrl toggles scanning, Space moves on, and Up/Down select a memory during STOP. X, C and V skip the channel for 5, 15 and 30 minutes; B skips until the end of the day. While editing fields, use buttons to avoid confusing text entry with a scanner command.

FM, AM and reception controls

Choose the memory modulation to match the transmission. **Nfm** is narrowband analog FM, **Am** is analog AM, **DStar** is D-STAR, and **Ysf** is Yaesu System Fusion. **Raw** is intended for technical uses and does not replace a digital voice decoder.

Understanding the controls

Parameter	Practical meaning
Gain / IF gain / RF attenuation	Hardware gain or attenuation. Excessive level can distort a strong signal.
Squelch	Reception opening threshold; in dBFS, a value closer to zero is a higher threshold.
Sensitivity / Above Noise	Required signal level above background noise. Too high a value can prevent weak signals from being detected.
HANG ms	Hold time after activity ends. Too short a time may cause a rapid return to scanning.
Volume	Channel listening level. Does not improve the received RF signal.
PRIORITY	Marks an important memory for scanner features that use this designation.

Setting up an analog channel

1. Hold scanning on a known channel. Select Nfm or Am.
2. Set moderate gain. Inspect the signal and background; if overloaded, reduce Gain or increase SDRplay attenuation.
3. Set the threshold so that noise does not open the audio, while the expected transmission still does. Then check scanning.
4. Save a profile or default set to preserve the working configuration.

Peak tuning can help analog reception, but it does not replace correct frequency selection or receiver calibration. D-STAR and YSF have a separate decoding path; do not try to set digital voice quality using only the analog FM deviation control.

Supporting features

Smart Squelch adjusts the threshold to the background. **Interference Guard** may temporarily skip interference for 10 minutes; priority memories are protected from this automatic skipping. The **?** button beside a feature opens its explanation. Check these settings when investigating a missed transmission.

Fast Frequency Discovery

FD / Fast Frequency Discovery searches frequency ranges for active signals. This differs from scanning a list of previously prepared memory channels.

Preparing ranges

The range table contains **Use**, **Band name**, **Start MHz**, **End MHz** and **Passes**. Enable only the ranges you need and check their boundaries. More ranges and passes increase the time before the same frequency is revisited.

1. Close or stop another task using the same receiver. Check which device the FD window refers to.
2. Select ranges and set the number of passes. Start with one small, familiar range.
3. Select **Continuous until STOP**, **Number of cycles** or **Duration in minutes**. Enter the limit for either of the latter modes.
4. Start discovery. Observe the results and counters instead of treating every detected peak as a voice transmission.
5. After stopping discovery, click a result or press Enter/Space to tune and listen.

Turning a result into a memory

Verify frequency, activity and modulation. Add a useful result to a **MEMORY** bank, give it a recognizable name and save the configuration. Carrier detection does not automatically identify the digital standard or the operator. For D-STAR or Yaesu Fusion, create a memory with the correct modulation, then check it with scanning held as described in chapter 22. Detection in FD alone does not confirm successful voice decoding.

Why a signal may be missed

A short transmission may end before its frequency is visited. Narrow the range and inspect the detection settings. Interference or input overload can also create unhelpful results; adjust the antenna and gain.

FD is included in the taskbar. It needs a configured receiver and its drivers, but no separate spectrum analyzer download.

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DSD-neo: installing digital voice

To decode **D-STAR** and **Yaesu System Fusion (YSF)** on RTL-SDR and SDRplay, the taskbar launches the external **DSD-neo** decoder. The tested configuration described here uses version **2.6.1**. You do not need to launch the decoder manually or install a virtual audio cable.

What to download

Open the [DSD-neo 2.6.1 release](#). Under Assets, choose this Windows x64 package:

dsd-neo-msvc-x86_64-native-v2.6.1.zip This is a ready-to-run binary package, not "Source code". Use the specified version for reproducibility; a newer release being available does not mean it has been tested with this taskbar version.

Where to put the files

1. Paste `%LOCALAPPDATA%\CustomTaskbarMC\Tools\` into File Explorer and create a **DSDNeo** subfolder if it does not exist.
2. Extract the package. Copy its complete executables, DLL libraries and accompanying components into that subfolder.
3. Check that the executable is at this exact location:

`%LOCALAPPDATA%\CustomTaskbarMC\Tools\DSDNeo\dsd-neo.exe`

4. Do not leave an additional directory level between DSDNeo and the EXE. Do not copy just the EXE without its libraries or mix DLLs from different releases.

