



# Support Bulletin

TRIMBLE MONITORING

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## NEW FILE-BASED DATA COLLECTOR COMBINES ADVANTAGES OF DATA RECEIVER AND DATA COLLECTOR TOTAL STATION CONNECTIONS

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## Introduction

The Data Collector module used to manage a total station now has the ability to run in a passive file-based mode in combination with the Settop M1. At the same time users still benefit from all advantages of controlling the total station via Trimble 4D Control.

The new advanced file-based communication mode of the Data Collector module is introduced with **Trimble 4D Control version 6.1** and provides the following benefits when using the Settop M1:

- Instrument can be actively be controlled through on board camera from Trimble 4D Control (Trimble VISION instruments only)
- Target positions with defined coordinates can be imported from csv file streamlining addition of new targets
- Streamline total station operations by using a single module (Data Collector) for any total station connection

Our recommendation is to convert existing Data Collectors and Data Receivers connected to a Settop M1 to the file-based Data Collector.

## Preliminary Remarks

### Settop M1 firmware version 4.0 required

If the Settop M1 is used to connect a total station with Trimble 4D Control version 6.1 or later, make sure you update the Settop M1 firmware to version 4.0 or later before upgrading to this software version.

### Reduced Scope of Functionality

With version 6.1 of Trimble 4D Control the file-based Data Collector module does not support the following functions that are currently available with the existing Data Collector module:

- Measure Rounds command
- Incremental integrity check
- Slope distance fallback
- Ignore compensator out of range
- Multiple connection attempt
- Scheduler Configuration
  - Duration [hour]
  - Minutes of the “Start time”

Please also note that the **Settop M1 Diagnostics** feature does only apply to the Data Receiver module and with T4D version 6.1 is not available with the Data Collector module.

## System Behaviors

### Addition of new points

We recommend adding new points to your site setup either by using the site setup dialog of Trimble 4D Control or use Trimble Access (TA) Monitoring for transferring setup information via the Settop M1 to T4D.

#### TA Monitoring/Settop M1

If new points are added to the target list by using TA Monitoring the new targets will be transferred to T4D within less than one minute. The newly added targets will automatically show up at the site setup dialog of associated Data Collector module.

#### Site Setup Dialog (Trimble 4D Control)

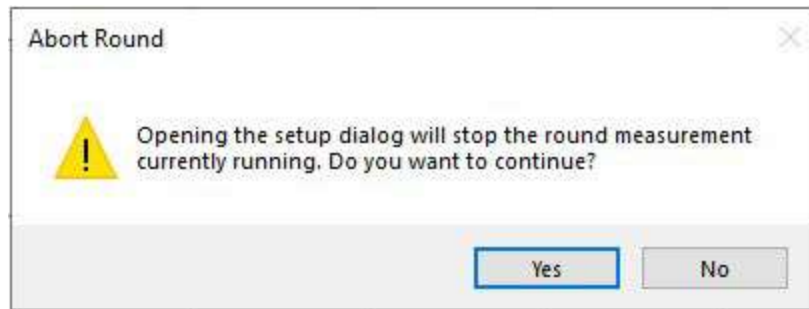
If new points are added to the point list of the site setup dialog in T4D, the new points will automatically be applied to the Settop M1 when leaving the site setup dialog with “Ok”.

### Instrument Control with T4D

The software claims control of the total stations and directly connects the instrument through the Settop M1 when performing one of the following workflows:

- Connect at the Site Setup dialog:  
A user can click on the “Connect” button of the Site Setup dialog in order to make use of the on-board camera of the instrument, turning on/off the laser pointer, searching for a target and steering the instrument remotely. The direct control capability is particularly beneficial for adding new points or checking particular targets, e.g. if they cannot be measured during a round.
- Compensator calibration:  
If the scheduler for the compensator calibration is enabled, Trimble 4D Control will actively perform this operation by connecting to the instrument.

Please note that in these scenarios the round scheduler is temporarily disabled and a potential round measurement taking place at that time is aborted.



