J-Express Pro 2.0

tutorial documents

Loading Tabular data

Prephase

Tabular data is basically data prepared by another program and organized in a table. The data in the file is normally delimited by either a tabulator character or a space. By opening the file in a text editor, you can see if there is a tab or a space between the data elements.

Example:

TAB DELIMITED:

ID	PRODUCT	SAMPLE	Elu 0	Elu 30	Elu 60	Elu 90
YBR166C	TYR1	TYROSINE BIOSYNTHESIS	0.21	-0.04	-0.15	-0.04
YOR357C	GRD19	SECRETION	0.16	-0.34	-0.32	-0.34
YLR292C	SEC72	0.29	-0.09	0.4	-0.1	
YGL112C	TAF60	TRANSCRIPTION	-0.04	0.34	0.42	-0.04
YIL118W	RHO3	CYTOSKELETON	-0.18	-0.2	-0.12	0.16
YDL120W	YFH1	IRON HOMEOSTASIS	-0.45	0.82	-0.12	-0.43

SPACE DELIMITED

ID PRODUCT SAMPLE Elu 0 Elu 30 Elu 60 Elu 90
YBR166C TYR1_TYROSINE_BIOSYNTHESIS 0.21 -0.04 -0.15 -0.04
YOR357C GRD19_SECRETION 0.16 -0.34 -0.32 -0.34
YLR292C SEC72 0.29 -0.09 0.4   -0.1
YGL112C TAF60_TRANSCRIPTION -0.04 0.34 0.42 -0.04
YIL118W RHO3_CYTOSKELETON -0.18 -0.2 -0.12 0.16
YDL120W YFH1_IRON_HOMEOSTASIS -0.45 0.82 -0.12 -0.43

Importing the data

By choosing load tabular data from the file menu, you get the following data import window:
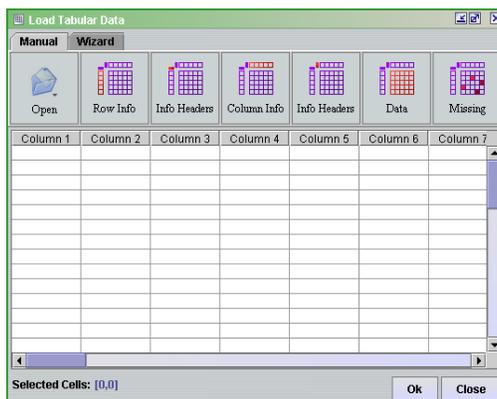
To load your data, follow these steps:

1. Click the open button and select the file you want to load.
2. Select the correct delimiter in the delimiter selection window.
3. Set the correct header fields. Here is an example: (See the sample data for more examples)

When Selecting *Row Info* **(1)** and *Column Info* **(3),** you can select multiple rows and columns by clicking them. A click in a column after selecting *Row Info* **(1),** will select it and turn the cell colors gray, clicking it again will deselect it. Clicking the *Info Headers* **(2)** let you select the headers corresponding to the row-identifiers. The same applies for the *Info Headers* **(4)** for the column infos.

Note if you do not set the headers **(2)** and **(4)**, J-Express will create default headers.

To set the data area **(5),** click the data button and select the area for which you have values. You can either drag the mouse over all data elements or select the upper left cell, scroll to the end of the dataset, hold down shift on your keyboard and select the lower right cell.

Note that you can rearrange the columns by dragging the column headers.

Missing values

If there are elements in the data that can not be converted to numerical values, you need to open the missing values dialog to tell J-Express how to handle these elements. Such values often occurs if some data is missing due to noise or filtered spots in the image analysis step. Examples of such elements are "MISSING" and "NaN".
The missing value dialog:
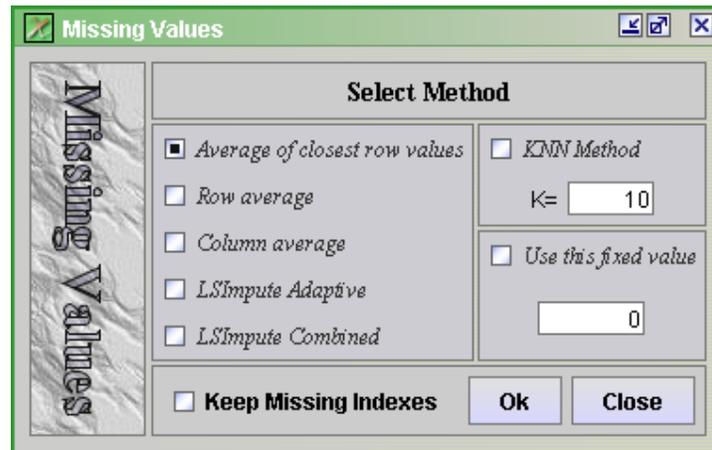
See the J-Express manual or press F1 on the *Load Tabular Data* window to see how the different options performs.

