

fhicl - Support #24134

Including large numbers of files

03/05/2020 11:45 AM - Antoni Aduszkiewicz

Status:	Closed	Start date:	03/05/2020
Priority:	Normal	Due date:	
Assignee:	Kyle Knoepfel	% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:		Spent time:	0.00 hour

Description

I am developing fhicl file structure to store DAQ parameters for ICARUS CRT front end boards. We need tens of fhicl files, each configuring several boards (total over a hundreds of boards), each board having about hundreds parameters, many of which are common.

Schematically, a fhicl file looks like this:

```
daq: {
  fragment_receiver: {
    board100: {
      parameter1: 3
      parameter2: 5e-1
      parameter3: 0
      parameter4: false
    }
    board101: {
      parameter1: 4
      parameter2: 7.2
      parameter3: 0
      parameter4: false
    }
  }
}
```

In order to make it easier to manage I would like to break it down into several files. With trial and error I found the following works:

```
#fhicl_base.ficl
daq : {
  fragment_receiver : {
#include "board100.ficl"
#include "board101.ficl"
  }
}

#board100.ficl
board100 : {
  parameter1: 3
  parameter2: 0.5
#include "common_board_parameters.ficl"
}

#board101.ficl
board101 : {
  parameter1: 4
  parameter2: 7.2
#include "common_board_parameters.ficl"
}

#common_board_parameters.ficl
parameter3: 0
parameter4: false
```

I like the solution, because it minimizes redundancy and thus possibilities to make a mistake. However I'm not sure if it's OK to use

#include directive inside a curly bracket block. Is it something that may cause issues in the future?

History

#1 - 03/05/2020 01:38 PM - Kyle Knoepfel

- Assignee set to Kyle Knoepfel
- Status changed from New to Feedback
- Project changed from fhicl-cpp to fhicl

FHiCL does support what you require, but it's spelled differently. Here, the concept of a prolog and the @table:: splicing operator will be of help (see the [quick start guide](#)).

```
# common_board_parameters.fcl
BEGIN_PROLOG
common_board_parameters: {
  parameter3: 0
  parameter4: false
}
END_PROLOG

# board100.fcl
#include "common_board_parameters.fcl"

BEGIN_PROLOG
board100 : {
  parameter1: 3
  parameter2: 0.5
  @table::common_board_parameters
}
END_PROLOG

# board101.fcl
#include "common_board_parameters.fcl"

BEGIN_PROLOG
board101 : {
  parameter1: 4
  parameter2: 7.2
  @table::common_board_parameters
}
END_PROLOG

# fhicl_base.fcl
#include "board100.fcl"
#include "board101.fcl"
daq : {
  fragment_receiver : {
    @table::board100
    @table::board101
  }
}
```

Please let me know if you encounter any other issues.

#2 - 05/13/2020 04:01 PM - Kyle Knoepfel

Antoni, unless we hear from you in the next week, we'd like to close this issue.

#3 - 06/08/2020 12:53 PM - Kyle Knoepfel

- Status changed from Feedback to Closed

No more feedback has been received, so we are closing this issue.