## Workflow Information

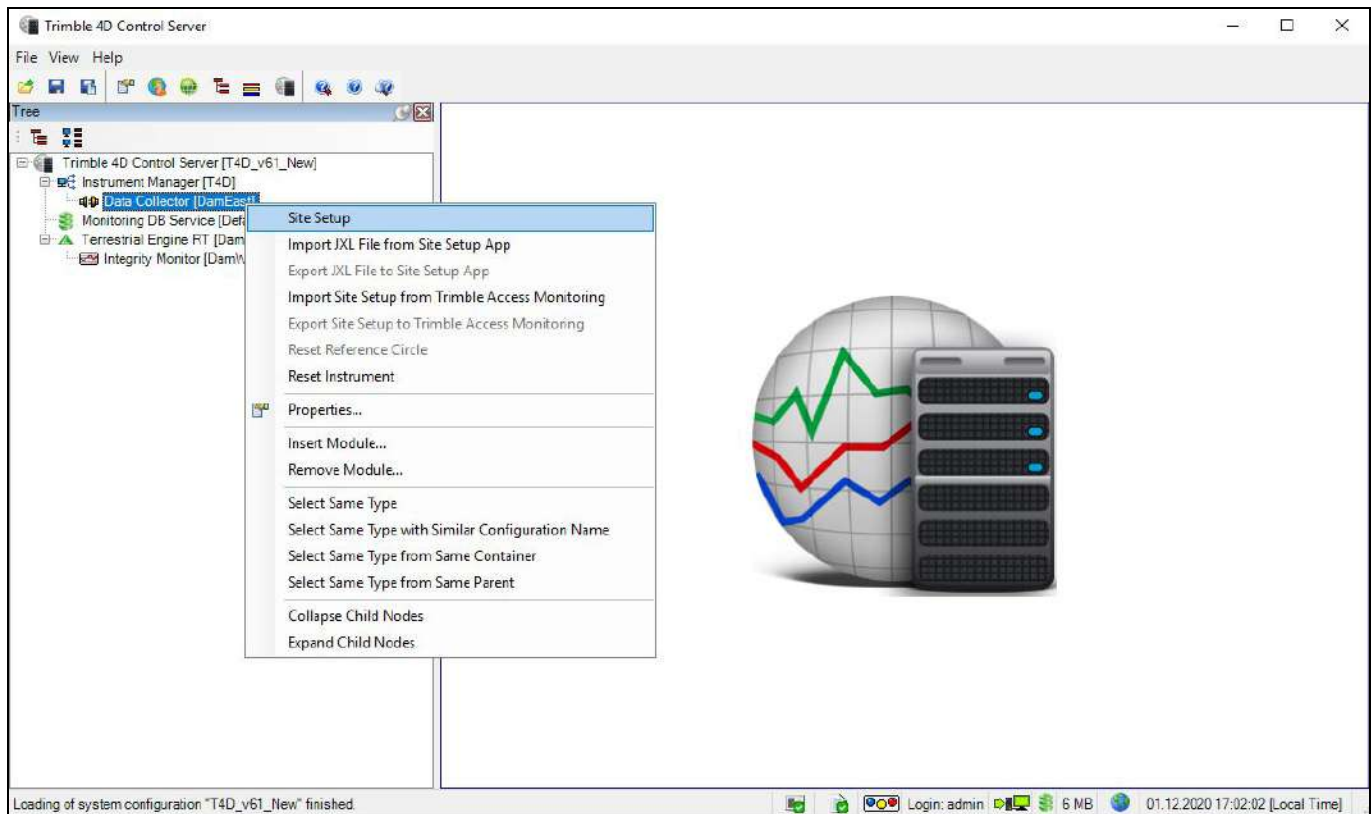
There are several workflows available related to the file-based Data Collector module that are described in the following sections. Below are some preliminary remarks:

- Make sure you have your Settop M1 web credentials ready as this information is required for all workflows described in the following.
- Do not use special characters and ensure you do not have spaces in the Settop M1 project name you are required to specify in some of the below described workflows.

