“Xoreax”
Incredibuild For Linux
Release notes

version: v6.1.10
date: May 31th, 2013

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Reference		
Document Name	Version	Description
Extending_IncrediBuild_Work_Planning_v1.3 https://github.com/dimakuzminov/incredibuild_deployment/blob/master/Documentation/Extending_IncrediBuild_Work_Planning_v1.3.xls	V1.3	Tasks description

Table of Contents

Introduction

The goal of this document is to provide clear status for planned work, developed features and expose issues found during internal QA tests

Package information

- Package created by automatic “GNU Make” system and propriety build configuration
- Package as binary code is located on https://github.com/dimakuzminov/incredibuild_deployment.git
- Package structure
  - bin/ - all Incredibuild binary applications
  - web/ - Monitor scripts, sources and libraries
  - etc/ - system scripts that are used on “Helper” and “Initiator” machines
  - usr/ - system files for “Helper” and “Initiator” machines
  - Documentation/ - all relevant Documents for this project (including this document)
  - grid_server_domain.conf.[domain_group_name] this file list DNS of computers in grid domain (it is manually defined files). For more information please read “Linux_Incredibuild_deployment_Instructions_v1.0.doc”
  - linux.pem – ssh access internal key (defined by amazon site, but used in all our test systems)
  - “prepare_incredibuild_machine.sh” - script that install all relevant packages on helper/initiator machines. For more information please read “Linux_Incredibuild_deployment_Instructions_v1.1.doc”
  - “prepare_coordinator_machine.sh” - script that install all relevant packages on coordinator machine. For more information please read “Linux_Incredibuild_deployment_Instructions_v1.1.doc”
  - 3rd_side/ - all scripts to install 3rd side applications for grid computation
  - obsolete/ - all scripts that were previously supported, some need to be removed and some need to be updated
- How to Install [APPENDIX A]

Major changes

- “Temporary Slot” to resolve deadlock o mechanism execution tested and reverted
  - Solution cannot be supported correctly
  - The problem is
    - too many process created on under “gcc” level ~=2200 at peak time
    - the couple of cc1 and as could come at different time to service
    - we have too much temporary slots, the idea of controlling process doesn't work
    - cannot stop coming gcc easily as well
  - Need to review different way of understanding if gcc can cause ls/select2 effect
- **Due to priority algorithm optimization, we have better timing**
- **Coordinator** has keep alive mechanism with **GridServer** instances and crash from both sides is tested and redundancy is working
- **GridServer** instance has keep alive mechanism with **XgConsole,** if any of side stop working, another side close instance. Done to be able to return Slots back to coordinator

Scope

Changes from version 6.0.0

commit 993bfef1d2c96ab8c0068b21ed924363a308b952

Adjust default/incredibuild_profile.xml, remove profile.xml obsolete instance

commit 223ace9565e3f68e8d0d90ad1c60868b5dac13cf

Release version 6.1.10: stable coordinator

commit 8f78dbbde3eb4049c763b94d63a1f18fbe8157b2

Fix all scripts start service mechanism

commit d8e8fb369e42e627546769a96dba9e7965fbed51

Fix start process

commit 2c77c2dfc09c07cedef3c9731ba0fb6ec88fe95c

Versioning and crash fix in coordinator

commit 22db7abaa477ec77980e5d312e739a1aebd7bafd

Added passed tests

commit 170302b9e78f3bff2462396be1f3415d8ec180ed

Add versioning to XgConsole

commit 2644a5df435a9e268d09d956dfc8177249ae22fa

Add versioning to XgRegisterMe

commit 77870a47bd5ad88e3c759251c606cdbccc0e46fe

New version v6.1.4: keep alive XgConsole<->GridServer for releasing instances of grid server

commit c7c316e2b84bb6f80761a86ad4a4f0fa803221ad

Changing file name

commit 37eb14809e3aaa9831a09fe76f183efebea4921f

Changing format of test document

commit 08db17fd82da01295080a31656ae1f8770cfa605

Added list of tests

commit 92c347e2ecec5e9eb754c0d0902d9644831be8e6

Add script to remove incredibuild package: should remove generated system files as well

