CP9000 Quick Start Manual



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1. Power on,

When you turn on the computer and it will automatically boot to this screen.



Entering a recipe.





	New File
Enter the recipe name.	Enter the name of the file to be created:
	OK Cancel

The recipe should be calculated as per the diagram below.



<u>Grams per meter</u> = 2 * Lay Flat Width(M) * Layer Average Density* thickness



- The '*Edit Recipe*' dialog will have a '*Common*' tab (with data common to all of the layer's on the system) and a tab for each of the layer's on the system (with data specific to each individual layer).
- The '*Common*' tab consists of numerous edit boxes in which you can enter the values for the recipe.
- The 'Order Weight per Length (Grams per meter)', the 'desired and trim width' and are necessary

There are 4 important things to be entered on this page.

- 1. Layer percentage must be entered for each extruder.
- 2. Component percentages. (Component 1 is calculated automatically)
- 3. Material densities.
- 4. Job RPM (used to ramp the extruders in proportion).

This screen is where the parts of the recipe that are common to the line are entered.

	\\SUPPORT02\SIGMAT9000\Re	cipes\TSM TEST.stp		×
	Common EX A EX B EX C	1		
	Label format file	None	08/Apr/2009	
(Descriptive)	Description string 1			
Not necessary	Description string 2			
for the recipe	Description string 3			
for the recipe	Description string 4			
	Customer code			
	Material code			
	Order number			
	Diameter of Core	3" Transmort Method	E1 & E2	
	Colour			
	Trimmed width (mm)	Gusset depth (mm)	0	
	Desired width (mm)	0		
	Thickness setpoint(µ)	0 Thickness alarm band (%)	0	
	Order throughput (kg/h)	Order length (m)	0	
	Order weight per length (g/m)	Order weight (kg)	0	
	Order weight per area (g/m²)	0 Line speed (m/min)	0	
	Tube 💿	Sheet O		
		Front roll		
	Number of slits	1		
	Roll length (m)	0		
	Roll weight (kg)	0		
				OK Cancel



Quick start

Common EXA EXB EXC

CP9000

Individual layers

Enter the layer percentage for the extruder by touching the extruder tab

С	ommon	EX A	EX B E	xc					
	Extruder								
	Extrud	ler through	nput 0.00	Wei	ight per lengt	h 0.00	Trim	None	•
	Layer	Percentag	je <mark>O</mark>	Lay	er Gauge	0	Average of	density	0.00
							Job RPM		0
	Comp.	К	Setpoint	Density	Material typ	e			
	1	0	100.0	0.95					
	2	0	0.00	0.95					
	3	0	0.00	0.95					
	4	0	0.00	0.95					

There are 4 important things to be entered on this page.

- 1. Layer percentage must be entered for each extruder.
- 2. Component percentages. (Component 1 is calculated automatically)
- 3. Material densities. (If the density is not entered then a default of 0.92 is used)

4. Job RPM (used to ramp the extruders in proportion). This feature is used for ramping all of the extruders together. When starting the line the extruders can be ramped as a percentage of the job rpm so that the extruders will ramp with approximately the correct layer ratio and therefore save time on start-up

	Common	EX A	EX B	EXC	
e the					tabs to enter the set points for the other

Use the layers.

Touch the "ok" icon to close the recipe.



Quick start

CP9000 Starting a r

Starting a recipe.

Once a recipe has been entered it has to be placed into the order queue before it can be started.

To do this touch the back arrow to go to this menu





Touch Queue

Queue to open the order queue.

Touch the "Add" option and select a recipe from the list.

The recipes must be entered in the sequence that: The recipe next recipe to be started should be entered into the Queue last.

Save the changes to the Queue when all the recipes have been entered.

File Name	Order Number	Customer Code	Throughput	Weight/Length	Width Gau	ge Time hh:mm	
							Up
							Down
atic							
				_			

P

Go back to the main screen and use the Next Order icon the view the next recipe to be started.

A summary of the set points in the order are displayed on this screen.

You have the option to start the order or to abort.

Nex	t Order	
Order file name	Test 4.stp	Start Order
Order number		
Customer code		
Material code		
Gauge setpoint	0.000000	
Width setpoint	0	
Total throughput	0.00	
Total weight per metre	150.00	Abort



Current order. Current Orde

Once a recipe can be started it can be edited using the current order icon. Any changes to the recipe are not saved when they are changed using this function.



Quick start

Ramping the extruders.

