

Clampfit Batch Analysis

Sample Macros

Guide

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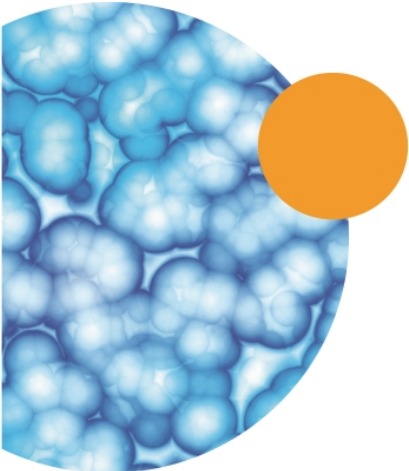
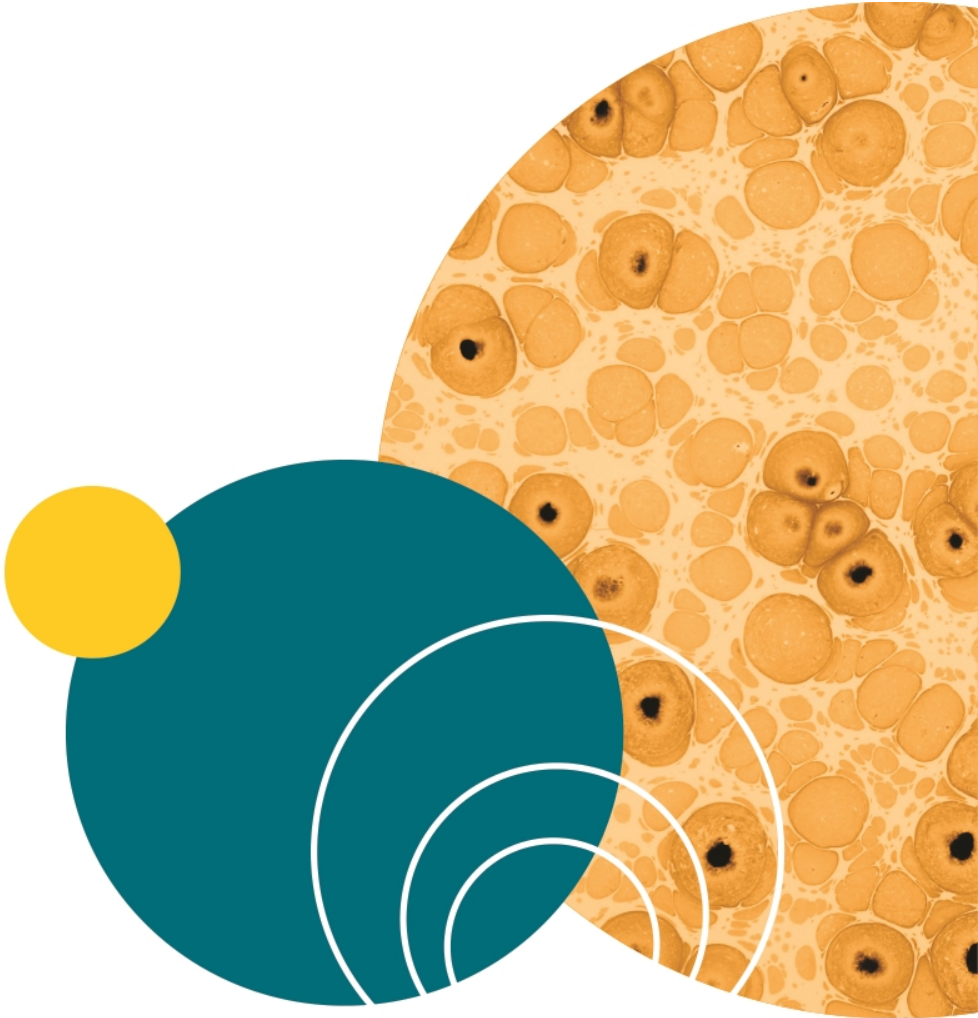
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Chapter 1: Introduction



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There are several sample macros provided within Clampfit Batch Analysis Software. There is also corresponding sample data that you can import.

The following sections provide a brief explanation about using macros. To see the configuration details of a macro in the program, double-click on the macro steps to view their configuration dialogs.

