Take control of your chemistry

ava level 4
lab control software

Control multi-device jacketed reaction systems

- Unattended chemistry for improved productivity
- Automatically log your process data
- Improve safety and reduce manual errors
- Control any reactor

Download FREE Demo Software
www.radleys.com

Control and log

- Circulators
- Overhead Stirrers
- Temperature Sensors
- Syringe Pumps
- pH Sensors
- Peristaltic Pumps
- Balances
- Vacuum Pumps
- Gas Flow Controllers
- Stirring Hotplates
- Pressure Sensors
- Conductivity Sensors
- Gas Flow Meters

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innovations for chemistry

If you answer "Yes" to any of the following:

Do you want to:

- Manage multiple devices easily during complex reactions?

- Have freedom from manual recording of experimental data?

- Safely run and monitor unattended reactions 24/7?

- Reduce manual errors or inconsistencies in your chemistry?

- Safely control exotherms?

Then AVA Software is what you need to take control of your chemistry

Download AVA Software @ www.radleys.com

ava
level 4
lab control software

Control multi-device reactions

- Control up to 4 reaction systems with up to 16 devices on one screen

- Create complex experiments with any number of steps in series or parallel

- Pre-program multi-step recipes, with the flexibility to make and track on-the-fly adjustments

- Interlink devices and set feedback/control loops, end-point conditions and safety limits

No more manual data logging or manual errors

- Automatically record reaction parameters and log what you do, as you do it

- Repeat experiments accurately for reproducible and consistent results

- Create reports in a few clicks or export data as a CSV file for further analysis

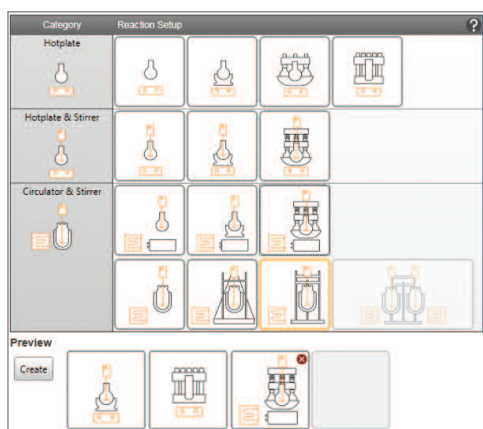- Share results between users to improve research and collaboration

Safe unattended chemistry

- Automate cooling during exothermic events

- Link devices such as balances and pumps for controlled, unattended reagent addition

- Define safety overrides and cut-off conditions

- Configure audio and visual alarms

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1. Select your Apparatus setup

- Select Apparatus background that matches your reaction setup
- Select up to four Apparatus setups
- Create new or open existing Apparatus templates
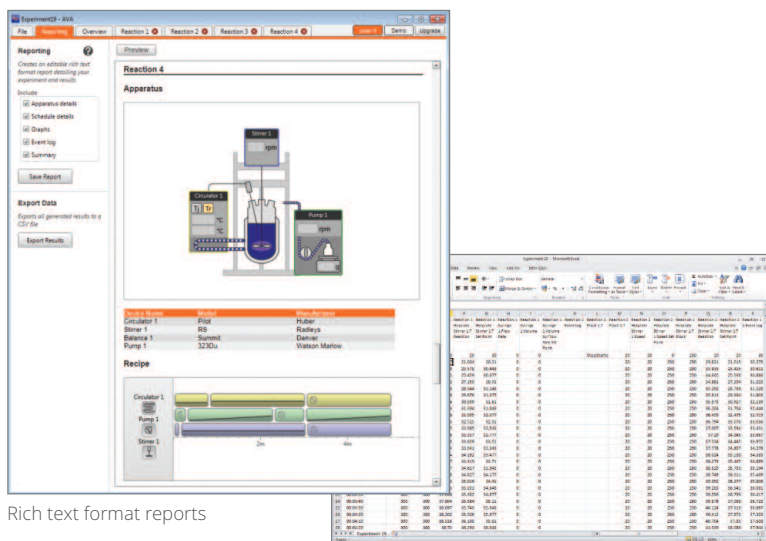

