



LabSpeed

Data Integration and Analysis Platform

Overview

- What is LabSpeed?:
 - An affordable, advanced data automation and analysis application
 - Provides a common workspace regardless of instrument type or data format
 - Optimizes daily work with workflow templates
 - Saves time and resources
 - Increases data accuracy
 - Centralized database for all instrument data
 - Integrates with other enterprise systems such as ELN, LIMS, etc.

Most Popular LabSpeed Features

- Automation (Auto Exporting and RT Append)
- Limits table
- Reports
- Subset Elements and Element Order
- User Entered Data
- Trend Charts
- Formulas
- SPC
- 21 CFR Part 11
- Summary table

Database Sample Search

Advance Database Search capability. Search for samples by Date/time, filter search results, select Element Subset and Element Order. Resulting in just the samples you need for analysis.

Date / Time Search

Database Browser - Selecting Samples

Click [Get All] or Select One or More of

Date-Time Search

Date Range

Today
 Select Hours
 Select Days
 Select Weeks
 Select a Range

Range Start
03/15/2008 01:49:45 PM

Range End
03/30/2008 01:49:45 PM

March, 2008

Sun	Mon	Tue	Wed	Thu	Fri	Sat
24	25	26	27	28	29	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

Today: 10/12/2016

Date Advanced Options

Search

SampleName	AcquireDate	Method	ResultTyp
BS 58D	3/25/2008 2:07:	Fe-Steel	Average
BS 11B	3/25/2008 2:11:	Fe-Steel	Average
BS CA-3	3/25/2008 2:15:	Fe-Steel	Average
NIST 1761	3/25/2008 2:29:	Fe-Steel	Average
NIST 1762	3/25/2008 2:37:	Fe-Steel	Average
NIST 1763	3/25/2008 2:42:	Fe-Steel	Average
NIST 1764	3/25/2008 2:46:	Fe-Steel	Average
NIST 1765	3/25/2008 2:51:	Fe-Steel	Average
NIST 1766	3/25/2008 2:55:	Fe-Steel	Average
NIST 1767	3/25/2008 3:00:	Fe-Steel	Average
Steel Sample 4	3/25/2008 3:28:	Fe-Steel	Average
Steel Sample 5	3/25/2008 3:33:	Fe-Steel	Average
Steel Sample 6	3/25/2008 3:37:	Fe-Steel	Average
Steel Sample 7	3/25/2008 3:45:	Fe-Steel	Average
Steel Sample 8	3/25/2008 3:54:	Fe-Steel	Average
Steel Sample 9	3/25/2008 3:59:	Fe-Steel	Average
Steel Sample 10	3/25/2008 4:49:	Fe-Steel	Average
Steel Sample 11	3/25/2008 4:54:	Fe-Steel	Average
Steel Sample 12	3/25/2008 4:57:	Fe-Steel	Average
Steel Sample 13	3/25/2008 5:07:	Fe-Steel	Average

35 Records

Show Applied Filters...

Cancel Get All

Advance Date / Time Sample Query capability

Subset Element and Element Order

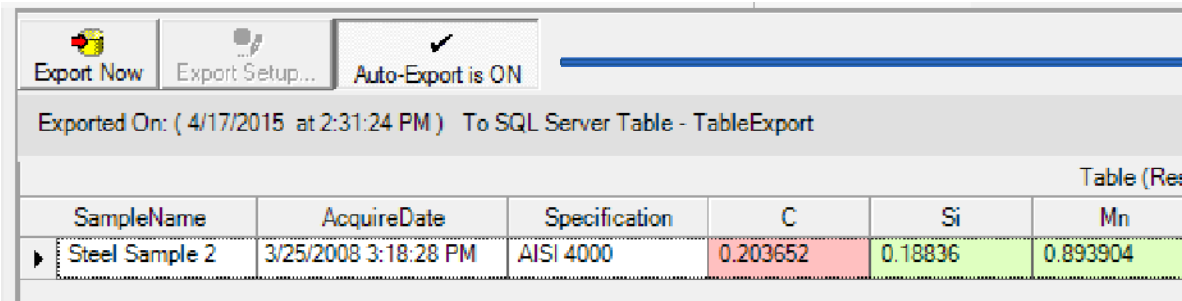
Select All
Deselect All
 Apply a Subset of Elements

