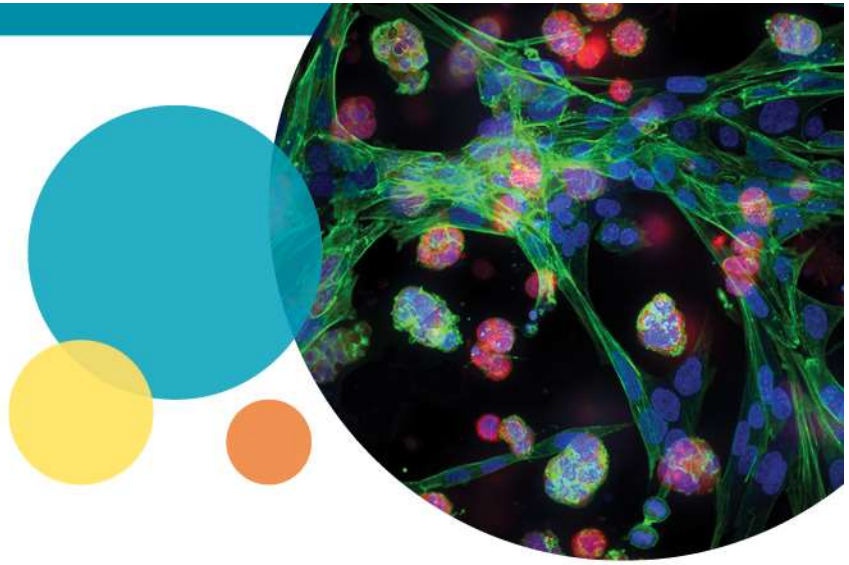


MetaXpress® 6.5 Software Guide

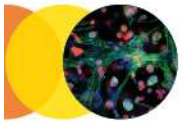
Plate Annotation

Date Revised 7/17/2019 Version B

MOLECULAR DEVICES
ADVANCING DISCOVERY

What is plate annotation?

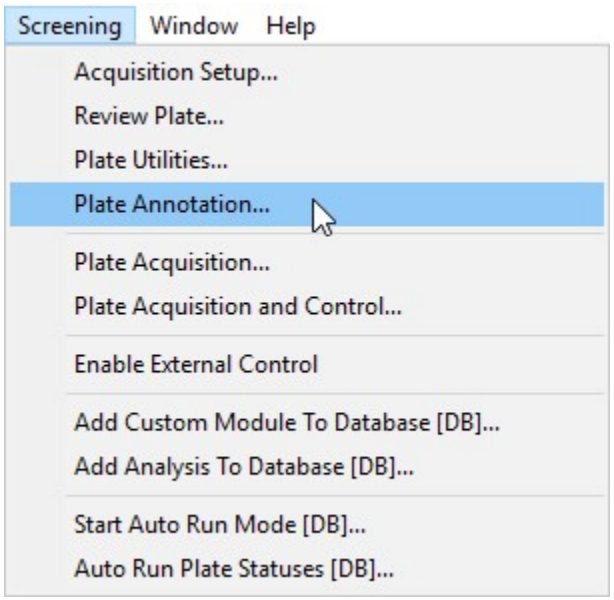
- Assigning sample information to specific wells of your plate:
  - Compound
  - Concentration
  - Category / group
- Annotation is specific for a plate
  - Applied across all measurement sets (analyses)
- Create annotation in MetaXpress/AcuityXpress, or import text file
- Batch annotation option for annotating multiple plates (for a screen)



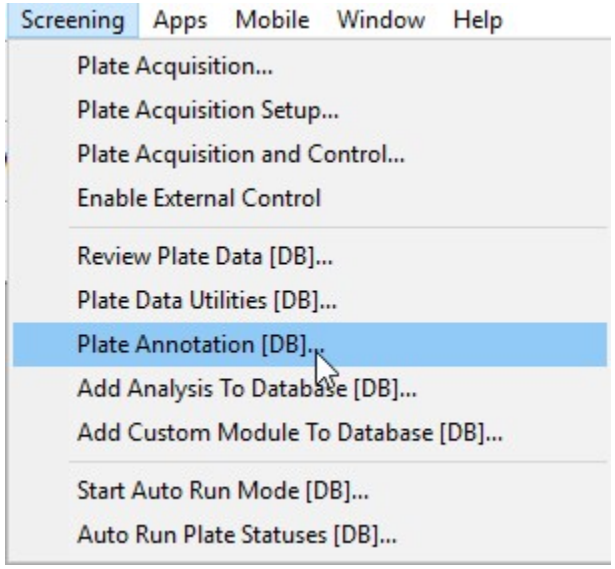
Editing Plate Annotation

- In MetaXpress version 6.5: **Screening > Plate Annotation**
- In the optional AcuityXpress software: **Manage > Plate Layouts**

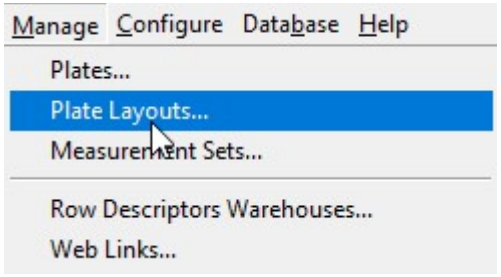
MX 6.5 Simplified Menu

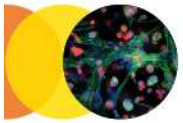


MX 6.5 Standard Menu



AcuityXpress 2.1

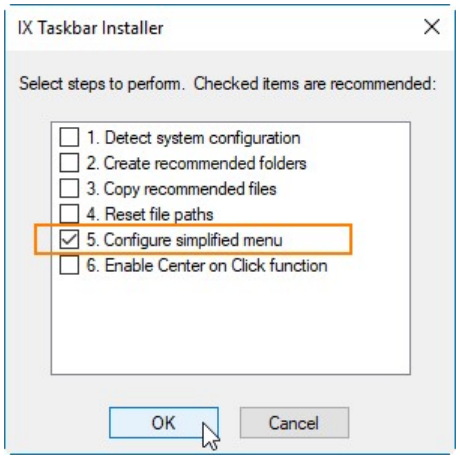


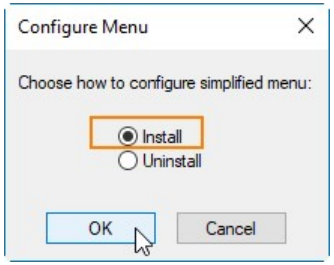


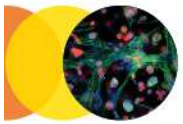
MOLECULAR DEVICES

Updating MX Simplified Menu

- If you do not see the **Plate Annotation** option in the simplified menu after updating to MetaXpress version 6.5, update the menu:
  1. Go to https://mdc.custhelp.com/app/answers/detail/a_id/20100 and download the latest version of the taskbar and documentation
  2. Go to **Control > Journal > Import Journal Suite** to import the taskbar, typically into C:\MX6\Taskbars
  3. Load the Main Taskbar
  4. Run the Taskbar Installer and select the option to **Configure simplified menu**
  5. Choose to **Install** the simplified menu.
  6. Select current group or all groups.
  7. Restart the MetaXpress program.