To adjust the extruder speed there are 2 icons that can be used to open the "ramp" screen







Ramping Individual extruders:

The top icon allows the extruder to be switched between manual and auto. (If the extruder is in manual the icon will display AUTO and if the extruder is in auto made the Icon will display MANUAL.) There is a small time delay when the Auto/manual option is selected. This is to allow the blender time to change to auto and send the confirmation back to the CP2000.

Touching the "Set RPM allows the user to select the desired RPM for the extruder."

To do this:

- 1. Touch the SET RPM icon.
- 2. Enter the desired RPM.
- 3. Save the change.
- 4. Confirm the extruder speed download.



arrows

in auto made the Icon will display MANUAL.)

ALL LAYERS.

CP9000

This allows the user to ramp all of the extruders to a percentage of their job rpm. If the extruders have a job rpm of 80 and you touch the RPM% icon and enter 50% all the extruders will jump to 40 rpm.

RPM%

All of the extruders can be increased or decreased by touching the \checkmark or

The top icon allows the extruder to be switched between manual and auto.

(If the extruder is in manual the icon will display AUTO and if the extruder is

When a recipe is running correctly this function allows the user to enter the current RPM of the extruder. If the "all layers" function is used to change the extruder speed the extruders will ramp in proportion to each other.

E.G. if extruder A has a job rpm of 50 and extruder B has a job rpm of 100. When the "ALL LAYERS " function is used to jump to a percentage of the rpm, if 25% is entered then extruder B will ramp to 12rpm and extruder A will ramp to 25rpm so that the layer percentages should be almost correct from startup.

JOB RPM.

The extruder can be increased or decreased by touching the \square or \square .

Last Modified 22/09/14





Quick start

CP9000 User Manual



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1. <u>Run the TSM CP9000 Application.</u>

There are two separate application's needed to run the CP9000 (the **Server** application and the **Mimic Client** application) both must be executed to run the **TSMCP9000** application. Normally these are automatically loaded when the pc is started up. There is a delay built into the auto start routine to allow the pc enough time to initialize its communications ports.

INSTRUCTIONS for manually starting the Server application):

- 1. The **Server** application must be loaded before the **Mimic Client**. The **Mimic Client** will not load if the **Server** is not running.
- 2. To manually execute the **Server** application, select the '*Start*' Menu on your system. Use the "**Run**" command from the Start menu as shown in **figure 2**.

Run	? ×	
5	Type the name of a program, folder, or document, and Windows will open it for you.	
<u>O</u> pen:	C:\Sigmat9000\Bin\sigmserv.exe -debug	
	Run in Separate Memory Space	
	OK Cancel <u>B</u> rowse	
		figure 2

When the server starts it will open the following window.

C:\SIGMAT9000\BIN\sigmserv.exe	
TSM Modbus - Tx buffer 01_03_00_00_00_48_45_fc	
On_entry: LoReg 90 HiReg 210	
LoReg default condition	
TSM Modbus — Tx buffer 01 03 00 5a 00 79 a4 3b	
On entry: LoReg 90 HiReg 210	
LoReg default condition	
TSM Modbus — Tx buffer 01 03 00 5a 00 79 a4 3b	
On entry: LoReg 90 HiReg 210	
LoReg default condition	
TSM Modbus – Tx buffer 01 03 00 5a 00 79 a4 3b	
On entry: LoReg 210 HiReg 236	
LoRey default condition	
TSM Modbus - Tx buffer 01 03 00 d2 00 1b a5 f8	
On entry: LoReg 210 HiReg 236	
LoRey default condition	
TSM Modbus - Tx buffer 01 03 00 d2 00 1b a5 f8	-
<u>1 1</u>	

figure 3.



INSTRUCTIONS (for the Mimic Client application):

1. To execute the **Mimic Client** application select the **'S9KMimic Client**' option from the '*Start*' Menu on your system.



- 2. As long as the **Server** has already been started, the **Mimic Client** will start to load. It may take the **Mimic Client** several seconds to load completely.
- 3. Once the **Mimic Client** has loaded you may begin using the system



Mimic client

This is an example of the mimic with a 3 layer line display.



2. <u>Mimic Hot-Spots.</u>

The following is a list of what hot-spots can be found on the Mimic. Hot-spots are areas on the screen where the user can touch to initiate some event.

Blender Mimic.

Touching a **Blender** on the main mimic will change the view from the **Main Mimic** to the **Blender Mimic** view. There may be more than one blender, therefore the blender details to be displayed on the Blender Mimic will be the details for the blender that you have selected on the main mimic.



2.1 Blender Mimic

This screen shows the set and actual percentages for the individual components of the selected blender





Hopper

Touching a **hopper** on the **Blender Mimic** will display the Blender Setpoint dialog. ?This box allows the user to adjust the setpoint for this component. (see **figure 5**).