Creating a dataset

Click the **OK** button in the *Load Tabular Data* window to parse the dataset. This will now create a node in the project window where you can start analyzing the dataset:
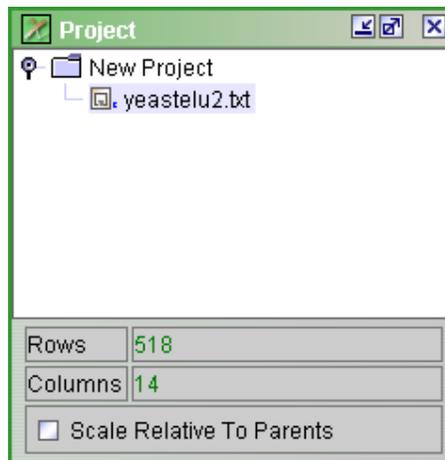
SAMPLE DATA:

See the colors of the elements in the table and compare them to the numbered figure above.

ROW INFO (1):

ID	PRODUCT	SAMPLE	Elu 0	Elu 30	Elu 60	Elu 90
YBR166C	**TYR1 TYROSINE BIOSYNTHESIS PREPHENATE DEHYDROGENASE (NADP+**		0.21	-0.04	-0.15	-0.04
YOR357C	**GRD19 SECRETION GOLGI PROTEIN RETENTION**		0.16	-0.34	-0.32	-0.34
YLR292C	**SEC72 SECRETION ER PROTEIN TRANSLOCATION SUBCOMPLEX SUBUNIT**		0.29	-0.09	0.4	-0.1
YGL112C	**TAF60 TRANSCRIPTION TFIID 60 KD SUBUNIT**		-0.04	0.34	0.42	-0.04
YIL118W	**RHO3 CYTOSKELETON GTP-BINDING PROTEIN, RHO FAMILY**		-0.18	-0.2	-0.12	0.16
YDL120W	**YFH1 IRON HOMEOSTASIS, MITOCH FRATAXIN HOMOLOG**		-0.45	0.82	-0.12	-0.43
YHL025W	**SNF6 TRANSCRIPTION COMPONENT OF SWI/SNF GLOBAL ACTIVATOR COMPLEX**		0.44	0.26	0.4	0.12
YGL248W	**PDE1 PURINE METABOLISM 3',5'-CYCLIC-NUCLEOTIDE PHOSPHODIESTERASE**		0.32	-0.09	0.38	-0.38
YIL146C	**ECM37 CELL WALL BIOGENESIS UNKNOWN**		0.08	0.32	0.03	0.16
YJR106W	**ECM27 CELL WALL BIOGENESIS UNKNOWN**		-0.03	0.1	-1.03	-0.23

ROW INFO HEADERS (2):

ID	PRODUCT	SAMPLE	Elu 0	Elu 30	Elu 60	Elu 90
YBR166C	TYR1 TYROSINE BIOSYNTHESIS PREPHENATE DEHYDROGENASE (NADP+		0.21	-0.04	-0.15	-0.04
YOR357C	GRD19 SECRETION GOLGI PROTEIN RETENTION		0.16	-0.34	-0.32	-0.34
YLR292C	SEC72 SECRETION ER PROTEIN TRANSLOCATION SUBCOMPLEX SUBUNIT		0.29	-0.09	0.4	-0.1
YGL112C	TAF60 TRANSCRIPTION TFIID 60 KD SUBUNIT		-0.04	0.34	0.42	-0.04
YIL118W	RHO3 CYTOSKELETON GTP-BINDING PROTEIN, RHO FAMILY		-0.18	-0.2	-0.12	0.16
YDL120W	YFH1 IRON HOMEOSTASIS, MITOCH FRATAXIN HOMOLOG		-0.45	0.82	-0.12	-0.43
YHL025W	SNF6 TRANSCRIPTION COMPONENT OF SWI/SNF GLOBAL ACTIVATOR COMPLEX		0.44	0.26	0.4	0.12
YGL248W	PDE1 PURINE METABOLISM 3',5'-CYCLIC-NUCLEOTIDE PHOSPHODIESTERASE		0.32	-0.09	0.38	-0.38
YIL146C	ECM37 CELL WALL BIOGENESIS UNKNOWN		0.08	0.32	0.03	0.16
YJR106W	ECM27 CELL WALL BIOGENESIS UNKNOWN		-0.03	0.1	-1.03	-0.23

COLUMN INFO (3):

