Agilent Infinity Lab LC Series Vialsampler Vial Drawer Configuration in Empower Environment

Technical Note

Technical Guide for the vial drawer configuration and setup of the G7129A/B/C Vialsampler with Waters Empower.

Introduction

The G7129A/B/C Vialsampler and the G7157A Preparative Autosampler offer two kinds of vial drawers, one with numeric location assignment and a new one with alphanumeric (cartesian) location assignment. The alphanumeric vial drawer requires additional configuration steps in Empower environment.

Waters Corporation's implementation of the Agilent Instrument Control Framework (ICF) for their Empower data system is called Waters ICF Support. The Waters ICF Support is part of the Waters Instrument Control Package (ICS).

This guide describes how to configure the alphanumeric vial drawer in an Empower environment.

Table 1 Supported scenarios

Waters ICF support version introducing support for vialsamplers	Agilent ICF Agilent LC driver	Supported vialsamplers
Waters ICF Support v3.0 With ICF A.02.05 update P/N 667005815	A.02.05 A.02.17	G7129C 1260 Infinity II Vialsampler
Waters ICF Support v2.2 With ICF A.02.04 update P/N 667004815	A.02.04 A.02.14	G7157A 1260 Infinity II Preparative Autosampler
Waters ICF Support v2.2 P/N 667005450	A.02.03 DU2 A.02.13	G7129B 1290 Infinity II Vialsampler G7129A 1260 Infinity II Vialsampler

NOTE

Ensure that all Agilent LC modules in the LC system meet at least the minimum firmware requirements as specified by the 3rd party CDS software vendor and meet Agilent's firmware set/firmware interoperability requirements. Agilent recommends installing the latest available firmware set.

https://www.agilent.com/en-us/firmwareDownload?whid=69761

Offered Vial Drawers for Vialsamplers

Starting with the Infinity II Vialsamplers, a new addressing schema for vials is available, like the wellplate schema.

- The *classic* schema uses continuous numbering, for example: Vial 3
- The *new* schema uses alphanumeric positions, for example: P2-A1, which translates in Empower to 2:A1

See below the available vial drawers along with their sample capacity and their addressing in Empower.

Table 2 Vial drawer addressing in Empower

Part No.	Description	Addressing in Empower
G7129-68210	Classic vial drawer kit (left and right drawer each 50 vials)	Continuously numbered vial positions: 1-50, second drawer from 51-100
G7129-60210	Classic drawer for 50 x 2 mL vial (left)	
G7129-60220	Classic drawer for 50 x 2 mL vial (right)	
G7129-60010	Drawer for 66 x 6 mL vials	Continuously numbered alphanumeric vial position: 1;A,1 Note: These vial drawers require a new plate definition file.
G7129-60110	Drawer for 18 x 6 mL vials (Default configuration for the G7157A)	
G7129-60000	External tray for 5 x 2 ml Vials	201-206

NOTE As the new schema is like the wellplate handling, you need to import a plate definition file into Empower in order to use these new vial drawers with alphanumeric assignment.

Prerequisites/Compatibility Information

For general software requirements such as operating systems refer to the Waters Empower documentation.

The *Agilent InfinityLab LC Series Vialsamplers User Manual* outlines the requirements for the Vialsamplers:

https://www.agilent.com/cs/library/usermanuals/Public/G7129ABUser.pdf

Location Addressing in Empower

1 In order to start a single run or to set up a sequence, enter the vial location.

2 For the Vialsamplers it makes a difference if a numeric or an alphanumeric vial drawer is used. Make sure to use the vial drawers and start locations described in Table 2 on page 2.

a Numeric setup screen: No additional action required.

	Vial	Inj Vol (uL)	# of Injs	Label	SampleName
1	1	10,0	1		test1
2	2	10,0	1		test2
3	3	10,0	1		test3
4	4	10,0	1		test4

Figure 1 Numeric set up screen

b Alphanumeric setup screen: Click **Edit > Plates** to select the new vial drawer.