Blender		×
WARNING: Component #1 ensure that the total for the	setpoint will be a component setp	automatically adjusted to pints is 100%.
Component Number	2	\wedge
Process Variable	19.90	<u>+</u>
Current Setpoint	20.00	
New Setpoint	20.00	
Set		<u>C</u> ancel
figure 5		

Warning: these changes will only be made to the current order. They will not be saves into the recipe file.



Blender Mimic \rightarrow Touching the **Blender mimic** will display the Setpoint dialog for the extruder that the blender is connected to (see **figure6**).



The Extruder's set point dialog displays the '*throughput*' setpoint, which you may not change, and the '*Screw Speed*' that you may set. You can either use the plus & minus

buttons or simply type in the screw speed value in the '*Screw Speed*' edit box to set this value.



figure 6

NOTE: The button beside the '*Exit*' button may be toggled between '*Manual*' and '*Auto*'. Only when the '*Manual*' button is switched on can you adjust the screw speed.

2.2 Motor Mimic

Touching a **Motor** (or the "Ramp all Motors" icon) on the main mimic will display the **Ramp All Motor's** dialog. This will allow you set the '*RPM*' values for each of the layers individually. Or change all of the extruder speeds together. You may also set the mode of operation to '*Manual*' or '*Auto*'. This is also done for the Width if there is one present on the system see figure 4 below.





Ramping Individual extruders:

The top icon allows the extruder to be switched between manual and auto.

(If the extruder is in manual the icon will display AUTO and if the extruder is in auto made the Icon will display MANUAL.)

Touching the "Set RPM allows the user to select the desired RPM for the extruder."

To do this:

- 1. Touch the SET RPM icon.
- 2. Enter the desired RPM.
- 3. Save the change.
- 4. Confirm the extruder speed download.

The extruder can be increased or decreased by touching the $_$ or $_$

JOB RPM.

When a recipe is running correctly this function allows the user to enter the current RPM of the extruder. If the "all layers" function is used to change the extruder speed the extruders will ramp in proportion to each other.

E.G. if extruder A has a job rpm of 50 and extruder B has a job rpm of 100. When the "ALL LAYERS" function is used to increase the extruders together extruder B will ramp at twice the rate of extruder A so that the layer percentages should be almost correct from startup.

ALL LAYERS.

The top icon allows all of the extruders to be switched between manual and auto.

(If the extruder is in manual the icon will display AUTO and if the extruder is in auto made the Icon will display MANUAL.)

RPM%

This allows the user to ramp all of the extruders to a percentage of their job rpm. If the extruders have a job rpm of 80 and you touch the RPM% icon and enter 50% all the extruders will jump to 40 rpm.

All of the extruders can be increased or decreased by touching the \checkmark o







2.3 Bubble Mimic → Touching the bubble on the main mimic will change the view from the Main Mimic to the Bubble Mimic view.

In this view you will be able to see & change the bubble '*width*' and '*thickness*', if there is a width controller and profiler configured. The calibration data for both may also be viewed and modified.



(Will only work if a TSM width or control or a thickness profiler system is configured)



2.4 Winder Mimic \rightarrow Touching the **Winder** on the main mimic will change the view from

the Main Mimic to the Winder Mimic view.

This view will allow you to view the front/back '*roll length*' for the front & back winders, respectively.



Back Roll Length/Weight

Front Roll Length/Weight

Winder Mimic Hot-Spots.

- Front Winder→Touching the Front Winder on the Winder Mimic will display the Front Winder's Setpoint dialog, which will display the Front 'Roll length' and will allow you to set its value.
- Back Winder → Touching the Back Winder on the Winder Mimic will display the Winders Setpoint dialog, which will display the Back '*Roll length*' and will allow you to set its value.

3. <u>Mimic Client Toolbar</u>.

The TSMSigmat9000NT Mimic Client application consists of two main features:-

- 1. The Mimic.
- 2. The Toolbar.

The previous sections of this manual described the Mimic part of the application, the hotspots that can be found on the mimic and what the user can access from the Mimic.

This section will discuss the **Toolbar** that accompanies the Mimic.

• The **Back** icon on the Toolbar is separate from the **Back** icon on the Mimic.

 \Rightarrow The **Back** icon on the **Toolbar** takes you back to the previous toolbar.

3.1 <u>Toolbar #1</u>.

When you start the Mimic Client application the toolbar in (**figure 12**) will be the initial toolbar.





There are 7 icons on the Toolbar, some of which will take you onto another toolbar, while some perform a specific function.



