

ControlMaster CM15, CM30 and CM50 Universal process indicator and controllers Customizing the operator page displays



Introduction

Certain ControlMasters can be supplied with a facility that enables the user to customize the Operator Page display(s) to suit the application requirements. This facility is available as an option for:

- CM15 Indicator with Dual functionality.
- CM30 and CM50 Controllers with Extended functionality

Note. This functionality is not available on the CM10.

This publication details how to customize the ControlMaster's Operator Page display(s).

Overview

The ControlMaster range enables the display of up to 4 Operator Pages though, as standard, only 1 of these is enabled. Each Operator Page can be customized by the application of standard **Operator Page templates**, some of which are associated with the **Application templates** available in the ControlMaster. This means that selecting an Application template appropriate to the process automatically selects a pre-configured Operator Page template to display data appropriate to the application.

Continued ...

For example:

- the CM15 indicator's:
 - *Single Channel PV* template configures the Operator Page automatically to display a single analog process variable (PV) value:



- *One PV / Totalizer* template configures the Operator Page automatically to display a single analog PV value and one totalizer value:



- the CM30 and CM50 controllers':
 - *Single Indicator* template configures the Operator Page automatically to display the PV value together with the setpoint (SP) and control output (OP):



Note. This Operator Page template applies to any single channel application template (for example, *Auto/Manual Station*, *Analog Backup Station* and *Feedforward*). However, in different application templates the parameters displayed may differ but the general display of data is the same.

- *Cascade* and *Dual Loop* templates configure the Operator Page automatically to display dual PV values together with their setpoints (SP) and control outputs (OP):



Customizing operator pages

Although the ControlMaster assigns an Operator Page template based on the selected Application template, the Operator Page displays can be customized in a variety of ways. For example, if either the *Cascade* or *Dual Loop* application template is selected, the standard Operator Page template linked to those application templates is applied automatically to Operator Page 1 to show the standard dual loop display. The remaining 3 Operator Pages can then be enabled and a template selected for each in order to display, for example, loop 1 only on Operator Page 2, loop 2 only on Operator Page 3 and a chart display on Operator Page 4.



It is possible to customize the Operator Page displays even more, by assigning non-standard templates to them and by customizing the parameters within those templates.

All changes within the *Customize Pages* frames take effect on logout from the Advanced configuration level.

Enabling operator pages



To customize an Operator Page display, the Operator Page required must first be enabled (as standard, only Operator Page 1 is enabled). An Operator Page is enabled by assigning a template type to it in the Advanced configuration level's 'Display' / 'Operator Templates' frame. For example, available selections for the CM30 / CM50 include:

- No Display Page (the Operator Page is not displayed)
- Single PV, SP & OP
- Single PV
- Single PV & SP
- Chart

The template types are, as previously described, linked to the application template selected and have display parameters pre-assigned.

Customizing operator pages

Having enabled an Operator Page as described above, it can then be customized from the Advanced configuration level's 'Display' / 'Customize Pages' frame.

The number of the Operator Page to customize is selected first. The options available for customization on each page are:

- Template type
- Titlebar tag
- Parameters
- Bargraphs (CM30 / CM50 only)
- Icons
- Page colors

Template type

CM15 template types

A (style 1)	A,A (style 1)	A,A,T	A,A,A,A (style 1)
T	A,T (style 1)	A,T,T	A,A,A,T
	T,T (style 1)		A,AT,T
	T,T (style 2)		A,T,A,T

CM30/CM50 template types

A (style 1)	A,A (style 1)	A,A,A (style 1)	A,A,A,A (style 1)	A,A,A,A,A	A,A,A,A,A,A
A (style 2)	A,A (style 2)	A,A,A (style 2)	A,A,A,A (style 2)	A,A,A,A,S	A,A,A,A,A,S
	A,A (style 3)	A,A,A (style 3)*	A,A,A,A (style 3)		A,A,S,A,A,A
	A,A (style 4)	A,A,A (style 4)	A,A,A,T**		A,A,S,A,A,S
	A,T (style 2)	A,A,S (style 1)			Chart
		A,A,S (style 2)			
		A,A,T			
		A,T,T			

* CM50 only

** CM30 only

Key to template types

- A - Analog value - an input, setpoint or any other analog value available in the analog sources list
- S - State value - a digital signal
- T - Totalizer value

Note that there are also different styles of the same template available. The styles relate to the sizes and layout of the screen. For example, Template 'A' (style 1) displays a standard-sized analog value but Template 'A' (style 2) increases the size of the displayed analog value, making it easier to read. For a full description of available templates refer to page 5.

