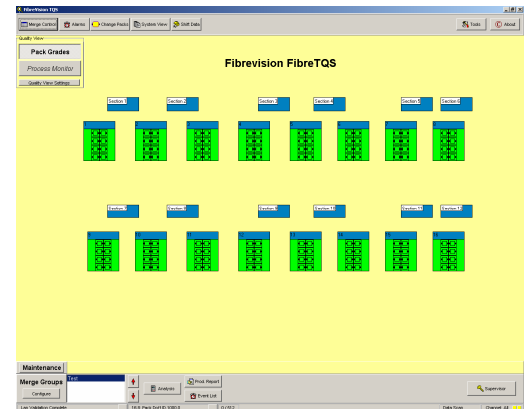


FibreTQS User Interface Software

FibreTQS is a state of the art on-line Quality monitoring system for synthetic yarns that provides a wide range of options in measurements and system configurations, the front end PC software is extremely flexible to accommodate requirements of many different applications.

The top-level screen on **FibreTQS** is a mimic display of the machine layout. This screen is customised by Fibrevision to suit each installation. The current running and quality status of each threadline is indicated by the colour of each of the threadline icons.



Thread	Doff No	Quality	Downgrade	Int. Level	Int. Dist.	Bk. Fts	Tension	Oil Level
1:1	86	1st Grade		30	34	0	53.7	0.343
1:2	82	1st Grade		30	34	0	61.9	0.346
1:3	86	1st Grade		30	33	0	54.1	0.326
1:4	82	1st Grade		30	34	0	62.0	0.344
1:5	85	1st Grade		30	34	0	53.9	0.325
1:6	83	1st Grade		30	33	0	62.1	0.346
1:7	86	1st Grade		30	34	0	53.9	0.325
1:8	84	1st Grade		30	34	0		

Status Read: 9549

DATA VIEW

Data from each threadline/sensor is accessed by clicking on a SECTION or WINDER on the top-level screen. This displays WINDER/SECTION readings as shown below, with the icons at the left hand side representing the Quality grade of the package

From this screen the full details of each threadline can be accessed and production reports generated for the winder/bay.

THREADLINE DATA

The THREAD DATA display provides full details of the current running package including full statistics of current readings.

From this screen a number of key functions can be accessed:

Real Time View - Allows the graphs of the real time data from any of the sensor types to be viewed and printed. Real time views are available for Interface Level, Interface Distance, Tension, Oil Level and Modulus.

Pack Values - average quality data values for the current package

Data Log - historical data from each threadline / sensor can be viewed in tabular or graphical format over a selected time period.

Events - a list of OFF QUALITY events and captures for the package currently running.

Previous Packages – details of quality and events of the packages produced previously from the threadline

Sensor Readings		Event Group Totals						
Run	Sensor	Mean	Min	Max	CV	Event Group	Total	
<input checked="" type="checkbox"/>	Interface Level	30	30	30		Interface Level	0	
<input checked="" type="checkbox"/>	Interface Distance	34	33	34	0.5	Interface Distance	0	
<input checked="" type="checkbox"/>	Tension	61.6	60.0	63.0	1.1	Broken Filaments	0	
<input checked="" type="checkbox"/>	Oil Level	0.356	0.347	0.364	0.9	Tension	0	
<input type="checkbox"/>						Oil	0	
							Total Events	0

QUALITY GRADING

FibreTQS operates up to five grades (1st to 4th Quality and Reject). Grading is based on EVENT groups with a simple count of events in any group being used to downgrade or reject a package.

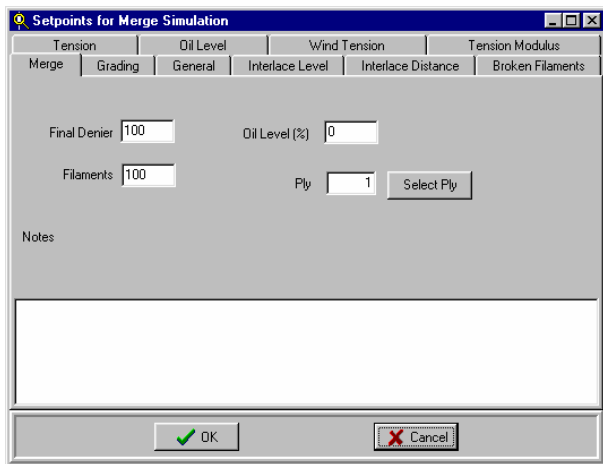
PLANT INTEGRATION SOFTWARE

Extensive facilities for transferring data to a plant network are available as well as **FibreMMC**, a software package to allow view and controlling multiple machines from a single PC



MERGE SETPOINTS

MERGE (RECIPE) settings are used to control Quality Grading settings.



Selecting the relevant tab within the dialog box allows quality limits to be set., the following quality limits are available:

Interlace – Minimum Nodes/m, Maximum distance between Nodes, Maximum CV of distance between nodes.

Broken Filaments – number of broken filaments per Event, or total Broken Filaments per package

Tension - Global Limits, Min max and CV, Tracking Limits, Min Max, Position Limits, Min and Max

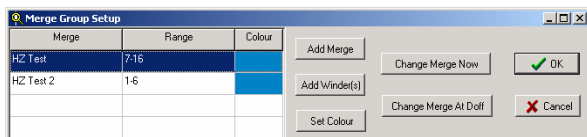
Spin Finish - Global Limits – Min Max and CV, Transient Limits, Min and Max

Wind Tension - Global Limits, Min, Max and CV, Tracking Limits , Min and Max.

Tension Modulus - Global Limits, Min, Max and CV,

MERGE GROUPS

Each group of threadlines attached to a SECTION can be set to operate with different merges. Merge changes can be applied immediately or automatically at the next doff.



QUALITY IMPROVEMENT

FibreTQS provides unique **QUALITY ALERTS** which automatically identify:

- Threadlines which are drifting towards downgrade limits
- Repeating faulty threadlines

This allows rectification action to be taken promptly, minimising the production of off quality yarn.

ANALYSIS

Detailed analysis of data across the each merge group is provided, including:

Variation - graphs showing the variation in the levels of each parameter.

Extremes - a list of the extreme (highest and lowest) values for each of the sensor types, providing a valuable maintenance tool.

Data Log - historical trend data for the merge group average values

PRODUCTION REPORTS

FibreTQS can produce a wide range of production reports for viewing and/or printing, these reports can be customised for:

Threadline groupings - Merge Groups (the whole machine if only one merge is running on the machine), bays, winders or single threadlines.

Time Period - Doff, Shift, Day, Week and Month can be selected as well as any USER DEFINED period.

Package Quality - the display can be configured to show any combination of package quality and size.

MAINTENANCE

Extensive maintenance and diagnostic facilities are available including:

Maintenance alerts- provides a warning when action is required to clean or zero sensors, before contamination or zero drift adversely affect accuracy.

System Alarms – indicating any serious system faults

System Report – automatically produces a detailed report on the state of the system to aid diagnostics of any faults.

Reprogramming – new software for all distributed electronics can be simply downloaded from the PC application.