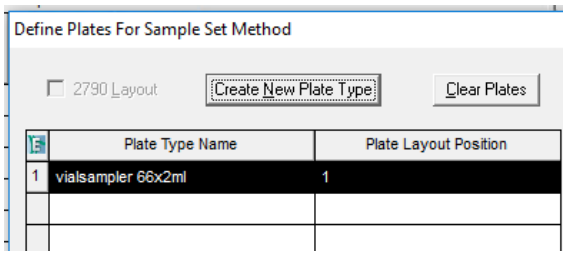

Figure 2 Alphanumeric setup screen

	Tray/Vial	Inj Vol (uL)	# of Injs	Label	SampleName
1	1:A,1	2,0	1		test 5
2	1:A,2	2,0	1		test 6
3	1:A,3	2,0	1		test 7
4	1:A,4	2,0	1		test 8

Figure 3 Alphanumeric setup screen

Additional Steps

In order to use new Agilent alphanumeric vial drawers in conjunction with Empower 3 and a Vialsampler, the alphanumeric vial drawers need to be available in the plate definitions folder from Empower. These steps outline the procedure for importing new Agilent wellplate definition files into Empower.

NOTE

The plate definition files are part of the Waters ICF support package, and can be found in the **AgilentPlatesForImport** folder or obtained via the Waters support. Note that in the ICF upgrade packages for plain driver updates these files are not included.

1 Open the **Configuration Manager**.

2 In the **Configuration Manager** window, select **Plate Types** in the navigation panel to display the current list of available wellplate types you can use within Empower.

