TECH NOTE #003:: catman Web Server for Remote Access

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Status: public

Abstract

With catman®Easy / AP we can offer a complete software package for sensor and signal data acquisition, live visualization and data analysis in one overall scalable software solution. The basic package catman®Easy can be extended by extensive functionalities towards the overall solution catman®AP. More details can be found on our new web page.

This TECH NOTE describes the function catman web server running next to the main application on your PC or on your Data Recorder from the QuantumX or SomatXR series.

Philosophy and Benefits

The ability to remotely connect to your PC in lab or test bench or even linking up to your data recorder operating in a vehicle or an infrastructure monitoring station is a major plus. With this function you are able to access your application from within the same building or from the distance via smart phone, laptop or PC, all within the corporate and secure network.

There are many advantages to remotely access your Test & Measurement job

- access anytime from anywhere increases productivity
- faster response and reaction delivering results earlier
- no extra tool to be installed
- many stakeholders can visualize the data in parallel located in different areas (collaboration)
- less traveling
- access from any device type (Linux, Android, iOS, smartphone, tablet, …, Chrome, Firefox, Safari, EDGE, …)
- comprehensive perceivability and control over your running test
- quickly check operation and current status
- download data for local or server-based data analytics
- quicker troubleshoot any issues
- allow collaboration and education from the distance

The catman web server allows you that all pre-configured visualization objects and panels you designed in an authoring step before, are displayed in a browser window when activated. You can use any browser and access the catman webserver right away via the IP address of the PC or Data Recorder where catman runs.

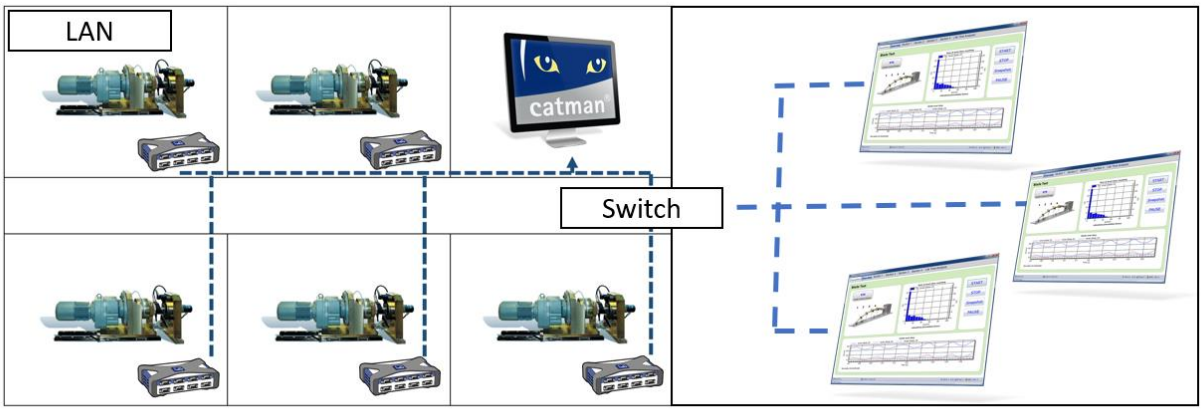
Overview

catman web server can be accessed from within your corporate network or from outside.

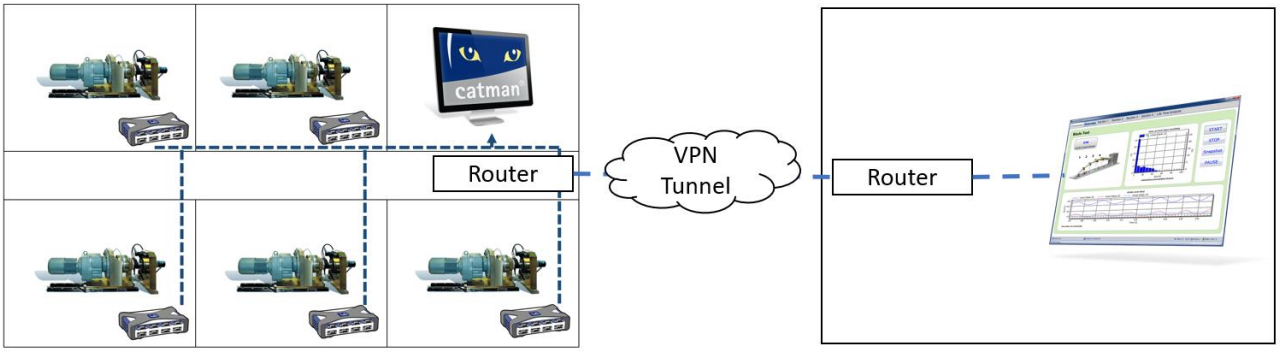
1. Access catman web server **within your corporate and secure network**.
   Just access the web server via the IP address from any PC in your corporate and secure network.
2. Access the catman web server **from at home or any other location**.
   Access your corporate and secure network via VPN network and then the web server. The correct ports need to be open allowing data transfer.

catman web server is the perfect tool if you want to visualize and access your running measurement or test.

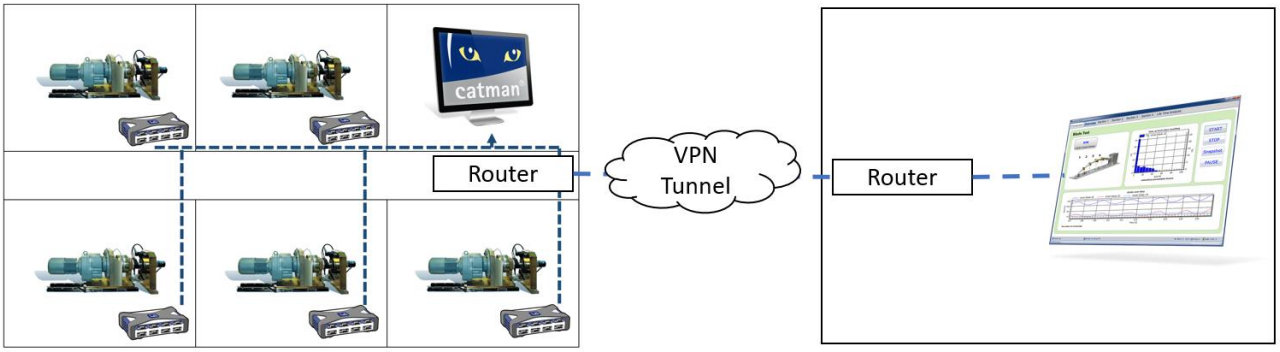
Accessing the catman web server from different PCs from within the corporate network:



