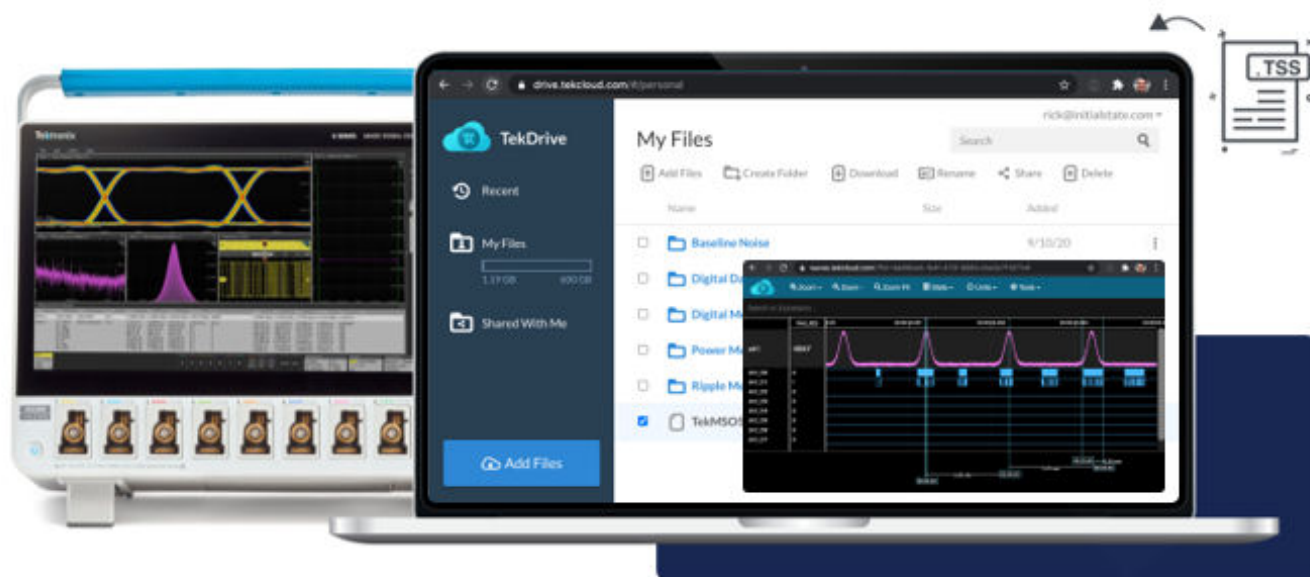


TekDrive - Collaborative T&M Data Workspace

Datasheet



Collaborate easily by transferring, storing, organizing, managing and sharing data and files. Save and recall natively from supported devices and software. Preview and analyze supported waveform data types on any device – with no extra software.

Overview

Using TekDrive, a collaborative T&M data workspace, users can upload, store, organize, search, download, and share arbitrary files from any connected device. TekDrive is natively integrated on many oscilloscope models (including 5/6 Series MSO) for seamless sharing and recalling of files – no USB stick required. Analyze and explore standard files, like *.wfm, *.isf, *.tss, and *.csv, directly in a browser with a smooth interactive waveform explorer. Built as a service first, TekDrive was designed with scripting, API integrations, automation capabilities, and security from the start.

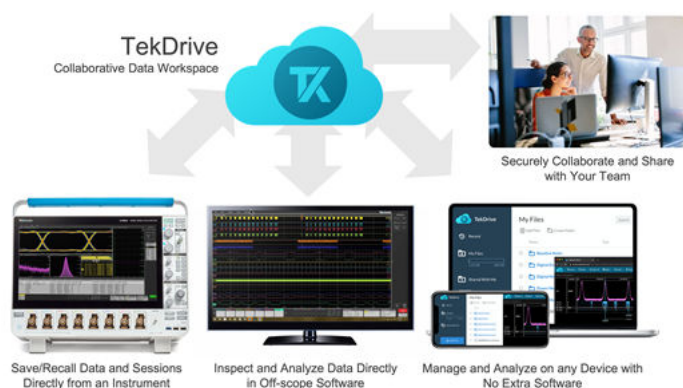


Figure 1: TekDrive serves as a data warehouse that can be accessed on instruments, software, and personal computing devices.