Configuring MDC File Server

The MDC File Server runs on Windows 7 and 10 computer operating systems. The computer it runs on requires enough hard drive space to store your data files. The storage location can be changed if it becomes full, and the database keeps track of data files in multiple storage locations. If you set a new storage location, keep the existing data storage location.

Before starting Clampfit Software to run Batch Analysis the first time, you must first configure MDC File Server. MDC File Server is required for managing imported data. It runs quietly in the background while you use Batch Analysis. MDC File Server must be running for Clampfit Software Batch Analysis to run.

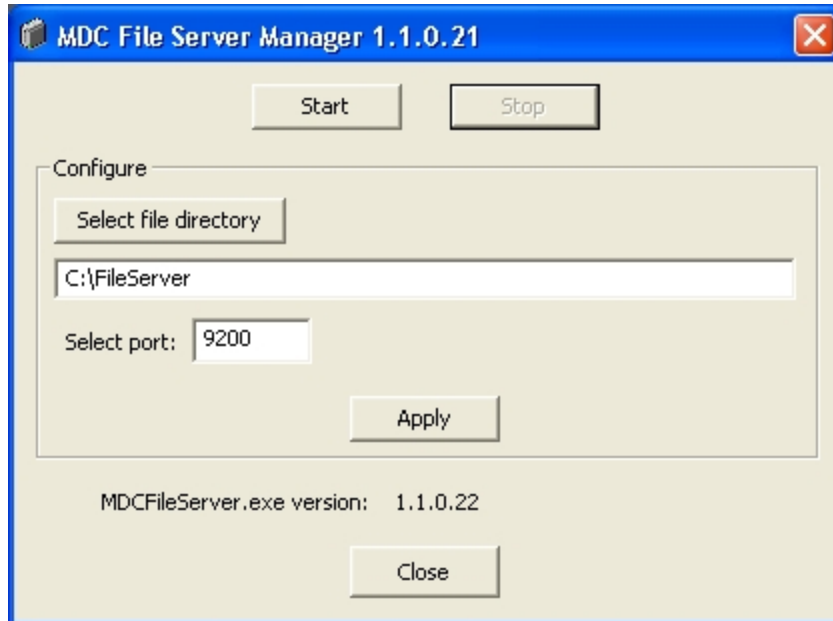
To configure MDC File Server:

1. After you install the pCLAMP Software, open the **MDC File Server Manager** from **Start > All Programs > Molecular Devices > MDC File Server > MDC File Server**, right-click and **Run as administrator**.

- In the **MDC File Server Manager** dialog, click **Select file directory**.



CAUTION! If you select a computer other than the local one, you must have access permissions to the folder location at all times.



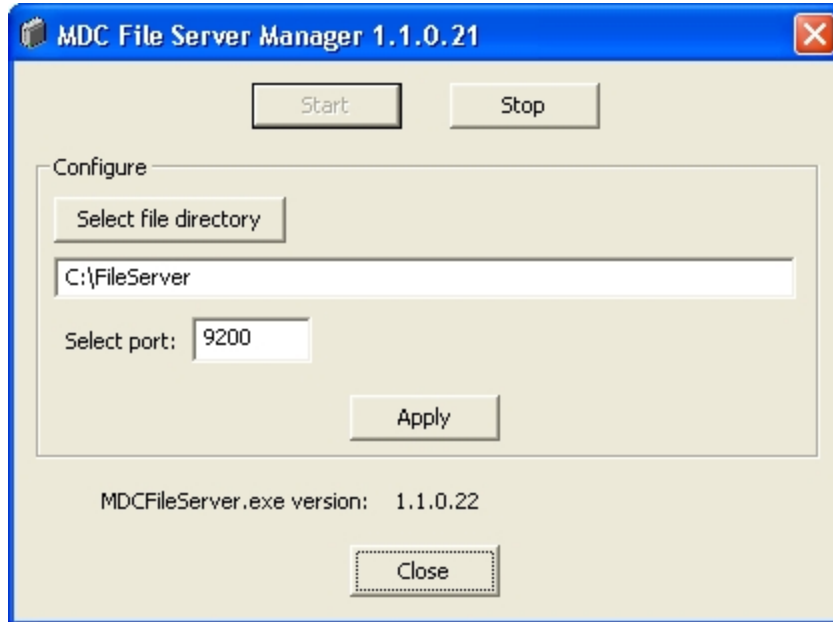
- Click **Create new folder**, type the name **FILESERVER**, and click **OK**.