Example for a Windows account named John:

`C:\Users\John\AppData\Local\CustomTaskbarMC\Tools\DSDNeo\`

Runtime libraries

If startup reports a missing Microsoft Visual C++ component, download the **Visual C++ Redistributable x64** installer from [Microsoft Learn](#) and install it in Windows. Do not obtain individual missing DLLs from unrelated download sites.

How reception works

The USB receiver sends signal samples to the taskbar. The selected modulation routes them to the appropriate DSD-neo mode. The taskbar receives decoded audio and sends it to local playback and any enabled recording or streaming functions.

The same DSDNeo folder serves both receivers. FFmpeg is needed for MP3 recording and streaming, but not for local D-STAR or YSF listening alone.

D-STAR and Fusion: receiving and scanning

First prepare the hardware using chapter 16 or 17 and DSD-neo using chapter 21. **Select the transmission type in each MEMORY entry**; naming a bank Digital does not set its modulation.

A Digital bank

Example memory	Setting
D-STAR, 145.550 MHz	MODULATION = DStar
Yaesu Fusion, 145.450 MHz	MODULATION = Ysf

These frequencies were used to test this configuration. They are example settings, not a universal list of active channels. Enter the actual frequency of the transmission you expect.

1. Enable the Digital bank's **SCAN**, enable both memories with **ENABLED**, and clear **SKIP** and temporary skips.
2. Save memories: use **Apply to scanner** and **Overwrite Startup Default** for RTL-SDR, or **Apply + save default** for SDRplay.
3. Use **Scanner STOP**, select one memory, and verify the frequency and modulation at the top of the window.
4. Receive a transmission lasting several seconds. Check intelligible speech and decoder information; an increase in signal level alone does not confirm decoding.
5. Repeat for the other standard, then use **Scanner START**.

Mixed FM, AM and digital memories

The scanner can move between memories with different modulations. On a digital memory it checks activity relevant to the decoder; the absence of a transmission should not cause a permanent hold on background RF alone. After activity ends, scanning returns to the remaining memories. For the first test, enable only Digital. If the same frequency also exists as an FM memory, the scanner may stop on that analog entry before reaching the digital one. Once reception works, remove unintended duplicates and enable the other banks.

Audio quality

Weak synchronization and RF errors can produce broken or metallic speech. Check tuning, Gain, signal level, antenna and USB continuity. Volume does not repair damaged frames. Analog voice filters are not a substitute for correct decoding.

Activity and spectrum analysis

The analysis tabs help identify useful channels and the reasons for excessive stops. They use observations from the current receiver and its recorded history.

Scanner views

View	How to use it
ACTIVITY	Check where activity was detected and when it occurred. Compare entries with actual listening.
CHANNEL INTELLIGENCE	Review channel summaries to find frequently active or troublesome memories.
SCAN HEATMAP	Assess activity distribution over time. Missing entries can also reflect when the channel was visited.
SPECTRUM	Inspect the signal peak, noise floor and nearby signals. Useful for tuning and level adjustments.
SIGNAL MAP	Compare frequency, channel, hit count, strongest signal and last reception. This is an RF activity ranking, not a geographic transmitter map.

Smart Squelch and Interference Guard

Smart Squelch follows the noise floor and places the opening threshold above it. Interference Guard recognizes persistent interference and can temporarily skip the channel. These functions reduce false stops, but check their effect on weaker stations at your location. If you suspect missed calls, compare reception on a held memory with scanning. Check priority marking and temporary exclusions. Change one parameter at a time so that you can evaluate the result.

Receiver profiles

Save tested settings under recognizable names such as "Roof antenna" and "Desk antenna". After loading a profile, check the current values and apply them using the controls in that window. RTL-SDR and SDRplay maintain separate profiles.

Interpretation limits

One receiver does not monitor an entire memory list simultaneously. A short call may occur between visits. Counters are not a complete record of every transmission in an area, and a strong spectrum peak does not confirm intelligible digital voice.

The graphs and statistics are built in. They require no external analyzer or separate database installation.

Radio MP3 recordings

The automatic recorder saves received segments as MP3 files. It needs **ffmpeg.exe** in `%LOCALAPPDATA%\CustomTaskbarMC\Tools\`; preparation is described in chapter 28.