Select Elem Order Elem

- Ag
- Ag 2
- Ag32
- Al
- Al 6
- Al61
- As
- As 8
- As8H
- B
- B 0
- Bi
- Bi0H
- Bi30
- C
- Ca
- Cd

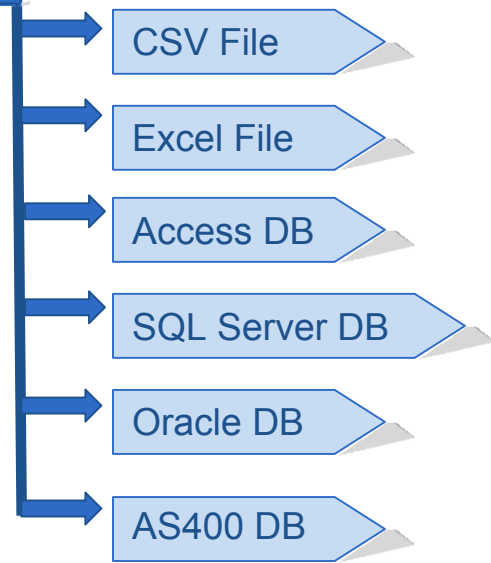
Automation (Monitor)

Table View - Automatic Export



The screenshot shows a software interface with three buttons at the top: 'Export Now' (with a red flag icon), 'Export Setup...' (with a gear icon), and 'Auto-Export is ON' (with a checkmark icon). Below the buttons, a status bar reads 'Exported On: (4/17/2015 at 2:31:24 PM) To SQL Server Table - TableExport'. A table below this shows a single data row for 'Steel Sample 2' with columns for SampleName, AcquireDate, Specification, C, Si, and Mn. The C and Si columns have red and green background colors respectively.

SampleName	AcquireDate	Specification	C	Si	Mn
Steel Sample 2	3/25/2008 3:18:28 PM	AISI 4000	0.203652	0.18836	0.893904



Automation Export and AutomationAppend

The export criteria can be defined so that you export just the samples types you need to the destinations appropriate for the samples type.

Multiple Automation Monitors can be run to export other sample types to different destination as needed.

Automation (Monitor)

Report View – Automatic Export and Print

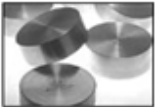


Print Now Printers Setup... Auto-Print is OFF Export Now Export Setup... Auto-Export is ON

< Never Printed >
< Never Exported >

Print... 90% 1/1 Backward Forward

1 2 3 4 5 6

 LabSpeed Sample Report
10/14/2016 11:20:02 AM

LabSpeed Sample Report

SampleName **Steel Sample 5**
Acquire Date **3/25/2008 3:33 PM**
Method **Fe-Steel**
Specification **AISI 4000**

Element	Average	Units	Min	Max	Status
C	0.4543	%	0.07	0.65	Pass
Si	0.2689	%	0.23	2	Pass
Mn	1.3732	%	0.55	0.88	Fail High
P	0.0120	%	0.01	0.035	Pass
S	0.0633	%	0.01	0.05	Fail High