Apparatus Setups Window

2. Add multiple devices

- Select and name devices
- Set device parameters and safety limits
- Link devices for dual control e.g. pump and balance for gravimetric additions
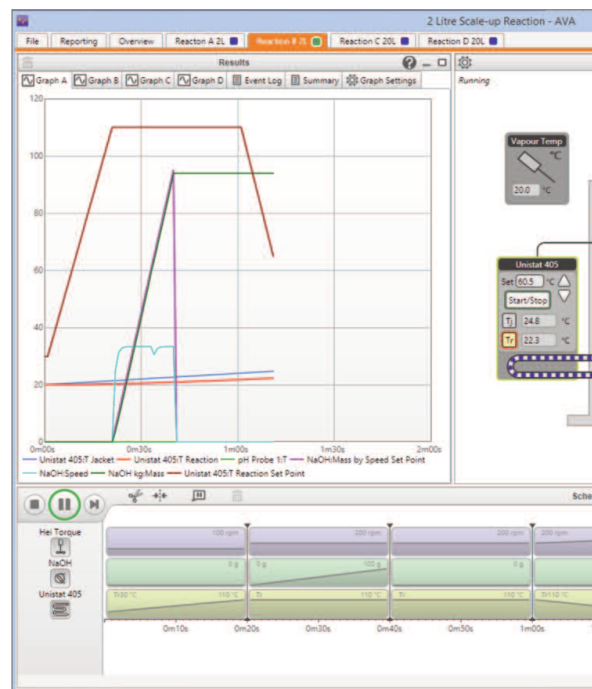

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7. Create reports and share data

- Automatically log and save all data
- The report wizard creates detailed reports in rich text format (for word processing) or CSV (for spreadsheets)
- Share experiments and results with other AVA users

Rich text format reports

Export data by CSV format if preferred

2 Litre Scale-up Reaction - AVA

6. Enhanced safety for unatt

- Set individual device warning alarms
- Set emergency safe conditions or reaction
- Create safety feedback loops e.g. control
- Set user-definable limits or parameters fo

Control and log your existing synthesis equipment

Circulators, Overhead Stirrers, Temperature Sensors, Syringe Pumps, pH Sensors, Peristaltic Pumps, Balances, Vacuum Pumps, Gas Flow Controllers, Stirring Hotplates, Pressure Sensors, Conductivity Sensors and Gas Flow Meters
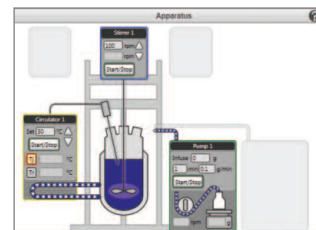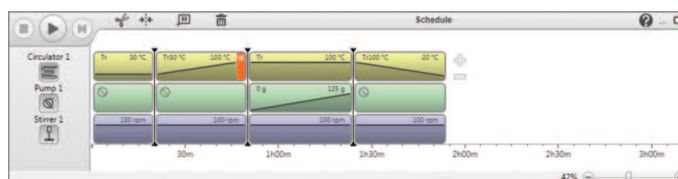

Overview

Control up to 4 different reactions in parallel
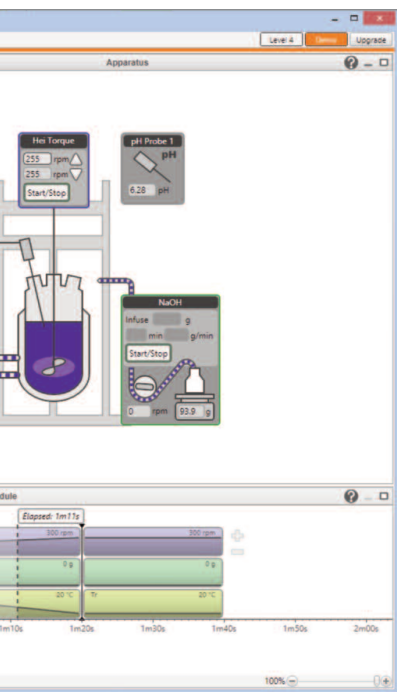
3. Select Direct or Schedule control

- Control devices directly via the Apparatus Window, or…

- Use the Schedule Window to create experiment profiles e.g. create ramps, plateaus and timed actions
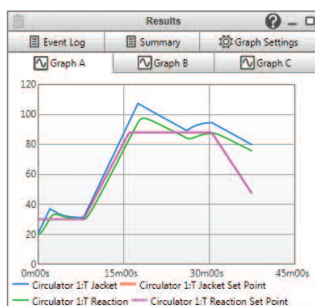