MOLECULAR DEVICES

Plate Annotation interface

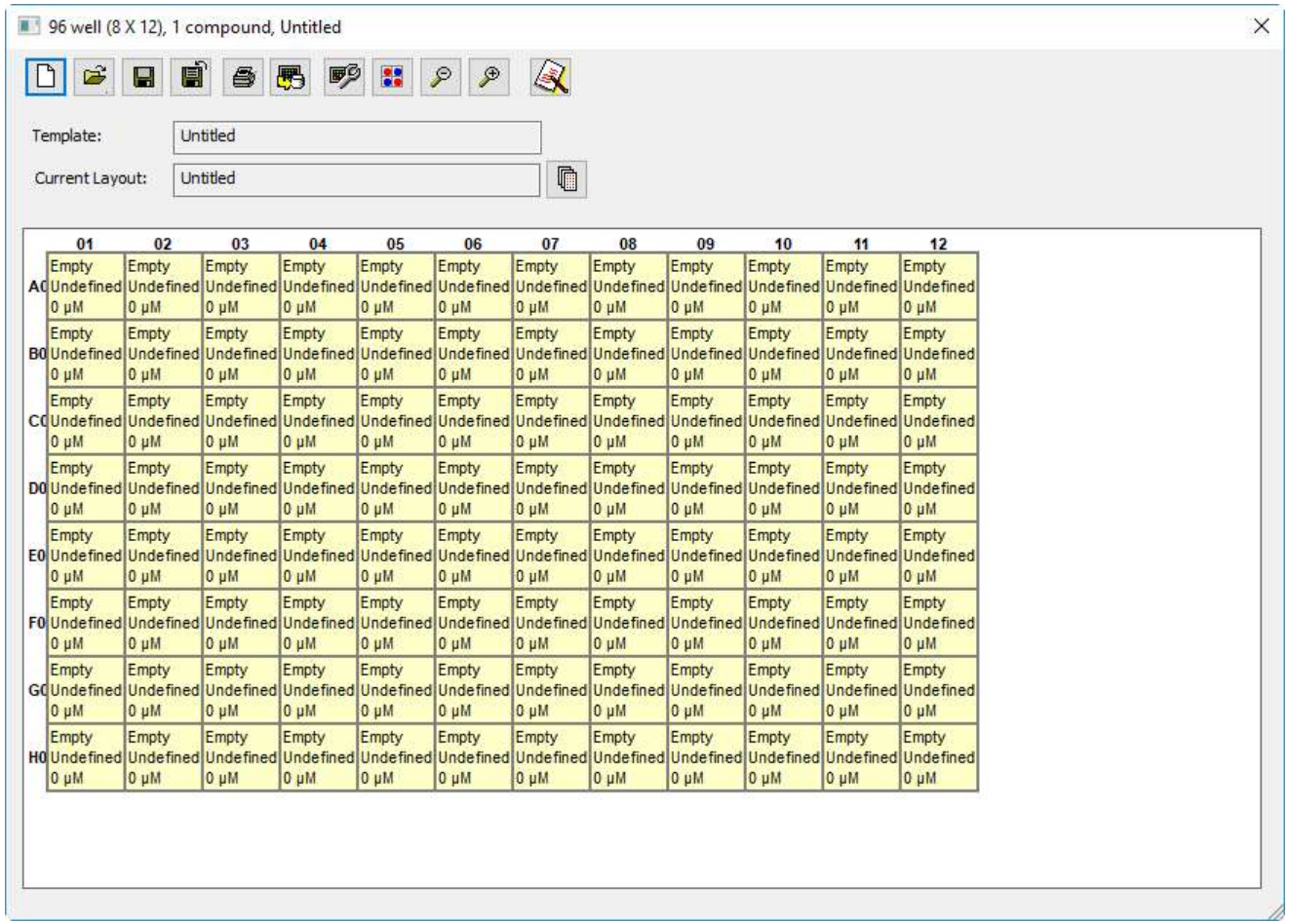
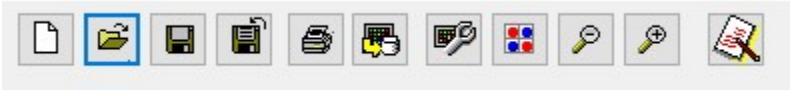


Plate Annotation options



- New (Ctrl + N)

- Open (Ctrl + O)

- Save (Ctrl + S)

- Save As (Ctrl + Shift + A)

- Print (Ctrl + P)

- Annotate Plate (Ctrl + D)

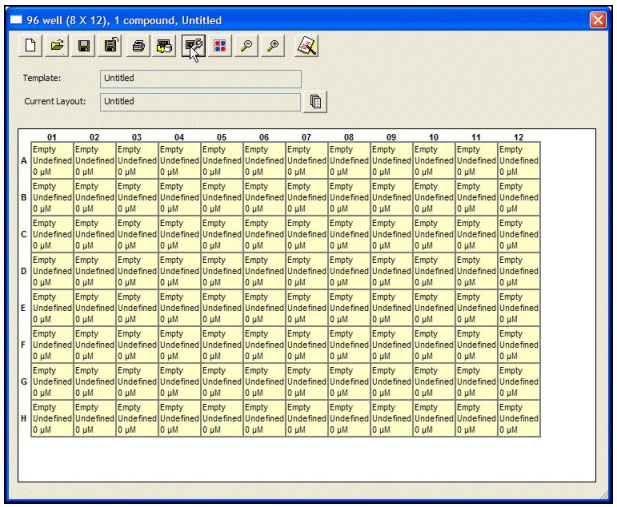
- Configure (Ctrl + Shift + C)

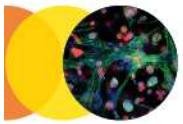
- Annotate Wells (Ctrl + Shift + S)

- Compact View

- Detailed View

- Batch Annotations (Ctrl + D)