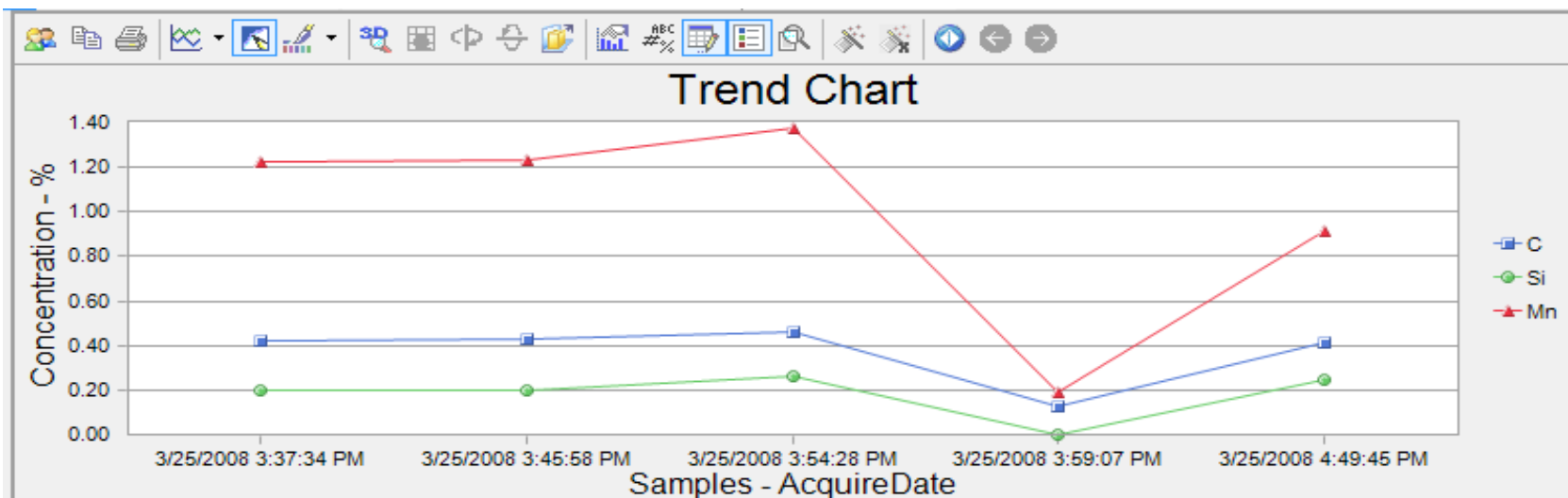
Automation (Monitor Append)

Assign the append count to set the number of samples to display.
Automatically updates all views with the latest samples applying limit checking, formulas etc on each new sample

Table View

Table (Results)									
SampleName	Specification	C	Si	Mn	P	S	Cr	Mo	Ni
Steel Sample 6	AISI 4000	0.424966	0.201577	1.223887	0.011037	0.047349	0.072675	0.019792	0.028739
Steel Sample 7	AISI 4000	0.431048	0.200734	1.230535	0.010942	0.047936	0.072477	0.020166	0.028748
Steel Sample 8	AISI 4000	0.458948	0.263963	1.3729	0.012179	0.064177	0.076119	0.019948	0.0297
Steel Sample 9	AISI 1010	0.126418	0.0006	0.192907	0.006804	0.044494	0.069225	0.147815	0.025966
Steel Sample 10	AISI 4000	0.412914	0.247541	0.914608	0.009107	0.031297	0.971296	0.182689	0.03072