Titlebar tag

This is the tag displayed at the top of each Operator Page. As standard, it reads 'ControlMaster' but it can be changed to any 16-character, alphanumeric tag (for example, to identify the process the ControlMaster is controlling).

Parameters

The sources to display are assigned to parameters. The number of parameters that can be displayed depends on the *Template type* selected. For example, if one of the 'A,A,A' *Template types* is selected, 3 analog sources can be displayed. A source is assigned to each parameter and the values of those sources are then displayed on the ControlMaster's screen.

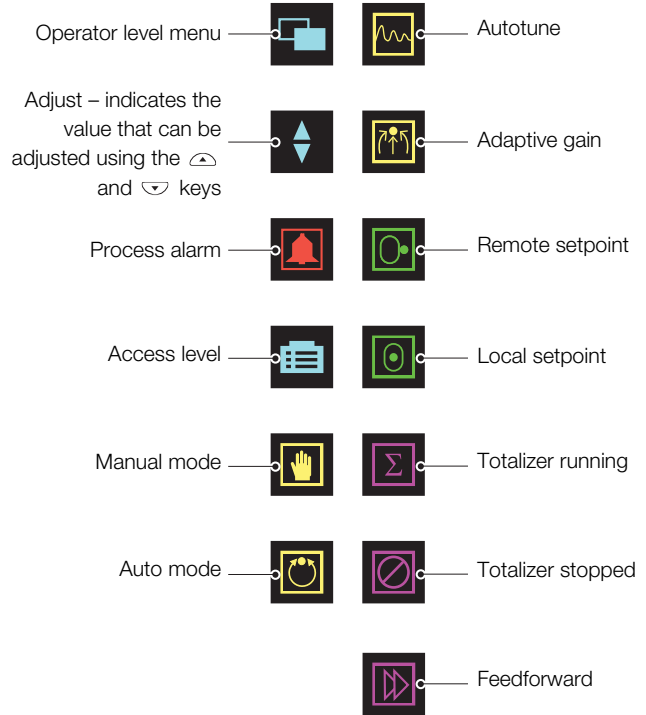
For further flexibility, parameters can be modified individually by changing their type and color, assigning identifying tags and, in the case of *State* parameters, assigning up to 3 *State tags* that are displayed only when the parameter has a certain value.

Bargraphs (CM30 / CM50 only)

Up to 2 bargraphs can be displayed on an Operator Page at any one time. They can be standard or deviation bargraphs and are each assigned to an analog source whose value is presented in the chosen bargraph format. The color of each bargraph can also be changed as required.

Icons

Icons are visual indicators of ControlMaster states and can be turned on and off as required. The color of each icon can also be changed. The following icons are available for display in the Operator Pages:

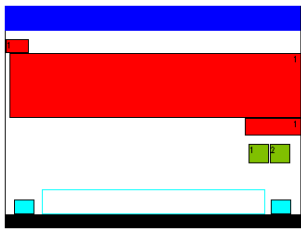


Page colors

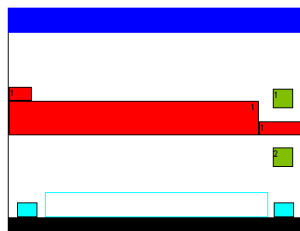
The 'Page Color' frame enables the operator to change, not only the Operator Page background color from its default black, but also the color of the *Titlebar* and *Title tag* to any of the listed colors; ranging from yellow to magenta.