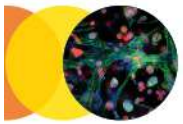


MOLECULAR DEVICES

Typical workflows

Manually create plate layout

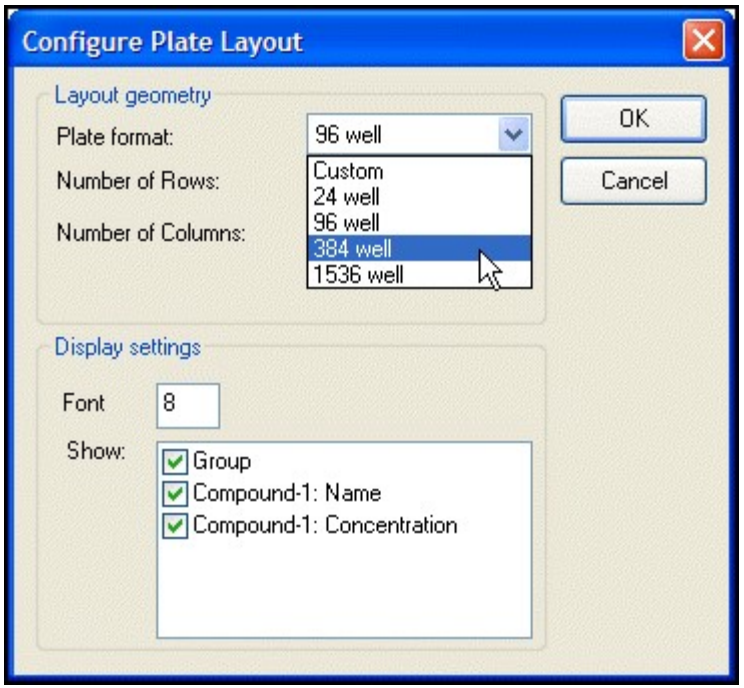
Import or open existing plate layout



MOLECULAR DEVICES

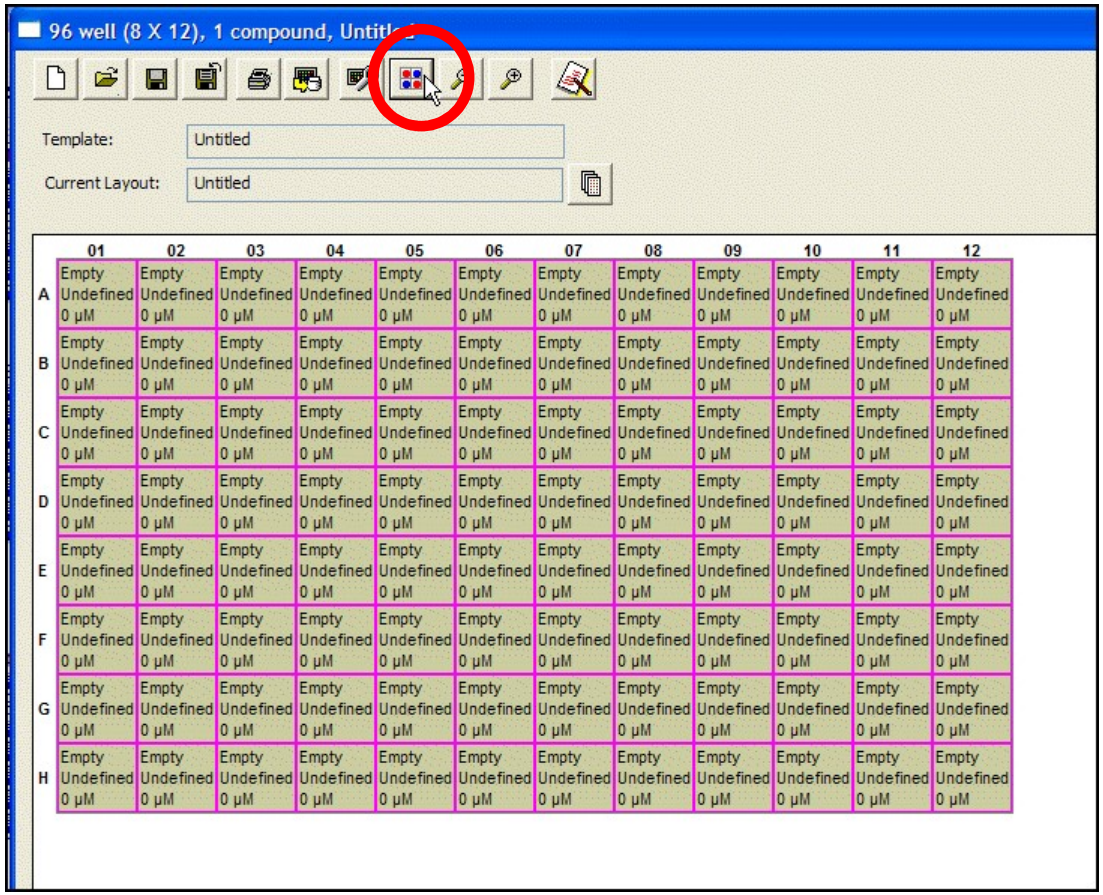
Configure - Select plate format

- Select a pre-defined plate format or define a custom plate type.



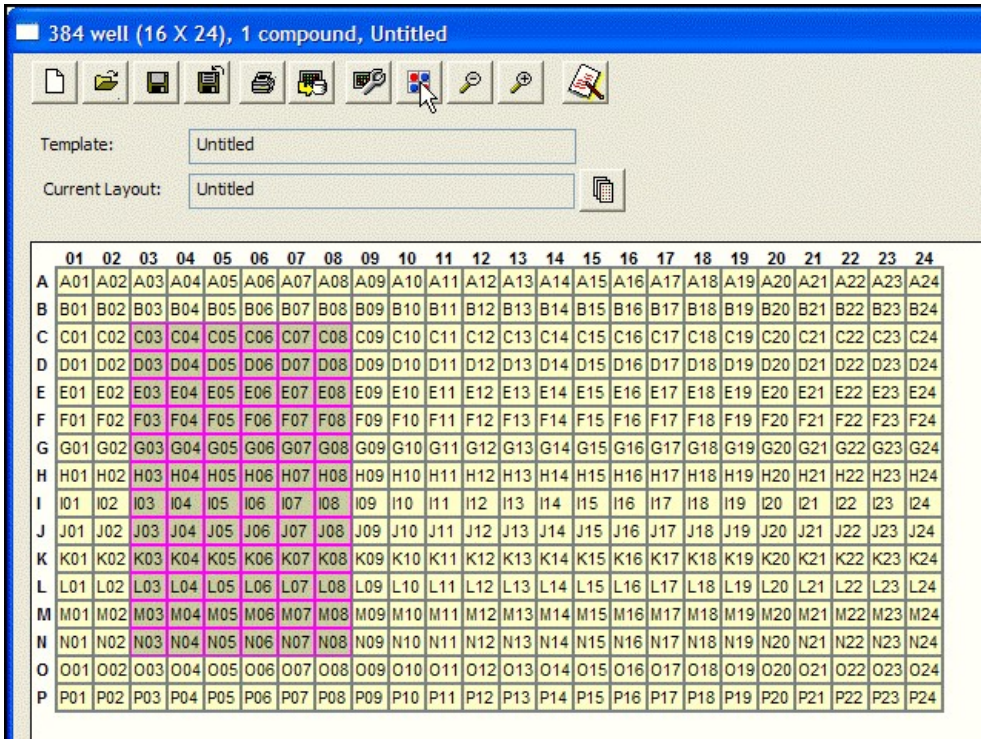
Annotate wells

- Highlight block of wells
- Click Annotate Wells icon
- Enter group, compound, and concentration information
- Repeat for other blocks of wells as necessary

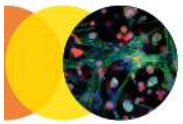


Example serial dilution

- Set up serial dilution from top to bottom
- All concentrations are in uM
- Top concentration is 50 um
- 5-fold dilutions down the rows
- Replicates in the columns