Apparatus Window
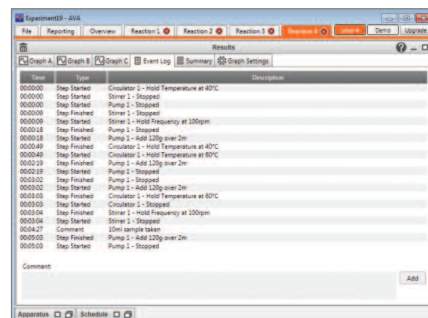

Schedule Window

4. 'Track and Repeat'

- Track what you do, as you do it and record all actions

- Repeat and refine the Schedule to optimise the experiment

- This clever feature enables automation of a manual process with ease and without any programming knowledge

5. Graph data and modify experiments on-the-fly

- View real-time graphs

- Stop, pause or skip steps and modify experiments mid-run

- Add or remove steps as the timeline progresses

- Add notes in the Event Log

tended operation 24/7

n shutdown if a sensor limit is exceeded

a pump addition by process temperature

r all devices

Graphs allow you to select what you plot

Event Log records all actions and notes

Control equipment from a variety of manufacturers

Data Hub

Integrate devices with an RS232 serial interface

Using the Data Hub, AVA can connect to, control and log data from multiple 3rd party devices with an RS232 serial interface.

Choose from two Data Hub models:

- RR20200 - 4 Port Data Hub
  4 x RS232 ports and 2 x Pt100 sensor ports

- RR20202 - 2 Port Data Hub
  2 x RS232 ports and 2 x Pt100 sensor ports

- Combine up to 4 Data Hubs to increase capacity

Specifications:

- 2 or 4 x RS232 serial ports

- 2 x Pt100 temperature sensor ports, with LEMO connection

- 1 x Ethernet port

2 and 4 x RS232 port options

Power & Ethernet Connection

2 x Pt100
Temperature Sensor Ports

4 x RS232
Serial Ports

Comprehensive Driver Library

- AVA includes a library of pre-configured driver files allowing easy integration with a wide range of 3rd party devices.

- Radleys also provide a 'New Driver Configuration Service' if required.

Circulators	Haake Huber Julabo Lauda
Overhead Stirrers	Heidolph IKA Lara CLR Radleys
Temperature Sensors	Generic
Syringe Pumps	Harvard New Era WPI
pH Sensors	Knick Jenway
Peristaltic Pumps	Cole-Parmer Ismatec Heidolph Watson-Marlow
Balances	A&D Denver Mettler Ohaus Precisa Sartorius
Vacuum Pumps	Vacuubrand
Gas Flow Controllers	Bronkhorst
Stirring Hotplates	Heidolph IKA Radleys
Pressure Sensors	Omega
Conductivity Sensors	Knick
Gas Flow Meters	Bronkhorst M+W Instruments

Download and try the AVA software for FREE @ www.radleys.com

Learn how AVA software works

- Simulate the control of devices
- Set up apparatus and control experimental Schedules
- Share setups and Schedules with other AVA users
- Analyse results and create reports for real or simulated data
- See the full range of AVA software levels

How to order

AVA Software Kit

RR20308   AVA Level 4 Software Kit

Comprising:
- AVA Software Level 4
- Laptop Controller
- 4 Port Data Hub
- 1 Year AVA Care Support

AVA Software Only

RR20114   AVA Level 4 Software

Software includes:
- 1 Year AVA Care Support

AVA Care Support

FREE support for 1st year

- Free priority email and telephone support
- Free set-up and application support
- Free software updates during support period, keeping software current

Renew AVA Care for another year

RR20144   AVA Care Level 4 - 1 Year

AVA is available in four levels to suit your application and budget

- The different AVA levels determine the types of devices that can be controlled and logged by the software
- Visit **www.radleys.com** to find out more

AVA Ordering Information

AVA Software Kit

RR20308	AVA Level 4 Software Kit - includes:
	Laptop Controller
	4 Port Data Hub
	1 Year AVA Care

AVA Software Only

RR20114	AVA Level 4 Software + 1 Year AVA Care

AVA Care Support

RR20144	AVA Care Level 4 - 1 Year

New Driver Device Integration

RR20217	Driver Configuration Service

Controller

RR20250	Laptop Controller

Data Hub and Accessories

RR20200	4 Port Data Hub
RR20202	2 Port Data Hub
RR20454	Ethernet Switch (enables the use of 4 x Data Hubs, providing up to 16 x RS232 ports)

Peripheral Devices

Circulators

We offer a full range of circulators, hoses, oils, cables and accessories for all types of heating/cooling applications. For advice on selecting the system or accessory you need please contact our sales office.