÷						
Priority Condi	tion Alarm	Start Time				
T Hong Condi		L'atait Linie				
1						
Acknowledge Page	Acknowledge Alarm					
				14 Report		
			Alarms Next Order	Beciper Berg		Sustem Language
	<u>Acknowledge</u> Page	Acknowledge Page Alarm	Acknowledge Page	Acknowledge Acknowledge Page Acknowledge Aam Next Order	Actnowledge Page Aarm Next Order Recipes Recip	Acknowledge Acknowledge Acknowledge Acknowledge Current Order

figure 13

Any alarms that occur on the 9000 will be displayed here. All of the alarm details will be displayed in column format.

If you select the **Acknowledge Alarm** button on the view, the *Condition* tab on the view will signify that the alarm has been acknowledged. Otherwise it will signify that it is in alarm.

Selecting the **Acknowledge Page** button will set the *Condition* field for all the alarms to signify that each alarm has been acknowledged.





The **Next Order** icon displays the next order in the queue, and some details about the data on the order. It also allows you to Start the Order, by clicking the '**Start Order**' button on the dialog (A recipe must be placed in the queue before this function can be used)see **figure 14**.

Di	alog		×
	Order file name	t Order Copy of test.stp	Start Order
	Order number	Order code	
	Customer code	Customer code	
	Material code	Material code	
	Width setpoint	50000.000000	
	Total throughput	360.000000	
	Total weight per metre	2500.000000	
L			

figure 14



The **Recipes** icon takes you onto Toolbar #2, which contains all the functions exclusively relating to Recipes (Queue, Learn, Edit Recipes).

Report

The **Reports** icon takes you onto Toolbar #3, which contains all the functions exclusively relating to Reports (Roll, Order, Shift Reports).



¢

The **Current Order** icon displays the order that is being used. It brings up the Current Order dialog which displays all the common data between all of the layers on the system and also the data unique to each individual layer (see **figure 15**).

\\SUPPORT02\SIGMAT9000\Re	cipes\TSM TE	5T.stp			×
Common EXA EXB EXC]				
Label format file	None	•	08/Apr/2009		
Description string 1			_		
Description string 2			_		
Description string 3			_		
Description string 4			_		
Customer code		_			
Material code		_			
Order number			54.4.50		
Diameter of Core	3"	Treatment Method	Yes 💌		
Colour					
Trimmed width (mm)	0	Gusset depth (mm)	0		
Desired width (mm)	0				
Thickness setpoint(µ)	0	Thickness alarm band (%)	0		
Order throughput (kg/h)	0	Order length (m)	0		
Order weight per length (g/m)	0	Order weight (kg)	0		
Order weight per area (g/m²)	0	Line speed (m/min)	0		
Tube 💿	Sheet O				
	Front roll				
Number of slits	1				
Roll length (m)	0				
Roll weight (kg)	0				
				ОК	Cancel

figure 15

figure 15 shows the Current Order. You can see that there are several tabs to chose from at the top of the dialog. The first tab's page displays all the data **Common** to all layers on the system. If you were to select any of the next 3 tab's you would see the data specific to each layer (<u>i.e.</u> **Extr A - Extr C**). If you make any changes, then the system will download all of the changes. These changes are not saved in the recipe.



The **System** icon will take you to Toolbar #4, which will allow you Exit the application and deal with other system related functions.

Language The **Language** icon will alternate the system software text between its default language setting and English.

3.2 <u>Toolbar #2</u>.

Toolbar #2 deals exclusively with Recipes, and it is initiated from the '**Recipes**' icon on Toolbar#1.



As you can see there are five icons to chose from, each carrying out a different function.

The Back icon will take you back to Toolbar #1 from where this toolbar was initially called.

Ø

The **Files** icon will take you onto Toolbar #5, which deals with all Recipe files generated by the System (copy, delete, rename, edit files).



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The Queue icon, if enabled, will allow you to view the current state of the recipe Queue. It will also allow you to add and delete recipe files from any position in the queue. The recipe at the top of the queue will be displayed in the 'Next Order' dialog discussed under 'Toolbar #1', and thus will be the next recipe to be loaded. (see **figure 17**).

SIGMAT9000 Client - Recipe Queue	×
Recipe Order <u>Q</u> ueue:	
File Name Order Number Customer Code Total Kg/H Total g/m Width	
	Up
Add Delete Close	

figure 17



The **Learn** icon will allow you to update a specific recipe file with the current process setpoints. You may not however learn setpoints into a file that is currently in the order queue.

