**Reneal 2024B Box and Project Notes**

**Version 1**

IMPORTANT NOTES

1. Ten new schools:
   1. Tanga Region: Chifu Mang’enya, Mwapachu, Mbwego, Semkiwa
   2. Arusha Region: Losinoni
   3. Mbeya: Iyunga Technical, Songwe, Malama, Usongwe, Ilunga
2. All of the new servers have 16.04+webdev+wireless. Please watch the video (<https://drive.google.com/file/d/1NTW8NvalmSxi2fIHIZJ83J-87Zmv8r4h/view?usp=drive_link>) about how to set up these servers and use the Reneal wireless, and share this with the SUs. For the new servers with the Reneal wireless, it is difficult to unplug the Reneal wireless router from the server LAN connection. The small plastic “latch” on the RJ45 is hard to reach. Please tell the SU to not pull it out, that will break the latch. They must use a plastic card like an ATM card or a piece of cardboard to reach in and push down the latch, so the RJ45 can be removed safely. Please watch the video showing how to connect and disconnect. Also note that to use the Reneal Wireless system with a cell phone, it may be necessary to turn off mobile data on the cell phone.
3. For the 16.04+webdev+wireless systems, the server MUST be plugged into the network switch for the virtual machines to work. If the server is not plugged into the network switch, Kolibri will not start and the webdev system will not work.

General Notes

1. There are no mice for the laptops in this shipment. The ecolevy was too expensive to ship mice to the schools. There is only one mouse per school, for the server.
2. Please collect any equipment donated by Apto that has failed and save it at the Reneal office. We must return any dead items to Apto Solutions for recycling if we cannot fix them.

Summary of Box Contents

1. Here is the organization of the boxes:
   1. Boxes A-T have laptops/adapters, and a keyboard and a mouse for each of the 10 new schools. There are two boxes per new school (total of 20 boxes).
   2. Box U has the 10 network switches (NOTE: the network switches are no longer in the boxes with the servers)
   3. Box V and Box W have monitors, VGA cables, and power cables for 8 of the new schools.
   4. Boxes AA, BB, CC, DD, EE have the following:
      1. Servers for the 10 new schools (two per box).
      2. The power cable for the server and the sys admin manual are inside each server box. Two copies of the donation letter are inside the sys admin manual.
   5. Box FF has the monitors, VGA cables, and power cables for 2 of the new schools plus the last laptop for Ilunga and its special power adapter cable (the laptop was too big to fit into the regular boxes). Installation supplies are also in this box (cable ties and RJ45s).
2. All monitors have VGA cables in this shipment.
3. The following boxes have all of the equipment for the 12 new schools:
   1. Chifu Mang’enya Secondary School: A, B, part of U, part of AA, part of V
   2. Mwapachu Secondary School: C, D, part of U, part of AA, part of V
   3. Mbwego Secondary School: E, F, part of U, part of BB, part of V
   4. Semkiwa Secondary School: G, part of U, H, part of BB, part of V
   5. Losinoni Secondary School: I, J, part of U, part of CC, part of W
   6. Iyunga Technical Secondary School: K, L, part of U, part of CC, part of W
   7. Songwe Secondary School: M, N, part of U, part of DD, part of W
   8. Malama Secondary School: O, P, part of U, part of DD, part of W
   9. Usongwe Secondary School: Q, R, part of U, part of EE, part of FF
   10. Ilunga Secondary School, S, T, part of U, part of EE, part of FF
4. Intallation supplies are in Box FF (RJ45 connectors and cable zip ties for Juma for the new installations).

Reneal Wireless System

Wifi signal: LAB\_2G or LAB\_5G (Password 12345678)

Navigate to 10.10.10.1

Teachers may need to turn off mobile data to use the Reneal Wireless on their phones or tablets.

The Reneal Wireless router (use an orange plug) connects to the network interface card in the server that has one port. Tell the SUs to not reconfigure the Reneal wireless router. If they do, the Reneal Wireless will not work. The Reneal wireless router does not provide internet, only the Reneal educational material on the server. If the school has internet, it should be plugged into the LAN connector on the motherboard, as usual.

Arusha Equipment

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| --- | --- | --- |
| **Item** | **Purchased** | **Destination** |
| Uninterruptible power supply (UPS) | 10 | All schools |
| Voltage stabilizer, 500VA | 10 | All schools |
| Power universal extensions (5 outlets) | 50 | 5 each for all schools |

PLEASE NOTE: We have purchased 5 boxes of UTP cable.

Installation Notes

Here is a list of what you will need at each new school being installed: server, power cord for server, sysadmin manual and donation letters, keyboard, monitor screen, monitor stand (2 pieces), power and video cables for monitor, network switch and power cord, 20 laptops, 20 laptop adapters, 1 mouse, a wireless router with power adapter and Ethernet cable, UPS, 3 special UPS cords OR a multiplug (for server, monitor, and network switch), voltage stabilizer, 5 extensions, Cat6 cable, RJ45 connectors, zip ties, blue tape, pens, cable clips, screws for mounting the switch, hammer and drill, your personal supplies and tools, power meter, and Reneal T-shirts.