Tip: You can name the new folder something other than **FILESERVER** if needed.

- In the **Select port** field, type **9200**, and click **Apply**.
- Click the **Start** button and wait for the **Start** button to disable.

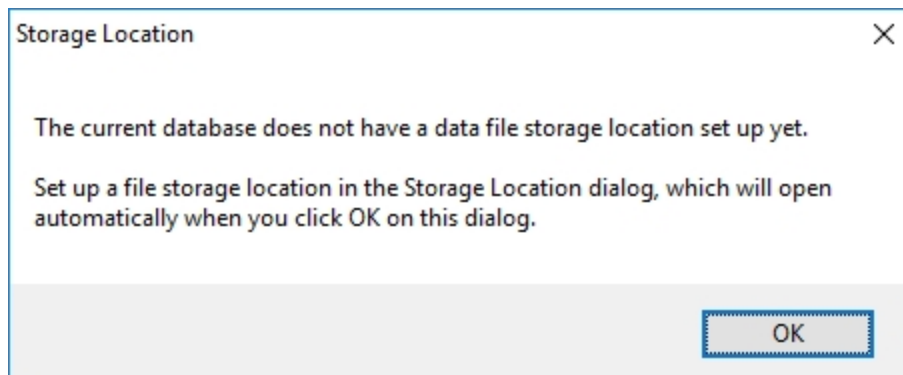
6. When the **Start** button is inactive, click **Close**.



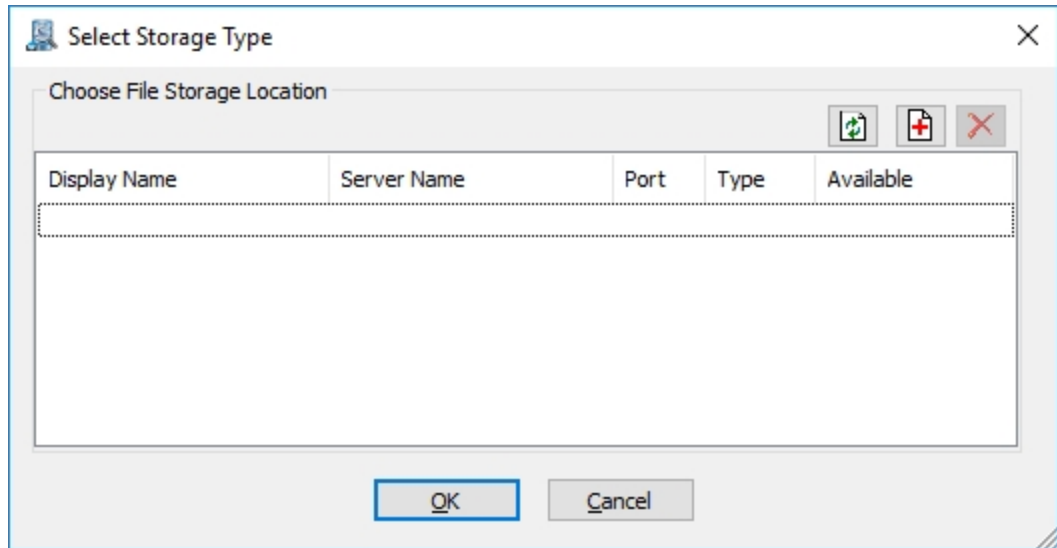
First Time Use Database Configuration

If this is the first time using Clampfit Software Batch Analysis, you must do the following to configure your data storage folder:

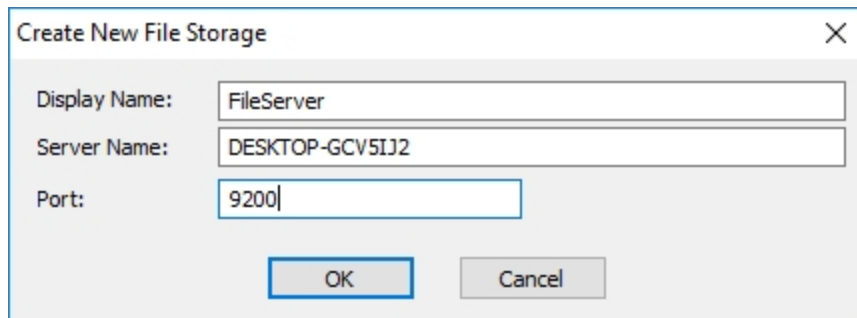
1. Ensure that your Clampfit Software license key dongle is installed on the same computer that the software is installed.
2. Start Clampfit Software.
3. Select **Analyze > Batch Analysis**.
4. After the **Batch Analysis** window appears, when you see the **Storage Location** message, click **OK**.



5. When the **Storage Location Type** dialog appears, click the + (add) button.



6. In the **Create New File Storage** dialog, do the following:
 - a. In the **Display Name** field, type a name for your data file storage folder. See [Configuring MDC File Server on page 5](#).
 - b. In the **Server Name** field, type the exact name of your computer (local computer name).
 - c. In the **Port** field, type **9200**.
 - d. To finish, click **OK**.



7. In the **Storage Location Type** dialog, for your file storage entry, confirm that under the **Available** heading, **Yes** appears.
8. To finish, select your file storage entry row and click **OK**.

Importing Data Files

The Clampfit Advanced Analysis Software installer includes a few sample macros to use to familiarize yourself with the Batch Analysis functionality. To use these sample macros the first time, you must import the provided sample data files. When you import your own data files they must be .abf files from Clampex Software.

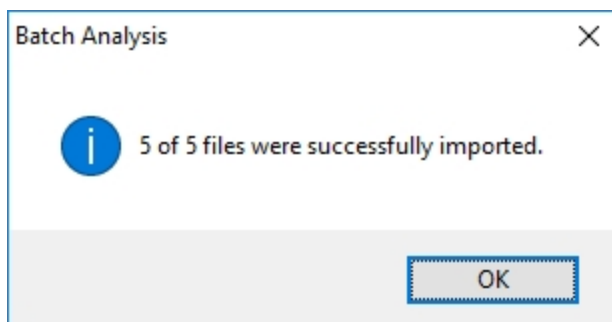
The following procedure uses the imported sample data **Peak Data** to be used with the installed sample macro **DemoPeak**. These same procedures apply to any other imported sample data used with any of the other corresponding sample macros. Where you see **Peak Data** in the following procedure you can select an alternative data folder.

To import data files:

1. In the **Batch Analysis** dialog, select **File > Import Data > Entire Folder**.
2. Navigate to and select **C:\Program Files\Molecular Devices\pCLAMP 11\Sample Macros\Peak Data**.
3. Click **Open**.