You can learn the current recipe, an existing recipe or a new recipe. When you are finished select the '*Done*' button (see **figure 18**).

Learn Setpoints			×
You have chosen to u choose one of the op	update a recipe file wi tions below.	th the current process s	setpoints. Please
Note: You cannot lea	arn setpoints into a file	that is currently in the c	rder queue.
Current Recipe	Existing Recipe	New Recipe	Done



3.3 <u>Toolbar #3</u>.

Toolbar #3 deals exclusively with Reports, and it is initiated from the '**Reports**' icon on Toolbar#1.

SIGMAT9000	SIGMAT9000 Toolbar									
-	Rolls	Orders	Shifts	Events	SUMMARY	Recipe				
Back	Rolls	Orders	Shifts	Events	Summary	Recipe				
figur	e 21									



Report

The Back icon will take you back to Toolbar #1 from where this toolbar was initially called.

The **Rolls** icon will allow you to view any Roll Reports that have been created by the system. These reports are stored '*Roll Reports*' directory:-

\\Sigmat9000\Reports\Roll Reports.

You can select the report you wish to view (example - **figure 22**).

Ro	oll Report						×
	Roll number 6						
	Order No.	FRI2702		Start time 17 :	30 27 /	2 /	1998
	Material code	Material Code		End time 17 :	32 27 /	2 /	1998
	Customer code	Customer Code	e	Duration 0 :	2		
	Roll width	1215		Line speed		54.0	
	Roll length	96		Order length		140	
	Roll weight	0.07		Order weight		0.44	
	Throughput setpoint	80.0		Weight/metre set	point	22.00	
[-Width Setpoint	****		Gauge Setpoint			
	Minimum	*****		Minimum			
	Maximum	****		Maximum			
	Average	****		Average			
	Standard deviation	*****		Standard deviatio	on		
C	OK Roll weight	t Wind	ler weight	Weight/met	re	Throu	ghput
	Extr A 0.07	0.*	15	22.00		80.0	0

figure 22





The **Orders** icon will allow you to view any Front Roll Reports that have been created by the system. These reports are stored '*Order Reports*' directory:-

\\Sigmat9000\Reports\Order Reports.

Report

The **Shifts** icon will allow you to view any Shift Reports that have been created by the system. These reports are stored '*Shift Reports*' directory:-

\\Sigmat9000\Reports\Shift Reports.

F	}e	P	0	r	t
	_		,		

The **Events** icon allows you to view any alarms or events that have taken place on the 9000.

From the Configuration Manual you will remember that we configured two Alarm Annunciators, an Alarm Text Annunciator and an Alarm Beacon.

The Alarm Text Annunciator creates alarm files that contain the exact details that can be found in the Alarm view.

Selecting this option allows you to view the contents of the Alarm Text files that have been previously created.

Once you select this icon, you are presented with a list of all the alarm log files on your 9000 (see **figure 23**).

Open				? ×
Look jn:	🔁 Alarms	•	E 😤	8-8- 8-8- 8-8-
1999021	8_124702.alm	🖻 _19990219_121007.alm	1999	0219_135416.
1999021	8_171830.alm	🙍 _19990219_122418.alm] 1999	0222_090939.
1999021	8_173132.alm	🙍 _19990219_123145.alm] 1999	0222_113338.
1999021	9_091216.alm	🖻 _19990219_124539.alm] 1999	0223_103716.
1999021	9_094147.alm	🙍 _19990219_125244.alm	🍙 _1999	0223_113530.
1999021	9_100431.alm	🖻 _19990219_125359.alm	🖻 _1999	0224_092259.
•				F
File <u>n</u> ame:	*.alm			<u>O</u> pen
Files of <u>type</u> :	Log Files (*.al	m)	•	Cancel
	🔲 Open as <u>r</u> e	ead-only		

figure 23

You select the file you wish to view and it will be opened with the same view that displays the current alarms that are in the Alarm view.

figure 24 shows an example of the type of details that are stored in the Alarm log files.