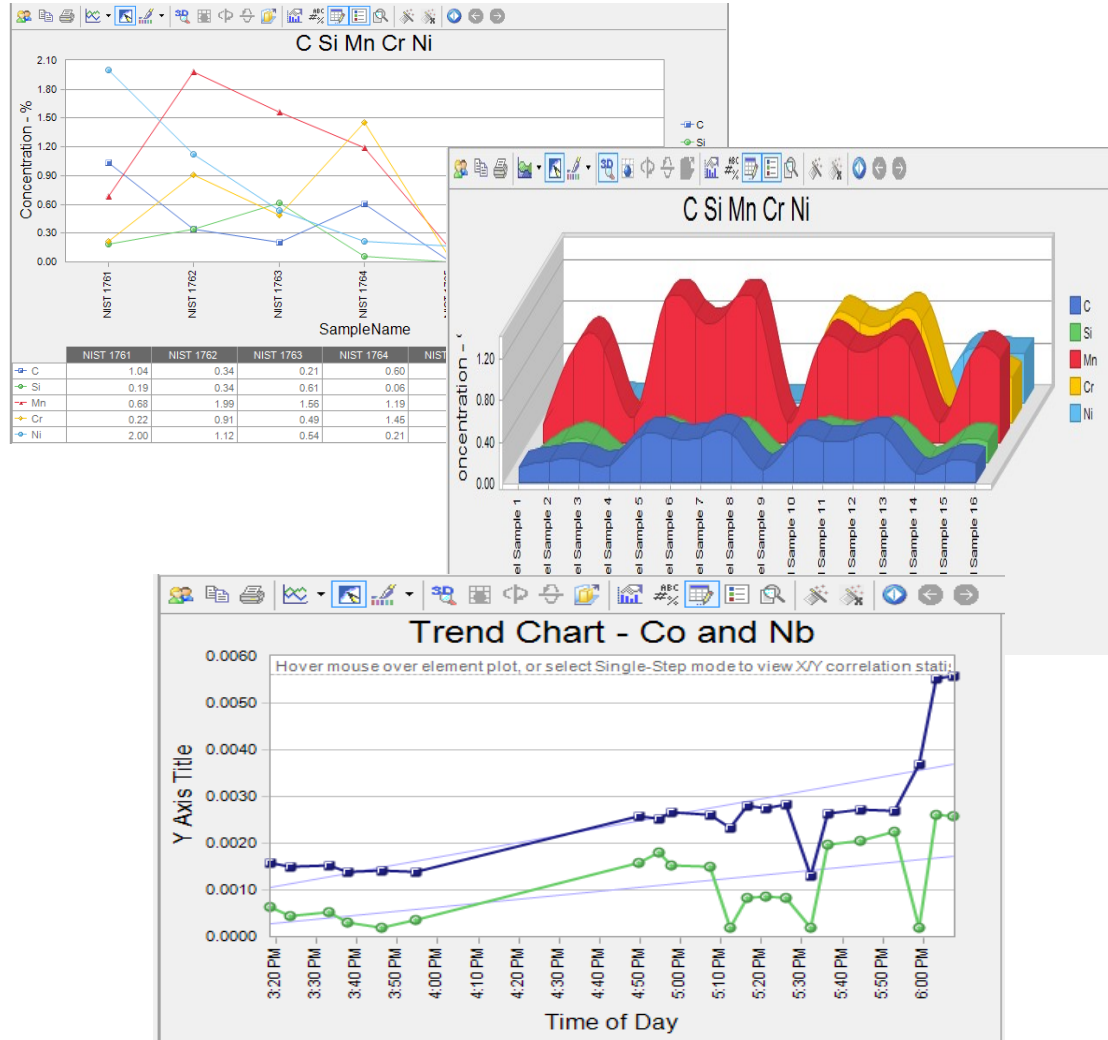
Chart View



LabSpeed Charting

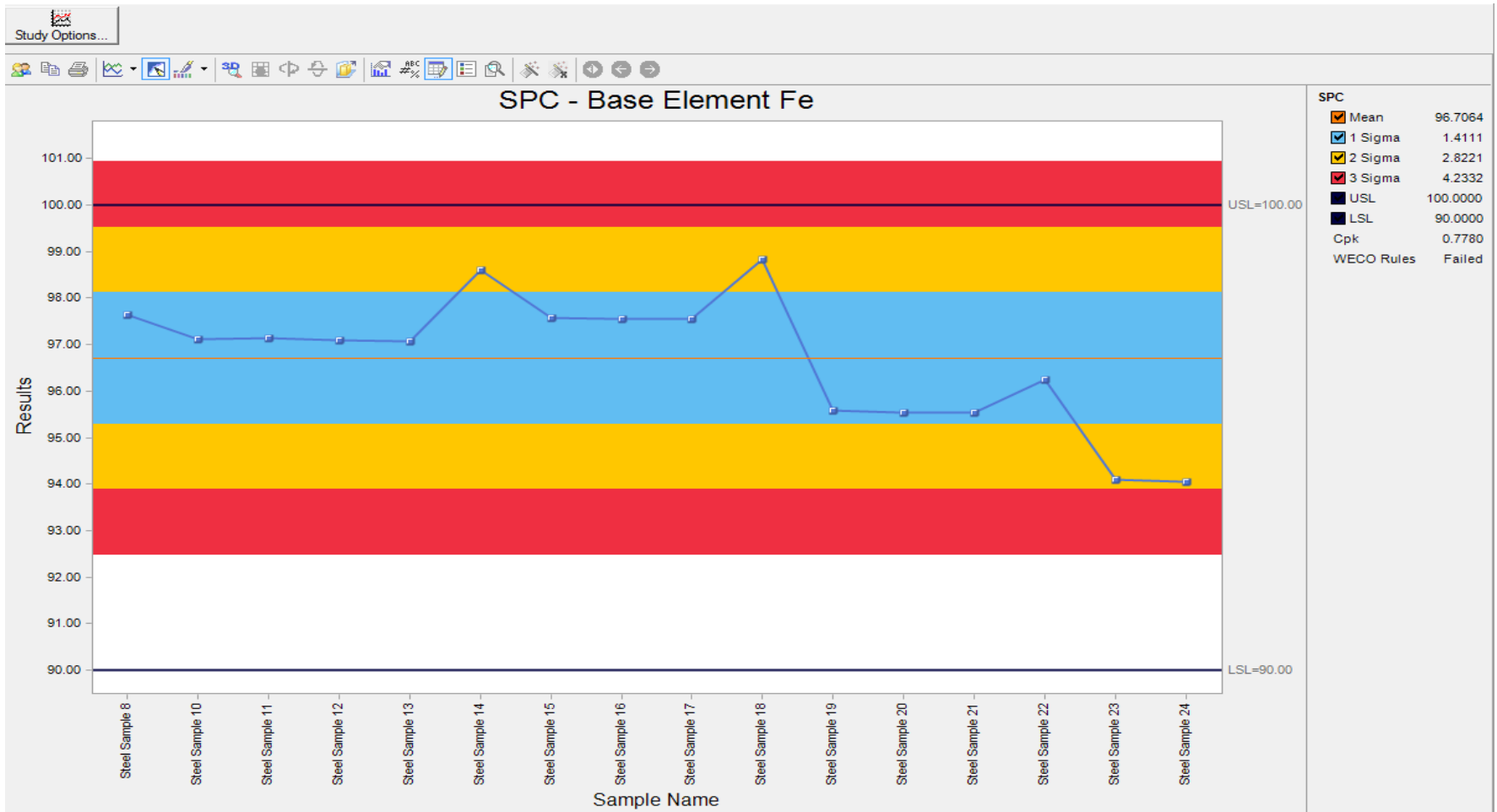
■ Charting

- LabSpeed has extensive charting capability
- You can create many different types of charts for data visualization and analysis
- Standard and Statistical charts, for trending, limits, SPC, RCharts, XCharts, etc.
- Predictive Standards SPC Feature



