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Gestalt Trend[™]-View Types

Intelligent Plant Ltd.

Company number:		SC299081	Registered address:	First Floor,
VAT number	:	887 3049 84		489 Union Street,
E-mail	:	info@intelligentplant.com		Aberdeen,
Phone	:	01224 596001		AB11 6AZ.

Revision History:

Date	Version	Description	Created by (Initials)	Reviewed by
06/11/2020	0.1	Create Guide for View Types in Gestalt Trend	TG	
08/02/2022	0.2	Updated to reflect new UI and logo	TG	

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1 Purpose of Document

This document gives a short introduction to the view types that can be used in Gestalt Trend[™].



2 Creating a Trend

A trend has to be created before you can view it as any other type of dashboard.

To create a new trend, select New from the Main tab area.



Figure 2-1 Create a New Page

A pop-up will appear giving you warning that you may lose unsaved work. Choose either cancel to save a page you may have open or Ok to continue.

() Caution					
You may lose unsaved	work.				
					Cancel
	Figu	ıre 2-2 New Page	e – Pop-Up Warı	ning	

If you chose Ok to continue the page will refresh and the Search tags - Window 1 pop-up will appear.

Choose your datasource from the drop-down list, select Name, Description, Unit, Index from the next drop-down list if needed. You can add a wildcard in the next row to search for a specific tag.

If you can see the tag(s) from the list in view select the tags, you will see the tag(s) being added to the dashboard. You will also see that as you add a new tag to the dashboard the plus(+) sign in the tag row will turn from yellow (searching) to green when it has been successfully added to your dashboard.

Save your dashboard.

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62		FT-100127-A.PV_IND		-
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43		LICUO2 Unit: Not available Description: Not available	+	250 50 10.009
45		LLC003 Unit: Not available Description: Not available	+	
44		LIC004 Unit: Not available Description: Not available	+	
42		LIC005 Unit: Not available Description: Not available	+	
40		LIC006 Unit: Not available Description: Not available	+	
38		LIC007 Unit: Not available Description: Not available	+	
35		LIC008 Unit: Not available Description: Net available	+	
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Figure 2-3 Choose Datasource & Add Tags

3 View Types

View types can be found at the left side of dashboard.



Figure 3-1 View Types

The view type options are:

- Trend
- Parallel Co-ordinate Plot (PCP)
- Fast Fourier Transform (FFT)
- Histogram
- Limits
- XY Scatter
- Cross Correlation Graph (CCG)
- Cross-Correlation Matrix (CCM)
- Calm Waters (3DCW1 & 3DCW2)

3.1 Trend View

This is the first option that appears in the view type list.



3.2 Parallel Co-ordinate Plot (PCP) View

Select type PCP.

Note the tag name appearing at the top of the Primary Trend list will appear black on the workspace. All other tags are greyed out. To change tag order, either select the tag you want to appear at the top of the Primary Trend list from the drop-down menu or select the actual tag name that appears beside the vertical line. You can also re-order the tags in the workspace, just left click and hold your mouse on a tag name that's near the vertical line and move to another area on the workspace.



Figure 3-3 Parallel Co-ordinate Plot (PCP) View

3.3 Fast Fourier Transform (FFT) View

This shows frequencies in the data – it can be helpful to find the cause of oscillations in a process by identifying tags that have variations at the same frequency, or to highlight repeating patterns that might not be obvious on a trend.

The x axis on this chart shows the frequencies where the y axis is the amplitude at that frequency. The FFT is always for the full-time range, so playback does not affect the FFT chart.

It may be helpful to use B&W mode to highlight individual tags on this chart.

The Colour/B&W option allows your tags to be shown in black and white or colour. If you select B&W, then the tag that is shown first in the Primary Trends will be black, the Trend to Compare will be in colour and the remaining tags will be greyed out.

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	Relative Time	24 January 2022 10 Days v Start Time	3 February 2022 0 Days v End Time	Plot v Auto	val Apply	Live Updates	► I	I ∎ °	Thu Feb 03 2022 10:57:37 GMT	•••••••••••••••••••••••••••••••••••••••			
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3.4 Histogram View

The histogram chart shows the distribution of values for tags – this can help when assessing limits for alerts/alarms.

It may be helpful to use B&W mode to highlight individual tags on this chart.