Key features

- **Secure anywhere-access to Team's Data:** Securely store, share, and collaborate on T&M data. Upload, download, delete, rename, and move files on any connected device. There are no restrictions on file types, and there is built-in support for certain waveform, session, data, and image files. Organize files in folders and manage access. Search and sort with file contents and metadata.
- **Inspect, analyze, and report on any device:** Standard file types generated by Tektronix Oscilloscopes (*.tss, *.wfm, *.isf, *.csv) can be opened and inspected directly in the TekDrive interface with no loss of data integrity. We leverage web technologies to offer buttery smooth interactive waveform plots with zoom, pan, and signal selection. The visualizations have built-in measurement tools like cursors. In addition, you can write formulas against your data to make custom calculations and comparison like averaging, math, statistics, and formatting.
- **Save and recall directly on an oscilloscope:** TekDrive can be mounted natively on 5/6 series oscilloscopes. Using "Mount" from the File Utilities dialog, you can securely create a drive on the oscilloscope that automatically syncs with your TekDrive. This means you can save data and recall sessions directly from TekDrive

using all the same features you expect from a local drive. If you are still using insecure USB sticks to "sneakerNet" data around your organization, you will find the native oscilloscope integration saves time and is ultimately more secure. If your oscilloscopes are shared resources, you will find that pairing with one oscilloscope today and another tomorrow makes it feel like every oscilloscope you approach is already personalized with your data.

- **Easy and secure TekDrive mount system:** Mounting a TekDrive on a oscilloscope is a quick operation designed specifically for oscilloscopes. It uses a short-code methodology you may have seen in consumer devices and smartTVs. You never need to type or store your user credentials on the oscilloscope, and don't worry about fumbling with an on-screen keyboard for entry. In addition, you can set rules to unmount your TekDrive pairing automatically. This can be set to when IP Address changes, on power-cycle, or after some amount of time. Of course, you can also set to indefinite expiration to unmount manually whenever you like – either on the oscilloscope or remotely.
- **Seamless collaboration with unlimited contributors:** Any file or folder in TekDrive has per-user granular access control such that you can share with any arbitrary group of other TekDrive users. Using a tier that allows sharing, you may have unlimited contributors collaborating with shared data.
- **Splice into any workflow:** TekDrive is designed to be accessible and developer-friendly for integration, scripting, and automation. Refer to the well-documented REST API (docs.drive.tekcloud.com) to send and receive data from/to any connected device or software application. SDKs and examples are provided in popular programming environments like LabVIEW, Python, MATLAB, and other common languages.
- **TekDrive developer program:** Contact us at support@tekcloud.com about the TekDrive developer program to include and sell TekDrive with your devices, software, and business. Integrating TekDrive into your products may provide the competitive differentiation you need to quickly bring your unique expertise and offerings into the modern data-connected world.

Key workflows

TekDrive is the data backbone and warehouse you need to effectively collaborate with data.

Manage and store data using any device

Go to drive.tekcloud.com to log into your account. You can manage your files, folders, and sharing controls. You are able to contribute to files and folders shared with you as well. You can add files via drag-and-drop, upload, and download files directly to your device. This interface works on any modern web browser including those running on laptops, phones, tablets, and other web enabled devices.