3 Check if the new Agilent alphanumeric vial drawer is present. In this example, the plates are not available.

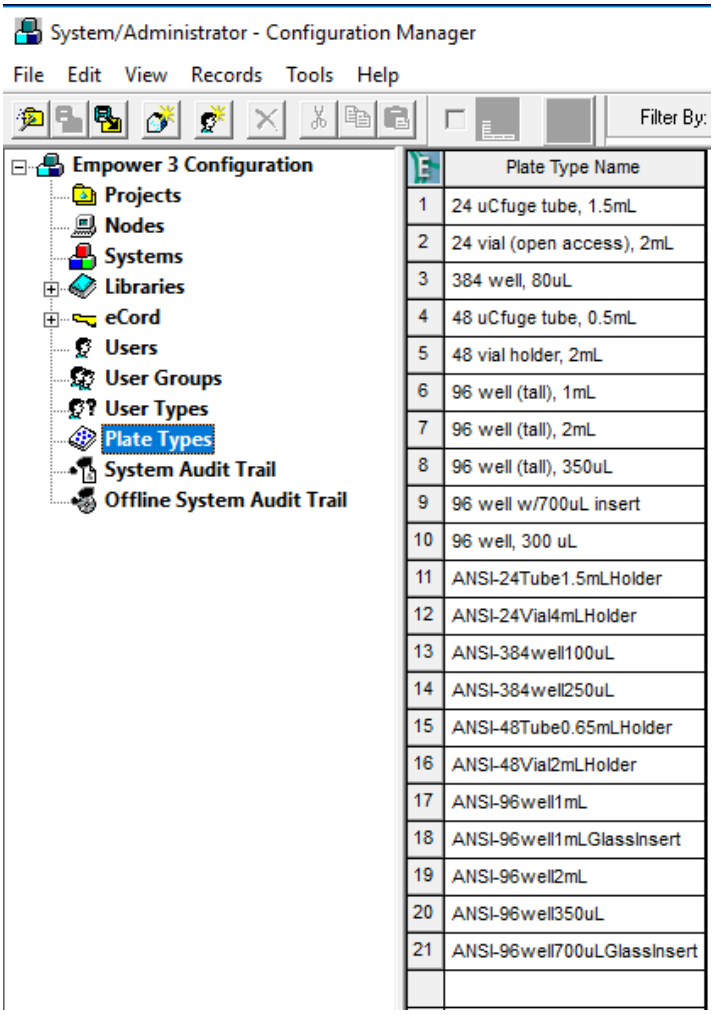

	Plate Type Name
1	24 uCfuge tube, 1.5mL
2	24 vial (open access), 2mL
3	384 well, 80uL
4	48 uCfuge tube, 0.5mL
5	48 vial holder, 2mL
6	96 well (tall), 1mL
7	96 well (tall), 2mL
8	96 well (tall), 350uL
9	96 well w/700uL insert
10	96 well, 300 uL
11	ANSI-24Tube1.5mLHolder
12	ANSI-24Vial4mLHolder
13	ANSI-384well100uL
14	ANSI-384well250uL
15	ANSI-48Tube0.65mLHolder
16	ANSI-48Vial2mLHolder
17	ANSI-96well1mL
18	ANSI-96well1mLGlassInsert
19	ANSI-96well2mL
20	ANSI-96well350uL
21	ANSI-96well700uLGlassInsert

