

## art - Feature #13852

### Stop event loop dynamically end exit with status 0

09/13/2016 04:03 PM - Pengfei Ding

|                        |          |                        |            |
|------------------------|----------|------------------------|------------|
| <b>Status:</b>         | Closed   | <b>Start date:</b>     | 09/13/2016 |
| <b>Priority:</b>       | Normal   | <b>Due date:</b>       |            |
| <b>Assignee:</b>       |          | <b>% Done:</b>         | 0%         |
| <b>Category:</b>       |          | <b>Estimated time:</b> | 0.00 hour  |
| <b>Target version:</b> |          | <b>Spent time:</b>     | 0.00 hour  |
| <b>Scope:</b>          | Internal | <b>SSI Package:</b>    | art        |
| <b>Experiment:</b>     | NOvA     |                        |            |

#### Description

One of our NOvA user asked how to make art job finish when it finds certain kinds of event. Currently art stops the event loop in the following circumstances:

```
//-----  
// The function "runToCompletion" will run until the job is "complete",  
// which means:  
//     1 - no more input data  
//     2 - input maxEvents parameter limit reached  
//     3 - output maxEvents parameter limit reached  
//     4 - input maxSubRuns parameter limit reached  
//  
// The return values from runToCompletion are as follows:  
//     epSignal - processing terminated early, SIGUSR2 encountered  
//     epSuccess - all other cases
```

We would like a feature similar as raising "SIGUSER1" and making runToCompletion return epSuccess.

#### History

##### #1 - 09/13/2016 04:14 PM - Marc Paterno

- Status changed from New to Feedback
- SSI Package art added
- SSI Package deleted ()

There is a solution possible with no changes in *art*. If a NOvA module were to send a SIGINT signal to its own process (use process id 0), the *art* will shut down gracefully with the predictable exit status of 130 (128 + the value of the signal). The NOvA script running *art* then can respond to exit status of 0 or 130 as a success, and all other values are failures.

Please let us know if this suffices.

##### #2 - 09/13/2016 04:25 PM - Christopher Backhouse

I actually suggested this (as a joke) in the internal discussion.

The code for that is something simple like `send_signal(get_pid(), SIGINT)?`

for sure a global function, or function on some singleton that requests art to stop at the end of the current events would be cleaner.

Presumably art daq has a mechanism to achieve such a thing? Does that happen in their Source module?

##### #3 - 01/02/2018 11:03 AM - Kyle Knoepfel

We would like to close this issue due to lack of feedback. Please notify us if you disagree.

##### #4 - 02/16/2018 12:32 PM - Kyle Knoepfel

- Status changed from Feedback to Closed

Issue closed due to no feedback.