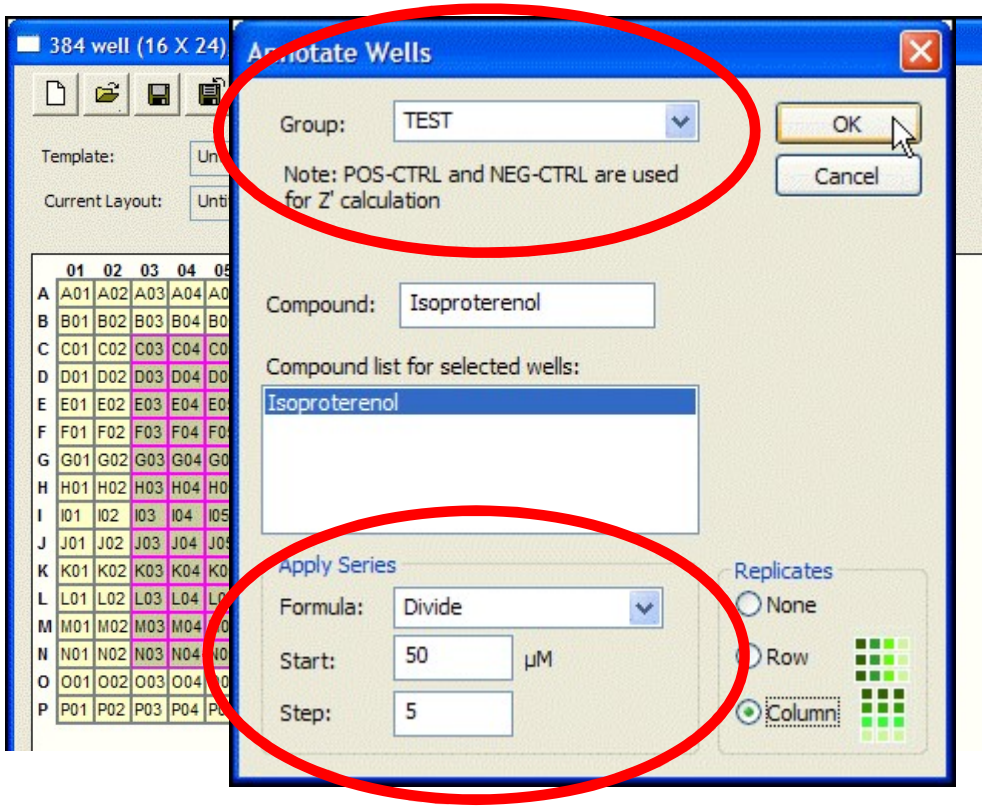
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
A	A01	A02	A03	A04	A05	A06	A07	A08	A09	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	A21	A22	A23	A24
B	B01	B02	B03	B04	B05	B06	B07	B08	B09	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	B22	B23	B24
C	C01	C02	C03	C04	C05	C06	C07	C08	C09	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24
D	D01	D02	D03	D04	D05	D06	D07	D08	D09	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19	D20	D21	D22	D23	D24
E	E01	E02	E03	E04	E05	E06	E07	E08	E09	E10	E11	E12	E13	E14	E15	E16	E17	E18	E19	E20	E21	E22	E23	E24
F	F01	F02	F03	F04	F05	F06	F07	F08	F09	F10	F11	F12	F13	F14	F15	F16	F17	F18	F19	F20	F21	F22	F23	F24
G	G01	G02	G03	G04	G05	G06	G07	G08	G09	G10	G11	G12	G13	G14	G15	G16	G17	G18	G19	G20	G21	G22	G23	G24
H	H01	H02	H03	H04	H05	H06	H07	H08	H09	H10	H11	H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22	H23	H24
I	I01	I02	I03	I04	I05	I06	I07	I08	I09	I10	I11	I12	I13	I14	I15	I16	I17	I18	I19	I20	I21	I22	I23	I24
J	J01	J02	J03	J04	J05	J06	J07	J08	J09	J10	J11	J12	J13	J14	J15	J16	J17	J18	J19	J20	J21	J22	J23	J24
K	K01	K02	K03	K04	K05	K06	K07	K08	K09	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20	K21	K22	K23	K24
L	L01	L02	L03	L04	L05	L06	L07	L08	L09	L10	L11	L12	L13	L14	L15	L16	L17	L18	L19	L20	L21	L22	L23	L24
M	M01	M02	M03	M04	M05	M06	M07	M08	M09	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24
N	N01	N02	N03	N04	N05	N06	N07	N08	N09	N10	N11	N12	N13	N14	N15	N16	N17	N18	N19	N20	N21	N22	N23	N24
O	O01	O02	O03	O04	O05	O06	O07	O08	O09	O10	O11	O12	O13	O14	O15	O16	O17	O18	O19	O20	O21	O22	O23	O24
P	P01	P02	P03	P04	P05	P06	P07	P08	P09	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20	P21	P22	P23	P24



Example serial dilution

- Set up serial dilution from top to bottom
- All concentrations are in uM
- Top concentration is 50 um
- 5-fold dilutions down the rows
- Replicates in the columns