*** Tip:** Windows 10 users, if clicking **Open** fails, double-click on **Peak Data**.

4. When the import confirmation dialog appears, click **OK**.



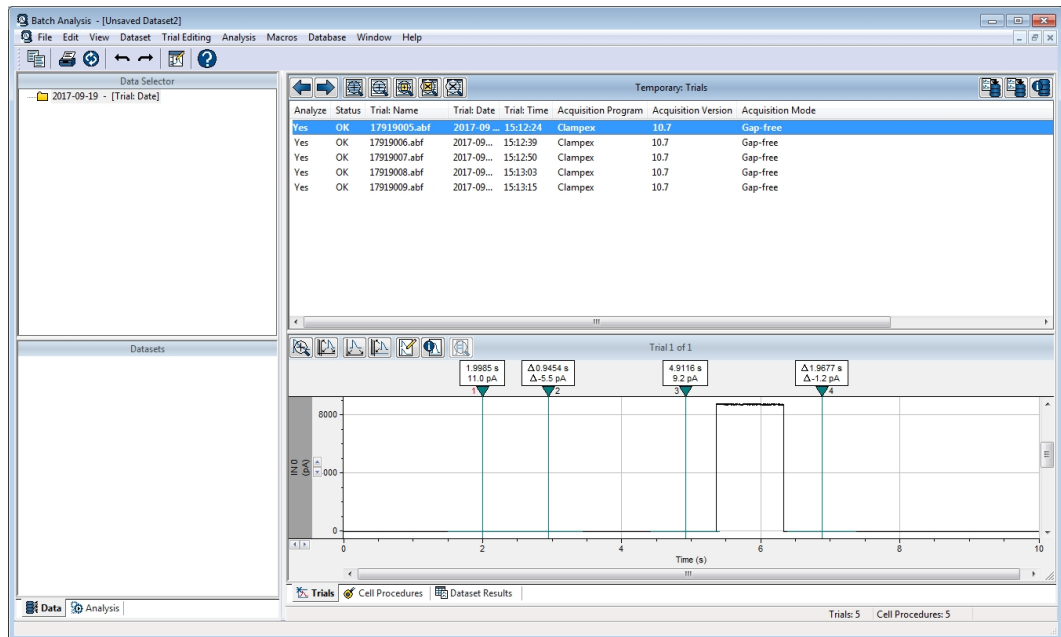
Running a Sample Macro

The following procedure uses the imported sample data **Peak Data** with the installed sample macro **DemoPeak**. See [Importing Data Files on page 9](#). These same procedures apply to any other imported sample data used with any of the other corresponding sample macros.

Where you see **DemoPeak** in the following procedure select an alternative macro.

To run a sample macro:

1. In the top left quadrant of the **Batch Analysis** window under **Data Selector**, double-click on the data folder you imported to load the **Trials**.



2. In the bottom left, click the **Analysis** tab.

3. In the **Macros** panel, in the **Sample** tree, right-click on **DemoPeak** and select **Run Macro**. When a macro runs successfully, the lower right panel displays the measurements table and associated graph.

The screenshot displays the Batch Analysis software interface. The main window is titled "Batch Analysis - [Unsaved Dataset2]". The interface is divided into several panels:

- Command History:** Shows a single entry "1 DemoPeak".
- Macros:** A tree view showing the hierarchy: User > Shared > Sample (the Help menu has directions for all sample) > DemoPeak, TV Demo, LTP Demo.
- Temporary Cell Procedures:** A table with columns "Analyze" and "Status". The "Analyze" column contains "Yes" and the "Status" column contains green checkmarks.
- Cell Procedure Results: #2:** A table with the following data:

S1 Trial No. (S1)	Trace No. (S1)	Start of Trace (CP) (S1) (s)	Start of Trace (Trial) (S1) (s)	Time of Peak (CP) (S1R1) (s)	Time of Peak (Trace) (S1R1) (ms)	Peak (S1R1) (pA)
1943486940	1	0.00000	0.00000	5.73830	5738.30	796.667074
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
- Measurements:** A graph showing a single data point at approximately 5.74 seconds on the x-axis and 796.67 pA on the y-axis. The x-axis is labeled "Time of Peak (CP) (s)" and the y-axis is labeled "Peak (pA)".

Creating a Macro

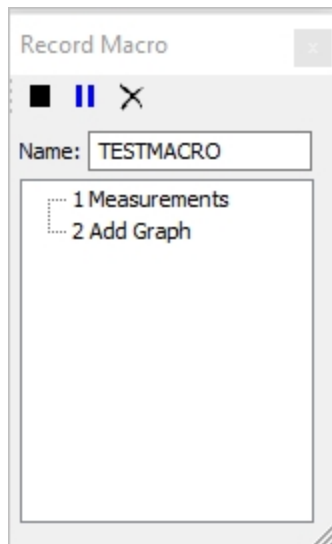
Any number of commands from the **Analysis** menu can be tied together as a single analysis sequence and stored in a macro. These new macros get stored in the **Macros** pane of the **Analysis** tab.