Accessing the catman web server from outside the corporate network via virtual private network tunnel (VPN):



Accessing the catman web server running on QuantumX CX22B-W or SomatXR Data Recorder CX22B-R-W via VPN:



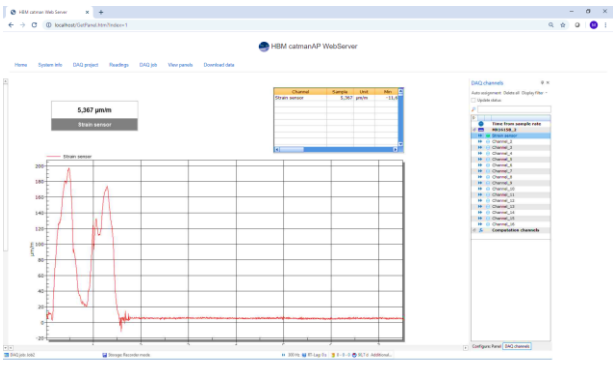
Please check with your IT department what ports are allowed for this data transfer via router (standard: port 80).

Functionality

Most important, catman web server displays all your pre-defined online visualizations.
Browsers such as Chrome, Firefox and Edge offer plugins auto refreshing the page.

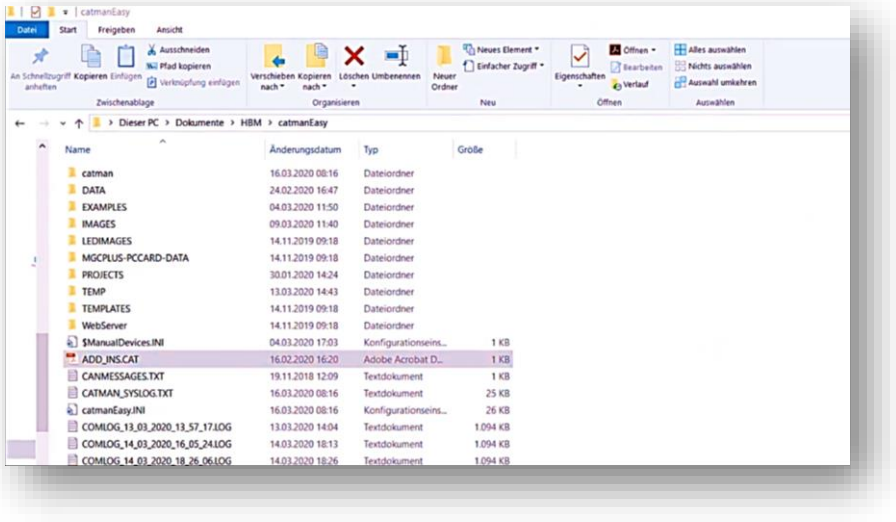
catman web server:

- shows all panels you created
- visualizes all sensor readings
- allows you to **download data**
- get system and DAQ job overview