## New Data Collector Module

This chapter highlights the two different available options for configuring the site setup when inserting a new (file-based) Data Collector module.

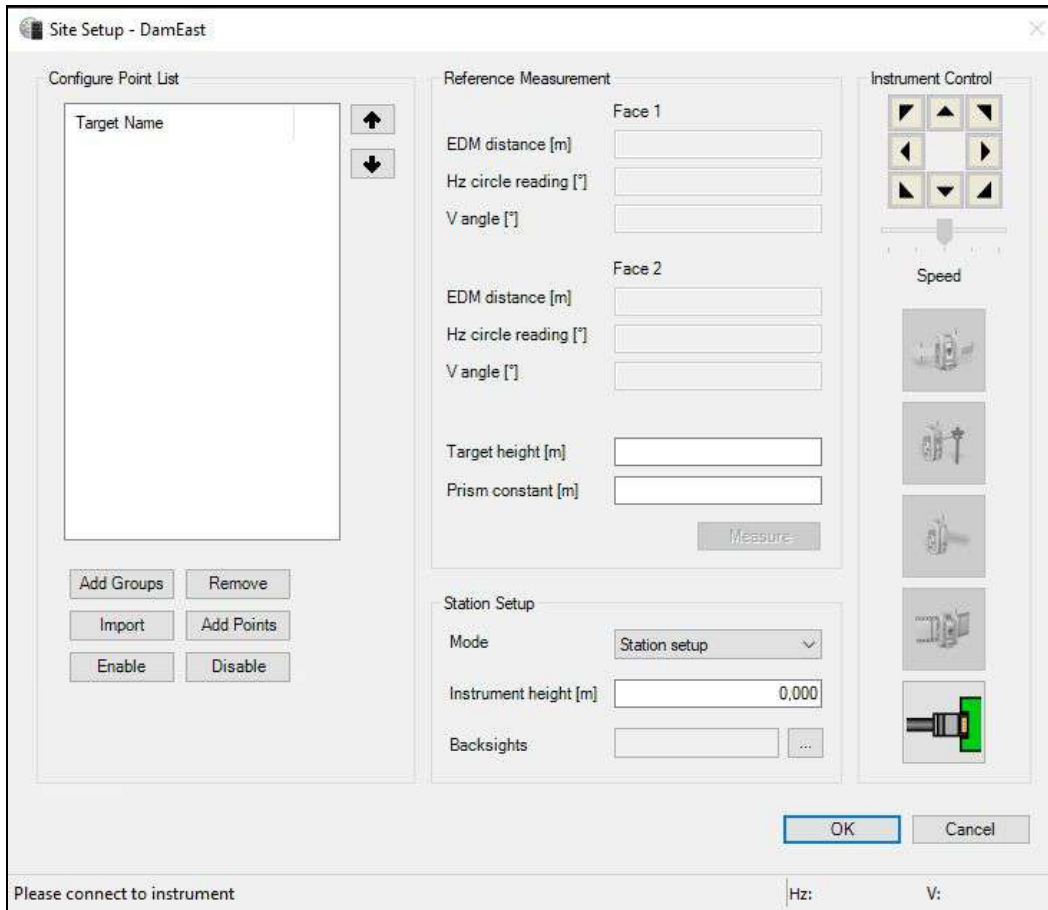
Once the new module is inserted to the system configuration, a user must open the site setup via the context menu of the module (right click) to proceed with the module configuration.



A wizard will open and offers the following two options to select from:

- **Create new Site Setup**

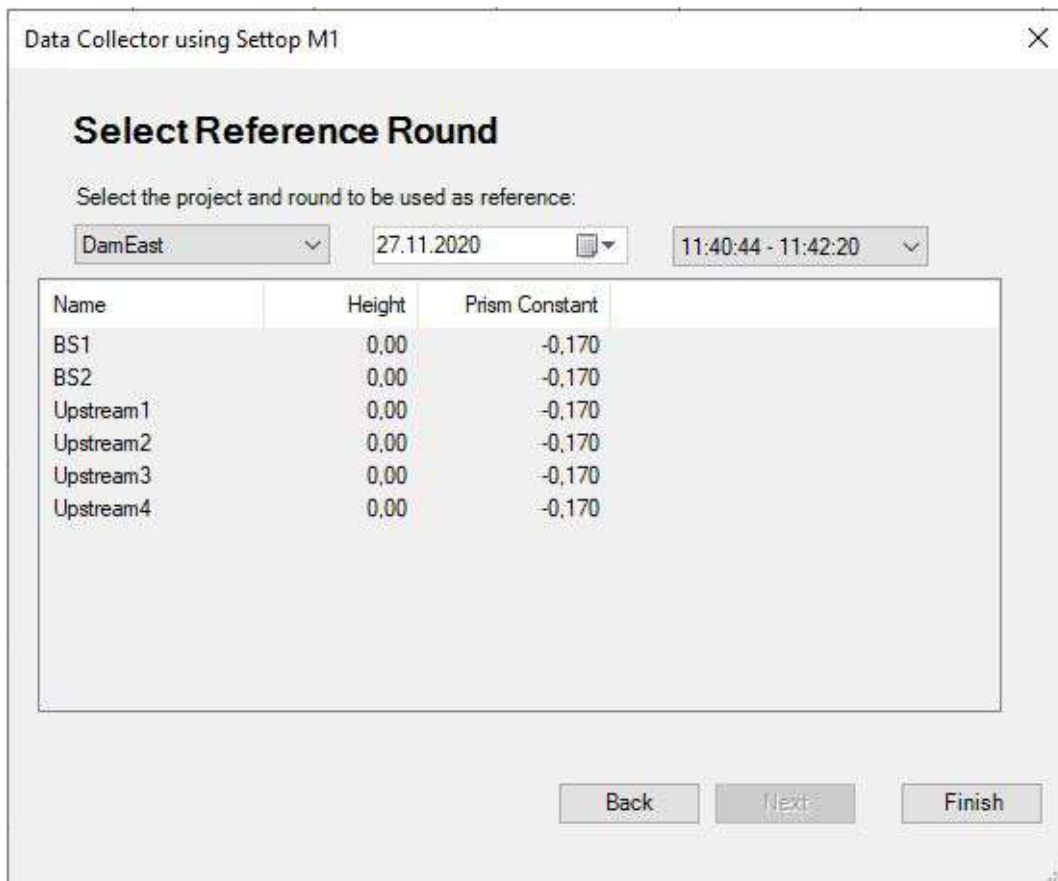
This option allows you to perform a new site setup using the site setup dialog of T4D. Proceed with the site setup by adding targets, taking reference measurements for those and defining the station setup type.



For more information please watch this [video](#) that shows the workflow in more detail.

- **Import Site Setup from existing Settop M1 project**

You will be guided through the site setup process by a wizard. In a first step Trimble 4D Control will connect to the Settop M1 configured when inserting the Data Collector module. Once connected and received information from the device the wizard will allow you to select a particular round from a particular Settop M1 project whose readings you would like to use as your target's reference measurements.



Once the reference is specified the site setup dialog automatically opens and allows you to define the station setup type in order to complete the site setup.

For more information please watch this [video](#) that shows the workflow in more detail.