Enabling and checking recording

1. First verify correct local listening on the intended receiver.
2. For RTL-SDR, enable **Record received RTL-SDR transmissions as MP3 files** in **Options > Ham Radio** and confirm with OK. In this version, SDRplay starts its own recorder automatically; the RTL-SDR checkbox does not control it. Check **MP3 recording** in the SDRplay module.
3. Receive a sample, wait for it to finish, and open **RECORDINGS** or **RX MP3 Archive**.
4. Play the file and check that it contains the expected transmission. Very short segments may be discarded by recorder settings.

Locations

Receiver	Default folder
RTL-SDR	<code>%LOCALAPPDATA%\CustomTaskbarMC\RtlSdrRecordings\</code>
SDRplay	<code>%LOCALAPPDATA%\CustomTaskbarMC\SdrPlaySdrRecordings\</code>

Frequency subfolders are created inside each receiver's folder. Recording names contain information that helps identify the time and channel; the exact information depends on settings.

Reviewing the archive

Enhanced Recording Player enables playback in the integrated player, making navigation and replaying sections easier. MP3 files can also be opened in a compatible Windows media player. A useful digital recording depends on correct decoding first. If local D-STAR/YSF audio is broken or distorted, the recorder cannot repair it. Check reception on a held memory before diagnosing the recording stage.

Longer monitoring sessions

Watch available storage and periodically archive the files you need. Copy recordings after they have finished. Deleting files from the recording folder does not remove memory channels, but it removes those audio records.

If listening works but no file appears, check FFmpeg, recording enablement, the correct receiver archive, minimum segment length and available disk space.

Internet Audio: setup and access

Internet Audio sends received sound and scanner status to a phone, tablet or computer browser. The computer running the taskbar, receiver and antenna must remain on, connected to the Internet and awake.

Preparing the receiving computer

1. Verify local RTL-SDR or SDRplay audio and the MEMORY banks. D-STAR and Yaesu Fusion must already decode correctly in the taskbar.
2. Place **ffmpeg.exe** and **cloudflared.exe** in `%LOCALAPPDATA%\CustomTaskbarMC\Tools\`. Chapter 28 gives downloads and complete file locations.
3. In **Options > Ham Radio**, enter an **Internet scanner username**: 3-32 characters using plain letters, digits, hyphens or underscores. Choose a recognizable, unique name and confirm with **OK**.
4. Click **Start Internet Audio** in the intended receiver window. Wait for the notification containing the address and **Access password**. The application generates the password and copies the address to the clipboard. Keep both.
5. Open that address on the other device, enter the password and submit the login form. The browser remembers access; clearing cookies or using a private window may require another login.
6. Click **Listen live**. Opening the page alone may not start sound. Check device volume and whether the browser tab is muted.

Choosing the correct address

Receiver	Stream identification
RTL-SDR	Your username; default local port 8787.
SDRplay	Name with a <code>-sdrplay</code> suffix; default local port 8788.

Copy the address from the running stream's notification. The product information website and URL preview in Options may use a different domain from the active server. The full panel uses **/radio/name**; the basic tunnel player at **/listen/...** does not provide all scanner controls.

In this version, the web password grants both listening and scanner control. There is no separate listener-only account. Share the address and password with people you allow to change scanner operation.

Web: listening and scanner controls

The panel shows current frequency, channel, bank, modulation, signal, scan progress and listener count. Reception is shared: everyone hears the channel currently selected on the computer. A command from a phone also changes taskbar operation.

Browser buttons

Button	Action
Listen live / audio player	Starts listening on this device. Pausing the player does not stop scanning.
Scan Next Channel	Moves on during scanning without temporarily excluding the channel.
Skip 5 / 15 / 30 min	Temporarily skips the current channel so scanning can continue elsewhere.
Scanner STOP	Holds memory scanning while continuing reception of the current channel.
Scanner START	Resumes scanning the enabled memories.
Memory + / Memory -	Selects the next / previous memory. Click Scanner STOP first.
End of day	The current web command does not perform a skip. Use Skip or the corresponding local control.

Example: hold an interesting conversation

1. Start **Listen live** and watch the bank, frequency and modulation.
2. Click **Scanner STOP**. To choose another memory, use **Memory + / -** and check the channel name.
3. Allow the audio buffer to catch up. The conversation you hear may lag behind your command and the displayed status.
4. Click **Scanner START** when finished. For persistent interference, choose **Skip 5 min** instead of repeatedly holding the scanner.