ID	PRODUCT	SAMPLE	Elu 0	Elu 30	Elu 60	Elu 90
YBR166C	TYR1 TYROSINE BIOSYNTHESIS PREPHENATE DEHYDROGENASE (NADP+		0.21	-0.04	-0.15	-0.04
YOR357C	GRD19 SECRETION GOLGI PROTEIN RETENTION		0.16	-0.34	-0.32	-0.34
YLR292C	SEC72 SECRETION ER PROTEIN TRANSLOCATION SUBCOMPLEX SUBUNIT		0.29	-0.09	0.4	-0.1
YGL112C	TAF60 TRANSCRIPTION TFIID 60 KD SUBUNIT		-0.04	0.34	0.42	-0.04
YIL118W	RHO3 CYTOSKELETON GTP-BINDING PROTEIN, RHO FAMILY		-0.18	-0.2	-0.12	0.16
YDL120W	YFH1 IRON HOMEOSTASIS, MITOCH FRATAXIN HOMOLOG		-0.45	0.82	-0.12	-0.43
YHL025W	SNF6 TRANSCRIPTION COMPONENT OF SWI/SNF GLOBAL ACTIVATOR COMPLEX		0.44	0.26	0.4	0.12
YGL248W	PDE1 PURINE METABOLISM 3',5'-CYCLIC-NUCLEOTIDE PHOSPHODIESTERASE		0.32	-0.09	0.38	-0.38
YIL146C	ECM37 CELL WALL BIOGENESIS UNKNOWN		0.08	0.32	0.03	0.16
YJR106W	ECM27 CELL WALL BIOGENESIS UNKNOWN		-0.03	0.1	-1.03	-0.23

COLUMN INFO HEADERS (4):

ID	PRODUCT	SAMPLE	Elu 0	Elu 30	Elu 60	Elu 90
YBR166C	TYR1 TYROSINE BIOSYNTHESIS PREPHENATE DEHYDROGENASE (NADP+		0.21	-0.04	-0.15	-0.04
YOR357C	GRD19 SECRETION GOLGI PROTEIN RETENTION		0.16	-0.34	-0.32	-0.34
YLR292C	SEC72 SECRETION ER PROTEIN TRANSLOCATION SUBCOMPLEX SUBUNIT		0.29	-0.09	0.4	-0.1
YGL112C	TAF60 TRANSCRIPTION TFIID 60 KD SUBUNIT		-0.04	0.34	0.42	-0.04
YIL118W	RHO3 CYTOSKELETON GTP-BINDING PROTEIN, RHO FAMILY		-0.18	-0.2	-0.12	0.16
YDL120W	YFH1 IRON HOMEOSTASIS, MITOCH FRATAXIN HOMOLOG		-0.45	0.82	-0.12	-0.43
YHL025W	SNF6 TRANSCRIPTION COMPONENT OF SWI/SNF GLOBAL ACTIVATOR COMPLEX		0.44	0.26	0.4	0.12
YGL248W	PDE1 PURINE METABOLISM 3',5'-CYCLIC-NUCLEOTIDE PHOSPHODIESTERASE		0.32	-0.09	0.38	-0.38
YIL146C	ECM37 CELL WALL BIOGENESIS UNKNOWN		0.08	0.32	0.03	0.16
YJR106W	ECM27 CELL WALL BIOGENESIS UNKNOWN		-0.03	0.1	-1.03	-0.23

DATA (5):

ID	PRODUCT	SAMPLE	Elu 0	Elu 30	Elu 60	Elu 90
YBR166C	TYR1 TYROSINE BIOSYNTHESIS PREPHENATE DEHYDROGENASE (NADP+		0.21	-0.04	-0.15	-0.04
YOR357C	GRD19 SECRETION GOLGI PROTEIN RETENTION		0.16	-0.34	-0.32	-0.34
YLR292C	SEC72 SECRETION ER PROTEIN TRANSLOCATION SUBCOMPLEX SUBUNIT		0.29	-0.09	0.4	-0.1
YGL112C	TAF60 TRANSCRIPTION TFIID 60 KD SUBUNIT		-0.04	0.34	0.42	-0.04
YIL118W	RHO3 CYTOSKELETON GTP-BINDING PROTEIN, RHO FAMILY		-0.18	-0.2	-0.12	0.16
YDL120W	YFH1 IRON HOMEOSTASIS, MITOCH FRATAXIN HOMOLOG		-0.45	0.82	-0.12	-0.43
YHL025W	SNF6 TRANSCRIPTION COMPONENT OF SWI/SNF GLOBAL ACTIVATOR COMPLEX		0.44	0.26	0.4	0.12
YGL248W	PDE1 PURINE METABOLISM 3',5'-CYCLIC-NUCLEOTIDE PHOSPHODIESTERASE		0.32	-0.09	0.38	-0.38
YIL146C	ECM37 CELL WALL BIOGENESIS UNKNOWN		0.08	0.32	0.03	0.16
YJR106W	ECM27 CELL WALL BIOGENESIS UNKNOWN		-0.03	0.1	-1.03	-0.23