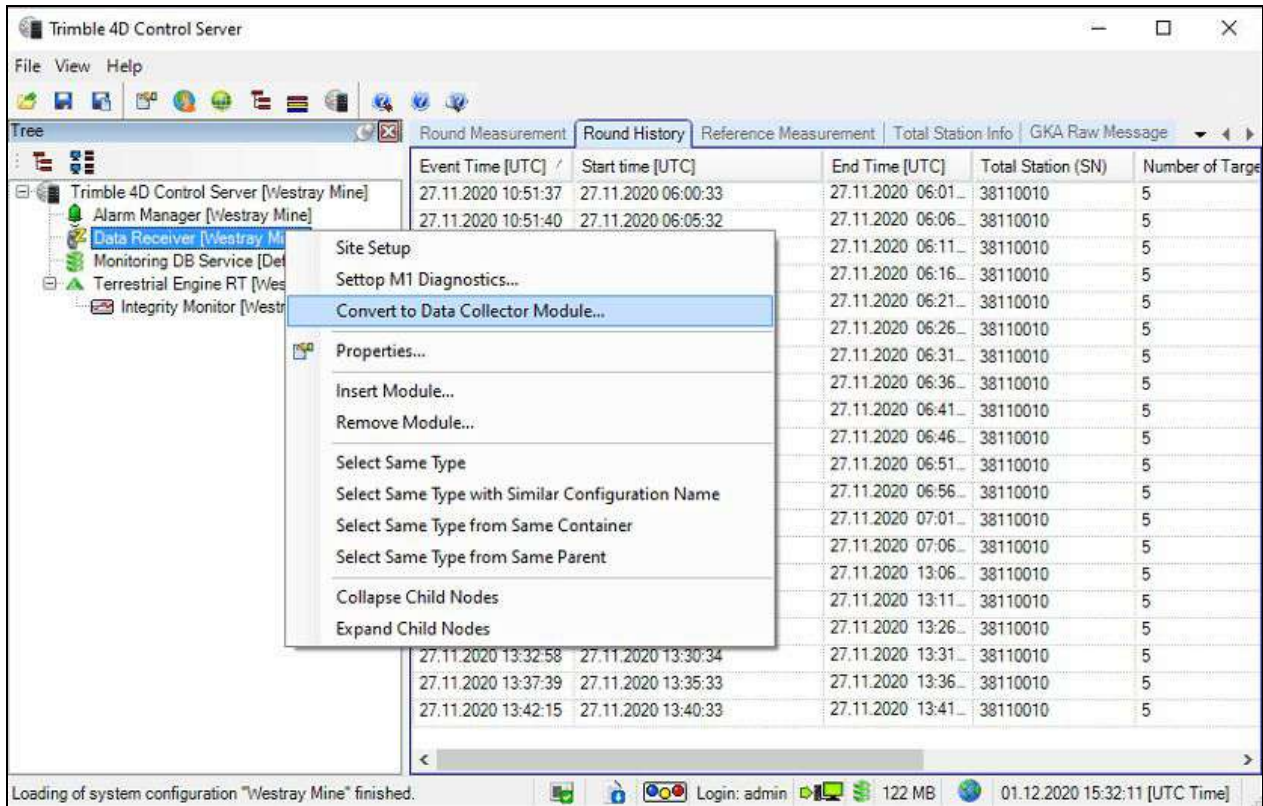
## Conversion to File-Based Data Collector

### Convert Data Receiver to Data Collector

After the upgrade to Trimble 4D Control version 6.1 it is recommended to convert an existing Data Receiver module into a file based Data Collector Module.

The context menu of the Data Receiver (right-click on the module) shows an entry called "Convert to Data Collector Module". Select this option to start the conversion process that is explained in detail in this [video](#).