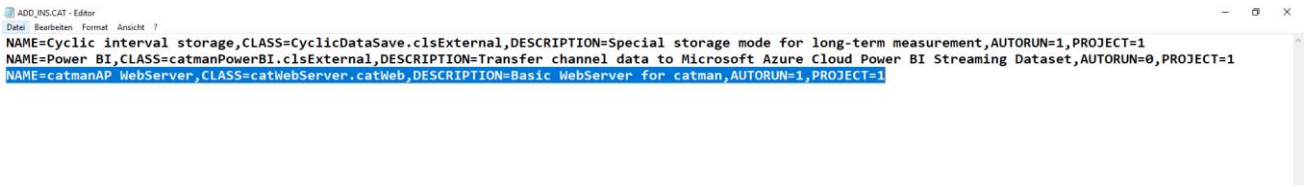


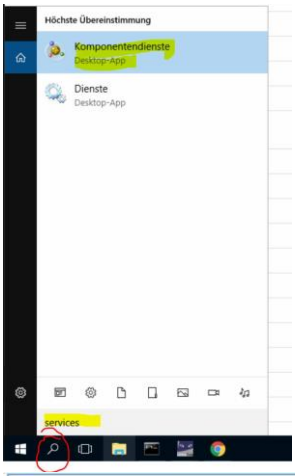
catman Web Server Setup

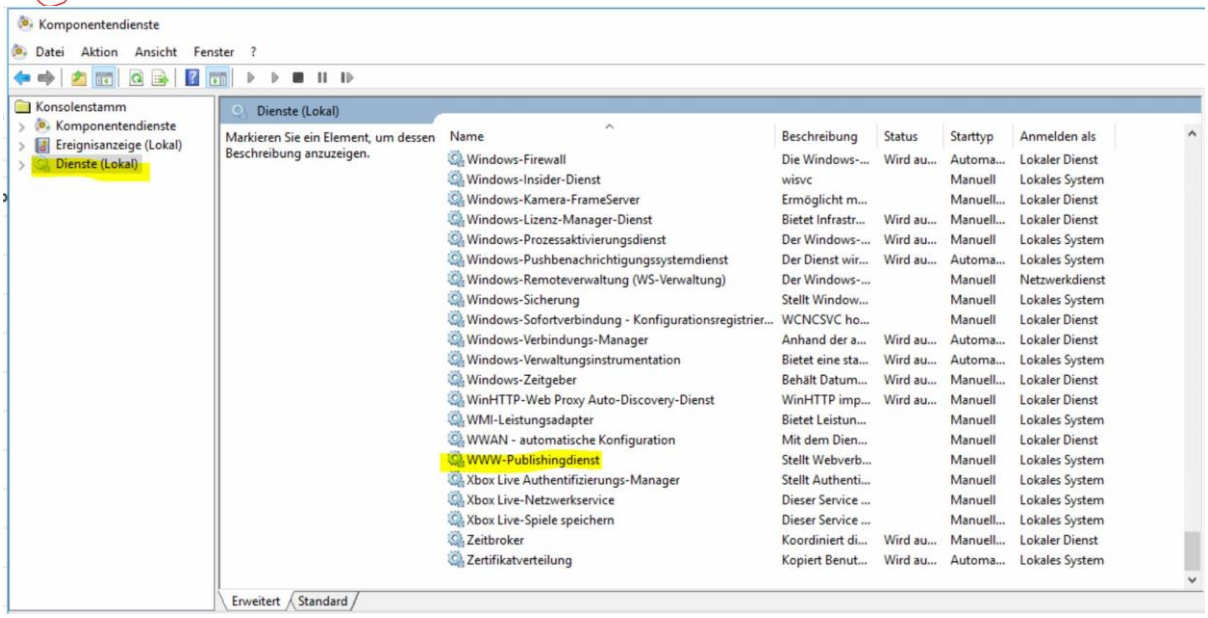
1. catman web server needs to be in initialized where catman runs.
   Go to folder \documents\HBM\catman

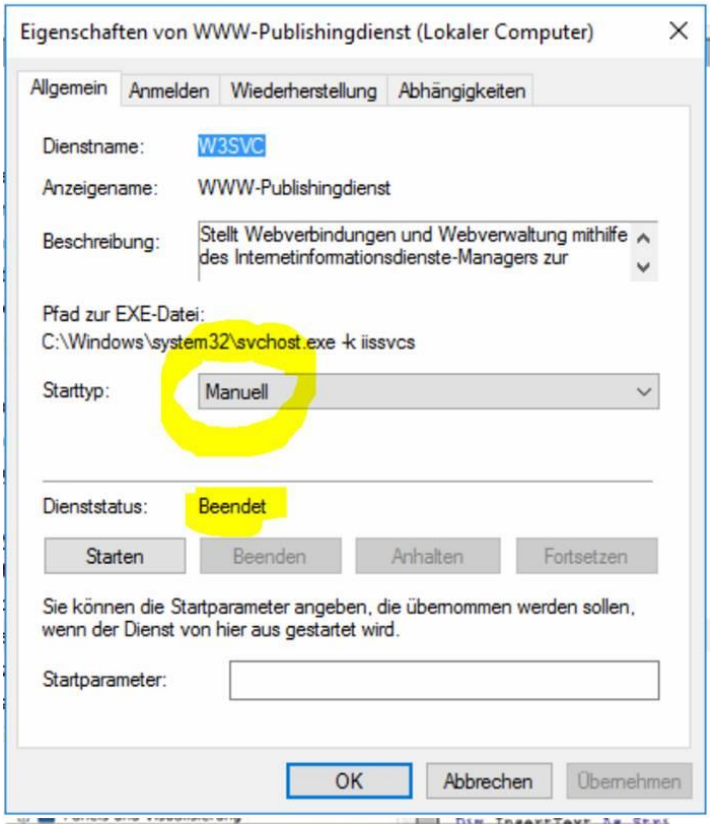


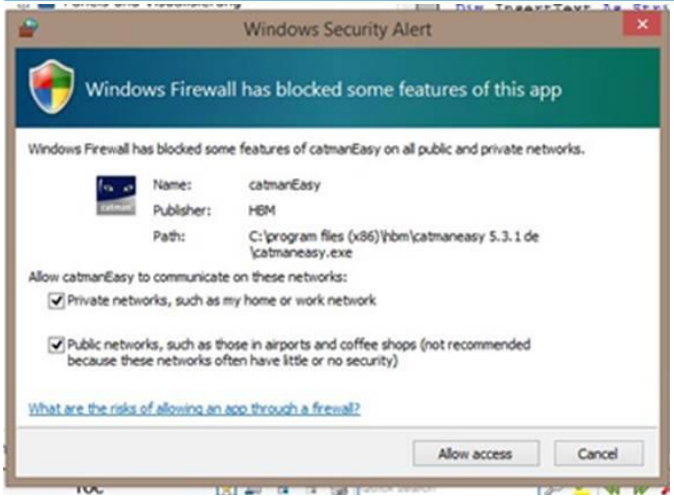
2. Now extend start options of file ADD_INS.CAT and add the following extension:
   NAME=catmanAP WebServer,CLASS=catWebServer.catWeb,DESCRIPTION=Basic WebServer for catman,AUTORUN=1,PROJECT=1
   Then save the file again.
   This enables the auto start of the web server each time catman is started in the background.



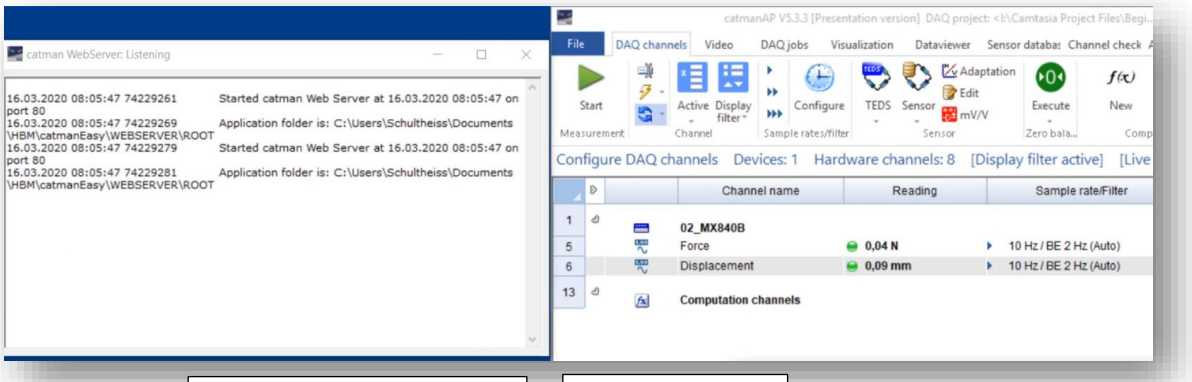

Höchste Übereinstimmung
Komponentendienste
Desktop-App
Dienste
Desktop-App
services