To create a macro:

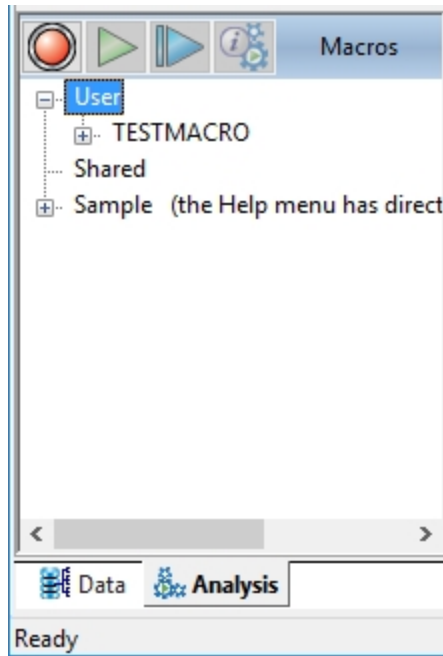
1. In the **Batch Analysis** dialog, select **Macros > Record**.
2. When the **Record Macro** dialog appears, type your new macro name in the **Name** field. Do not press **<Enter>**.



3. Go to the **Analysis** menu and select options as needed and specify settings as needed. The steps appear in the **Record Macro** dialog as they are added.



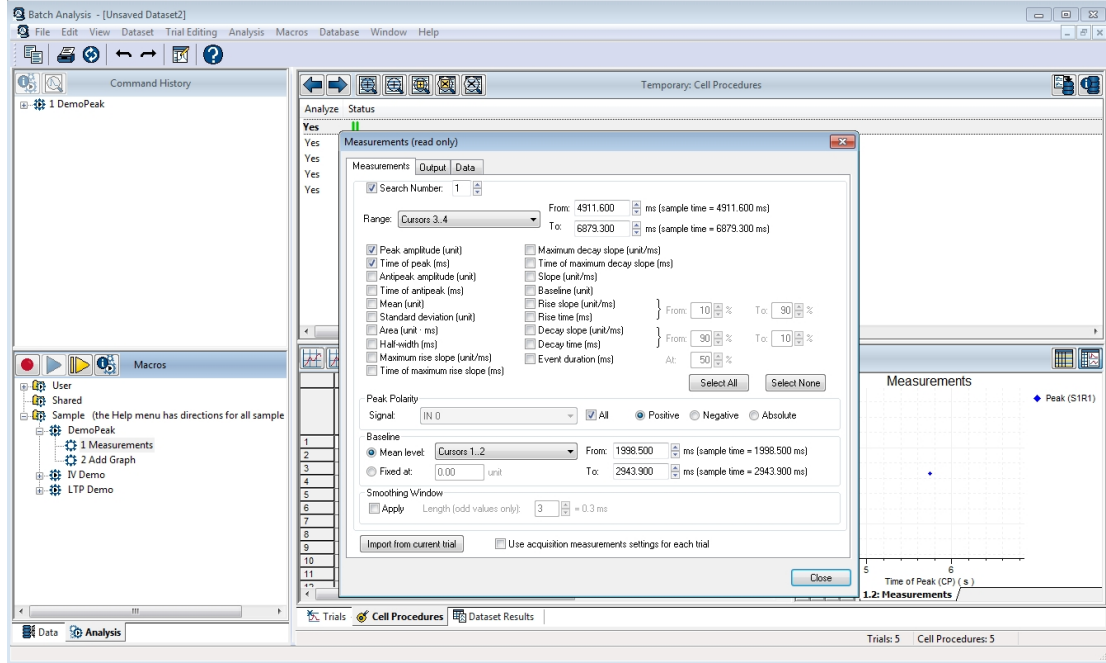
4. When you are finished adding steps, in the **Record Macro** dialog, click the **Stop** button. Your new macro saves and appears in the **Macros** pane of the **Analysis** tab under **User**.



*** Tip:** Macros in the **User** tree are editable.

Modifying the Sample Macros

Macros in the **Sample** tree are read-only. To view macro step settings, in the **Macros** pane of the **Analysis** tab, expand the macro name and double-click on the step name.



To edit macros, right-click on the sample macro name and select **Make a User copy**. It is copied to the **User** macro tree, where you can open the **Analysis** steps within the macro to reconfigure them. Click **OK** to save changes.

You can rename the macros and change their comments from the right-click menu as well. You cannot add or remove steps to a macro when you edit it. To do this, record a new macro and use **Run Step** to copy the steps from the existing macro into the new one. Skip steps that are not wanted, or add new steps from the dialogs in the **Analysis** menu. To delete a macro from the **User** tree, select the name and press **Delete**.

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