commit 1dca8ba50be2a6f4fe2a78948c6de60e9d5cc29a

Move scripts by categories: obsolete, 3d_side_party

commit 348bfb0d3615258e67a1a41fa328dc74accd2572

Scripts creates auto run on boot explicitly

commit 5aa408dad6dd5fdf231a022ea20f61b6a803368e

Remove link, must be done in deployment script

commit 6482cbe05c36d2cc6f57f092c95bdc4769596ee4

Add registration process to incredibuild enabled machine

commit 8f24a36aaa1a66b7bdcf51a87b7010c4dc75a7e7

Add Coordinator and utilities

commit c7c0ce65cab771616f0268ccc0d0c6c1bf876ea7

Add new Coordinator engaged version v6.0.0

commit a34f3c720759c18ce329bd4aa03e8288b034c774

Add Coordinator installation script

Rename initiator script as global incredibuild installation script for helper machine and initiator same time

Tests

Testing entire solution on one host.

Test – 0001 Testing XgConsole starts when GridCoordinator is down

- GridCoordinator is down.
- Run GridServer
- run XgConsole make.
- Expected result:
  - XgConsole error “No available slots”.
- Actual result:
  - XgConsole error “No available slots”.

Test – 0002 GridCoordinator is down, run XgRegisterMe

- GridCoordinator is down.
- Run XgRegisterMe.
- Expected result:
  - Connection error.
- Actual:
  - Connection error.

Test – 0003 GridCoordinator is down, GridServer is down, run XgConsole

- GridCoordinator is down.
- GridServer is down.
- Run XgConsole make.
- Expected result:
  - XgConsole error “GridServer is down, please run sudo service incredibuild start ”.
- Actual:
  1. XgConsole error “GridServer is down, please run sudo service incredibuild start ”.

Test – 0004 GridCoordinator is up, GridServer is down, run XgConsole

- GridCoordinator is up.
- GridServer is down.
- Run XgConsole make.
- Expected result:
  - XgConsole error “GridServer is down, please run sudo service incredibuild start ”.
- Actual:
  1. XgConsole error “GridServer is down, please run sudo service incredibuild start ”.

Test – 0005 GridCoordinator is up, GridServer is up, run prepare_incredibuild_machine.sh first time

- GridCoordinator is up.
- GridServer is up.
- Run prepare_incredibuild_machine.sh first time.
- Expected result:
  - Message “local machine is registered”.
- Actual:
  1. Message “local machine is registered”.

Test – 0006 GridCoordinator is up, GridServer is up, run prepare_incredibuild_machine.sh not first time

- GridCoordinator is up.
- GridServer is up.
- Run prepare_incredibuild_machine.sh not first time.
- Expected result:
  - Message “local machine is already registered”.
- Actual:
  - Message “local machine is already registered”.

Testing entire solution on different hosts.

Test – 0001 GridCoordinator is down, run GridServer , then run XgConsole

- GridCoordinator is down.
- Run GridServer.
- Then run XgConsole make.
- Expected result:

XgConsole error “No available slots”.

- Actual:

XgConsole error “No available slots”.

Test – 0002 GridCoordinator is down, run XgRegisterMe

- GridCoordinator is down.
- Run XgRegisterMe.
- Expected result:
  - Connection error.
- Actual:
  - Connection error.

Test – 0003 GridCoordinator is down, GridServer is down, run XgConsole

- GridCoordinator is down.
- GridServer is down.
- Run XgConsole make.
- Expected result:
  - XgConsole error “GridServer is down, please run sudo service incredibuild start ”.
- Actual:
  1. XgConsole error “GridServer is down, please run sudo service incredibuild start ”.