Appendix – Operator page templates

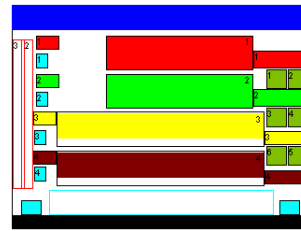
CM15



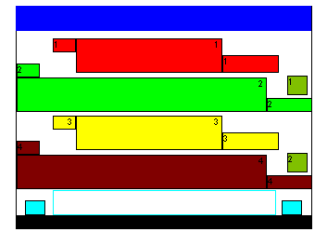
A (style 1)



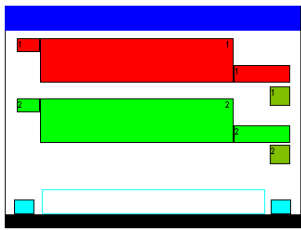
T



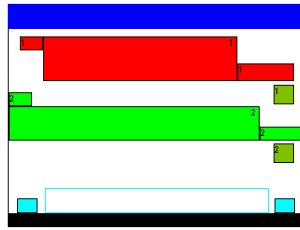
A,A,T,T



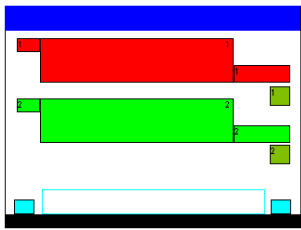
A,T,A,T



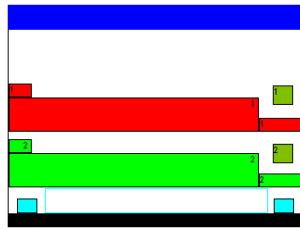
A,A (Style 1)



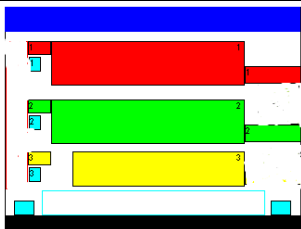
A,T (Style 1)



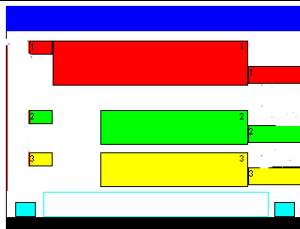
T,T (Style 1)



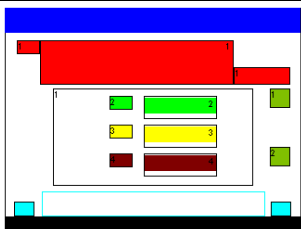
T,T (Style 2)



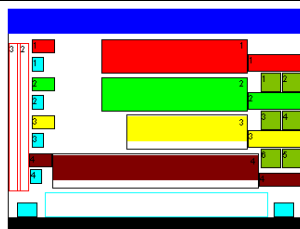
A,A,T



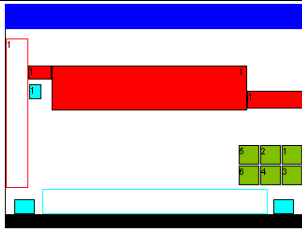
A,T,T



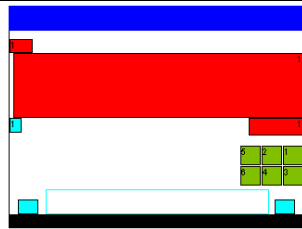
A,A,A,A



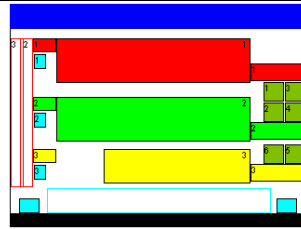
A,A,A,T



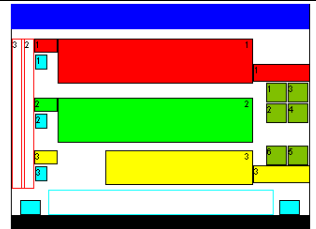
A (Style 1)



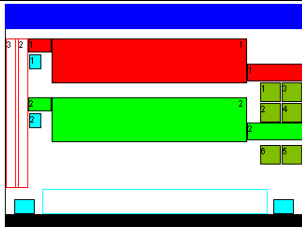
A (Style 2)



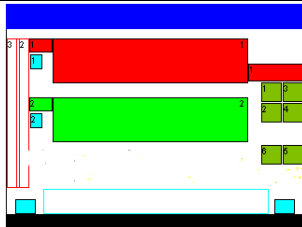
A,A,S (Style 1)



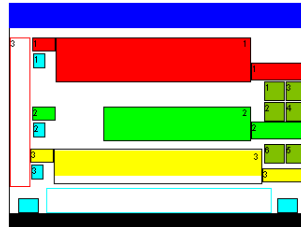
A,A,S (Style 2)