1. Please use the installation checklist to make sure all steps are completed and you gather all the needed information about the new school plus the signed donation letters. The donation checklist and letter should be sent to Erick as soon as possible to put on the Reneal website.
2. PLEASE NOTE: UPS should be charged for 12 hours before it is used the first time.
3. Before you plug anything in, check the computer room voltage with the power meter to make sure it is around 220 volts and stable.
4. If the server does not start properly, take off the cover and check the power connectors to the motherboard, check any SATA cables, make sure the RAM is inserted fully, and check the network cards to make sure they are inserted completely. The main storage device is now an Nvme stick attached to the motherboard, so they should not need to be checked since they are firmly attached.
5. I have the specifications for all of the laptops in a spreadsheet. Please leave the blue tape with the number on the laptop, for identification. “AS” with a number means the laptop/adapter was donated by Apto Solutions.
6. For a regular Reneal server with webdev+wireless: The internet, if available, plugs into the motherboard RJ45 connector. The Reneal Wireless router plugs into the network interface card with one port. The network switch has two connections to the server, which plug into the network interface card with two ports.

Laptop Notes

All of the laptops in this shipment are Dell.

There are two laptop models (3490: 4 at Mwapachu and 4 at Mbwego, Inspiron P32c: 1 at Ilunga) that use a smaller connector for the laptop power. There are short cables to convert the big connector to the small connector for each of those laptops. Otherwise, all of the Dell adapters should work with any Dell laptop, so the adapters are not labeled with a number. For some Dell laptops, you may see a message about the power adapter not providing enough power to charge the battery, or that it can’t identify the power adapter. Please just hit F3, which will disable future warnings. Then hit F1 to continue the boot.

One of the 3490 units (AS-1788) at Mbwego needs an external keyboard because the “J” key was destroyed. This extra laptop is included in Box E.

AS-1817 goes into Diagnostic Boot when it is started. Please show the SU how to end that and go to the network boot.

Software Notes

There were some software changes made in this release (2025A).

1. The TZ National Exams and PhET simulations were moved back into the browser (removed from Kolibri) – this is for both the clients and for the wireless access.
2. For the wireless access, only the PhET html5 simulations are shown, since the Java and Flash simulations do not work on phones.
3. National Exams were updated through 2024 for all subjects, and new index files were built.
4. A bug in endOfYearCleanup.py was fixed so the image resources for webdev are not deleted at the end of the year.
5. The program configureNetworkInterfaces.py was updated to manage four network interfaces.
6. The new image includes a blank student\_list.csv file.