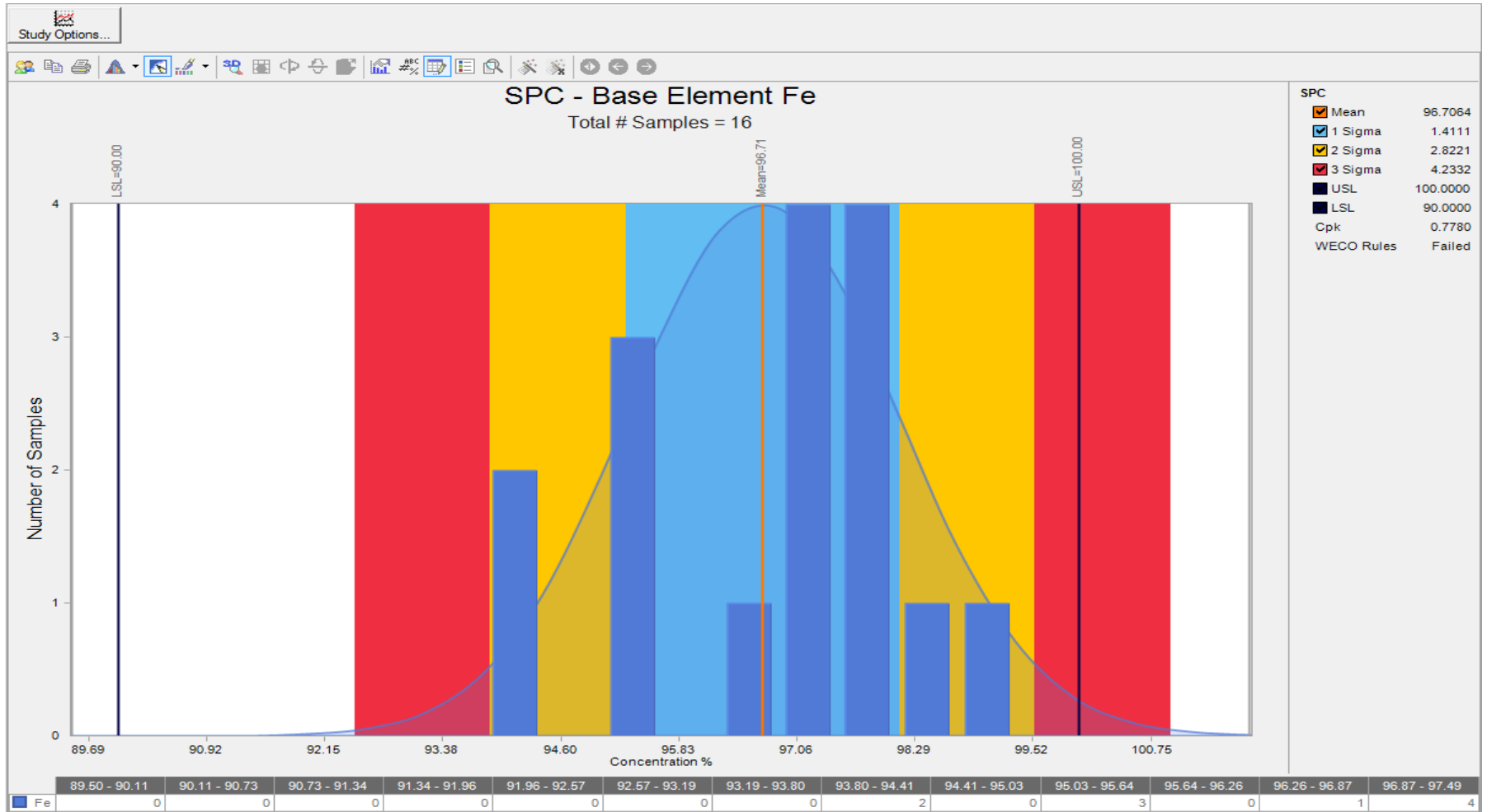
LabSpeed SPC

Sigma Chart (with USL, LSL and CPK)



LabSpeed SPC

Histogram Chart



Formulas and User Entry

Formula Example: Green is a formula column, Light Blue is a formula column that supports user input / edits

Final Percent Formula - $\text{round}(\frac{([\text{Element_LBS}] + [\text{Main_Charge_Percent}])}{[..\../\text{total_heat}] * 100, 2}$)

SampleName	AcquireDate	Total_Heat	Total_Elem_LBS	GradeEdt	MainCharge			
BS 2931	6/13/2014 3:47:28 PM	1024	54	319	970			
Element	Result	Element_LBS	Final_Percent	Main_Charge_Percent	Grade Library_LimitStatus	Min	Max	
C	0.0908055	0	0.09	0.88	Not Checked			
Si	0.2555269	54	5.52	2.48	Fail Low	5.5	6.5	
Mn	1.143373	0	1.08	11.09	Fail High		0.5	
Cr	0.1661389	0	0.16	1.61	Not Checked			
Ni	0.128808	0	0.12	1.25	Pass		0.35	
Al	0.0012804	0	0	0.01	Fail Low	86	91.5	
Co	0.004865	0	0	0.05	Not Checked			
Cu	0.2376108	0	0.22	2.3	Fail Low	3	4	
Nb	0.0005264	0	0	0.01	Not Checked			
Ti	0.0008056	0	0	0.01	Pass		0.25	
As	0.010508	0	0.01	0.1	Not Checked			
B	0.0002604	0	0	0	Not Checked			
Zn	0.0009024	0	0	0.01	Pass		1	
N	0.0137692	0	0.01	0.13	Not Checked			
Fe	139.467146	0	132.11	1352.83	Fail High		0.8	

