



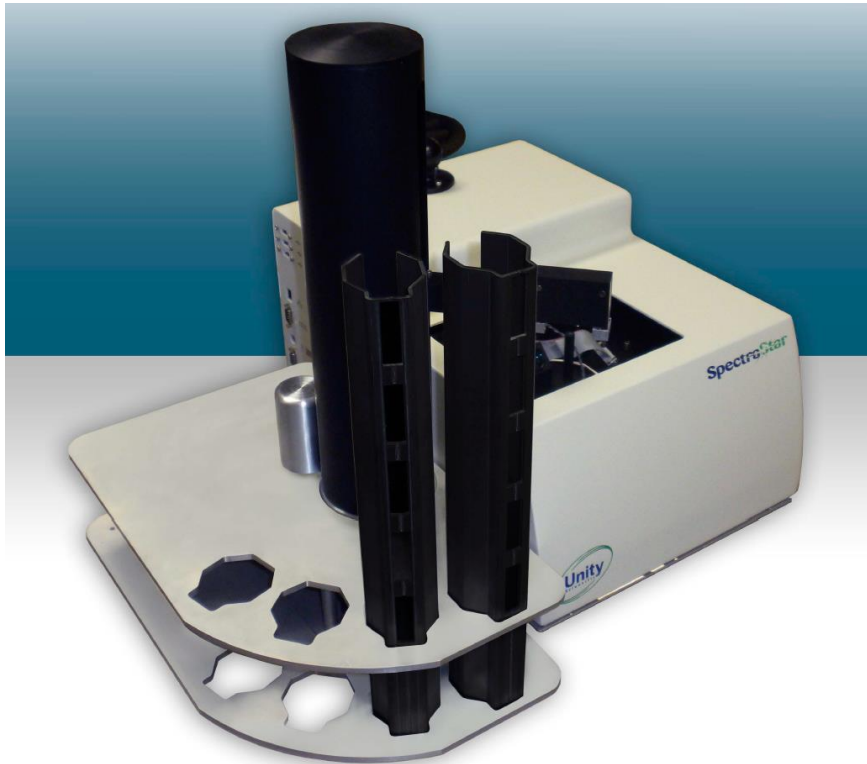
# Unity SmartSampler







# Automatic analysis - SmartSampler



## SmartSampler

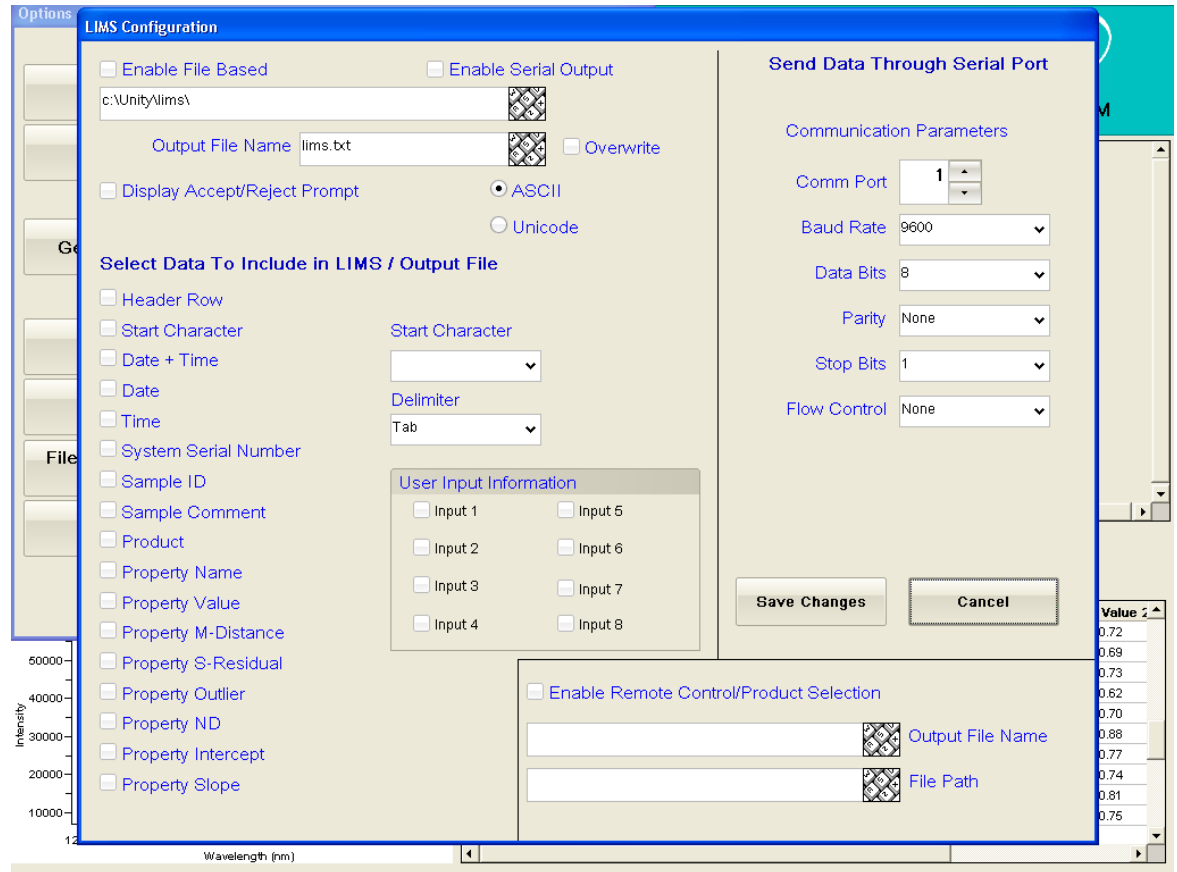
- **Up to 72 samples**
- **Ring Cups ( FOSS NIRS type)**
- **Rapid sample change (3 s)**
- **Unattended analysis for 1,5 hours**
- **Prepare samples in parallel with analysis**



## Das LIMS Menü

### Software Update 3.11.0

- Export of sample list & results is also possible in older versions.
- Export can be made over a network address or a Comm port.
- Direct import from network is currently not available. Sample list is imported from SpectraStar PC  
C:\unity\config\batches\...





# Sample list in SpectraStar Windows Software

Batch Run Configuration

Select Scan Batch File

Look in: batches

- alignment batch
- import liste
- js test

File name: import liste

Files of type: Scan Batch Files (\*.sba)

Open Cancel

Load Batch File Start Batch Exit

20/2012 9:39:18 AM

Value

|       |
|-------|
| 6.34  |
| 10.17 |
| 2.45  |

Force Expires in 17

| y 1   | Value 1 | Property 2 | Value 2 |
|-------|---------|------------|---------|
| 4.62  | Protein | 24.48      |         |
| 53.2  |         |            |         |
| 28.09 | Protein | -60.51     |         |
| 25.86 | Protein | -197.83    |         |
| 19.15 | Protein | -4.59      |         |
| 53.0  |         |            |         |
| 38.01 | Protein | -189.73    |         |