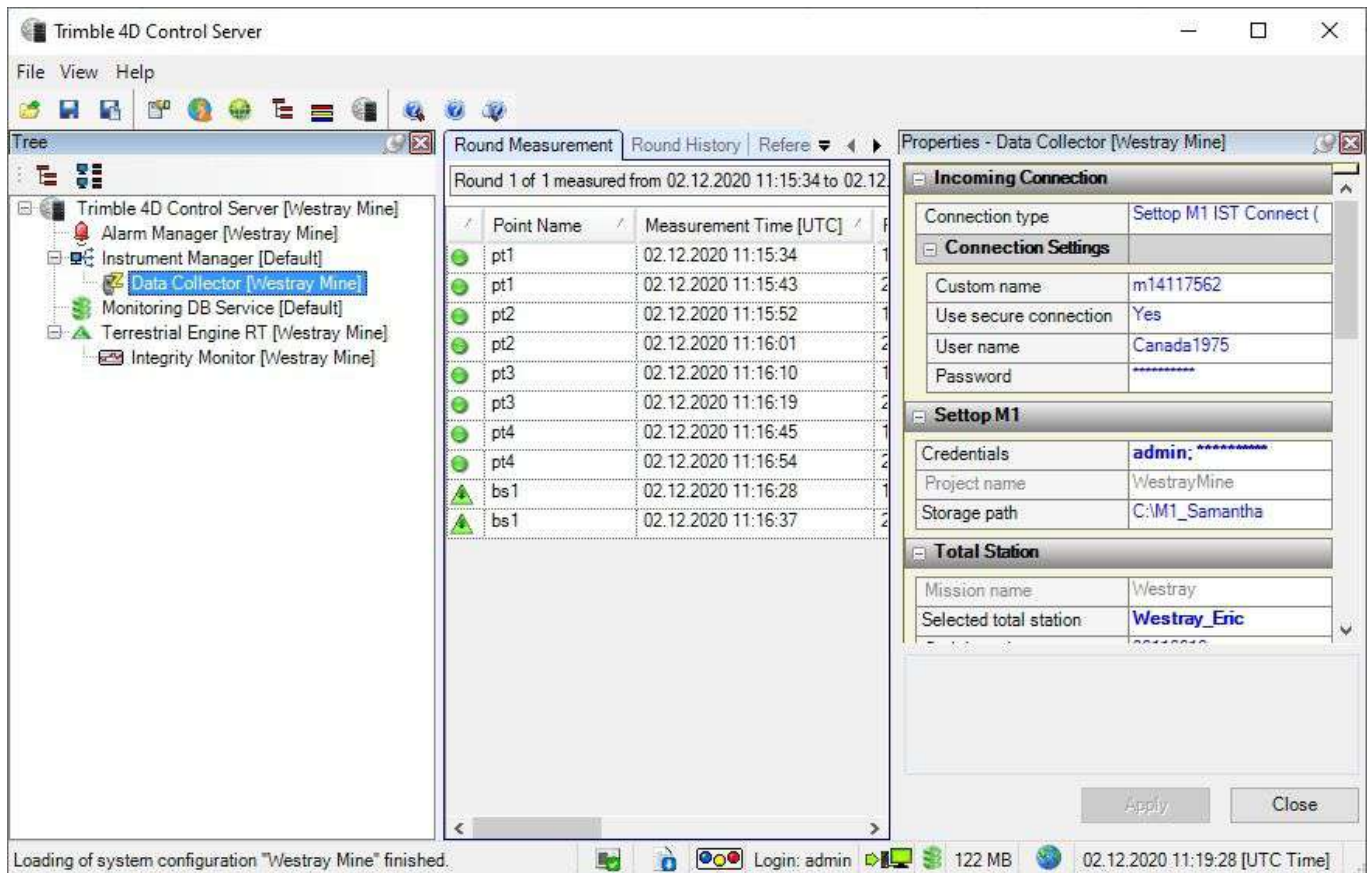




You will be guided through the conversion process by a wizard that ensures you can review all relevant settings that are converted. This includes the mission name, the scheduler settings, associated processing configurations (Terrestrial Engine RT) and any alarm jobs of the Alarm Manager module.

Once the conversion is complete you will see a new Data Collector module in your system configuration having the same module configuration name as the previous Data Receiver module.