Test – 0004 GridCoordinator is up, GridServer is down, run XgConsole

- GridCoordinator is up.
- GridServer is down.
- Run XgConsole make.
- Expected result:
  - XgConsole error “GridServer is down, please run sudo service incredibuild start ”.
- Actual:
  1. XgConsole error “GridServer is down, please run sudo service incredibuild start ”.

Test – 0005 GridCoordinator is up, GridServer is up, run prepare_incredibuild_machine first time

- GridCoordinator is up.
- GridServer is up.
- Run prepare_incredibuild_machine.sh first time.
- Expected result:
  - Message “local machine is registered”.
- Actual:
  1. Message “local machine is registered”.

Test – 0006 GridCoordinator is up, GridServer is up, run prepare_incredibuild_machine not first time

- GridCoordinator is up.
- GridServer is up.
- Run prepare_incredibuild_machine.sh not first time.
- Expected result:
  - Message “local machine is already registered”.
- Actual:
  1. Message “local machine is already registered”.

Test – 0007 Sudo reboot, run XgConsole

- Sudo reboot.
- Run XgConsole make.
- Expected result:
  - XgConsole error “GridServer is down, please run sudo service incredibuild start ”.
- Actual:
  1. XgConsole error “GridServer is down, please run sudo service incredibuild start ”.

Testing HelperMachines distribution.

Test – 0001 Run GridCoordinator on one host, then GridServer and XgConsole on the same host, then GridServer and XgConsole on another host

- Run GridCoordinator on one host.
- Then run GridServer and XgConsole on the same host. XgConsole should request a part of available hosts.
- Then run GridServer and XgConsole on another host, XgConsole should request a part of available hosts.
- Both XgConsoles should request less then amount of available hosts.
- Expected result:
  1. Both tasks run.

Actual:

Test – 0002 Run GridCoordinator on one host, then GridServer and XgConsole on the same host, then GridServer and XgConsole on another host

- Same conditions as in previous test.

Expected result:

1. All machines should be returned to GridCoordinator after completing both tasks.

Actual:

Test – 0003 Run GridCoordinator on one host, then GridServer and XgConsole on the same host, then GridServer and XgConsole on another host

- Run GridCoordinator on one host.
- Then GridServer and XgConsole on the same host. XgConsole should request all of available hosts.
- Then run GridServer and XgConsole on another host, XgConsole should request a part of available hosts.
- Expected result:
  1. First task runs, second waits; after first task completing second begins.
- Actual:

Test – 0004 Run GridCoordinator on one host, then GridServer and XgConsole on the same host, then GridServer and XgConsole on another host

- Same conditions as in previous test.
- Expected result:
  1. All machines should be returned to GridCoordinator after completing both tasks.
- Actual:

Test – 0005 Run GridCoordinator on one host, then GridServer and XgConsole on the same host, then break the task

- Run GridCoordinator on one host.
- Then run GridServer and XgConsole on the same host.
- Break the task.
- Expected result:
  1. All machines should be returned to GridCoordinator.
- Actual:

Test – 0006 Run GridCoordinator on one host, then GridServer and XgConsole on the same host, then down network

- Run GridCoordinator on one host.
- Then run GridServer and XgConsole on another host.
- Down network.
- Expected result:
  1. All machines should be returned to GridCoordinator.
- Actual:

Testing remove_incredibuild_package.sh.

Test – 0001 Run remove_incredibuild_package.sh

- Run the script.
- Expected result:
  1. All items mentioned in the script should be removed.
- Actual:
  1. All items mentioned in the script were removed.
- Known issue:
  1. /etc/grid_server_domain.conf should be removed too.

Test – 0002 Run remove_incredibuild_package.sh, then reboot, then run prepare_coordinator_machine.sh, then run prepare_incredibuild_machine.sh

- Run the script.
- Reboot.
- Check that nothing started.
- Run prepare_coordinator_machine.sh.
- Run prepare_incredibuild_machine.sh.
- Run XgConsole make.
- Expected result:
    1. Build should be running.
- Actual:
    1. Build is running.