Komponentendienste
Datei Aktion Ansicht Fenster ?
Konsolenstamm
Komponentendienste
Ereignisanzeige (Lokal)
Dienste (Lokal)
Dienste (Lokal)
Markieren Sie ein Element, um dessen Beschreibung anzuzeigen.
Name Beschreibung Status Starttyp Anmelden als
Windows-Firewall Die Windows-... Wird au... Automa... Lokaler Dienst
Windows-Insider-Dienst wisvc Manuell Lokales System
Windows-Kamera-FrameServer Ermöglicht m... Manuell... Lokaler Dienst
Windows-Lizenz-Manager-Dienst Bietet Infrastr... Wird au... Manuell... Lokaler Dienst
Windows-Prozessaktivierungsdienst Der Windows-... Wird au... Manuell Lokales System
Windows-Pushbenachrichtigungssystemdienst Der Dienst wir... Wird au... Automa... Lokales System
Windows-Remoteverwaltung (WS-Verwaltung) Der Windows-... Manuell Netzwerkdienst
Windows-Sicherung Stellt Window... Manuell Lokales System
Windows-Sofortverbindung - Konfigurationsregistrier... WCNCSVC ho... Manuell Lokaler Dienst
Windows-Verbindungs-Manager Anhand der a... Wird au... Automa... Lokaler Dienst
Windows-Verwaltungsinstrumentation Bietet eine sta... Wird au... Automa... Lokales System
Windows-Zeitgeber Behält Datum... Wird au... Manuell... Lokaler Dienst
WinHTTP-Web Proxy Auto-Discovery-Dienst WinHTTP imp... Wird au... Manuell Lokaler Dienst
WMI-Leistungsadapter Bietet Leistun... Manuell Lokales System
WWAN - automatische Konfiguration Mit dem Dien... Manuell Lokaler Dienst
WWW-Publishingdienst Stellt Webverb... Manuell Lokales System
Xbox Live Authentifizierungs-Manager Stellt Authenti... Manuell Lokales System
Xbox Live-Netzwerkservice Dieser Service ... Manuell Lokales System
Xbox Live-Spiele speichern Dieser Service ... Manuell... Lokales System
Zeitbroker Koordiniert di... Wird au... Manuell... Lokaler Dienst
Zertifikatverteilung Kopiert Benut... Wird au... Automa... Lokales System
Erweitert Standard



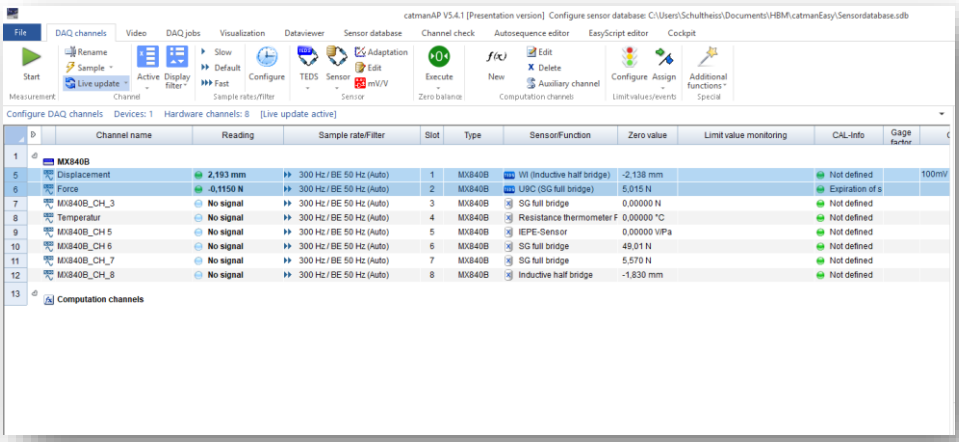


3. Start catman and it will look like this:



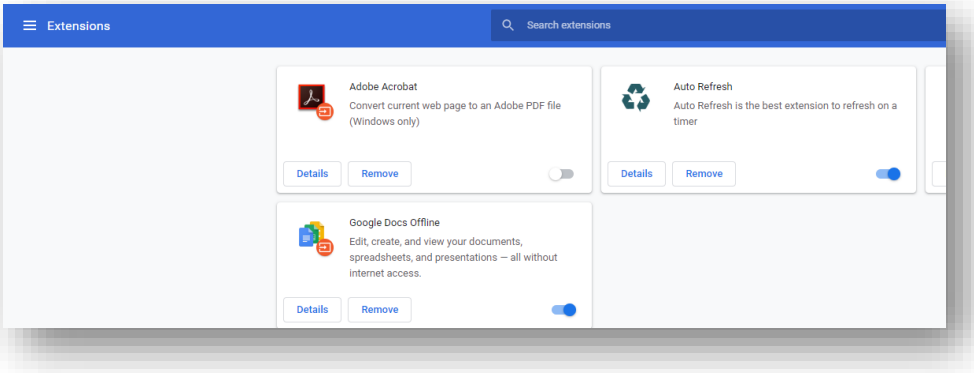
catman web server parallel | catman software

4. Now you need to create your panel view like are used to do in catman software. All panels will be mirrored in the web server and thus displayed in your web browser by remote access.