Figure 4 Plate types in Waters Empower **Configuration Editor**

4 Right-click an empty row of the **Plate Type Name** table to open the context menu.

5 Select **Import from Text**.

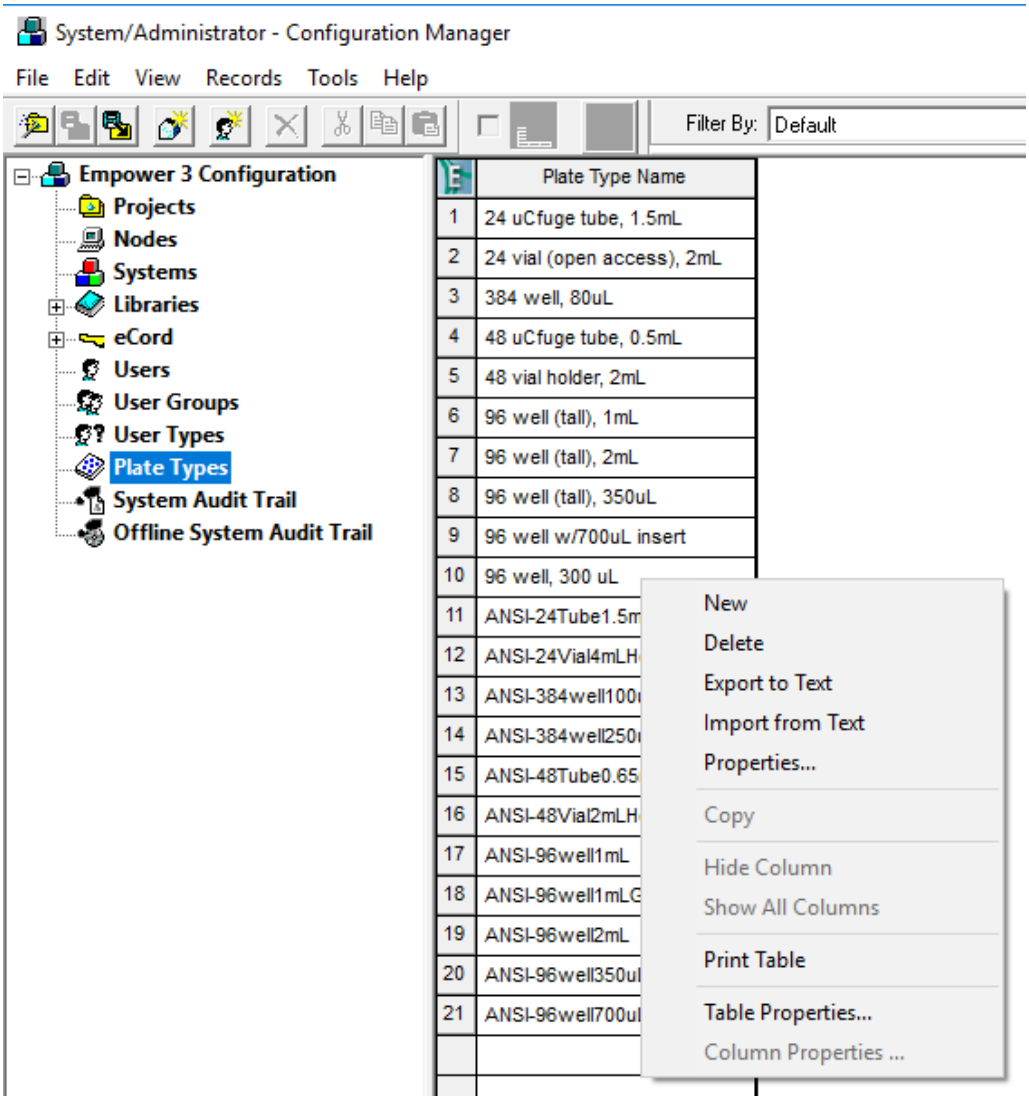

Figure 5 Configuration of the LC

The **Import Plate Type From Text File** dialog opens.

6 Click **Browse** and navigate to the **Agilent Plates for Import** folder on the CD. Alternatively, if you requested the files via Waters support, navigate to the location the files were downloaded to.