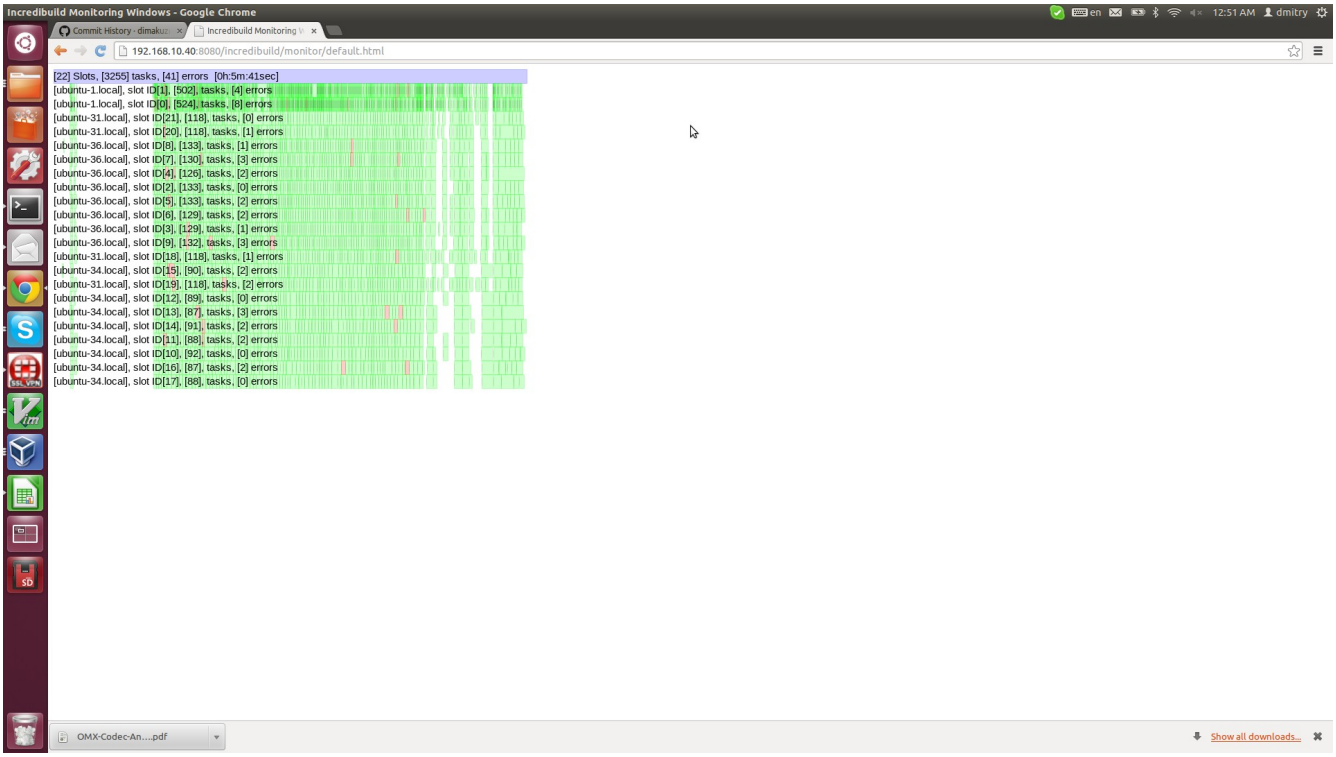
Comparison table

launcher	MySQL		Samba		Linux	
Version 5.0 Xoreax 7 machines 46 slots(new scheduler): 31, 35, 33, 34, 36, 37, 1	real user sys	4m22.500s 0m41.107s 0m20.929s	real user sys	6m12.928s 2m2.316s 1m10.260s	real user sys	1m44.109s 0m26.082s 0m13.113s
Version 6.1.10 Xoreax 4 machines 22 slots 1, 31, 36, 34	real user sys	3m26.288s 0m13.429s 0m15.969s	real user sys	5m41.678s 2m1.692s 1m11.208s	real user sys	2m8.966s 0m24.242s 0m12.929s
Local machine	real user sys	15m58.856s 28m48.472s 1m38.446s	real user sys	8m6.840s 12m10.114s 2m48.623s	real user sys	5m35.349s 9m29.756s 0m53.447s

