1. **Chapter   
     
   Frequently asked questions**
   1. **How to install?**

To install Clara you need to check out the latest release from the clas12 software svn repository.

* svn co https://clas12svn.jlab.org/repos/clas12/Clara/tags/2.1.1 Clara-2.1.1

The last step is to change directory to the newly checked out Clara distribution directory and type install. However, before installation one should make sure that $CLARA\_SERVICES environmental variable is set and is pointing to a local directory where, future service engine binary files, as well CLAS12 software Java projects libraries will be installed.

* cd Clara-2.1.1
* ant install
  + 1. **What if I also need the source code?**

The stable version of the framework can be checked out from the CLAS12 software repository, and an *ant* command will compile and install the Clara locally. Note, that the package requires Sun's Java Runtime Environment (JRE) release 1.6.x (or later), as well as Ant 1.8.x to compile.

* svn co https://clas12svn.jlab.org/repos/clas12/Clara/trunk Clara
* cd Clara
* ant
  1. **How I start a platform**

The set of Unix shell scripts and windows executable files are provided in the bin directory of the distribution that will help to start and operate Clara framework environment. Below is the console of the Clara platform that was started locally.

* bin/clara-platform

>> \*\*\*\* cMsg server sucessfully started at Wed Jul 27 14:41:55 EDT 2012 \*\*\*\* <<

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\* Clara-2 Platform \*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

- Name = VTest\_Platform

- Host = 129.57.29.62

- TCP port = 45000

- UDP port = 45000

- Start time = 2012/07/27 14:41:55

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\* Clara-2 Data Processing Environment \*

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- Name = 129.57.29.62\_admin

- Host = 129.57.29.62

- Start time = 2012/07/27 14:41:55

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- Platform host = 129.57.29.62

- Platform name = VTest\_Platform

- Platform TCP port = 45000

- Platform UDP port = 45000

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129.57.29.62\_admin registered with the platform at 2012/07/27 14:41:55

Note, that framework will assign the name to the platform, as well as set the network specific information based on the information stored in the setup.xml file, accessible through the $CLARA\_SERVICES environmental variable. Below is shown minimal the content of the setup.xml file that defines the name and the host of the platform. In this case the default values for communication ports are used.

<clara>

<platformName>CLAS12\_PLATFORM</platformName>

<platformHost>quark.richmond.edu</platformHost>

</clara>

* 1. **How to start an additional data processing environment?**

Platform starts the master data processing environment (DPE) that hosts Clara administrative and normative services. These are services that are responsible for user service registration and discovery, as well as for the overall service runtime management and administration. By the design only one DPE is allowed to be running on a single computing node. Thus, additional DPEs must be started on the host that is different than the platform node. To start an additional DPE on a remote host first of all we need to check/update setup.xml file, located in the $CLARA\_SERVICE directory. We have to make sure the platform name and the platform host is consistent with the running platform. Below is shown a console of the DPE started using the Unix shell script from the bin directory of the distribution.

* bin/clara-dpe

>> \*\*\*\* cMsg server sucessfully started at Wed Jul 27 15:41:55 EDT 2012 \*\*\*\* <<

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\* Clara-2 Data Processing Environment \*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

- Name = 129.57.29.104\_admin

- Host = 129.57.29.104

- Start time = 2012/07/25 22:41:55

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- Platform host = 129.57.29.62

- Platform name = VTest\_Platform

- Platform TCP port = 45000

- Platform UDP port = 45000

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129.57.29.104\_admin registered with the platform at 2012/07/27 15:41:55