Additional Steps

7 Select the dimension file and click **OK** to import. See Table 2 on page 2 for valid dimension files.

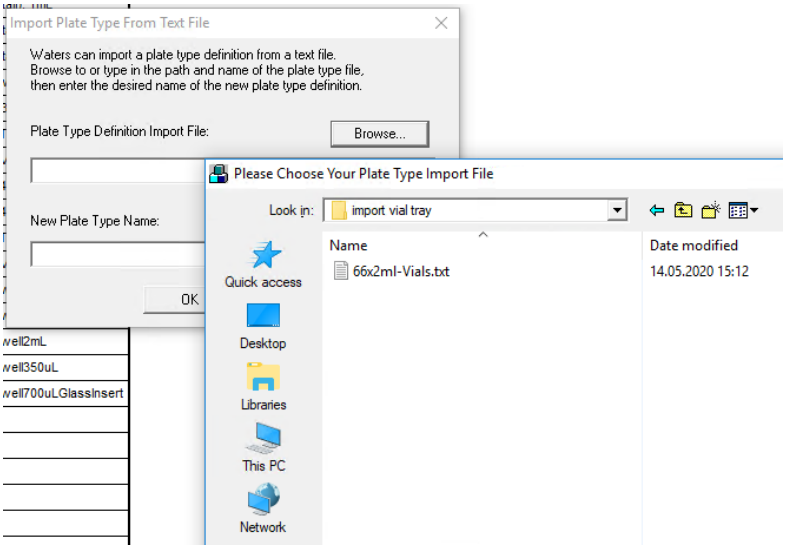

Figure 6 Plate type import file

8 Provide a meaningful name as **New Plate Type Name** for identification among the other plate types.

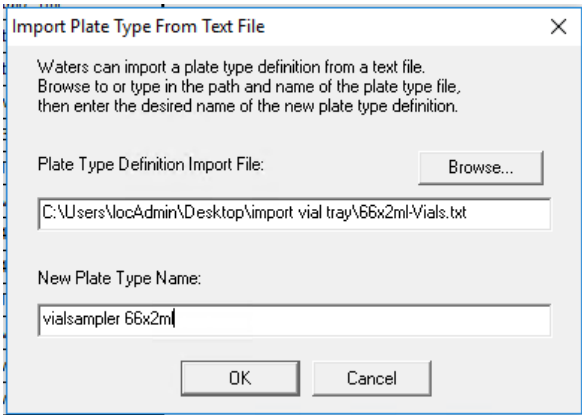

Figure 7 Import dialog

Additional Steps

9 The newly imported plate for the Vialsampler is now available among the plate types for Empower.

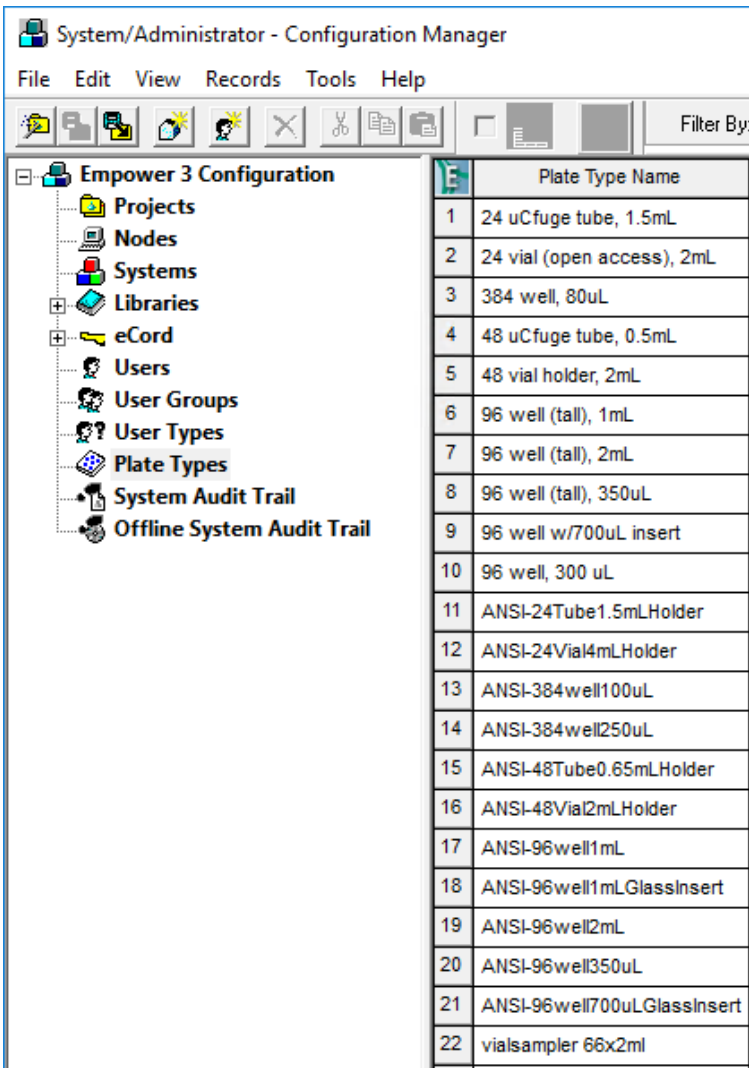

Figure 8 Configuration Manager

References

Agilent InfinityLab LC Series Vialsampler User Manual:
https://www.agilent.com/cs/library/usermanuals/Public/G7129ABUser.pdf

Appendix

If you need to define the plate type manually, see below for the dimensions for the 66x2mL drawer.