Source	Priority	Condition	Alarm	Start Time	Ack T Shif	D Ord	er Order ID End	Front Re
Zone 1	1	Active	Low Alarm	1999/02/18 15:02:22	1970/ (nul) (nul	1) (null)	(null)
Zone 1	1	Inactive	Low Alarm	1999/02/18 15:02:30	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Active	Low Alarm	1999/02/18 15:02:51	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Inactive	Low Alarm	1999/02/18 15:03:00) (nul	l) (null)	(null)
Zone 1	1	Active	Low Alarm	1999/02/18 15:03:04	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Inactive	Low Alarm	1999/02/18 15:03:08	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Active	Low Alarm	1999/02/18 15:03:13) (nul	l) (null)	(null)
Zone 1	1	Inactive	Low Alarm	1999/02/18 15:03:17	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Active	Low Alarm	1999/02/18 15:03:21	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Inactive	Low Alarm	1999/02/18 15:03:25	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Active	Low Alarm	1999/02/18 15:03:38	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Inactive	Low Alarm	1999/02/18 15:03:47	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Active	Low Alarm	1999/02/18 15:03:50	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Inactive	Low Alarm	1999/02/18 15:03:54	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Active	Low Alarm	1999/02/18 15:04:03	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Inactive	Low Alarm	1999/02/18 15:04:11	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Active	Low Alarm	1999/02/18 15:04:15	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Inactive	Low Alarm	1999/02/18 15:04:20) (nul	l) (null)	(null)
Zone 1	1	Active	Low Alarm	1999/02/18 15:04:37	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Inactive	Low Alarm	1999/02/18 15:04:54	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Active	Low Alarm	1999/02/18 15:05:03) (nul	l) (null)	(null)
Zone 1	1	Inactive	Low Alarm	1999/02/18 15:05:07	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Active	Low Alarm	1999/02/18 15:05:20	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Inactive	Low Alarm	1999/02/18 15:05:24	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Active	Low Alarm	1999/02/18 15:05:32	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Inactive	Low Alarm	1999/02/18 15:05:37	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Active	Low Alarm	1999/02/18 15:05:41	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Inactive	Low Alarm	1999/02/18 15:06:54	1970/ (nul) (nul	l) (null)	(null)
Zone 1	1	Active	Low Alarm	1999/02/18 15:06:59	1970/ (nul) (nul	l) (null)	(null)
. 1								

figure 24



The **Summary** icon allows you to view any summary reports that have taken place on the 9000. These reports are a 'snap-shot' of the production variables when the reports are generated.

Recipe

The **Recipes** icon allows you to view the recipe files that are stored on the Sigmat 9000. However, the recipes cannot be edited from here. It is designed as a view only option so that operators can check the settings of a recipe file before implementing a download function.



3.4 <u>Toolbar #4</u>.

Toolbar #4 deals with system specific details, and it is initiated from the '**System**' icon on Toolbar#1.

To gain access to this tool bar enter: Username: administrator Password: tsm

SIGMAT9000	Toolbar				
+	5	\$	<u>is</u> í	SM	•
Back	Print	Diagnostics	Password	Mapping	Exit

4

The Back icon will take you back to Toolbar #1 from where this toolbar was initially called.

The Print icon will generate a screen print function, i.e. all data visible on that particular screen will be printed via the default printer as configured on the system.



The **Diagnostics** icon displays the Counters for all of the Controllers on the system. You can use this option to check that all of your controllers (devices connected to the system) are communicating with the system properly (see **figure 26**).

Equipment Diagnostics		×
Diagnostics For: Blender (BR0;ER0;LR0;ME0;FY0;)	ОК
Good Transmit Count	22625	
Good Receive Count	22622	
Timeout Count	0	
Checksum Error Count	0	

figure 26

From **figure 26** you can see that we are checking the diagnostics for one of the Blenders connected to the system (A list of all the Controllers running on the system are shown in the '*Diagnostics For:*' drop-down list). If the '*Timeout Count*' or '*Checksum Error Count*' are high, then you will know that the controller is not communicating properly, if at all.



<u>r</u>j

The **Password** icon allows you to set up 3 levels of Password protection on your Sigmat9000NT application. This is to stop unauthorized people from accessing and modifying critical data on the system.

You must type in the Administrator user name and password to set or change the password settings.

Pas	sword Edit					×
Le	vel 1 Level 2 Leve	el 3				
	User Name : Old Password : New Password : Confirm Password :		•	 	<u>S</u> et Delete Add	
			 		OK	Cancel

figure 27

Figure 27 shows that there are three levels of password protection available for you to set. To set the Password you must specify the old password, then if the old password is valid, you can type in the new password. The three levels of password are: -

Administrator - No restrictions

Supervisor - Restricted from changing usernames and passwords and also restricted from system calibration parameter's.

Operator - May only download orders and view reports, recipe files and production summary data. Restricted from editing recipes, the System toolbar and calibration settings.

SM The **Mapping** icon allows you to set up the Vacuum systems Sequencer Mapping. (If a TSM vacuum loading system is configured)



The **Exit** icon is used to Exit the Client application.



3.5 <u>Toolbar #5</u>.