| 15.59 | Protein | -4.07      |         |
| -6.44 | Protein | -5.94      |         |
| 6.34  | Protein | 10.17      |         |

Intensity

Wavelength (nm)

Sample list is added to C:\Unity\config\batches\.... And later retrieved for analysis





# Sample List

Options

Batch Run Configuration

Batch Name: Mehl Analyse # of Towers: 3

|    | Load Tower | Unload Tower | Product    | Sample ID | Comment |
|----|------------|--------------|------------|-----------|---------|
| 1  | 1          | 2            | Durum Mehl | 1         |         |
| 2  | 1          | 2            | Durum Mehl | 1         |         |
| 3  | 1          | 2            | Durum Mehl | 1         |         |
| 4  | 1          | 2            | Durum Mehl | 1         |         |
| 5  | 1          | 2            | Durum Mehl | 1         |         |
| 6  | 1          | 2            | Durum Mehl | 1         |         |
| 7  | 1          | 2            | Durum Mehl | 1         |         |
| 8  | 1          | 2            | Durum Mehl | 1         |         |
| 9  | 1          | 2            | Durum Mehl | 1         |         |
| 10 | 1          | 2            | Durum Mehl | 1         |         |
| 11 |            |              |            |           |         |
| 12 |            |              |            |           |         |
| 13 |            |              |            |           |         |
| 14 |            |              |            |           |         |