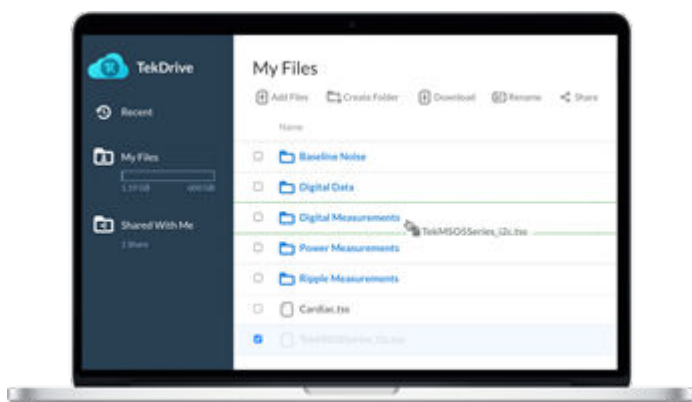


Figure 2: TekDrive offers a web application for file management

Mount your TekDrive to an oscilloscope

On a supported oscilloscope go to **File >> File Utilities**. Press **"Mount"** on the button bar at the bottom of the dialog box. In the Mount Dialog you can select TekDrive as the mounting option. Next, select the method to unpair when finished. You can elect to automatically unmount your TekDrive according to various triggers.

- Unmount after a certain amount of time. Say you are going to use the oscilloscope for the day; set it to 8 hours.
- Unmount on power cycle. The next time the oscilloscope powers on, it will automatically unmount your TekDrive.
- Restrict connection when IP Address changes. This option is enforced on the server side. It doesn't automatically unmount the drive per se; it renders the TekDrive inaccessible until the IP is restored or the TekDrive is remounted.
- Unmount Manually. You can always unmount from the oscilloscope directly. You can also revoke access remotely by deleting the Access Key associated with that oscilloscope in your account.

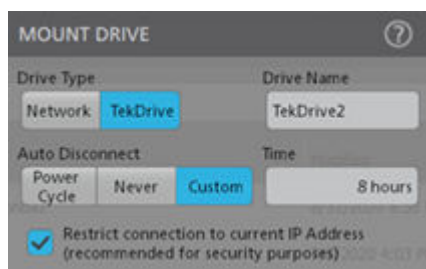


Figure 3: Configuration and security setting when mounting a TekDrive

Once you have configured the TekDrive connection, you'll be presented with a "short-code". From any device navigate to drive.tekcloud.com/ activate (or use the on-screen QR Code) and enter the short-code. This action will automatically complete the activation, and the oscilloscope will have a new mounted drive directly connected to your TekDrive.



Figure 4: Mount the TekDrive on an oscilloscope using a short-code style login system.

Save on oscilloscope – analyze off oscilloscope

Once you mount a TekDrive on a supported instrument, you interact with your TekDrive the same as any other drive.



Figure 5: Save a session to TekDrive just like any other drive on the oscilloscope

Once you save to your TekDrive on a oscilloscope, the file is automatically uploaded into the specified folder. Now from any device with a browser, you can access that file. For Tektronix waveform enabled files, like *.tss, *.wfm, *.isf, and *.csv, you can interactively view and analyze the data on plots directly in the browser. There is no plugin or additional software required.



Figure 6: Inspect and analyze supported file types directly in the web application.

When you want to go deeper with analysis and measurements, open it in TekScope. You can interact with your TekDrive directly in the TekScope PC Analysis software. This means that you can save on the oscilloscope and immediately open in TekScope without manual file transfer. Just seamlessly save and open wherever you need files.

Save on oscilloscope – recall on oscilloscope (same oscilloscope or a different one)

The capability to save an oscilloscope session via *.tss files has always been a strong feature of modern Tektronix instruments. A session file is a compilation of all waveforms and setup. With TSS you can recall a full set of data and all the measurements performed – leaving the oscilloscope and configurations exactly where you left off. Pairing this capability with TekDrive file portability, you can keep a library of session files at-the-ready. You can walk up to any oscilloscope in your lab and recall a session from your TekDrive in seconds – even if that session was saved earlier and/or on another device.



Figure 7: Recall from TekDrive on a different oscilloscope.

Automatically share data with collaborators

Using TekDrive mounting capability and folder sharing management, you can automatically share files with your team from the oscilloscope. First, decide on a folder that you would like to share and add contributors. Manage this through the TekDrive web application.