Summary Table

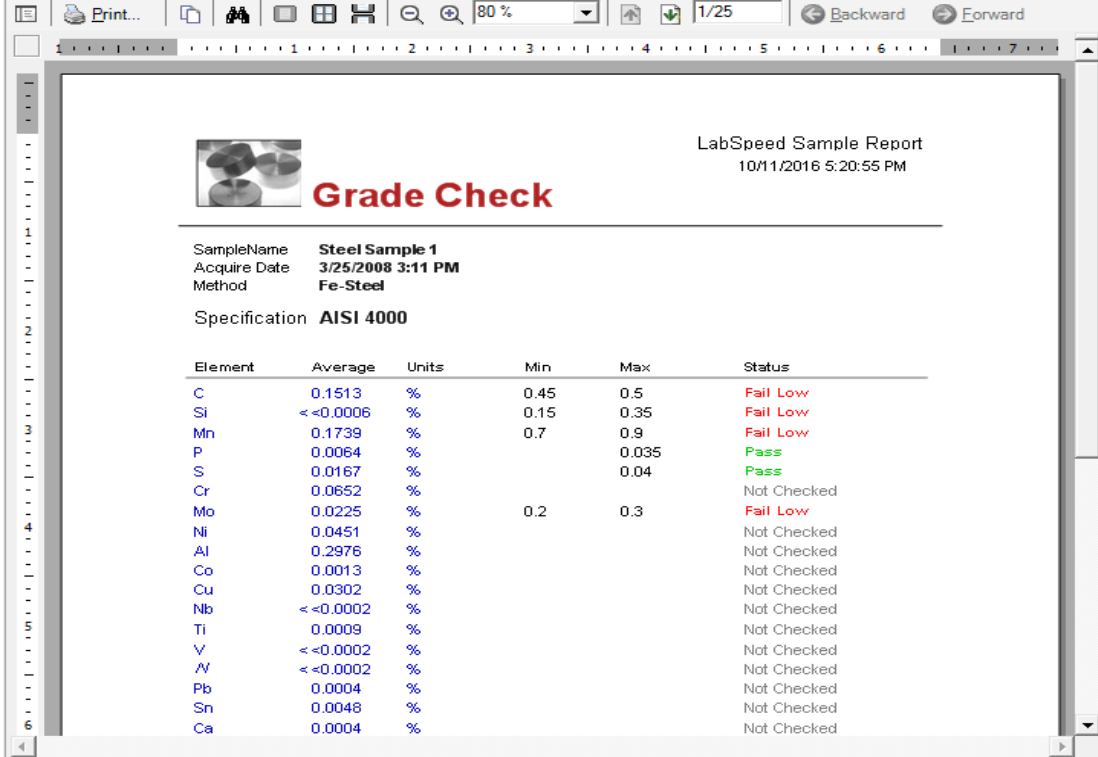
Table View with Summary

Table (Results)										
SampleName	Method	C	Si	Mn	P	S	Cr	Mo	Ni	Al
▶ NIST 1764	Fe-Steel	0.600746	0.060878	1.19173	0.020249	0.013574	1.452525	0.199459	0.211686	0.009817
NIST 1765	Fe-Steel	0.006911	0.00359	0.145012	0.00521	0.004671	0.047512	0.00521	0.163139	0.008623
NIST 1766	Fe-Steel	0.015303	0.010588	0.067891	0.001314	0.003059	0.021122	0.0035	0.024075	0.013103
NIST 1767	Fe-Steel	0.056785	0.028193	0.023443	0.00348	0.010423	0.001002	0.020657	0.004174	0.004888
Steel Sample 1	Fe-Steel	0.151297	0.0006	0.173945	0.006408	0.016681	0.065237	0.022543	0.045072	0.297639
Steel Sample 2	Fe-Steel	0.203652	0.18836	0.893904	0.006891	0.005156	0.068042	0.022866	0.044638	0.043179
Steel Sample 3	Fe-Steel	0.217375	0.188951	0.901758	0.007006	0.005324	0.067745	0.022766	0.044312	0.033283
Steel Sample 4	Fe-Steel	0.169173	0.001276	0.244632	0.008433	0.033613	0.067259	0.020487	0.028931	0.197921
Steel Sample 5	Fe-Steel	0.454329	0.2689	1.373173	0.012037	0.063348	0.075763	0.020303	0.029681	0.012597
Steel Sample 6	Fe-Steel	0.424966	0.201577	1.223887	0.011037	0.047349	0.072675	0.019792	0.028739	0.003466
Table Summaries:										
Average		.2301	.0953	.6239	.0082	.0203	.1939	.0358	.0624	.0625
Median		.1864	.0445	.5693	.0069	.0120	.0675	.0206	.0370	.0129
Minimum		.0069	.0006	.0234	.0013	.0031	.0010	.0035	.0042	.0035
Maximum		.6007	.2689	1.3732	.0202	.0633	1.4525	.1995	.2117	.2976
Count > .1.0		7	4	8	0	0	1	1	2	2
Count < 0.2		2	4	0	9	7	1	3	1	6