Identify Controls or other Groups

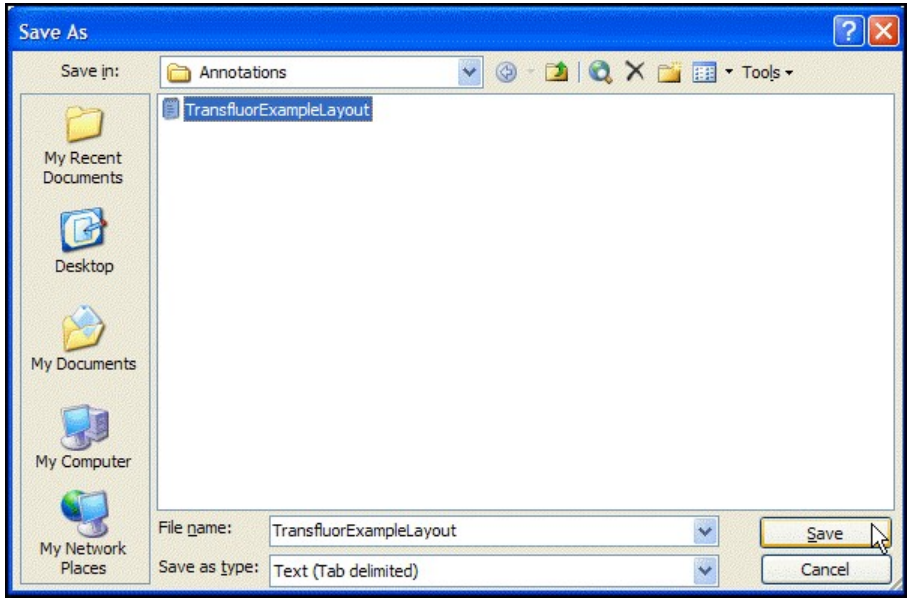


Serial Dilution

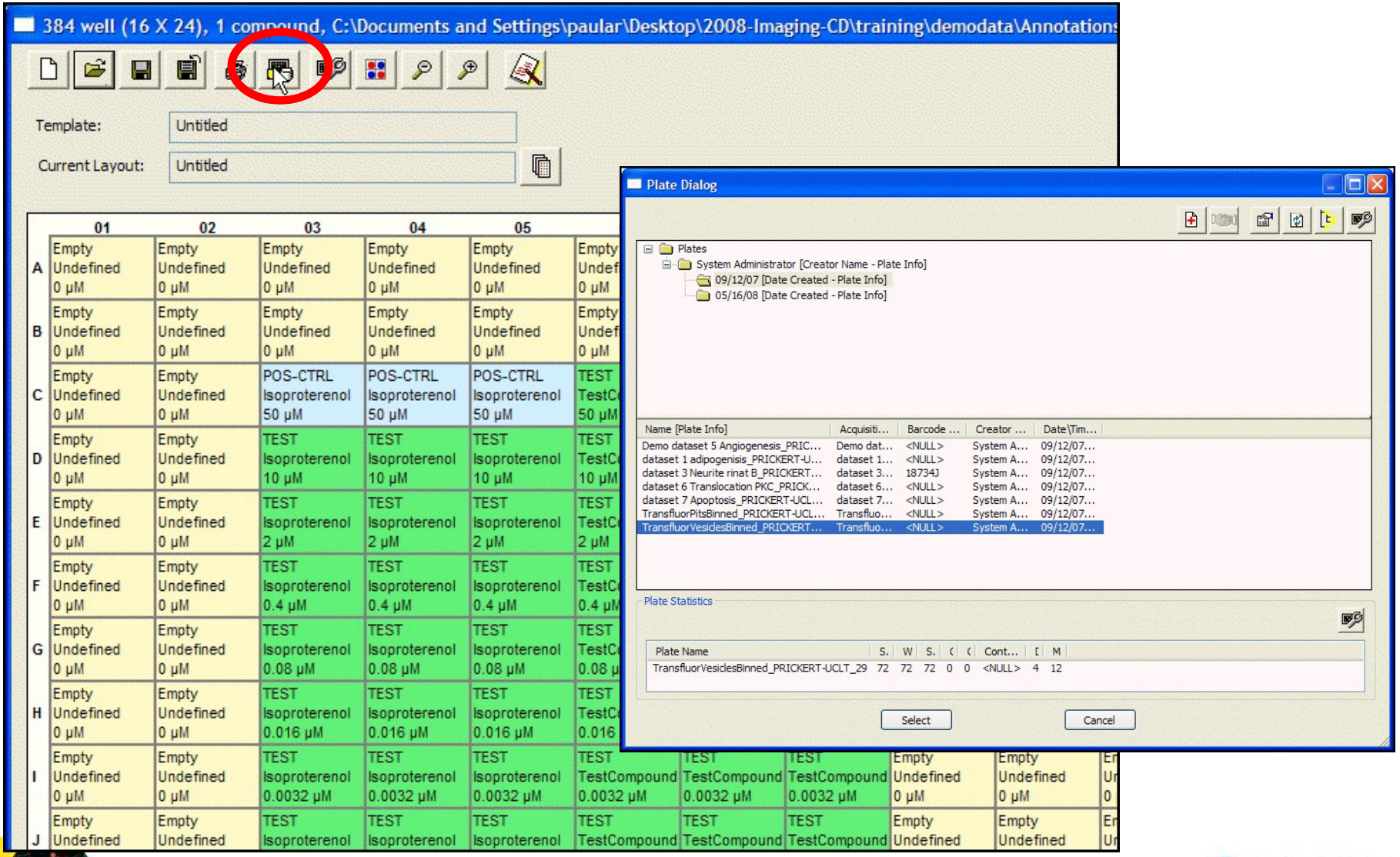
Or edit plate layout in Excel

- From Plate Annotation, select **Save As > File** to save an example plate layout file
- Edit the file in Excel
- Save the edited file as .txt (tab-delimited text)
- From Plate Annotation, select **Open > File** to import the annotations

	A	B	C	D	E
55	B14	Empty	Undefined	0	µM
56	B15	Empty	Undefined	0	µM
57	B16	Empty	Undefined	0	µM
58	B17	Empty	Undefined	0	µM
59	B18	Empty	Undefined	0	µM
60	B19	Empty	Undefined	0	µM
61	B20	Empty	Undefined	0	µM
62	B21	Empty	Undefined	0	µM
63	B22	Empty	Undefined	0	µM
64	B23	Empty	Undefined	0	µM
65	B24	Empty	Undefined	0	µM
66	C01	Empty	Undefined	0	µM
67	C02	Empty	Undefined	0	µM
68	C03	POS-CTRL	Isoproterer	50	µM
69	C04	POS-CTRL	Isoproterer	50	µM
70	C05	POS-CTRL	Isoproterer	50	µM
71	C06	TEST	TestCompo	50	µM
72	C07	TEST	TestCompo	50	µM
73	C08	TEST	TestCompo	50	µM
74	C09	Empty	Undefined	0	µM
75	C10	Empty	Undefined	0	µM

