Note for 2pt calculation with Chroma

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1 Chroma Installation

1.1 Download package

Download necessary packages for Installation from GitHub.

- Use "git clone –recursive . . . ", "recursive" means after the clone is created, initialize all submodules within, using their default settings.
- If the connection to the GitHub is not stable on the server, you are suggested to clone on your local machine, then use "scp" to upload.

Package list:

1. qmp
2. qio
3. qla
4. qdp
5. qopqdp
6. qdpxx

1.2 Configure and make

Configure and make in each folder of packages.

- The whole process can be divided into 7 parts (6 packages above and chroma), so that you can locate the errors conveniently.
- "export PATH=. . . :$PATH", makes environment variables available to other programs called from bash.
- "autoreconf -vi": used to update generated configuration files, "-v" means verbosely reporting processing, "-i" means copying missing auxiliary files.
- "./configure", you can use "./configure –help" to see the options
- "./autogen.sh"

2 Source code

2.1 Plug in packages

Users are allowed to write some plug in packages and register in the Chroma, so that those packages can be used.

2.2 Make

- Makefile
- make.sh

3 2pt calculation

3.1 Perl script

Used to print the .xml file as the input for Chroma.
Write perl script as the structure in "xxx.h".

3.2 Inline 2pt.cc

3.3 Add new plug in packages

If you want to use a new plug in package in the Chroma for calculation, you should:

1. Write the .cc file and .h file.
2. Put two files above into the source code folder.
3. In the source code folder, add '#include "inline_xxx.h" ' and "foo &= InlinexxxEnv::registerAll();" into "chroma.cc".
4. In the source code folder, add "inline_2pt.h" and "inline_2pt.o" into "Makefile".
5. "bash make.sh" again
6. Update your .pl file to use the new plug in package, and remake the soft link of "chroma" in the same path as .pl file.
7. "sbatch xxx.sh" again.