Intensity

50000  
40000  
30000  
20000  
10000

1200 1400 1600

start Desktop 9:29 AM

Unity Scientific

012 9:29:57 AM

Value 1 Property 2 Value 2

|    |         |         |
|----|---------|---------|
| 2  | Protein | 24.48   |
| 2  |         |         |
| 09 | Protein | -60.51  |
| 56 | Protein | -197.83 |
| 15 | Protein | -4.59   |
| 0  |         |         |
| 01 | Protein | -189.73 |
| 59 | Protein | -4.07   |
| 44 | Protein | -5.94   |
| 4  | Protein | 10.17   |

Expires in 27

Clear Batch Data

Clear Selected Sample Data

Copy Selected Sample Data

Paste Copied Sample Data

Exit

Save Batch File Load Batch File

Sample list opened in InfoStar

Editing of the list is possible



# Analysis is in progress

Batch Run Control

Batch Name: **Mehl Analyse**

|    | Product    | Sample ID | Load Tower | Cup | Unload Tower | Cup    | Status                |
|----|------------|-----------|------------|-----|--------------|--------|-----------------------|
| 1  | Durum Mehl | 1         | 1          | 10  | 2            | 1      | Sample Completed      |
| 2  | Durum Mehl | 1         | 1          | 9   | 2            | Queued | Sample Scan Completed |
| 3  | Durum Mehl | 1         | 1          | 8   | 2            |        | Scanning Sample       |
| 4  | Durum Mehl |           | 1          |     | 2            |        |                       |
| 5  | Durum Mehl |           | 1          |     | 2            |        |                       |
| 6  | Durum Mehl |           | 1          |     | 2            |        |                       |
| 7  | Durum Mehl |           | 1          |     | 2            |        |                       |
| 8  | Durum Mehl |           | 1          |     | 2            |        |                       |
| 9  | Durum Mehl |           | 1          |     | 2            |        |                       |
| 10 | Durum Mehl |           | 1          |     | 2            |        |                       |

Firmware Ver: JAN 13 2012 00:11:33 COPYRIGHT (C) ITGC\_CO LTD 2010 F8C1

**Emergency Stop**      **Abort Batch**

Batch Progress

Unloading Sample Cup

Sample Scan Progress

|    |           |            |            |              |          |         |       |         |         |
|----|-----------|------------|------------|--------------|----------|---------|-------|---------|---------|
| 18 | 1/20/2012 | 6:38:33 AM | Durum Mehl | 2222225      | granulat | Feuchte | 25.66 | Protein | -197.83 |
| 19 | 1/20/2012 | 7:12:06 AM | Durum Mehl | Global Sampl |          | Feuchte | 19.15 | Protein | -4.69   |
| 20 | 1/20/2012 | 7:14:29 AM | Chkcell    | Global Sampl |          | Chkcell | 53.0  |         |         |
| 21 | 1/20/2012 | 7:18:12 AM | Durum Mehl | Global Sampl |          | Feuchte | 38.01 | Protein | -189.73 |
| 22 | 1/20/2012 | 7:51:02 AM | Durum Mehl | Global Sampl |          | Feuchte | 15.59 | Protein | -4.07   |
| 23 | 1/20/2012 | 7:51:41 AM | Durum Mehl | Global Sampl |          | Feuchte | -6.44 | Protein | -5.94   |
| 24 | 1/20/2012 | 7:52:25 AM | Durum Mehl | Global Sampl |          | Feuchte | 6.34  | Protein | 10.17   |
| 25 | 1/20/2012 | 9:42:08 AM | Durum Mehl | 1            |          | Feuchte | 12.48 | Protein | 10.72   |
| 26 | 1/20/2012 | 9:42:48 AM | Durum Mehl | 1            |          | Feuchte | 12.48 | Protein | 10.69   |
| 27 |           |            |            |              |          |         |       |         |         |

Absorbance

Wavelength (nm)

During automatic analysis complete working process as well as results are available on screen.