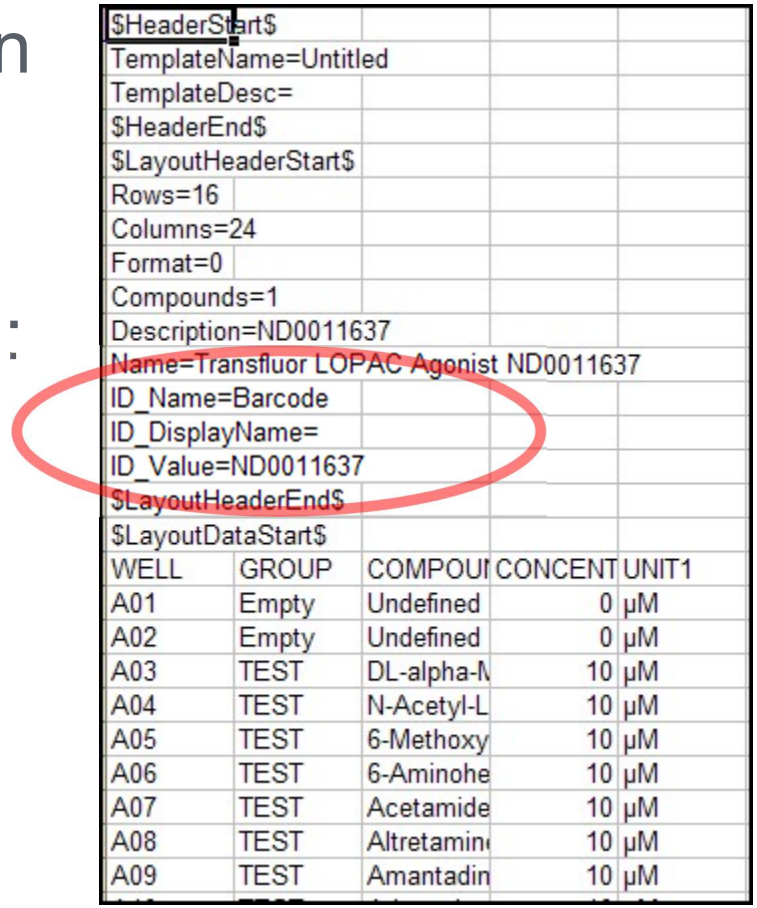


Select plate(s) to annotate



Batch annotation

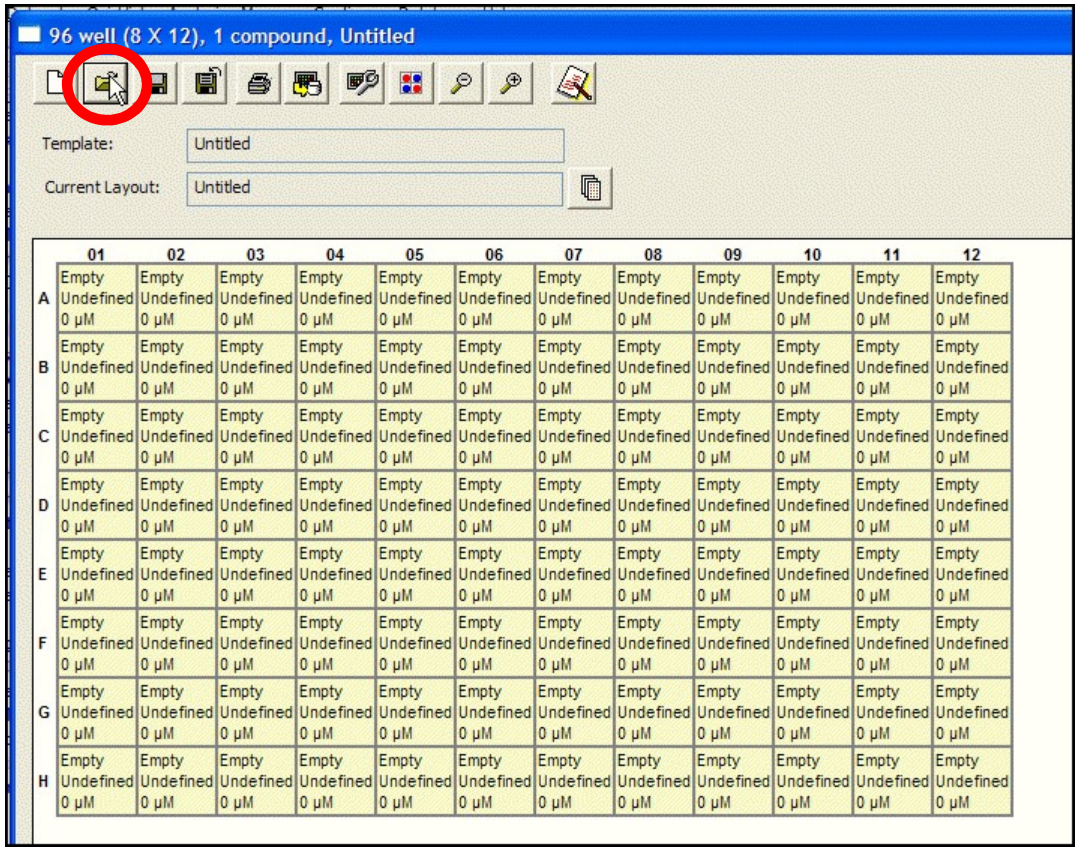
- Put multiple plates layouts in one text file
- Identify individual plates through one of the following:
  - Barcode
  - Plate Name
  - Plate ID
- Set “ID_Name” and “ID_Value” accordingly



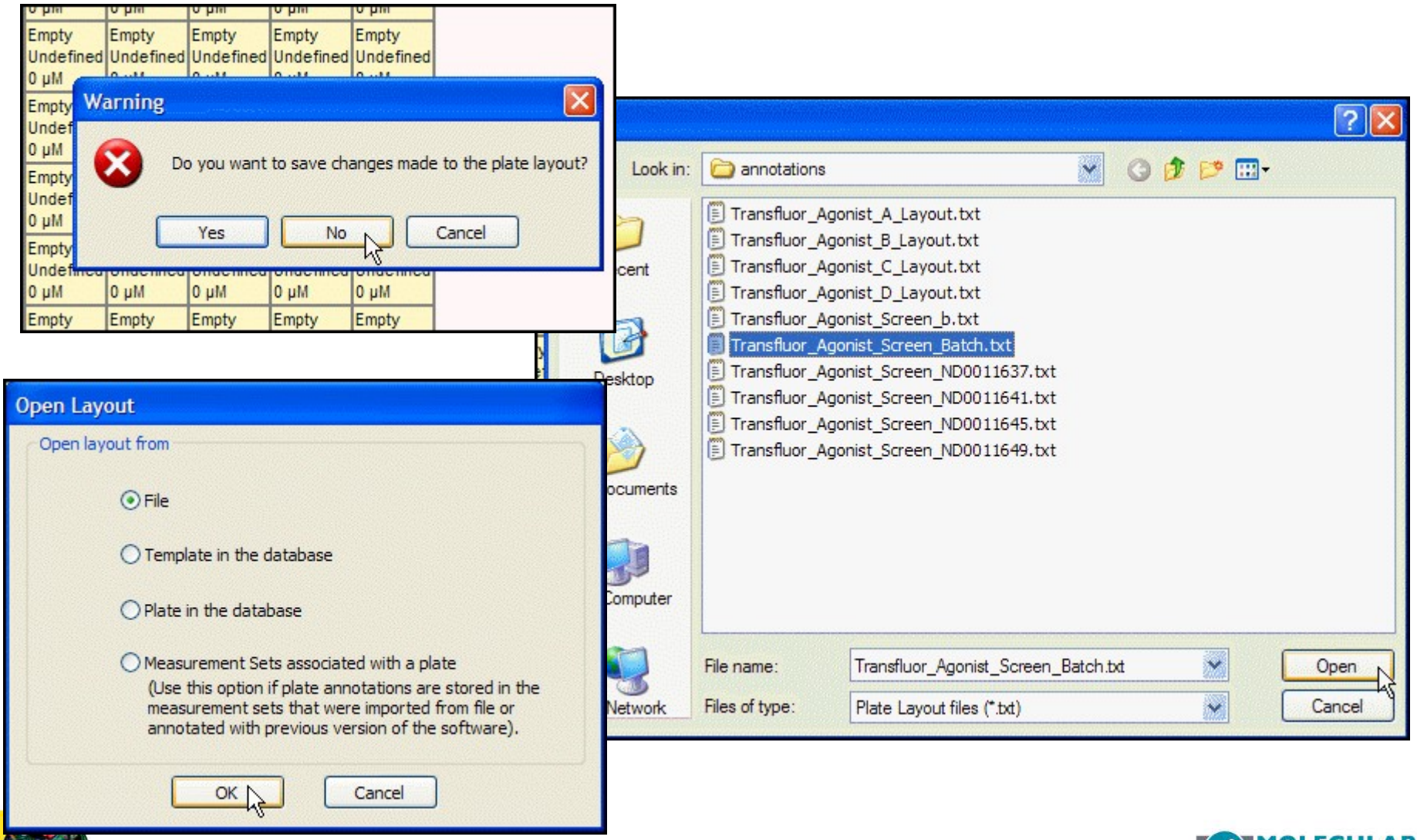
$HeaderStart$				
TemplateName=Untitled				
TemplateDesc=				
$HeaderEnd$				
$LayoutHeaderStart$				
Rows=16				
Columns=24				
Format=0				
Compounds=1				
Description=ND0011637				
Name=Transfluor LOPAC Agonist ND0011637				
ID_Name=Barcode				
ID_DisplayName=				
ID_Value=ND0011637				
$LayoutHeaderEnd$				
$LayoutDataStart$				
WELL	GROUP	COMPOUI	CONCENT	UNIT1
A01	Empty	Undefined	0	µM
A02	Empty	Undefined	0	µM
A03	TEST	DL-alpha-M	10	µM
A04	TEST	N-Acetyl-L	10	µM
A05	TEST	6-Methoxy	10	µM
A06	TEST	6-Aminohe	10	µM
A07	TEST	Acetamide	10	µM
A08	TEST	Altretamin	10	µM
A09	TEST	Amantadin	10	µM