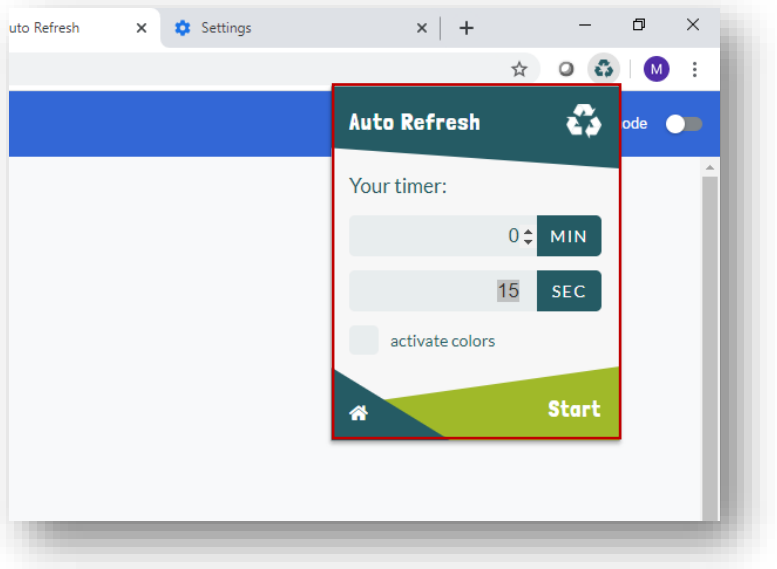


PLEASE NOTE: If there are difficulties accessing the Web Server please check that no other Web Servers are running. It can happen that IP phones can block port 80 and can cause issues accessing catman Web Server. In this case deactivate the other devices temporarily and reboot catman. Afterwards the other Web Servers/Devices can also be started again.

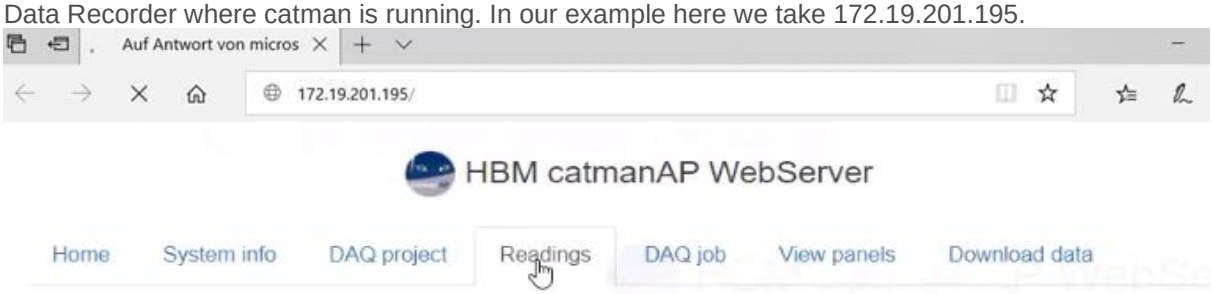
5. Your web browser needs to be parameterized in a way that all your data is automatically refreshed. There are different add-ins available for Chrome, Firefox, Edge, etc. and they are all for free. In this workflow description we take the “AutoRefresh” add-in for Google Chrome browser.



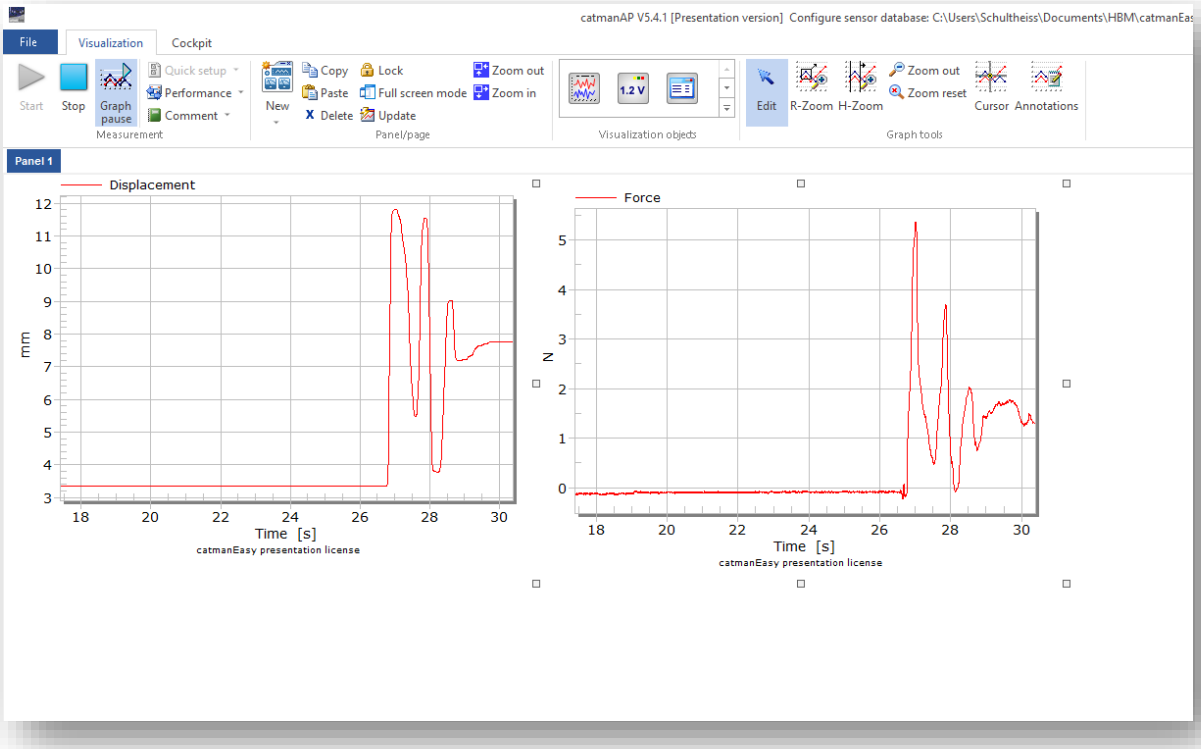
6. This add-in allows you to set a time interval in how often the web browser needs to be refreshed. We will take a refresh rate of 15 seconds as an example.