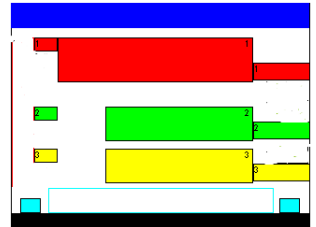
A,A (Style 1)



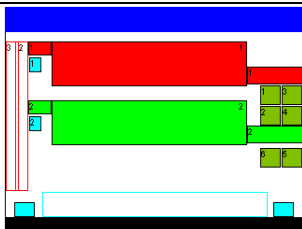
A,A (Style 2)



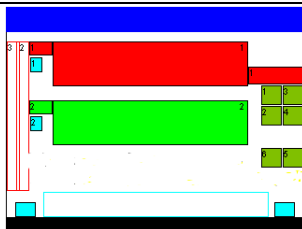
A,A,T



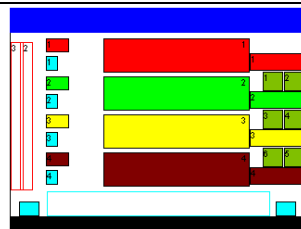
A,T,T



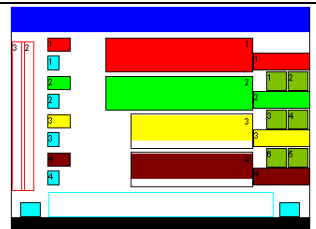
A,A (Style 3)



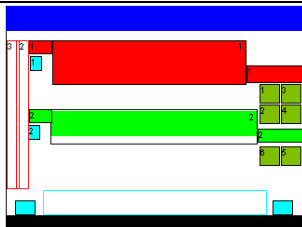
A,A (Style 4)



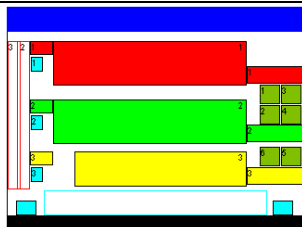
A,A,A,A (Style 1)



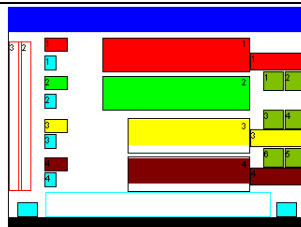
A,A,A,A (Style 2)



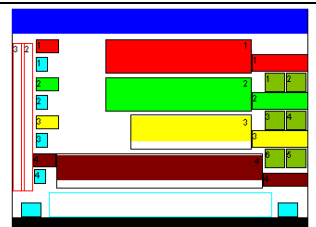
A,T (Style 1)



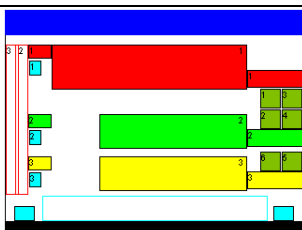
A,A,A (style 1)



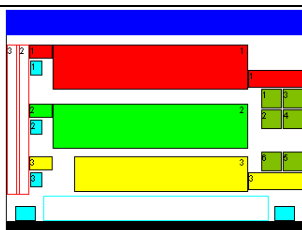
A,A,A,A (Style 3)



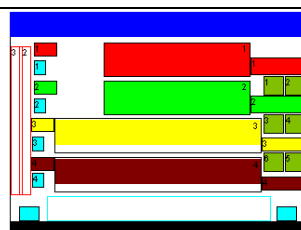
A,A,A,T



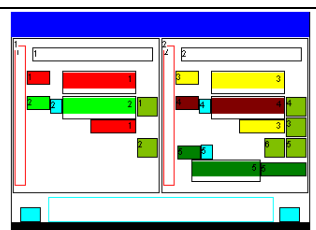
A,A,A (Style 2)



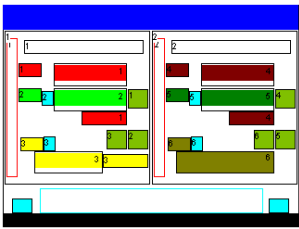
A,A,A (Style 4)