Batch Annotation

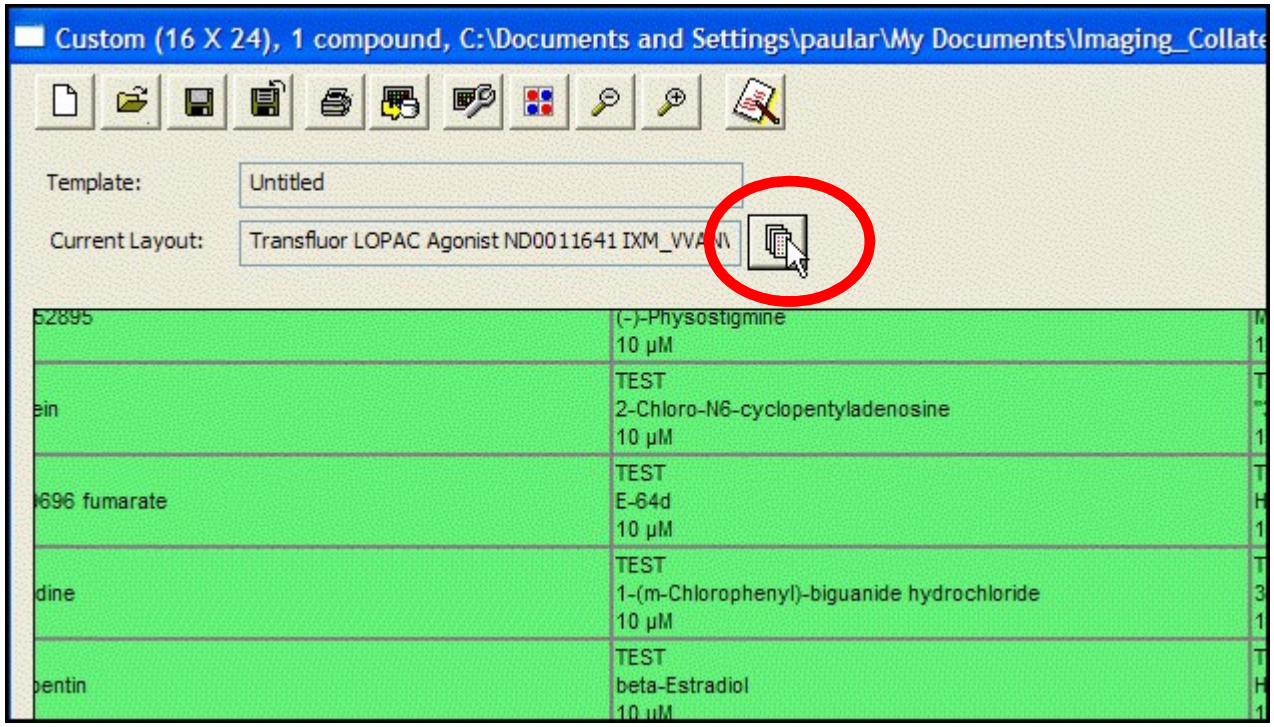
- Open text file in the Plate Layout Manager