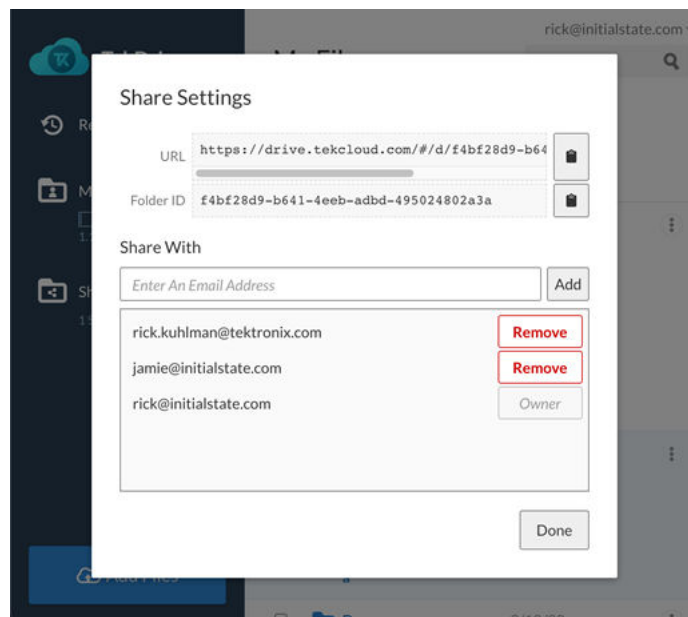


Figure 8: Configuration and security setting when mounting a TekDrive

Now, when you mount the drive on the oscilloscope and save a file to the folder, your data will be automatically shared with collaborators. This creates an incredibly powerful collaboration platform where multiple users can save data from various instruments in the same folder. Ditch your USB sticks and email for good.

Enhance scripting and automation with secure data storage and retrieval

When writing automation, whether it's simple scripts of a complicated testbench, use TekDrive as a centralized data storage and retrieval system. Adding TekDrive to your script is easy and secure.

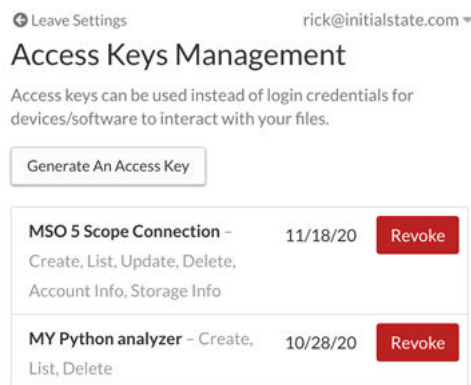


Figure 9: Access Keys can be manually generated or created by supported integrations, like on-oscilloscope drive mounting.

- Generate an Access Key for your script or project.
- Give that Access Key privileges. For example, you can easily create an access key that is only allowed to read, or only allowed to write. Note: You can revoke access at any time through TekDrive.
- Use the access key to drive the TekDrive API in your code. You can easily create your own code starting with some of the pre-built examples provided by Tektronix.

```

23
24 #-----Create File Record-----
25 def createFileRecord():
26     data = { "name": fileName + ".csv", "parentFolderId": parentFolderId}
27     url = requests.post(apiUrl + "/file", json=data,
28         * headers=headers).json()['uploadUrl']
29     return(url)
30
31 #-----Upload File Using uploadURL from File Record-----
32 def uploadFile(upload):
33     file = open(fileName + ".csv", 'rb')
34     requests.put(upload, data = file, headers = headers)
35     return

```

Figure 10: Python code snippet for creating and uploading a file to a specific folder in TekDrive

Getting started

Register for an account at: <http://tekcloud.com/tekdrive>

You may register for a Free Trial, with no credit card (or other payment method) required.

Learn to connect your scope (<https://help.tekcloud.com/hc/en-us/articles/360049070792-Pairing-TekDrive-to-Your-Scope>)

TekDrive-Enabled integrations

Instruments

TekDrive can be mounted on the following hardware:

- 5-Series MSO Mixed-Signal Oscilloscope
- 5-Series MSO Low Profile Oscilloscope
- 6-Series MSO Mixed-Signal Oscilloscope
- 6-SeriesB MSO Mixed-Signal Oscilloscope - COMING SOON
- 4-Series – COMING SOON.

Software

TekDrive can be used directly in the following software:

- TekDrive web application is supported by most modern browsers on PCs and smart devices. <http://drive.tekcloud.com>
- TekScope direct access – COMING SOON.