# Finished Sample List

Batch Run Control

Batch Name:

|   | Product    | Sample ID | Load Tower | Cup | Unload Tower | Cup | Status           |
|---|------------|-----------|------------|-----|--------------|-----|------------------|
| 2 | Durum Mehl | 1         | 1          | 9   | 2            | 2   | Sample Completed |
| 3 | Durum Mehl | 1         | 1          | 8   | 2            | 3   | Sample Completed |

Batch Report

Batch Name:

|    | Date-Time         | Serial | Product    | Sample ID | Co | Status           | Load | Cup | Unload | Cup | Property | Value 1 | M-Dist 1 | S- | Ou |
|----|-------------------|--------|------------|-----------|----|------------------|------|-----|--------|-----|----------|---------|----------|----|----|
| 1  | 1/20/2012 9:42:08 | 2145   | Durum Mehl | 1         |    | Sample Completed | 1    | 10  | 2      | 1   | Feuchte  | 12.48   | 4.517949 | 0  | 0  |
| 2  | 1/20/2012 9:42:48 | 2145   | Durum Mehl | 1         |    | Sample Completed | 1    | 9   | 2      | 2   | Feuchte  | 12.48   | 4.667432 | 0  | 0  |
| 3  | 1/20/2012 9:43:35 | 2145   | Durum Mehl | 1         |    | Sample Completed | 1    | 8   | 2      | 3   | Feuchte  | 12.49   | 4.821771 | 0  | 0  |
| 4  | 1/20/2012 9:44:23 | 2145   | Durum Mehl | 1         |    | Sample Completed | 1    | 7   | 2      | 4   | Feuchte  | 12.49   | 4.439155 | 0  | 0  |
| 5  | 1/20/2012 9:45:18 | 2145   | Durum Mehl | 1         |    | Sample Completed | 1    | 6   | 2      | 5   | Feuchte  | 12.52   | 4.93217  | 0  | 0  |
| 6  | 1/20/2012 9:46:04 | 2145   | Durum Mehl | 1         |    | Sample Completed | 1    | 5   | 2      | 6   | Feuchte  | 12.48   | 4.824945 | 0  | 0  |
| 7  | 1/20/2012 9:46:51 | 2145   | Durum Mehl | 1         |    | Sample Completed | 1    | 4   | 2      | 7   | Feuchte  | 12.50   | 4.790485 | 0  | 0  |
| 8  | 1/20/2012 9:47:38 | 2145   | Durum Mehl | 1         |    | Sample Completed | 1    | 3   | 2      | 8   | Feuchte  | 12.45   | 4.541925 | 0  | 0  |
| 9  | 1/20/2012 9:48:25 | 2145   | Durum Mehl | 1         |    | Sample Completed | 1    | 2   | 2      | 9   | Feuchte  | 12.49   | 4.747043 | 0  | 0  |
| 10 | 1/20/2012 9:49:11 | 2145   | Durum Mehl | 1         |    | Sample Completed | 1    | 1   | 2      | 10  | Feuchte  | 12.45   | 4.631763 | 0  | 0  |

Exit

Wavelength (nm) 1200 1400 1600 1800 2000 2200 2400

|    |           |            |            |   |  |         |       |         |       |
|----|-----------|------------|------------|---|--|---------|-------|---------|-------|
| 34 | 1/20/2012 | 9:49:11 AM | Durum Mehl | 1 |  | Feuchte | 12.45 | Protein | 10.75 |
| 35 |           |            |            |   |  |         |       |         |       |

**Finished Sample List!**  
It can be used in many ways...

- View directly on screen
- Printed in Ticket format
- Exported through COM port
- Save in \*.CSV format
- Export through LIMS function to specific adress
- Copied to USB stick