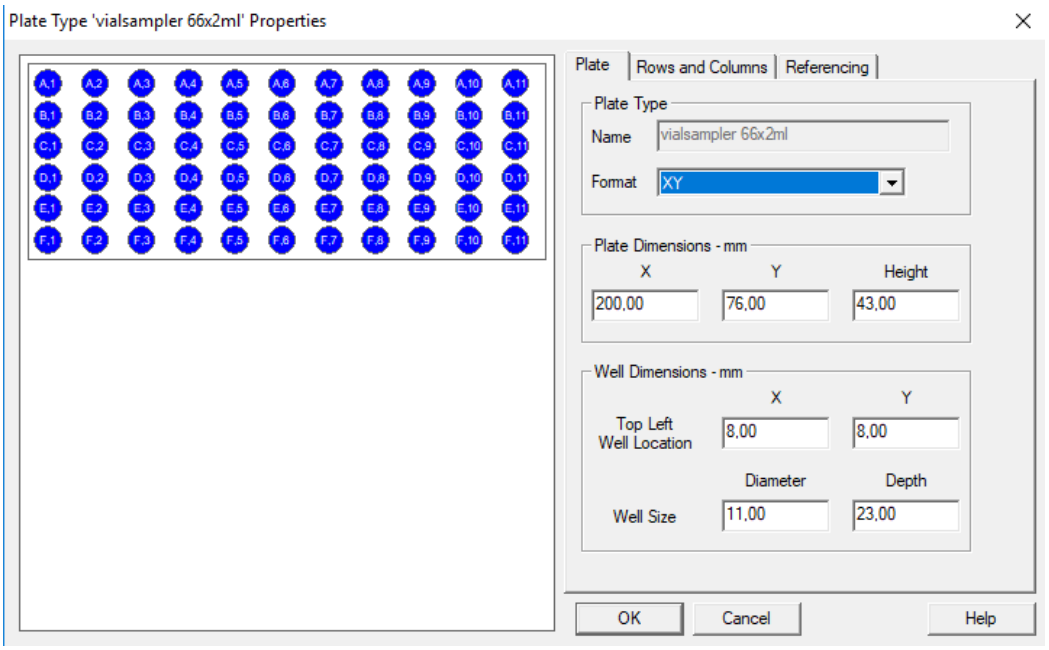

Figure 9 Plate type properties

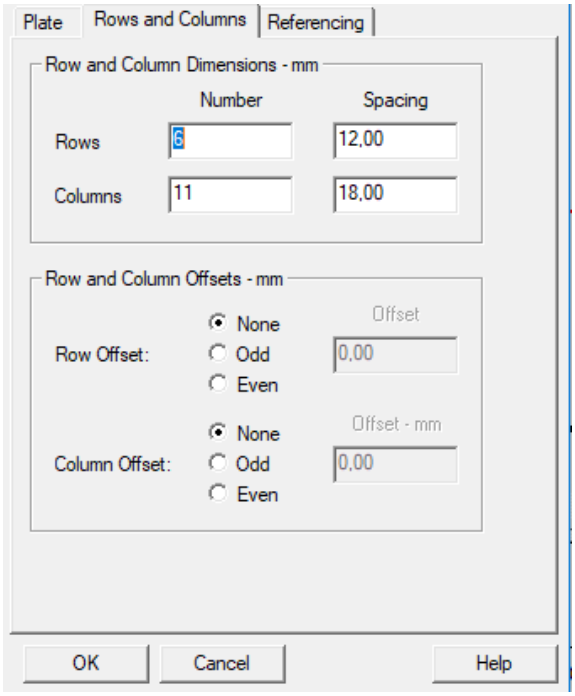

Figure 10 Plate type properties – **Rows and Columns**

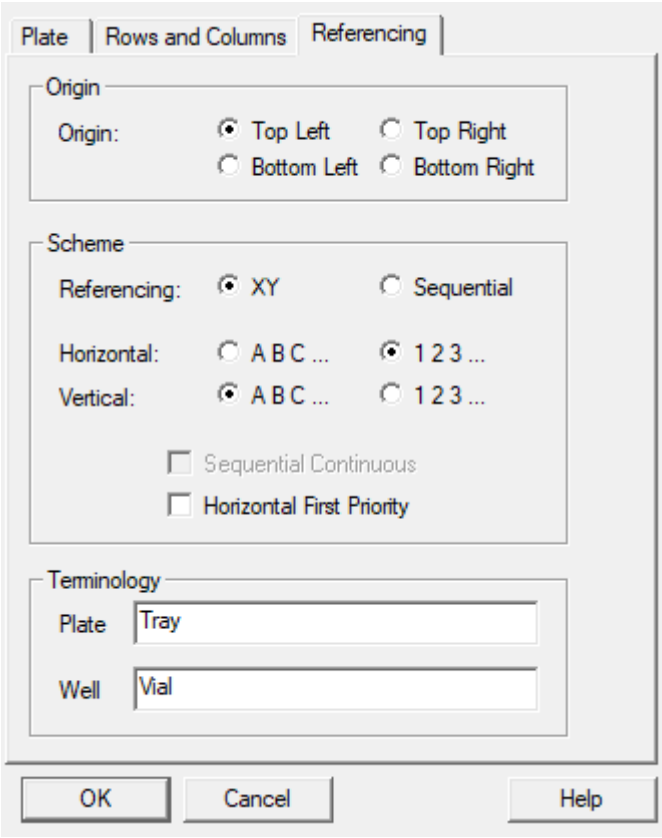

Figure 11 Plate type properties – **Referencing**

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