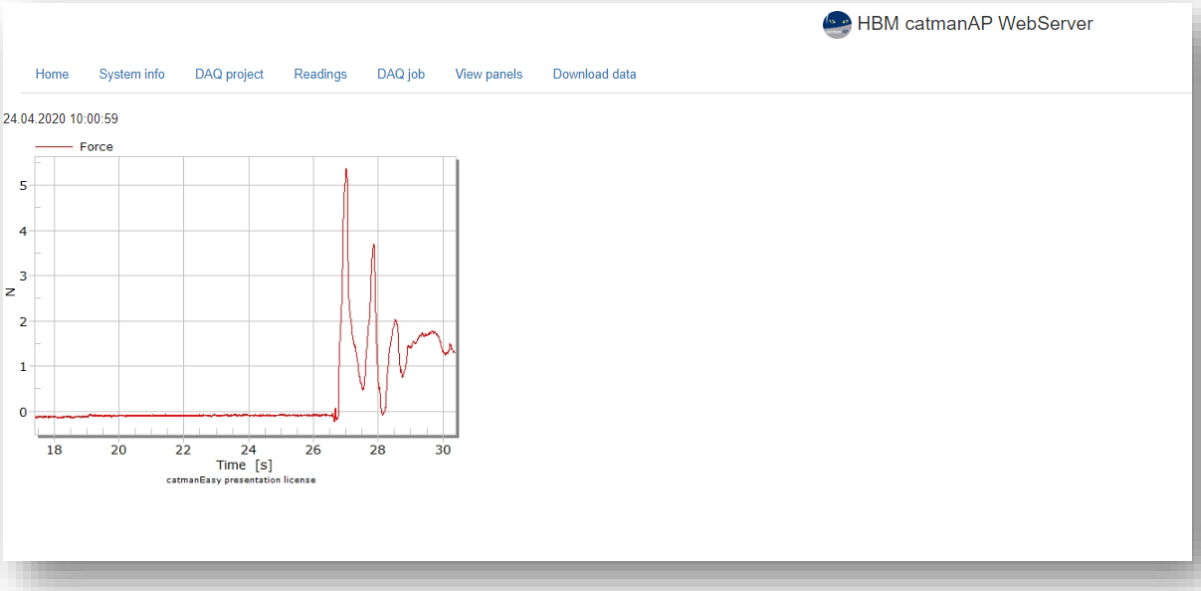
7. Start your test and measurement. Open-up your browser and enter the IP address of the Host PC or Data Recorder where catman is running. In our example here we take 172.19.201.195.



8. If everything is running nice and smoothly you will visualize your data in the catman software …

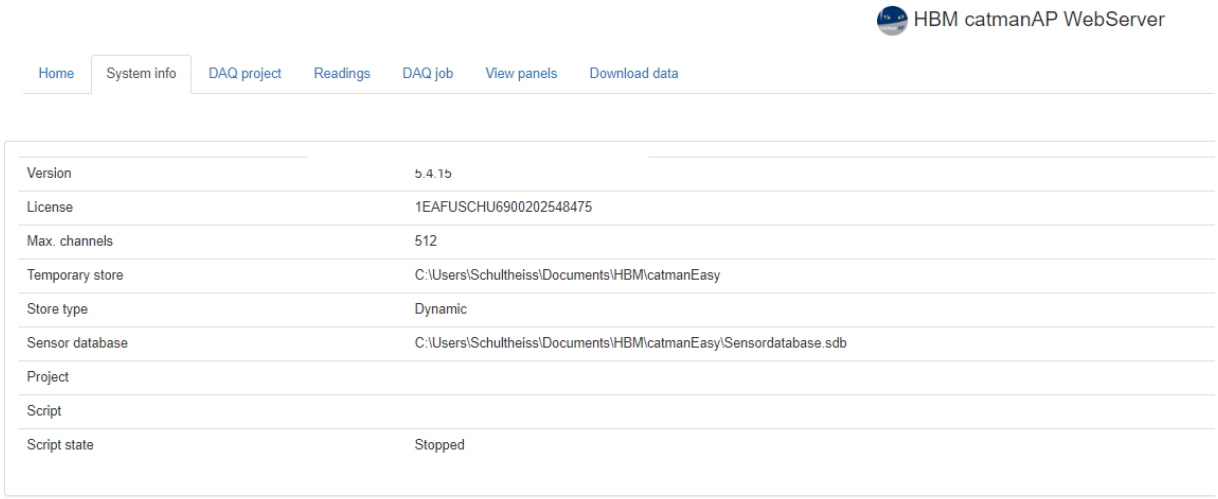


9. …and in your browser:



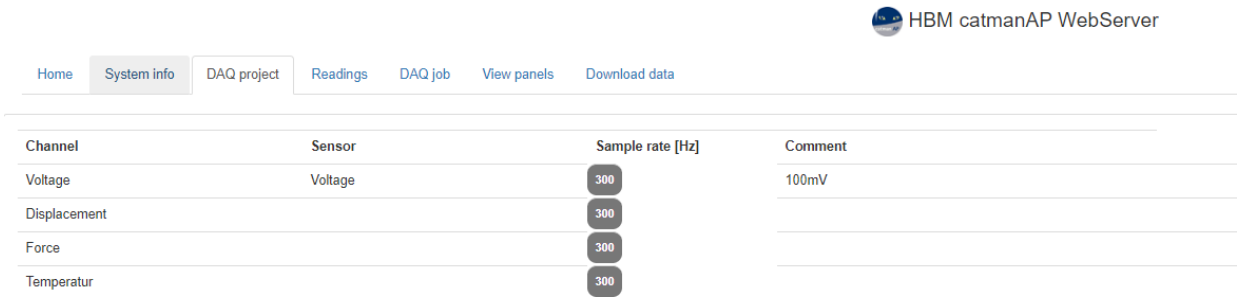
catman web server can be individualized:

- System Info



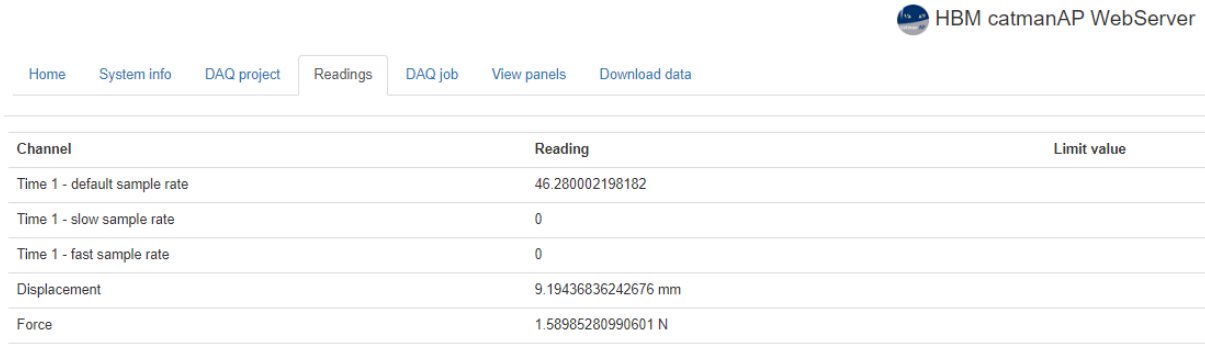
Version	5.4.15
License	1EAFUSCHU6900202548475
Max. channels	512
Temporary store	C:\Users\Schultheiss\Documents\HBM\catmanEasy
Store type	Dynamic
Sensor database	C:\Users\Schultheiss\Documents\HBM\catmanEasy\Sensordatabase.sdb
Project	
Script	
Script state	Stopped

- DAQ project information



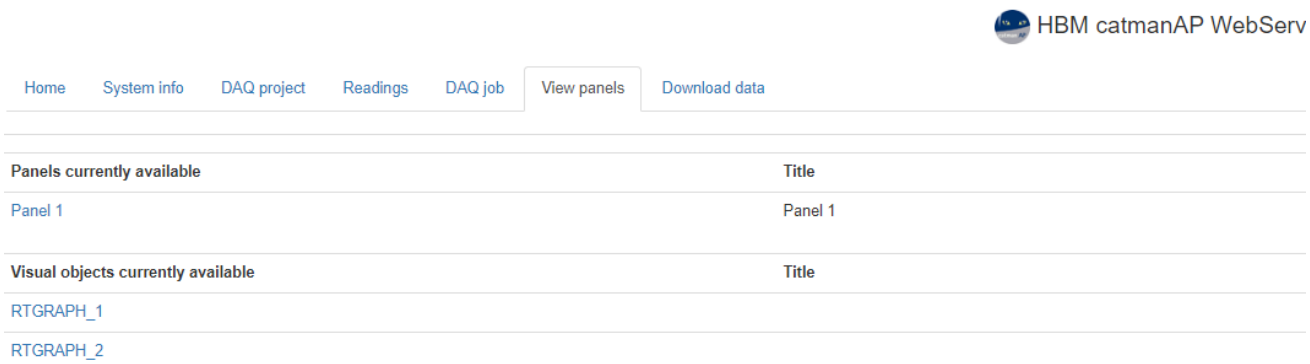
Channel	Sensor	Sample rate [Hz]	Comment
Voltage	Voltage	300	100mV
Displacement		300	
Force		300	
Temperatur		300	

- Sensor readings



Channel	Reading	Limit value
Time 1 - default sample rate	46.280002198182	
Time 1 - slow sample rate	0	
Time 1 - fast sample rate	0	
Displacement	9.19436836242676 mm	
Force	1.58985280990601 N	