Edit banks, frequencies, memory order and modulation in **MEMORY** on the receiving computer. The web panel has no full bank editor or arbitrary frequency entry. A digital channel uses its stored **DStar** or **Ysf** mode; the browser does not need DSD-neo.

SPACE, CTRL, X/C/V and arrow labels beside buttons refer to computer controls. Use the on-screen buttons in the browser; do not assume these keys trigger web commands.

Web: receiver settings and help

Receiver settings

Web sliders change the running receiver. Wait for **Receiver settings applied** and check the result. Change one parameter at a time; save the startup profile in the taskbar.

Setting	Meaning
Squelch / Sensitivity	Absolute threshold / required level above noise. Lower Sensitivity allows responses to weaker signals.
Tuner gain / AGC	Gain and automatic control. Excessive gain can make reception worse.
Squelch hysteresis	Difference between opening and closing thresholds; reduces switching near the threshold.
Squelch hang time	Time to remain on a channel after the signal disappears.
Scan dwell time	Time spent checking an inactive memory; affects speed and detection of short calls.
Signal smoothing	Smoothing of signal-level measurements.

For SDRplay, the shared panel may still say **Enable RTL AGC**: it controls SDRplay IF AGC in this case. Do not transfer numeric gain settings between receivers. Check detailed hardware settings in the receiver's local window.

Identifying a problem

Symptom	What to do
No sound	Click Listen live; check volume, radio activity and audio on the receiving computer. Silence between transmissions is normal.
Scanner offline / no page	Check the taskbar, Internet Audio, connectivity and tunnel. Use the current address from the startup notification.
Unauthorized / wrong password	Log in again with the intended receiver's password; allow the site to store cookies.
A command has no effect	Read the message below the buttons and check the taskbar state. Avoid repeated START/STOP clicks while waiting.
Gaps or long delays	Check the connection and PC load. After a phone network change, retry Listen live or refresh the page.

Active sessions shows panel connections; the audio listener count may represent something different and update later. Closing the page ends your session; **Stop Internet Audio** in the taskbar stops the stream for everyone. Neither pausing the player nor Scanner STOP disables publication.

Add-ons: downloads and file placement

This page prepares the shared tools for recording, conversion and streaming. Paste this path into Windows File Explorer: %LOCALAPPDATA%\CustomTaskbarMC\Tools\ Create the folder if necessary. %LOCALAPPDATA% means the current Windows user's local profile; do not literally type an account name copied from someone else's example.

FFmpeg and FFprobe

1. Open the [official FFmpeg download page](#) and choose Gyan builds under Windows. You can also go directly to gyan.dev/ffmpeg/builds.
2. Download **ffmpeg-release-essentials.zip**, a ready-built Windows x64 package. Do not select the source-code archive.
3. Extract the ZIP and open its internal **bin** folder. Copy **ffmpeg.exe** and **ffprobe.exe** directly into Tools.
4. Check the paths below. Do not leave the files inside an extra **bin** subfolder. FFprobe is required by the media converter.

Cloudflared

1. Open [Cloudflare downloads](#) or the [cloudflared releases](#).
2. Download **cloudflared-windows-amd64.exe** for 64-bit Windows.
3. Rename it to **cloudflared.exe** and place it directly in Tools. It provides the Internet tunnel; local recording alone does not require it.

Final file locations

Feature	Files relative to Tools
MP3, screen recording, encoding	ffmpeg.exe
Media converter file analysis	ffprobe.exe
Internet Audio	ffmpeg.exe and cloudflared.exe
D-STAR / YSF	DSDNeo\dsd-neo.exe with all its DLLs; chapter 21.

The streaming tools panel in **Options > Ham Radio** shows the location and presence of FFmpeg and Cloudflared and provides an open-folder button. Reopen the panel after copying files. A file being present does not prove successful recording: make a short test.

Settings, files and backups

The two main locations

Folder	Contents
%APPDATA%\CustomTaskbarMC\	Taskbar settings, shortcuts, work history, receiver banks and profiles.
%LOCALAPPDATA%\CustomTaskbarMC\	Tools, recordings, reports, diagnostics and local module data.

%APPDATA% usually points to AppData\Roaming and %LOCALAPPDATA% to AppData\Local. They are different directories. Paste the full path into the File Explorer address bar instead of manually locating the hidden AppData folder.