- **Version 6.1.10 was tested with fewer number of machines**

Screen shots from builds

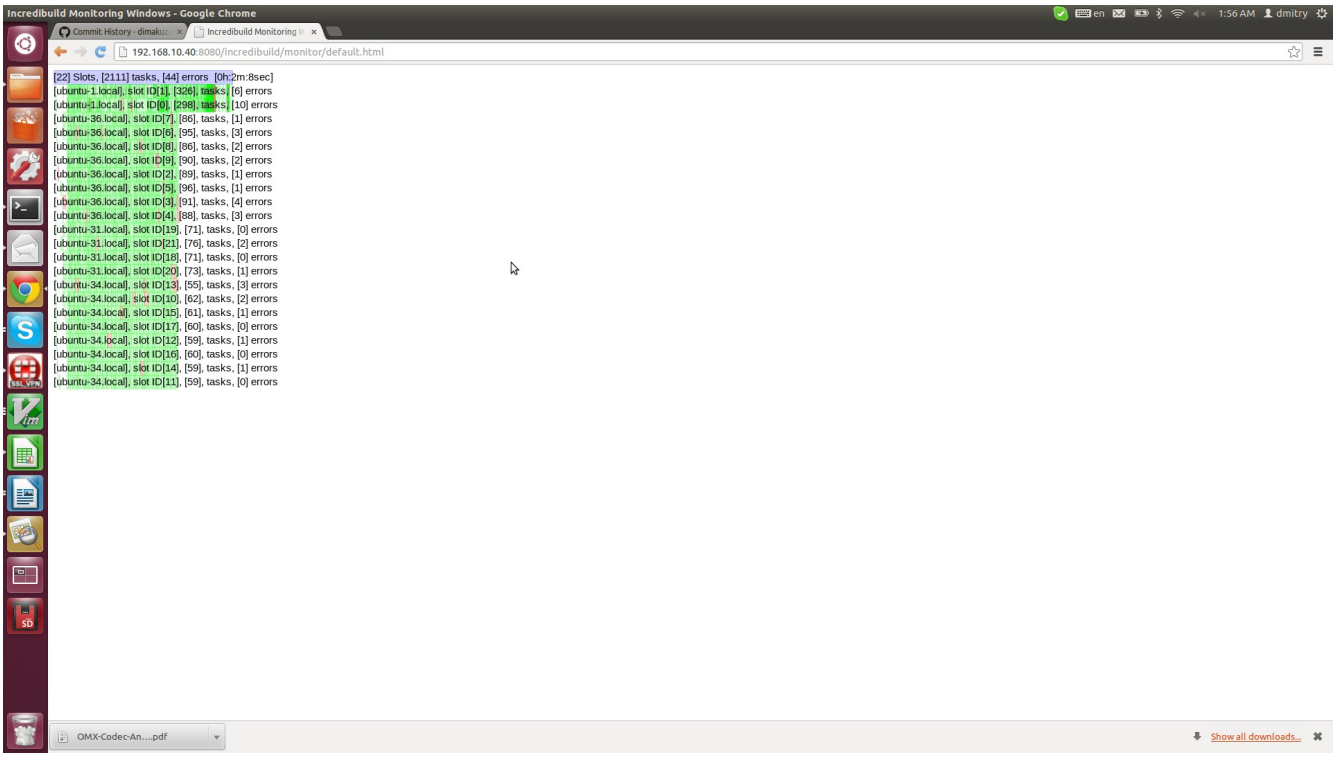
Samba



MySQL


Incredibuild Monitoring Windows - Google Chrome
192.168.10.40:8080/incredibuild/monitor/default.html
[22] Slots, [1369] tasks, [29] errors [0h:3m:26sec]
[ubuntu-1.local], slot ID[1], [116], tasks, [4] errors
[ubuntu-1.local], slot ID[0], [104], tasks, [2] errors
[ubuntu-31.local], slot ID[21], [67], tasks, [3] errors
[ubuntu-31.local], slot ID[20], [72], tasks, [2] errors
[ubuntu-31.local], slot ID[19], [67], tasks, [1] errors
[ubuntu-31.local], slot ID[18], [75], tasks, [0] errors
[ubuntu-36.local], slot ID[8], [63], tasks, [1] errors
[ubuntu-36.local], slot ID[2], [65], tasks, [1] errors
[ubuntu-36.local], slot ID[9], [69], tasks, [0] errors
[ubuntu-36.local], slot ID[3], [66], tasks, [2] errors
[ubuntu-36.local], slot ID[4], [64], tasks, [2] errors
[ubuntu-36.local], slot ID[5], [64], tasks, [0] errors
[ubuntu-36.local], slot ID[7], [63], tasks, [2] errors
[ubuntu-36.local], slot ID[6], [67], tasks, [3] errors
[ubuntu-34.local], slot ID[16], [40], tasks, [0] errors
[ubuntu-34.local], slot ID[17], [44], tasks, [0] errors
[ubuntu-34.local], slot ID[13], [43], tasks, [1] errors
[ubuntu-34.local], slot ID[10], [47], tasks, [0] errors
[ubuntu-34.local], slot ID[14], [43], tasks, [1] errors
[ubuntu-34.local], slot ID[12], [44], tasks, [1] errors
[ubuntu-34.local], slot ID[11], [44], tasks, [1] errors
[ubuntu-34.local], slot ID[15], [42], tasks, [2] errors
OMX-Codec-An....pdf
Show all downloads...

Linux Kernel



APPENDIX A

PACKAGE UPDATE

1. please run following commands each time you know there are updates in deployment package
   - 1.1 “cd incredibuild_deployment”
   - 1.2 “git pull”