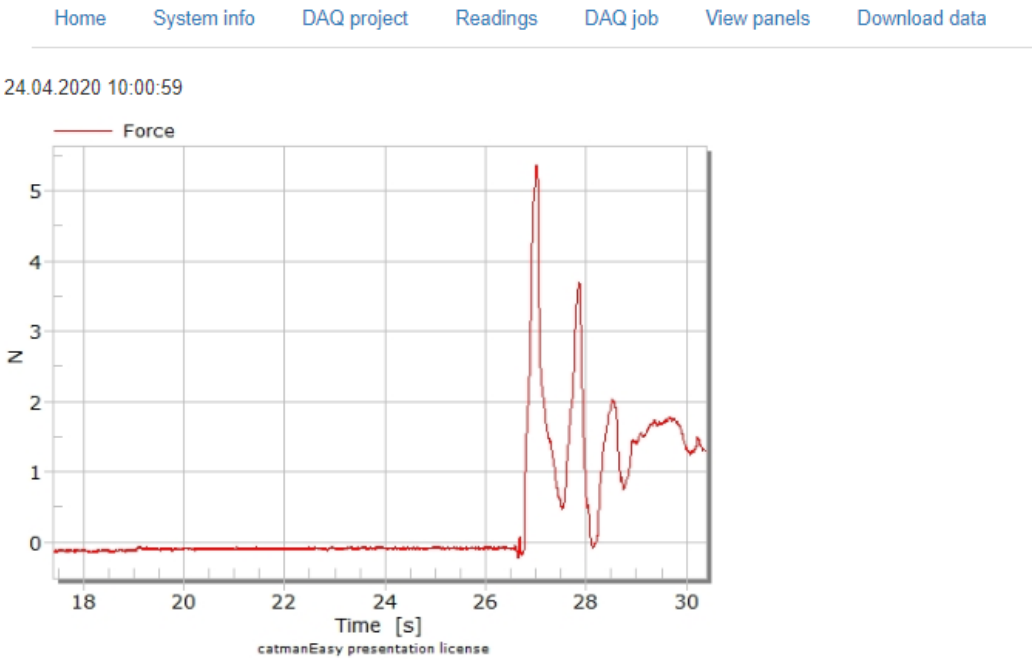
- Access different panels



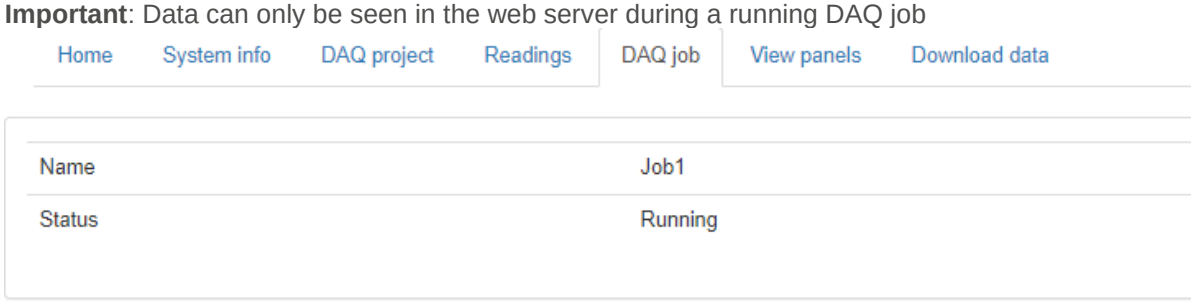
Panels currently available	Title
Panel 1	Panel 1

Visual objects currently available	Title
RTGRAPH_1	
RTGRAPH_2	

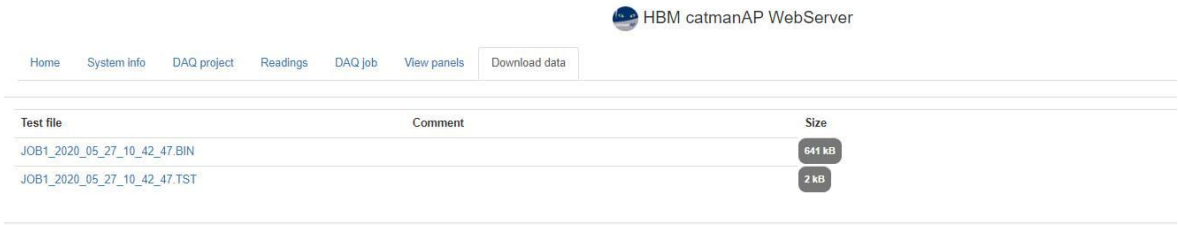
Klick on available visualization objects:



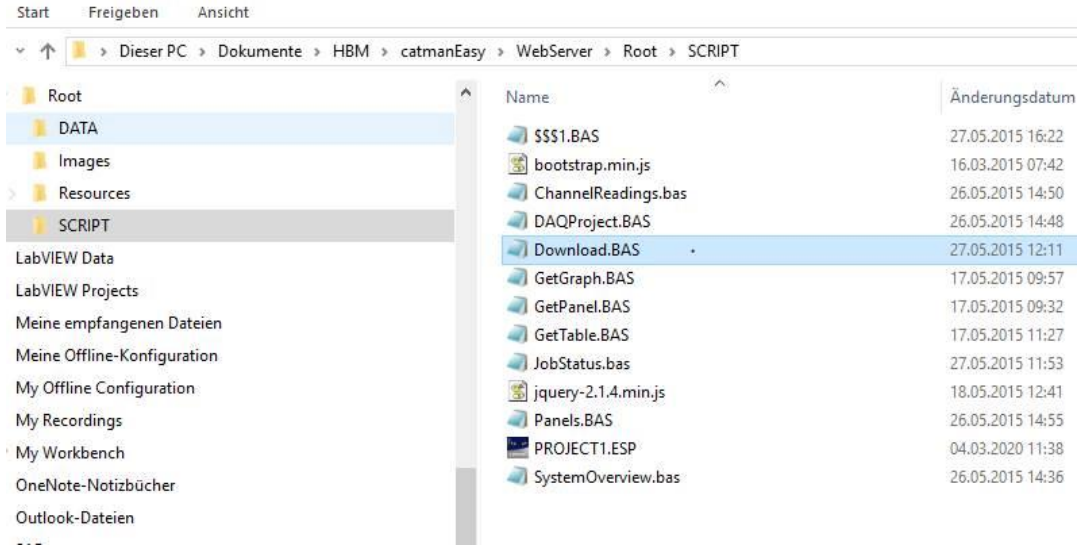
Important: Data can only be seen in the web server during a running DAQ job

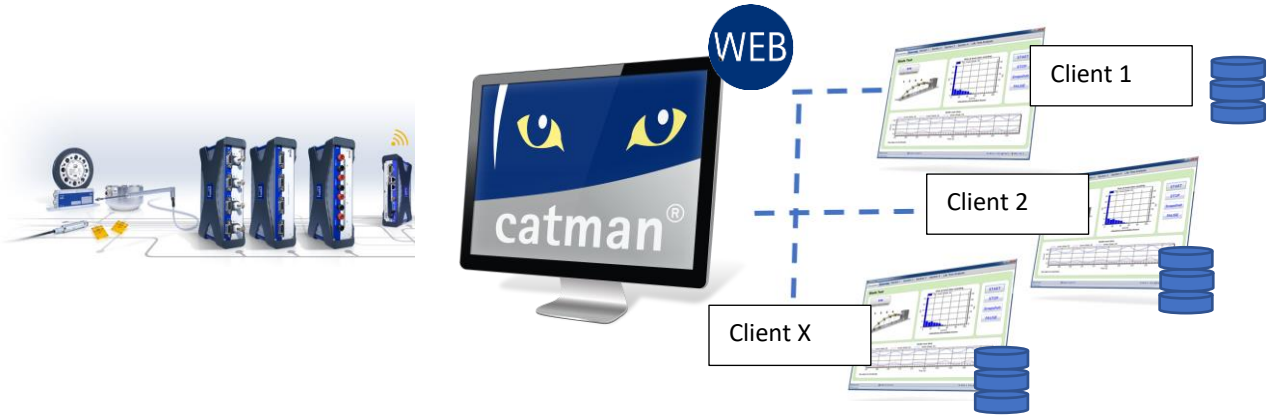


- Downloading data to your PC



- Tip to change the file directory. Open Download.BAS file with an Editor and change path:





Most important, catman web server displays all your pre-defined online visualizations.
Browsers such as
catman web

-- end

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