Toolbar #5 deals specifically with recipe files, and it is initiated from the '**Files**' icon on Toolbar#2.

SIGMAT9000 Toolbar



figure 28

The **Back** icon will take you back to Toolbar #2 from where this toolbar was initially called.



The **Edit Files** icon allows you to select a recipe file from the list of all recipe files generated by the system (stored at '*Sigmat9000**Recipes*'), and edit its details (see **figure 29**).

figure 29 shows that the system has 3 extruders connected (Extr. A, B, and C)

\\SUPPORT02\SIGMAT9000\Re	cipes\TSM TES	iT.stp			×
Common EXA EXB EXC	1				
Label format file	None	•	08/Apr/2009		
Description string 1					
Description string 2					
Description string 3					
Description string 4					
Customer code		_			
Material code		_			
Order number					
Diameter of Core	3" 💌	Treatment Method	Yes 💌		
Colour					
Trimmed width (mm)	0	Gusset depth (mm)	0		
Desired width (mm)	0				
Thickness setpoint(µ)	0	Thickness alarm band (%)	0		
Order throughput (kg/h)	0	Order length (m)	0		
Order weight per length (g/m)	0	Order weight (kg)	0		
Order weight per area (g/m²)	0	Line speed (m/min)	0		
Tube 💿	Sheet C				
	Front roll				
Number of slits	1				
Roll length (m)	0				
Roll weight (kg)	0				
				ОК	Cancel





Recipe Entry. (This section is already covered in the Quick start section)

Touch Recipes, then Files, then Edit	
SIGMAT9000	
Select the file you wish to open:	
TSM TEST 2.stp	
TSM TEST 3.stp TSM TEST.stp	Up
\\support02\sigmat9000\recipes	
Open Close New	

- This option allows you make a new recipe file or edit an existing file
- When you select the recipe file that you wish to edit, the '*Edit Recipe*' dialog will come up (see **figure 29** on page 28).

The recipe should be calculated as per the diagram below.





- The '*Edit Recipe*' dialog will have a '*Common*' tab (with data common to all of the layer's on the system) and a tab for each of the layer's on the system (with data specific to each individual layer).
- The '*Common*' tab consists of numerous edit boxes in which you can enter the values for the recipe.
- The 'Order Weight per Length (Gramms per meter)', the 'desired and trim width' are necessary

<u>Grams per meter</u> = 2 * Lay Flat Width * Layer Average Density * thickness

Individual layers

С	ommon	EXA	EX B E	xc				
	Extrud	ler —						
	Extrud	ler through	nput 0.00	Wei	ght per length	0.00	Trim None	•
	Layer	Percentag	je ()	Laye	er Gauge	0	Average density	0.00
							Job RPM	0
	Comp.	К	Setpoint	Density	Material type			
	1	0	100.0	0.95				
	2	0	0.00	0.95				
	3	0	0.00	0.95				
	4	0	0.00	0.95				

There are 4 important things to be entered on this page.

- 1. Layer percentage must be entered for each extruder.
- 2. Component percentages. (Component 1 is calculated automatically)
- 3. Material densities.
- 4. Job RPM (used to ramp the extruders in proportion).



Ê

The **Copy Files** icon allows you to create exact copies of existing recipe files, giving the copied version a different name (see **figure 30**).

figure 30 shows the Copy files dialog. I have selected the file 'HeatUp.stp' which I want to copy. I must give it a name other than 'HeatUp.stp' (i.e. 'Copy of HeatUp.stp').

SIGMAT9000 Recipe Operations	×
Select the file you wish to copy:	
HeatUp.stp	
test.stp	Up
Selected File: HeatUp.stp	<u>С</u> ору
Rename As: Copy of HeatUp.s	tp ОК
C	

Select the **Copy** button and the file will be copied.

figure 30.

A

The **Rename Files** icon allows you to rename existing recipe files (see **figure 31**).

SIGMAT9000 Recipe Operations	×
Select the file you wish to rename:	
copy test.stp	
test.stp	\wedge
	Up
	Down
	\bigvee
Selected File: copy test.stp	<u>R</u> ename
Rename As: test.stp	ОК

figure 31.

Select the file you wish to rename and type in the new name you wish to give it. From **figure 31** you can see that I am renaming the file 'copy test.stp', which I created in the previous section, as 'test test.stp'.

Click the **Rename** button and the file will be renamed. Click **OK** when you are finished.

The **Delete Files** icon allows you to delete recipe files that you no longer need.

Select the file you wish to delete and select the **Delete** button to delete it.