Batch Annotation – opening layout



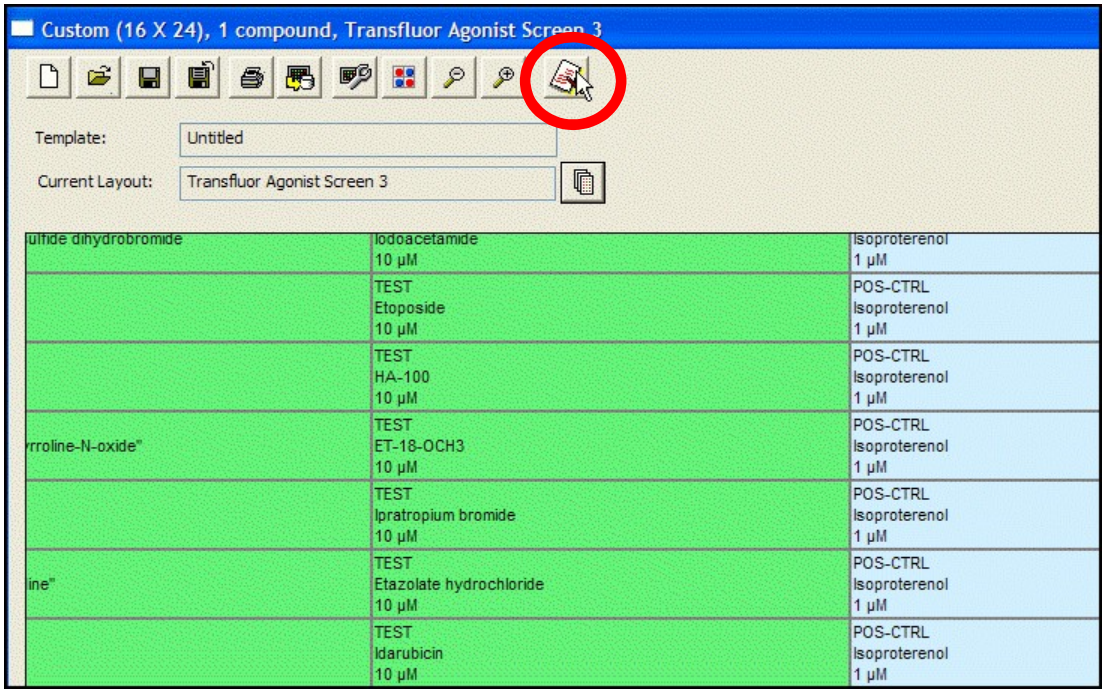
Batch annotation

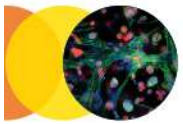


- Click Select icon to view different layouts in batch template

Batch annotation

- Use the **Batch Annotations** button

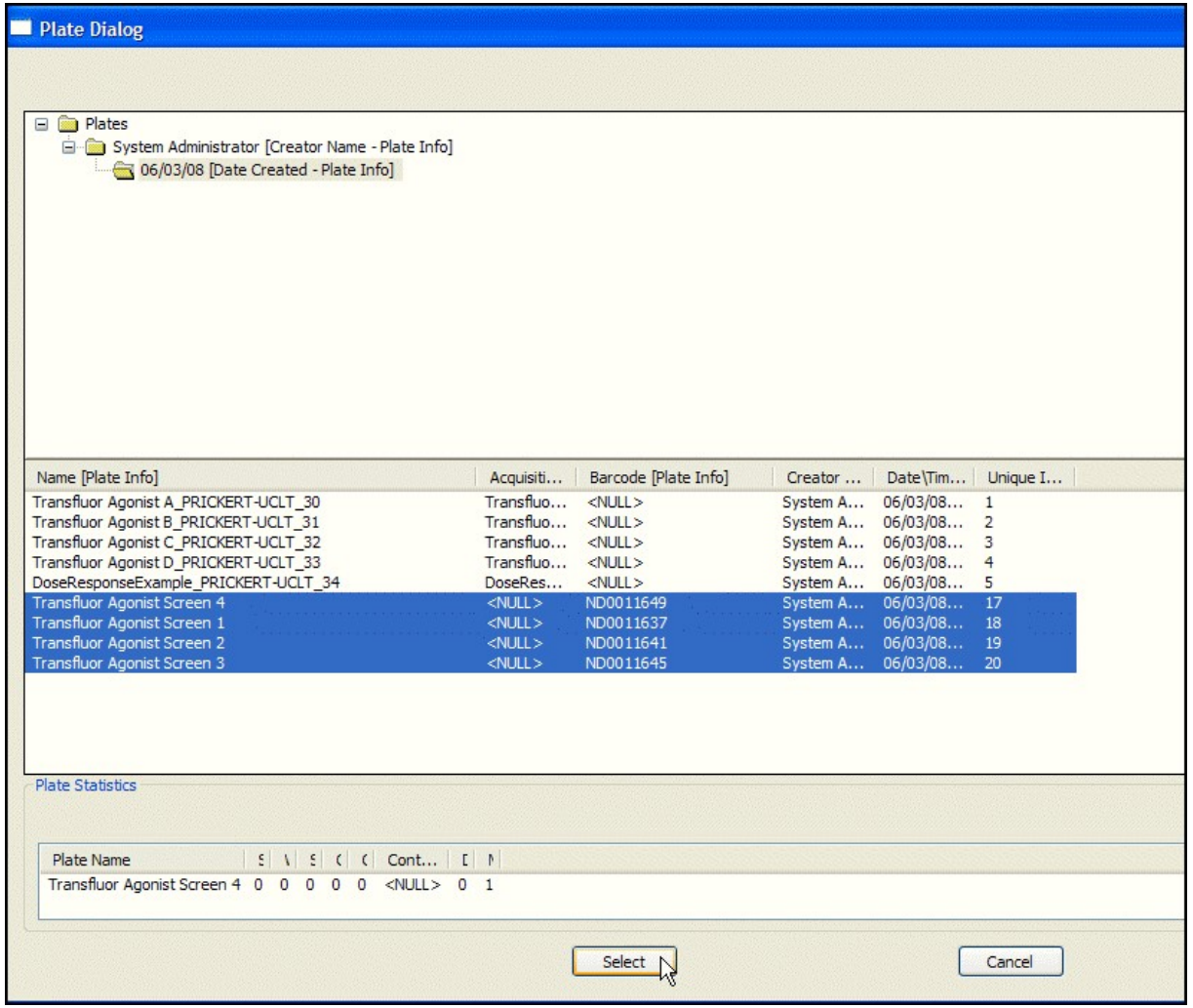


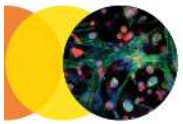


MOLECULAR DEVICES

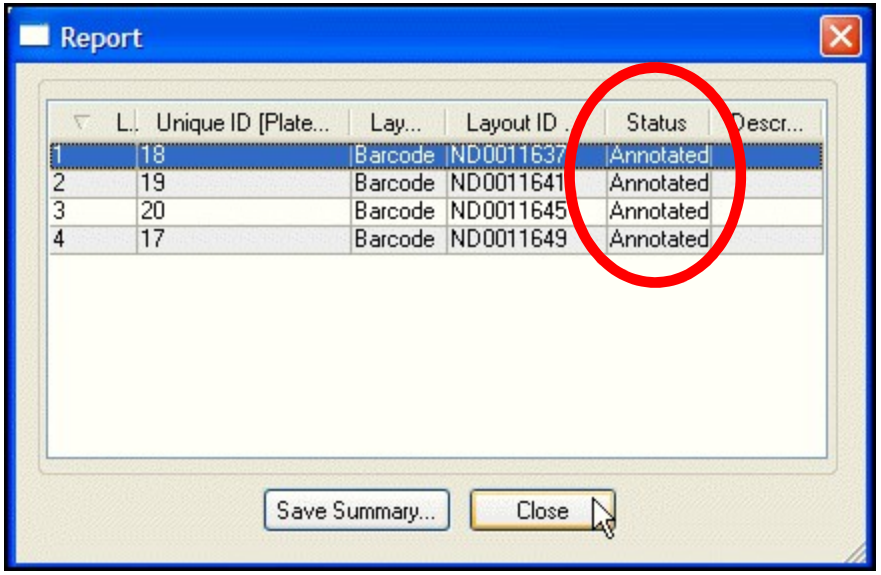
Batch annotation

- Select all plates for batch annotation
- Use Ctrl or Shift to multi-select





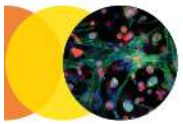
Batch annotation

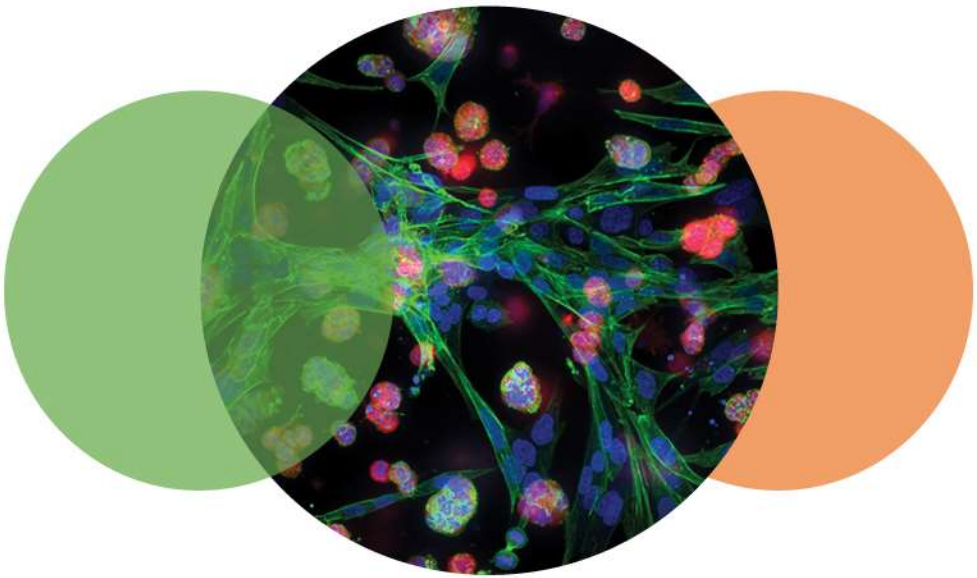


- Check the resulting report to verify each plate is “Annotated”

Updating plate annotations

- You can update the plate annotation at any point, except:
  - If you have made a dataset from that plate in the optional AcuityXpress software
  - In this case, changes to the plate annotation would invalidate analysis results
- You can update plate annotation after viewing curve fit or peak analysis results in the MetaXpress software





MOLECULAR DEVICES

ADVANCING DISCOVERY