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Figure 3-5 Histogram View

3.5 Limits View

This Limits view allows you to see the limits of all tags in value format.

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			SOL Upper			SDL Upper	24 January 2	022 9:34 - 3 February 2022 9:34	
Teg	Value	Limit	Tag	Value	Limit	Tag	Value	Limit	
L30001	50.0000	59.1910	130001	50.0000	60.8699	LIC001	50.0000	63.5497	
L30002	50.0000	59.1910	L3C002	50.0000	60.8699	LIC002	50.0000	62.5487	
130303	50.0000	59.1910	LIC003	50.0000	60.8699	LIC003	50.0000	42.5487	
L30004	50.0000	59.1910	L3C004	50.0000	60.8699	L3C004	50.0000	62.5497	
L30005	50.0000	59.1910	130005	50.0000	60.8699	LICOOS	50.0000	43.5487	
L3C006	50.0000	59.1910	L3C006	50.0000	60.8699	13C006	50.0000	63.5497	
L3C007	50.0000	59.1910	L3C007	50.0000	60.8699	LIC007	50.0000	43.5487	
130008	50.0000	59.1910	LICOOS	50.0000	60.8699	LICOOB	50.0000	63.5467	
L3C009	50.0000	59.1910	L3C009	50.0000	60.8699	L1C009	50.0000	63.5497	
NOL Lower			SOL Lower			SDL Lower			
Tag	Value	Limit	Tag	Value	Limit	Тад	Value	Limit	
L30001	50.0000	42.4026	L3C001	50.0000	40.7237	130001	50.0000	29.0449	
L30002	50.0000	42.4026	L3C002	50.0000	40.7237	L3C002	50.0000	29.0449	
120003	50.0000	42.4026	130003	50.0000	40.7237	130803	50.0000	39.5449	
L3C004	50.0000	42.4026	L3C004	50.0000	40.7237	LIC004	50.0000	38.0449	
L2C005	50.0000	42.4026	L3C005	50.0000	40.7237	LICEOS	50.0000	39.0449	
130006	50.0000	42.4026	L3C006	50.0000	40.7237	LIC006	50.0000	39.0449	
LIC007	50.0000	42.4026	L3C007	50.0000	40.7237	LIC007	50.0000	29.0449	
L30008	50.0000	42.4026	L3C008	50.0000	40.7237	130008	50.0000	39.0449	
ecc9	50.0000	42.4026	L3C009	50.0000	40.7237	LIC009	50.0000	39.0449	
								6	

Figure 3-6 Limits View

3.6 X-Y Scatter Plot View

Equipment performance can often be quickly analysed with an x-y scatter of key variables. Instances of the equipment operating out of spec can be selected, and switching back to a trend view, it can be seen when this happened in time.

In an x-y scatter plot the available trends is the x-axis and trend compared is the y-axis. Again, the order of tags can be changed. You can select any of the circles individually and see that particular one change to red. You can right click your mouse to move the view around your page and use your mouse wheel to zoom into your page.



Figure 3-7 X-Y Scatter Plot View

3.7 Cross-Correlation Graph (CCG) View

The cross-correlation graph shows how one tag varies in relation to another tag over time. For example, if a pressure takes 2 minutes to affect another pressure, then a peak will be shown at 2 minutes on the scale. Hovering with the mouse shows the time in the tooltip that is at the pointer.



3.8 Cross-Correlation Matrix (CCM) View

This identifies if tags go up and down at the same time, or if one goes down whilst the other goes up (coloured squares). Clicking all values zooms the matrix to fit in the space if it is too large. Clicking on a square selects the two tags and shows the cross-correlation graph – you can then navigate to an XY scatter plot of the tags for confirmation.



Figure 3-9 Cross-Correlation Matrix (CCM) View

3.9 Calm Waters (3DCW1) View

Calm Waters is a way of showing deviations from normal, for hundreds of points simultaneously.

In this view type moving the mouse wheel forward and back moves the view vertically. Left click the mouse and hold to see the view rotate clockwise and anti-clockwise. Right click the mouse and hold to see a particular view move slowly up and down vertically. Note that you can set the tag order in a PCP view and it will be applied to the calm waters view.



Figure 3-11 Calm Waters (3DCW2)



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Intelligent Plant Ltd

First Floor

489 Union Street

Aberdeen

AB11 6AZ