LabSpeed Reports

■ Reports

- Unique reporting engine
- Allows for simple drag & drop actions to create specialized reports
- Simple to use



LabSpeed Sample Report
10/11/2016 5:20:55 PM

 **Grade Check**

SampleName **Steel Sample 1**
Acquire Date **3/25/2008 3:11 PM**
Method **Fe-Steel**
Specification **AISI 4000**

Element	Average	Units	Min	Max	Status
C	0.1513	%	0.45	0.5	Fail Low
Si	<<0.0006	%	0.15	0.35	Fail Low
Mn	0.1739	%	0.7	0.9	Fail Low
P	0.0064	%		0.035	Pass
S	0.0167	%		0.04	Pass
Cr	0.0652	%			Not Checked
Mo	0.0225	%	0.2	0.3	Fail Low
Ni	0.0451	%			Not Checked
Al	0.2976	%			Not Checked
Co	0.0013	%			Not Checked
Cu	0.0302	%			Not Checked
Nb	<<0.0002	%			Not Checked
Ti	0.0009	%			Not Checked
V	<<0.0002	%			Not Checked
N	<<0.0002	%			Not Checked
Pb	0.0004	%			Not Checked
Sn	0.0048	%			Not Checked
Ca	0.0004	%			Not Checked

LabSpeed Report Designer

The screenshot displays the LabSpeed Report Designer interface. At the top, there are two tabs: "Sample Report" and "Elements Subreport". Below the tabs is a "Design" tab and a "Preview" tab. A toolbar with various icons is located below the tabs. A yellow callout box with a blue border contains the text: "Report Designer - provides complete, end user, Report create and modify capability." The main workspace shows a report design for "Grade Check". The report is divided into sections: "PageHeader", "Detail", and "PageFooter". The "PageHeader" section contains a logo of three test tubes and the text "Grade Check". A blue callout box with a white background and blue border points to the logo area with the text: "Add your company logo". The "Detail" section is a table with the following columns and rows:

SampleName	SampleName
Acquire Date	AcquireDate
Method	Method
Specification	Spec

The "PageFooter" section is currently empty. On the right side of the interface, there is a "Fields" list containing: SampleName, AcquireDate, Method, Result Type, SampleStatus, Specification, CreateDate, ModDate, and SampleID. Below the fields list is a dropdown menu set to "ARNet Document". There are also sections for "Watermark" (set to "Clip"), "Behavior" (with "MaxPages" set to 0 and "ScriptLang" set to "C#"), and "Data" (with "DataMember" set to "Samples"). At the bottom right, there is a "DataMember" section with a description: "Gets or sets the specified list in a DataSource to which the...".

Benefits

■ Saves Time

- A Lab can spend anywhere from 2 to 4 hours per week, per shift or person, manually working with their data.
- LabSpeed reduces this to just a few minutes or completely automated.
- Achieving ROI in a short period of time and beginning to save you money.



LabSpeed Conclusion

- Data acquisition from laboratory instruments saved to a SQL Server database for archiving and advanced database search capabilities
- Automation to automatically export samples to ERP, LIMS systems or export locations such as melt decks
- Powerful toolset with end user designers putting you in control
- Saves significant time and resources
- Decreases or eliminates errors
- Critical, real-time analysis, insight and data sharing
- Solve problems and eliminate multiple legacy systems
- Easy to learn and become immediately productive
- Superior support



LabSpeed

Data Integration and Analysis Platform