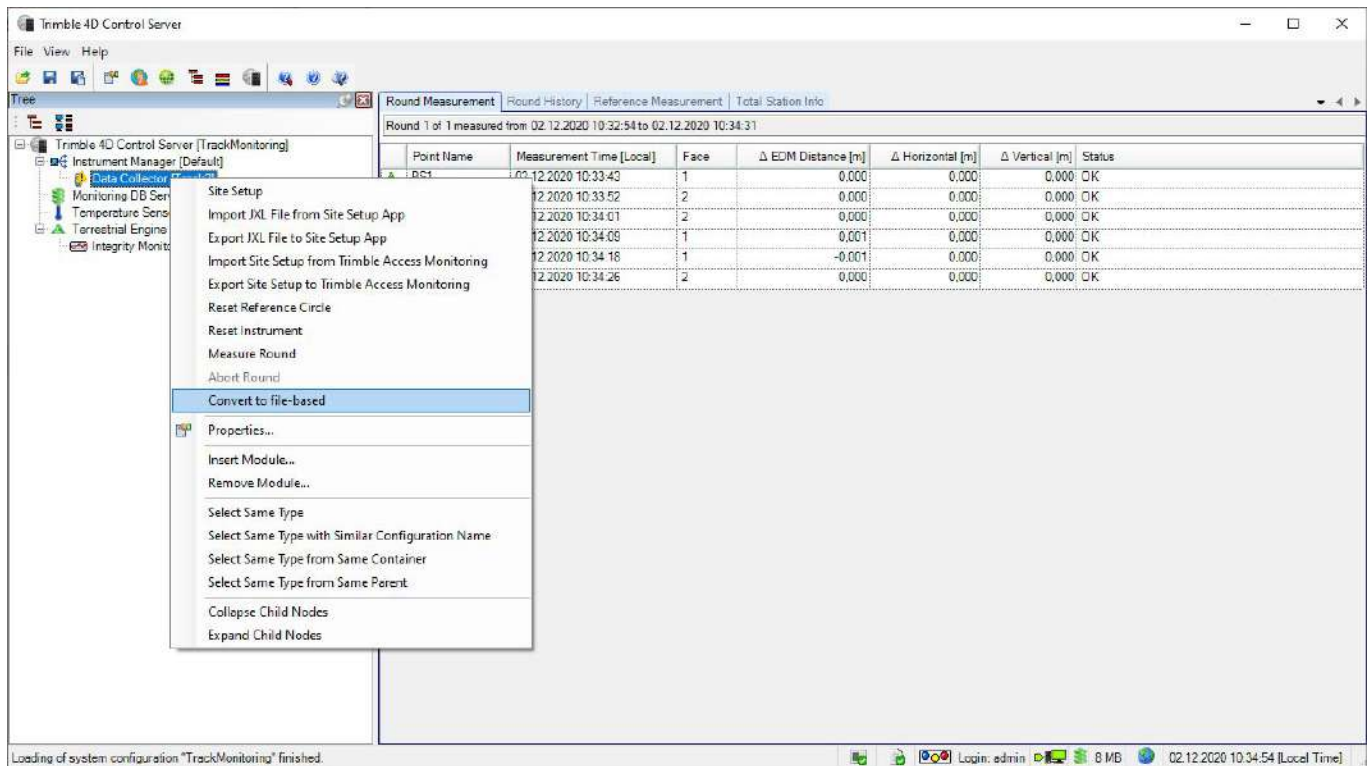




## Convert Data Collector to File-Based Data Collector

This chapter is about the conversion from an existing Data Collector module that is connected to a Settop M1 to a Data Collector module working in file based mode. Note that this scenario only applies if the Settop M1 has been used as a pure communication device so far without benefiting from all its advantages like controlling the total station.

After the upgrade to Trimble 4D Control version 6.1 the Data Collector icon shows an exclamation mark which indicates it is recommended to switch to the file-based Data Collector. The context menu of the Data Collector (right-click on the module) shows an entry called “Convert to file-based”. Select this option to start the conversion process that is explained in detail in this [video](#).