RESTful web services API

Any language or utility that supports request-response RESTful web services can interact with TekDrive resources. We support HTTP methods (i.e. GET, POST, PUT, DELETE, etc.) with JSON-formatted requests and responses. To make integration easy, you place a valid Access Key in the proper header to begin making authenticated requests. In addition, we maintain a well-documented API reference, refer to help.tekcloud.com for more information. Find the API documentation at docs.drive.tekcloud.com.

SDKs and example code

Tektronix maintains a set of example code for creating automation and software in common languages using TekDrive. We will update our support from time to time, and you can find the latest list of examples at help.tekcloud.com.

Service tiers

Storage capacity

Each service tier has a storage capacity. This capacity represents the amount of data which can be owned by the account. File ownership is determined by where the file is stored. If the file is stored in one of the account's folder, it is owned by that account – even if the file was created by another account. This can happen when various users contribute to a shared folder. You can check your storage capacity status in the TekDrive web application at any time.

Sharing capability

Some tiers of service are only for individuals while other are purpose-built for collaboration. If your account allows sharing, you can manage access to each of your files and folders. If your account limits sharing, you may contribute to shared files and folders, but the account may not originate a share or manage access.

Access keys

Access keys are used as a secure mechanism to connect TekDrive with Instruments, software, scripts, and other automation. They can be manually generated and revoked. They can be automatically generated by supported applications, like the on-scope mounting system. Each access key represents a separately provisioned connection to your TekDrive. Each tier has a limit to the number of simultaneous connections your account can have. For example, an individual tier can have two simultaneous Access keys. This means, you could be connected to (1) two scopes (2) one scope and Access keys.

Service Tier	Characteristic	Description
TekDrive Individual TEKDRIVE-IND	200 GB Hosted Storage	This account may own up to 200 GB of data.
	Contribute	This account may not initiate or manage sharing, but it can participate in a shared folder owned by an account with sharing enabled.
	In-Browser Analysis	Open and Inspect supported files directly in the web application.
	2 Access Keys	This account can have 2 simultaneous connections to integrations or automations.
TekDrive Business TEKDRIVE-BUS	600 GB Hosted Storage	This account may own up to 600 GB of data.
	Unlimited Sharing	Share your owned files with anyone (including individual and contributor accounts).
	In-Browser Analysis	Open and Inspect supported files directly in the web application.
	10 Access Keys	This account can have 10 simultaneous connections to integrations or automations.
TekDrive Enterprise TEKDRIVE-ENT	2TB GB Hosted Storage	This account may own up to 2TB (2000GB) of data.
	Unlimited Sharing	Share your owned files with anyone (including individual and contributor accounts).
	In-Browser Analysis	Open and Inspect supported files directly in the web application.
	100 Access Keys	This account can have 100 simultaneous connections to integrations or automations

Ordering information

Pay via Credit or Debit Card

Credit cards are accepted as a payment method in the US. Use your TekCloud Account to manage this payment method. You can set this to automatically renew.
Cancel anytime.

Pay via Quote/PO/Invoice

Use the standard Tektronix payment systems to make a TekDrive purchase.

TEKDRIVE-IND - TekDrive Individual

TEKDRIVE-BUS – TekDrive Business

TEKDRIVE-ENT – TekDrive Enterprise

TekDrive Availability

US, Japan, Canada, China, Korea, Mexico, Singapore, Taiwan, India, Hong Kong, Malaysia, Austria, Germany, Sweden, UK, France, Italy, Netherlands, and Other EU Countries (Business to Business orders only). All other countries will not be permitted to purchase this service at this time.

Tektronix is registered to ISO 9001 and ISO 14001 by SRI Quality System Registrar.



Product(s) complies with IEEE Standard 488.1-1987, RS-232-C, and with Tektronix Standard Codes and Formats.



Product Area Assessed: The planning, design/development and manufacture of electronic Test and Measurement instruments.

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* European toll-free number. If not accessible, call: +41 52 675 3777

For Further Information. Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology. Please visit www.tek.com.

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