     - 1.2.1 if new files, please run following command:
       - 1.2.1.1 coordinator: ./prepare_coordinator_machine.sh
         - 1.2.1.1.1 optional can provided predefined “grid_domain_server.conf” file as argument
       - 1.2.1.2 initiator/helper machine: ./prepare_incredibuild_machine.sh coordinator_machine_name/ip_address
         - 1.2.1.2.1 must specify coordinator_machine_DNS_name to run the script
     - 1.2.2 to remove entire package from current machine:
       - 1.2.2.1 ./remove_incredibuild_package.sh

First time installation

Install coordinator machine in domain

We need to use Terminal application for this process;

1 Open terminal
2 write following command to download package from public git repository
   - 2.1 “sudo apt-get install git”
   - 2.2 “git clone https://github.com/dimakuzminov/incredibuild_deployment”
3 install generic package
   - 3.1 “cd incredibuild_deployment”
   - 3.2 “./prepare_coordinator_machine.sh [grid_server_domain.conf.[generic_ubuntu]]”
     - 3.2.1 grid_server_domain.conf.generic_ubuntu could be replaced with any other grid_server_domain.conf.[profile] file
     - 3.2.2 grid_server_domain.conf file argument could be ignored

Install build machine in domain

It is recommended to install machine, only after coordinator is installed in network and is accessible from current machine

We need to use Terminal application for this process;

4 Open terminal
5 write following command to download package from public git repository
   - 5.1 “sudo apt-get install git”
   - 5.2 “git clone https://github.com/dimakuzminov/incredibuild_deployment”
6 install generic package
   - 6.1 “cd incredibuild_deployment”
   - 6.2 “./prepare_incredibuild_machine.sh coordinator_machine_DNS_name”
     - 6.2.1 must specify coordinator_machine_DNS_name