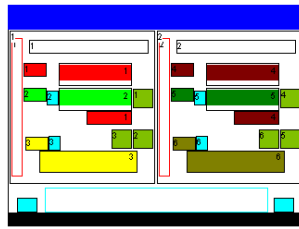
A,A,T,T



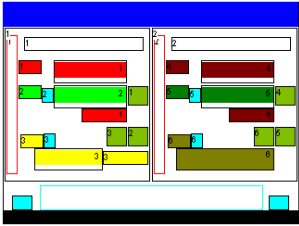
A,A,A,A,A



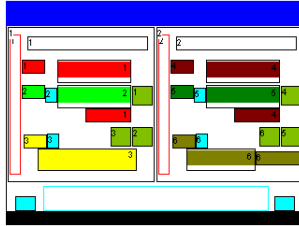
A,A,A,A,S



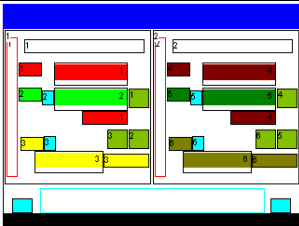
A,A,A,A,A



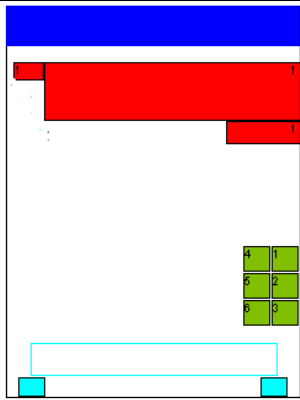
A,A,A,A,S



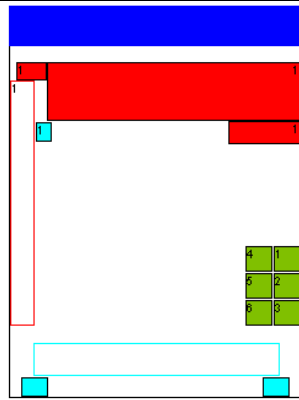
A,A,S,A,A



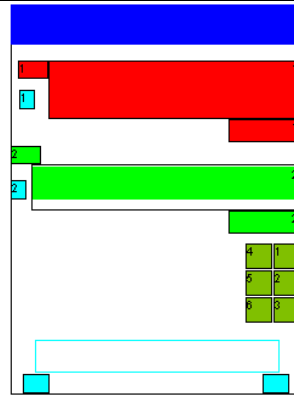
A,A,S,A,A,S



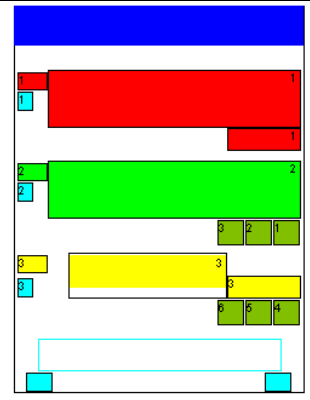
A (Style 1)



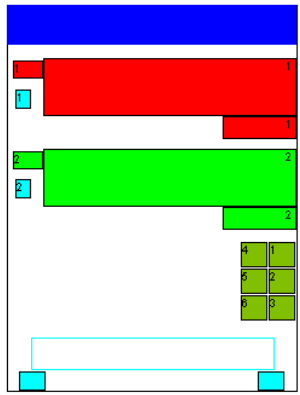
A (Style 2)



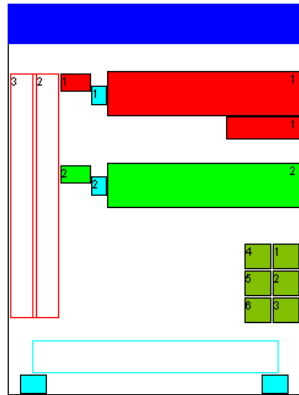
A,T (Style 1)



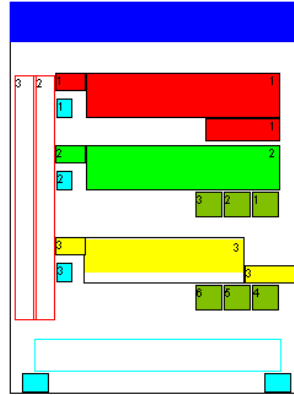
A,A,A (Style 1)