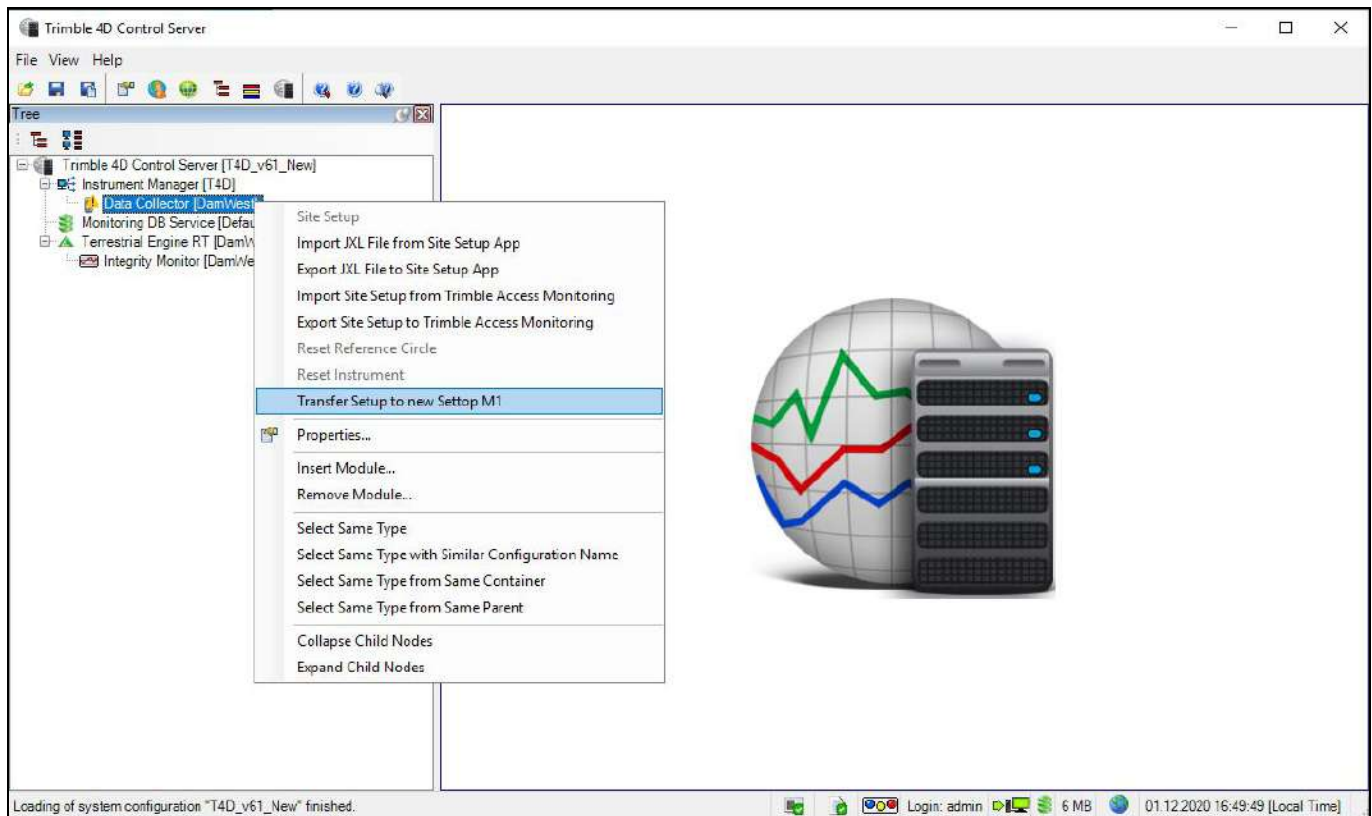


You will be guided through the conversion process by a wizard that allows you to enter a name for the project to be created on the Settop M1 and to define a storage location for the downloaded files containing the round measurements. On top of that it ensures you can review all relevant settings that are converted. This includes the list of targets, the scheduler settings and the horizontal angle offset\*.

After the conversion the Settop M1 controls the total station and ensures rounds are measured in accordance to the round scheduler settings. The Data Collector module downloads the round observations from the Settop M1 after every round measurement instead of permanently controlling the total station directly.

## Transfer Setup to new Settop M1

If you replace your Settop M1, Trimble 4D Control offers a feature that allows you to transfer your setup to the new Settop M1 device.



You will be guided through the setup transfer process by a wizard and the only information you must provide is the credentials of your new Settop M1 device. The entire project used with the previous Settop M1 is automatically transferred to the new Settop M1 including the list of targets and scheduler settings.

**Note** - You are required to reset the reference circle in a last step.

## Additional information

For more information contact [MonSol\\_Support@Trimble.com](mailto:MonSol_Support@Trimble.com)