6==	~
<u></u>	~
6	7
V	~
_	

TSM

The **Label Setup** icon allows you to create your own Label formats, which will be created and printed for each roll that is made. When you crate the label it will be stored in the '*Labels*' directory which is a subdirectory of '*Sigmat9000*'.

Once you select the **Label Setup** icon you will be presented with a list of label files.

If this is the first time you have entered the Label Setup option there will be a default label file listed which you may open and modify (see **figure 32**).



SIGMAT9000	
Select the file you wish to open:	
label.lab	
	Down
\\omcdonnell_01\sigmat9000\labels	
Open Close	

figure 32

Open the label file of your choice, and the '*Create New Label for printing*' dialog will appear (see **figure 33**).

Create New Label for pinting	×
Enter in your Label Details Here:	
, A	Save
	<u>T</u> est Print
· ·	Close
	Bar Codes
	🔽 Bar Codes On
	Bar Code Setup
Eilename: SIGMAT9000\Labels\label.lab	
Print Copies: Default Printer: HP LaserJet 6P	

figure 33

Type in your Label format details (see Section - Creating a Label Format File) in the text box given, and select the 'Save' button to Save the file.

You may do a 'Test Print', on your new label details.

4. <u>Creating a Label Format File.</u>

On **Toolbar #5** there is a function that allows you to create your own label format file's. We have already discussed how to open and modify a label file, but how does the system know where to display actual values from a Roll Report, on the Label.

This section describes the parameter's used to identify the values and the mechanism for doing this.

Format the Order Details.

Say, for example, that you wanted the Label to display the following details from an order:-

• Roll Side **0** (see Parameter List below)

1

- Line Speed
- Number of Slits 3
- Order Weight 28
- Throughput 31
- Roll Weight 33

TSM's parameter list.

ROLL SIDE	0	END MONTH	18
LINE SPEED	1	END DAY	19
TRIM FED	2	END HOUR	20
NUMBER OF SLITS	3	END MINUTE	21
ROLL NUMBER	4	END TIME	22
WIDTH SETPOINT	5	END DATE	23
TRIMMED WIDTH	6	DURATION DAYS	24
SHEET TUBE	7	DURATION HOURS	25
ORDER LENGTH	8	DURATION MINUTES	26
ROLL LENGTH	9	DURATION TIME	27
START YEAR	10	ORDER WEIGHT	28
START MONTH	11	WEIGHT AREA	29
START DAY	12	WEIGHT LENGTH	30
START HOUR	13	THROUGHPUT	31
START MINUTE	14	WINDER WEIGHT	32
START TIME	15	ROLL WEIGHT	33
START DATE	16	REEL WIDTH	34
END YEAR	17	GAUGE SETPOINT	35
		DESCRIPTION 1	36
		DESCRIPTION 2	37

Create the Label Format File.

In the parameter list we have highlighted the values we wish to display on the Label. (Any value listed on the '**Parameter List**' can be displayed on the Label).

Type in the sample label given below in the text box on the '*Create New Label for printing*' dialog, and Save it.

			=====
Roll Side:	[0]	Line Speed:	[1]
Number of Slits:	[3]	Order Weight:	[28]
Throughput:	[31]	Roll Weight:	[33]

NOTE: When you edit a recipe you must specify what Label file you wish you wish to use when printing its label's. (See **figure 26 - Edit Recipe Dialog**). On the '**Edit Recipe**' dialog you can select the label file of your choice from the drop-down list box.

Whenever a roll report occurs a label will be drawn up and printed out. Wherever you have [] containing a number that is in the parameter list, **Sigmat9000** will insert the correct value in place of the parameter list number and its []'s.

So, in our example when the system is drawing up the label it sees the **[0]**, and it knows that this represents the '*Roll Side*'. It gets the '*Roll Side*' value from the Order report and displays it in place of **[0]**.

The printed version will look like this (assume the values are correct).

======================================	Front	Line Speed:	20 1200
Throughput:	4 200	Roll Weight:	300

<u>NOTE</u>: The use of the [] brackets is essential to the whole operation as is using the correct number from the parameter list to identify the different values that you wish to display.



6. End of Order Prompt.

During the course of an order you may wish to be notified about how long the Order has to run. The 9000 system provides an option that displays a Message Box on the Mimic Client, when there is less than thirty minutes remaining on the Current Order.

The Configuration allows you to specify whether or not the Message is displayed. By default it is set on.

When it is set on, the system periodically calculates how long there is left on the order, and when it sees that there is less than thirty minutes left the following message is displayed.

/ARNING		X
The current o	rder will finish in 30 minutes.	
	ок	



<u>CP9000 wiring overview</u>