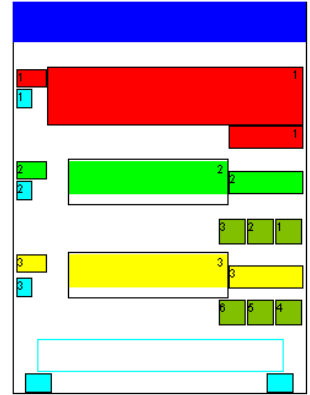
A,A (Style 1)



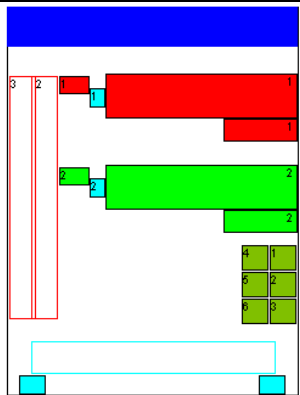
A,A (Style 2)



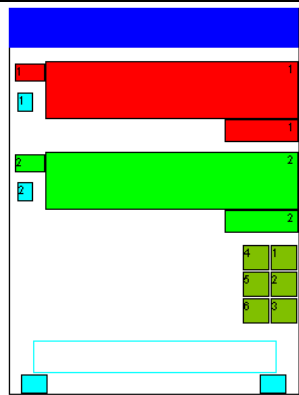
A,A,A (Style 2)



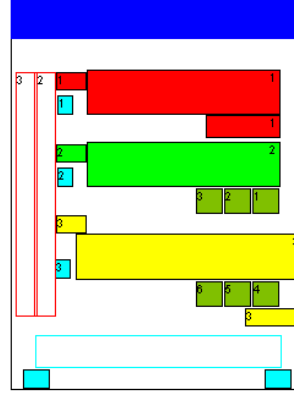
A,A,A (Style 3)



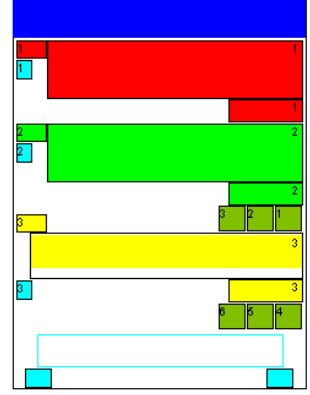
A,A (Style 3)



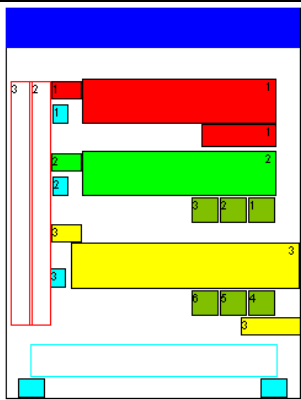
A,A (Style 4)



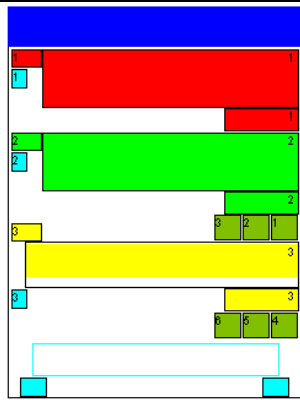
A,A,A (Style 4)



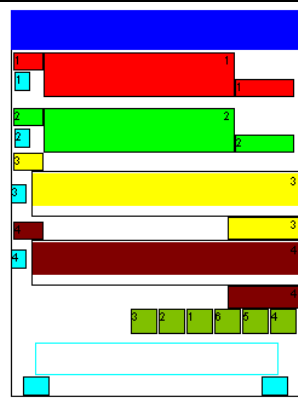
A,A,S (Style 1)



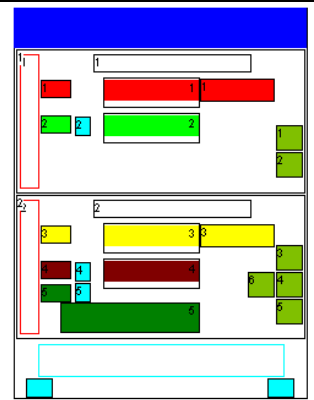
A,A,S (Style 2)