**Box Contents**

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| --- | --- | --- | --- |
| **Box** | **Item** | **Quantity** | **Destination** |
| A | Laptop | 8 | Chifu Mangenya |
| A | Laptop adapter | 20 | Chifu Mangenya |
| A | Mouse | 1 | Chifu Mangenya |
| A | Keyboard | 1 | Chifu Mangenya |
| A | Wireless router | 1 | Chifu Mangenya |
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| **Box** | **Item** | **Quantity** | **Destination** |
| B | Laptop | 12 | Chifu Mangenya |
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| **Box** | **Item** | **Quantity** | **Destination** |
| C | Laptop | 8 | Mwapachu |
| C | Laptop adapter | 20 | Mwapachu |
| C | Mouse | 1 | Mwapachu |
| C | Keyboard | 2 | Mwapachu |
| C | Wireless router | 1 | Mwapachu |
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| **Box** | **Item** | **Quantity** | **Destination** |
| D | Laptop | 12 | Mwapachu |
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| **Box** | **Item** | **Quantity** | **Destination** |
| E | Laptop | 8 | Mbwego |
| E | Laptop adapter | 20 | Mbwego |
| E | Mouse | 1 | Mbwego |
| E | Keyboard | 2 | Mbwego |
| E | Wireless router | 1 | Mbwego |
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| **Box** | **Item** | **Quantity** | **Destination** |
| F | Laptop | 12 | Mbwego |
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| **Box** | **Item** | **Quantity** | **Destination** |
| G | Laptop | 8 | Semkiwa |
| G | Laptop adapter | 20 | Semkiwa |
| G | Mouse | 1 | Semkiwa |
| G | Keyboard | 1 | Semkiwa |
| G | Wireless router | 1 | Semkiwa |
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| **Box** | **Item** | **Quantity** | **Destination** |
| H | Laptop | 12 | Semkiwa |
|  |  |  |  |
| **Box** | **Item** | **Quantity** | **Destination** |
| I | Laptop | 8 | Losinoni |
| I | Laptop adapter | 20 | Losinoni |
| I | Mouse | 1 | Losinoni |
| I | Keyboard | 1 | Losinoni |
| I | Wireless router | 1 | Losinoni |
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| **Box** | **Item** | **Quantity** | **Destination** |
| J | Laptop | 12 | Losinoni |
|  |  |  |  |
| **Box** | **Item** | **Quantity** | **Destination** |
| K | Laptop | 8 | Iyunga Technical |
| K | Laptop adapter | 20 | Iyunga Technical |
| K | Mouse | 1 | Iyunga Technical |
| K | Keyboard | 1 | Iyunga Technical |
| K | Wireless router | 1 | Iyunga Technical |
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| **Box** | **Item** | **Quantity** | **Destination** |
| L | Laptop | 12 | Iyunga Technical |
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| **Box** | **Item** | **Quantity** | **Destination** |
| M | Laptop | 9 | Songwe |
| M | Laptop adapter | 20 | Songwe |
| M | Mouse | 1 | Songwe |
| M | Keyboard | 1 | Songwe |
| M | Wireless router | 1 | Songwe |
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| **Box** | **Item** | **Quantity** | **Destination** |
| N | Laptop | 11 | Songwe |
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| **Box** | **Item** | **Quantity** | **Destination** |
| O | Laptop | 9 | Malama |
| O | Laptop adapter | 20 | Malama |
| O | Mouse | 1 | Malama |
| O | Keyboard | 2 | Malama |
| O | Wireless router | 1 | Malama |
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| **Box** | **Item** | **Quantity** | **Destination** |
| P | Laptop | 11 | Malama |
|  |  |  |  |
| **Box** | **Item** | **Quantity** | **Destination** |
| Q | Laptop | 9 | Usongwe |
| Q | Laptop adapter | 20 | Usongwe |
| Q | Mouse | 1 | Usongwe |
| Q | Keyboard | 1 | Usongwe |
| Q | Wireless router | 1 | Usongwe |
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| **Box** | **Item** | **Quantity** | **Destination** |
| R | Laptop | 11 | Usongwe |
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| **Box** | **Item** | **Quantity** | **Destination** |
| S | Laptop | 9 | Ilunga |
| S | Laptop adapter | 20 | Ilunga |
| S | Mouse | 1 | Ilunga |
| S | Keyboard | 1 | Ilunga |
| S | Wireless router | 1 | Ilunga |
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| **Box** | **Item** | **Quantity** | **Destination** |
| T | Laptop | 10 | Ilunga |
|  |  |  |  |
| **Box** | **Item** | **Quantity** | **Destination** |
| U | Network Switches | 10 | All Schools |
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| **Box** | **Item** | **Quantity** | **Destination** |
| V | Monitor | 4 | Chifu Mangenya, Mbwego, Mwapachu, Semkiwa |
| V | VGA cable | 4 | Chifu Mangenya, Mbwego, Mwapachu, Semkiwa |
| V | Power cable | 4 | Chifu Mangenya, Mbwego, Mwapachu, Semkiwa |
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| **Box** | **Item** | **Quantity** | **Destination** |
| W | Monitor | 4 | Losinoni, Iyunga Technical, Songwe, Malama |
| W | VGA cable | 4 | Losinoni, Iyunga Technical, Songwe, Malama |
| W | Power cable | 4 | Losinoni, Iyunga Technical, Songwe, Malama |
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| **Box** | **Item** | **Quantity** | **Destination** |
| AA | Desktop computer | 1 | Chifu Mangenya |
| AA | Desktop computer | 1 | Mwapachu |
| AA | Sys admin manual | 1 | Chifu Mangenya |
| AA | Sys admin manual | 1 | Mwapachu |
|  |  |  |  |
| **Box** | **Item** | **Quantity** | **Destination** |
| BB | Desktop computer | 1 | Mbwego |
| BB | Desktop computer | 1 | Semkiwa |
| BB | Sys admin manual | 1 | Mbwego |
| BB | Sys admin manual | 1 | Semkiwa |
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| **Box** | **Item** | **Quantity** | **Destination** |
| CC | Desktop computer | 1 | Losinoni |
| CC | Desktop computer | 1 | Iyunga Technical |
| CC | Sys admin manual | 1 | Losinoni |
| CC | Sys admin manual | 1 | Iyunga Technical |
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| **Box** | **Item** | **Quantity** | **Destination** |
| DD | Desktop computer | 1 | Songwe |
| DD | Desktop computer | 1 | Malama |
| DD | Sys admin manual | 1 | Songwe |
| DD | Sys admin manual | 1 | Malama |
|  |  |  |  |
| **Box** | **Item** | **Quantity** | **Destination** |
| EE | Desktop computer | 1 | Usongwe |
| EE | Desktop computer | 1 | Ilunga |
| EE | Sys admin manual | 1 | Usongwe |
| EE | Sys admin manual | 1 | Ilunga |
|  |  |  |  |
| **Box** | **Item** | **Quantity** | **Destination** |
| FF | Monitor | 2 | Usongwe, Ilunga |
| FF | VGA cable | 2 | Usongwe, Ilunga |
| FF | Power cable | 2 | Usongwe, Ilunga |
| FF | Laptop | 1 | Ilunga |
| FF | Team supplies | 1 box |  |
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