Important items

- **settings.json**: main options; **CustomTaskbar_Config.json** and **shortcuts.json**: taskbar configuration and shortcuts.
- **frequency_default_bank.json**: RTL-SDR default bank; **rtl_*.json**: profiles, configurations, startup state and related data.
- **sdrplay_frequency_default_bank.json** and **sdrplay_*.json**: separate SDRplay banks and settings.
- **work_history.jsonl**: Assistant work history.
- **Tools**: FFmpeg, FFprobe, Cloudflared and the DSDNeo subfolder.
- **RtlSdrRecordings**, **SdrPlaySdrRecordings**, **AssistantReports**: recordings and reports in local application data.

The main manuals are in **Manual** beside **CustomTaskbarMC.exe**. Do not store drivers or memory banks there.

Making a backup

1. Save memory changes with the appropriate control and finish recordings or transfers.
2. Close the taskbar so configuration files do not change while being copied.
3. Copy the settings folder and required local data into a dated backup folder. Large recordings can be archived separately.
4. To restore data, close the application, preserve the current files, then restore the selected data. After launch, check the receiver, banks and paths.

Copying configuration does not install WinUSB, the SDRplay API, Outlook or runtime components. Install those separately on the new computer.

These folders can contain identifiers, history and access credentials. Keep full backups private; select only the necessary report or log when reporting a problem.

Application troubleshooting

Identify the scope first

Check the version, module name and exact message. Record the action that triggered the error. Do not remove the entire settings folder as your first troubleshooting step.

Symptom	What to check
Incorrect taskbar layout	Intended monitor, Windows scaling, Change taskbar position and Redraw.
Options disappear after restart	Confirm with OK; for radio, also Apply and save the default set.
Outlook mail is missing	Classic Outlook, a working profile, synchronization and enabled mail options.
A meeting is missing	Calendar date range and the accepted-meetings filter.
PDF will not open	Manual folder beside the running EXE and the Windows default PDF application.
Converter will not start	Both ffmpeg.exe and ffprobe.exe in Tools.
Archive creation fails	Installed 7-Zip and the correct path to 7z.exe.
Online banner is outdated	Connectivity, location, refresh interval and source availability.
Contact is unavailable	Refresh, correct user/device, and the other person's running taskbar.

Collecting information

Use **Show Debug Log** in **Options**. Also check

[%LOCALAPPDATA%\CustomTaskbarMC\Diagnostics\runtime-errors.log](#) if present. An additional application log may be at [%LOCALAPPDATA%\CustomTaskbar_DebugLog.txt](#). Include reproduction steps, version, time, the message and a relevant log excerpt in a report. Remove access credentials and private content. You do not need to send the entire configuration, mailbox or conversation archive.

When to restart

After installing a driver or replacing a library in use, close and restart the taskbar. Finish recordings and save configuration first. Restart Windows when required by an installer or a specific issue; it is not necessary after every memory change.

Radio troubleshooting

First test a single memory with **Scanner STOP**, then test scanning. This separates reception problems from channel-list and detection problems.

Symptom	Next checks
RTL-SDR not detected	USB, WinUSB on the correct interface, libraries beside the EXE, V4 compatibility and no other application holding the device.
SDRplay not detected	Hardware API installation, running SDRplay service, USB and an available RSP1B. Do not use Zadig.
Digital signal only crackles	Check DStar/Ysf in MEMORY and at the top of the window. Make sure the active entry is not an analog duplicate.
Decoder will not start	Exact DSDNeo path, all DLLs from the same x64 package and any Visual C++ error message.
Metallic or broken speech	Frequency, signal, antenna, excessive gain, USB, computer load and the selected transmission mode.
A channel is never scanned	Bank SCAN, ENABLED, SKIP, temporary skips and applied changes.
Scanner stays without speech	START/STOP state, thresholds, analog duplicates, detection settings and Interference Guard.
Listening works but MP3 is missing	FFmpeg, recording enablement, transmission duration, correct archive and free disk space.
Local listening works but Internet audio fails	FFmpeg, Cloudflared, tunnel, correct address, access and playback buffering.

A controlled test

Enable one bank containing one channel. Clear skips, select the correct mode and receive a longer sample. Check local sound, then recording, then the website. Change one parameter at a time and note the result. For a strong nearby signal, reducing gain may improve reception more than increasing it. With digital voice, silence between calls does not prove that the decoder is receiving valid frames.

Documentation updated for Custom MC Taskbar 2.2.0.1 on 21 September 2026. Download links point to component sources; manufacturers may change page layouts and release numbers. Required filenames and destinations are described with each integration.