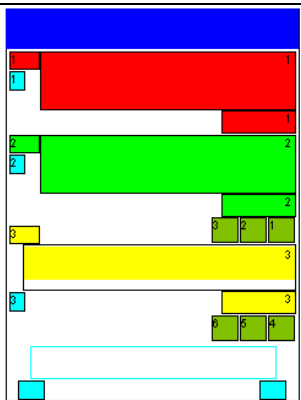
A,A,T



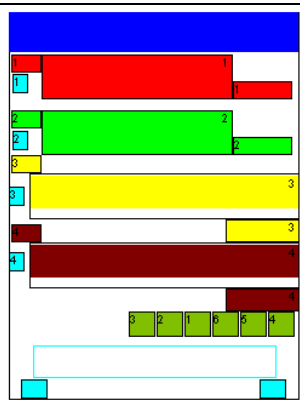
A,A,T,T



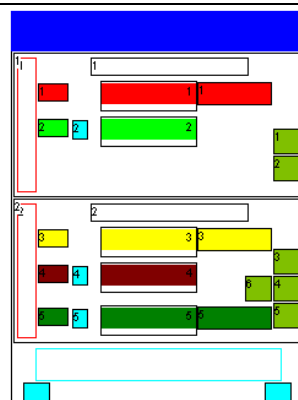
A,A,A,A,A



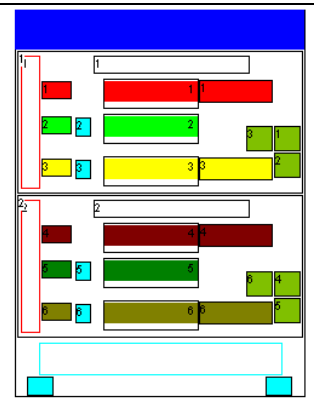
A,T,T



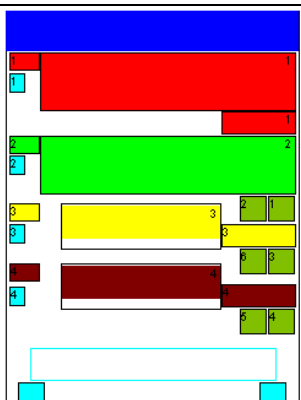
A,A,A,A (Style 1)



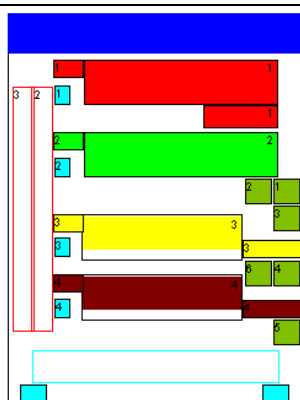
A,A,A,A,S



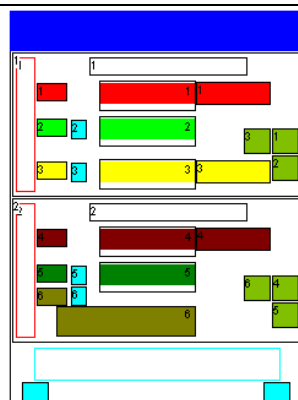
A,A,A,A,A,A



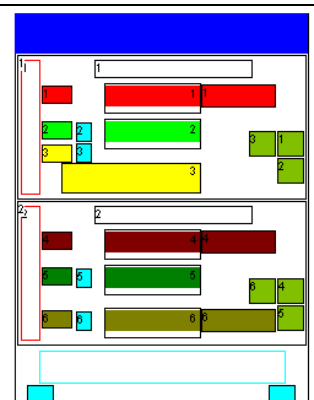
A,A,A,A (Style 2)



A,A,A,A (Style 3)

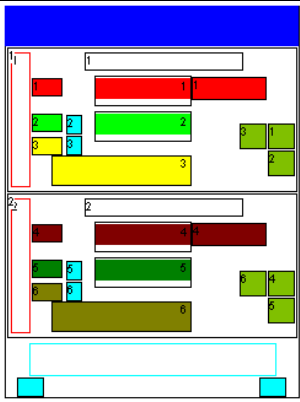


A,A,A,A,A,S



A,A,S,A,A,A

Continued...



A,A,S,A,A,S

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