Overhead Stirrers - with RS232 serial interface

501-61020-00	Hei-TORQUE Precision 100 - (RS232 & USB)
501-62020-00	Hei-TORQUE Precision 200 - (RS232 & USB)
501-64020-00	Hei-TORQUE Precision 400 - (RS232 & USB)
14-007-040-72	RS232 Interface Cable - 9 pin to 9 pin

Syringe Pump Additions Module

RR20504	Syringe Pump Additions Module - which includes:
RR20418	Single Syringe Pump to 60 ml
RR20420	Control Cable, Single Syringe Pump to PC, 2 m
RR20407	Marprene Tubing 1.6 mm Bore 1.6 mm Wall, 5 m
RR139111	Screw Cap with Aperture GL14
RR139113	Silicone Seal with PTFE Washer GL14, 6 mm
RR139091	Adapter Rodaviss, B24 to GL14
RR139095	Adapter Rodaviss, B24 to 2 x GL14

pH Module

RR20502	pH Module - which includes:
RR20424	pH/mV/Temp Meter Portable + Control Cable (probe not included). Battery operated.
RR20438	Cable, pH Meter to Combination VP Probe, 3 m
RR139087	Adapter Rodaviss B34 to GL25
RR139125	Swivel 12 mm pH Probe Adapter GL25
RR20440	Buffer Solution Certified pH 4.01 +/-0.02 - 500 ml
RR20442	Buffer Solution Certified pH 7.00 +/-0.02 - 500 ml
RR20444	Buffer Solution Certified pH 9.21 +/-0.02 - 500 ml

pH Probes

RR20432	Combination VP pH Probe 325 mm x 12 mm (100, 250, 500 ml vessels)
RR20434	Combination VP pH Probe 360 mm x 12 mm (1000 ml vessels)
RR20436	Combination VP pH Probe 425 mm x 12 mm (2000, 3000, 5000 ml vessels)

Gravimetric Additions Module

RR20500	Gravimetric Additions Module - which includes:
RR20446	Toploading Balance 0.01 g x 4,200 g
RR20450	Control Cable, Balance to PC, 3 m
RR20400	Peristaltic Pump 400 rpm 2000 ml/min
RR20404	Control Cable, Peristaltic Pump to PC, 3 m
RR20407	Marprene Tubing 1.6 mm Bore 1.6 mm Wall, 5 m
RR139091	Adapter Rodaviss, B24 to GL14
RR139095	Adapter Rodaviss, B24 to 2 x GL14
RR139101	1000 ml Lab Bottle GL45
RR139109	Distribution Cap GL45 with 2 x GL14
RR139111	Screw Cap with Aperture GL14, pack 10
RR139113	Silicone Seal with PTFE Washer GL14, 6 mm, pack 10
RR20452	Labjack 200 x 230 mm

Vacuum Pump Module

RR20506	Vacuum Pump Module - which includes:
VB696702	PC3001 Vario Chemistry Diaphragm Pump - UK Plug
RR20216	Null Modem Serial Cable, 2 m
RR20456	NW 8 Rubber Vacuum Hose, 3 m
RR139025	Gas Purge Adapter B24 + GL14 + Fittings

Stirring Hotplates - with RS232 serial interface

RR91207	Carousel Connect Stirring Hotplate
RR91208	Carousel Connect Stirring Hotplate + Pt1000
RR91237	Carousel Connect RS232 Interface Cable - 9 Pin to 9 Pin
RR91226	Pt1000 S/S Temperature Sensor
RR91228	Temperature Sensor Holder
RR91229	Support Rod (13 mm x 425 mm)
RR91235	Pt1000 Clamping System + Support Rod and Cable Guide

Voltage and Plug Options

For your preferred voltage please add suffix /UK, /EURO, /JAP, /SWISS or /USA to the end of the catalogue number.