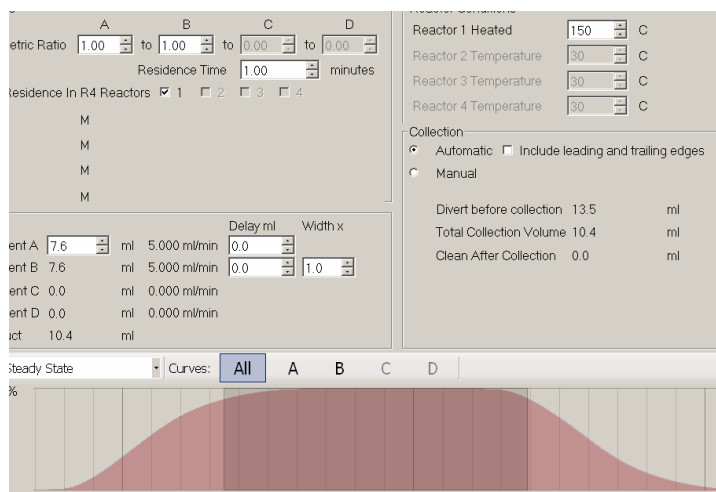


## Uv Triggered Collection

### Background

The Vapourtec FlowCommander™ software features the facility to model the axial dispersion that takes place with tube reactors, so that it is possible to automatically collect the steady state part of the reaction product peak when it emerges from the reactor. (see right).

This means it is possible to collect the optimum amount of good product with the minimum waste of reagents, and it is possible to determine exactly how much good product can be made from a limited amount of substrate.



**Dispersion Graph showing steady state portion which is to be collected (shaded)**

However, there are some circumstances (for example with heterogeneous columns) where either the dispersion is hard to accurately model, or else the working volume of the column reactor is not accurately known.

In this case, it may not be possible to simply “predict” the location or shape of the peak.

### The Solution

FlowCommander™ software has for some time offered the facility to monitor (and record & chart) the output of a UV sensor.

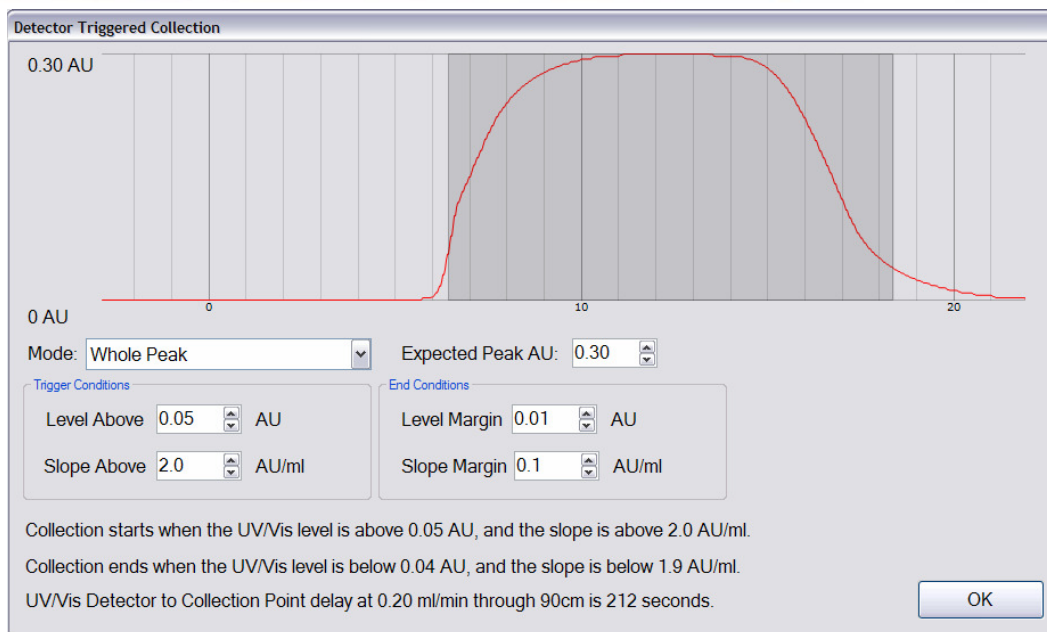
Vapourtec has now added the facility for UV Triggered collection. That is to say, operation of the collection valve is based on the output of a UV sensor located after the last reactor.

The user chooses the conditions for triggering.

These might be based on either the level or the gradient or both.

Criteria can be selected per reaction (i.e. a different trigger level can be set for each reaction in a sequence if need be)

Collection will then proceed according to these criteria.



In order to help the user visualise the outcome, FlowCommander™ asks for an expected maximum peak and generates a prediction of the UV trace based on the dispersion model. This allows the software to have a working estimate of the volume of peak that will be collected.

### Using a Fraction Collector

If it is desirable to split the peak over several vials on a fraction collector, the user specifies a maximum amount per vial (subject to the known maximum for the vial type in question on the selected fraction collector). Based on the volume estimate, a number of vial positions on the fraction collector will be set aside for that peak. If not all these vials turn out to be required (ie if the total volume of the peak is less than expected), the last vial(s) will be left empty. (The peak of the subsequent reaction will still be captured starting at its planned first vial position).

### FAQ

**Q I have FlowCommander™ and a UV sensor. What else do I need ?**

**A** Just the software version upgrade when it is made available.

**Q I have FlowCommander™ but no UV sensor. What UV sensors are available ?**

**A** Vapourtec offer (and FlowCommander™ supports) two models

- Knauer S200 UV detector - fixed wavelength 254nm.
- Gilson 151 UV Detector- Single wavelength manually settable between 190-700nm

Both of these include a flow cell

**Q When is this new version of FlowCommander available ?**

**A** 1<sup>st</sup> May 2011

**Q Is it available for both PC and Touchscreen versions of FlowCommander™**

**A** Yes

**Q What is the cost ?**

**A** If you already have a licensed copy of FlowCommander™ this will be a free upgrade.