Work Instruction: Rollback to MinKNOW Software 25.03.7 on PromethION and GridION devices

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1.   Introduction

This document provides detailed step-by-step instructions for downgrading MinKNOW to version 25.03.7. Please ensure you follow each step carefully to avoid errors during the software downgrade process.

2.   Prerequisites

- Access to an ONT machine such as GridION / PromethION etc
- Valid user credentials / User access: Must have sudo (superuser) privileges
- OS: Debian-based Linux distribution (e.g., Ubuntu Focal 20.04.6 LTS)
- Network: Active internet connection (apt fetches from online repositories)
- Command Line required
- No active processes ongoing on the current MinKNOW software (e.g. No ongoing sequencing or basecalling)

3.   Rollback process

3.1.   Step 1: Open the Terminal

You can open the Terminal by either:

- **Option 1:** Press on your keyboard:

```
Ctrl + Alt + T
```

- **Option 2:** Searching for "Terminal" from the system's application menu.

3.2. Step 2: Run the following commands

Please note:

- Only type one line at a time.
- Press **Enter** after typing each line to launch each line of command.

```
sudo apt update
sudo apt install ont-install-tweaks-promethion
sudo /opt/ont/platform/bin/ont-rollback-minknow check
sudo /opt/ont/platform/bin/ont-rollback-minknow rollback
```

3.3. Expected prompts

- You will be prompted to type in the password of your PromethION device. Please note that the password will not be visible on screen. Press **Enter** once the password has been typed in.

- You will be prompted:

```
Do you want to continue? [Y/n]
```

Press **Y** then **Enter** to continue.
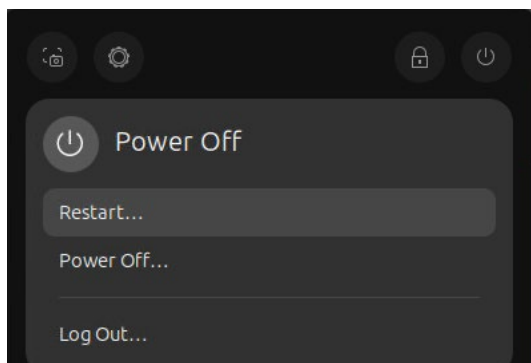
3.4. Expected Output

You will see the message: "Success is now at ont-promethion-release25.03.7-focal". This will indicate the command has run successfully.

```
ont-migrate-docker-promethion removed
ont-nextflow-artic-offline removed
ont-nextflow-for-promethion removed
ont-platform-bash-stdlib-promethion removed
ont-platform-display-config-promethion removed
ont-platform-install-validation removed
ont-platform-system-scripts-promethion removed
ont-platform-theme-promethion removed
ont-platform-usbmount-promethion removed
ont-promethion-base removed
ont-promethion-mooneye removed
ont-python removed
ont-remote-support-promethion removed
ont-system-identification-promethion removed
ont-ubuntu-repository-promethion removed
ont-ubuntu-tuning-promethion removed
ont-platform-system-scripts-promethion removed
ont-resource-logger removed
ont-platform-hardware-identification removed
promethion-driver-dkms removed
python3-ont-promethion-firmware removed
Success is now at ont-promethion-release25.03.7-focal
```

3.5. Reboot your system

It is recommended to restart your device to ensure all changes are enacted. You can restart the system by either:

- **Option 1:** The Power Off button in the top right corner of the Ubuntu desktop, by clicking on **Restart**.

- **Option 2:** From the Terminal, by typing:

```
sudo reboot now
```

4. Appendix

4.1. Command breakdown:

4.1.1.

```
sudo apt update
```

4.1.1.1. Breakdown:

- *sudo:* executes the command with superuser (admin) privileges.
- *apt:* the command-line tool for managing packages
- *update*: synchronises the package index files from their sources

4.1.1.2. Expected output:

- List of repositories being checked
- "Hit" or "Get" messages showing contact with sources
- A summary like:

```
N packages can be upgraded. Run 'apt list --upgradable' to see them
```

4.1.2.

```
sudo apt install ont-install-tweaks-promethion
```

4.1.2.1. Breakdown:

- *sudo:* executes the command with superuser (admin) privileges.
- *apt:* the command-line tool for managing packages
- *install:* the command line tool to install the ont-install-tweaks-promethion packages
- *ont-install-tweaks-promethion:* suite of utilities including the package to roll back

4.1.3.

```
sudo /opt/ont/platform/bin/ont-rollback-minknow check
```

4.1.3.1. What happens:

This command will check what version is available in the rollback repository. It should return the previous version to the current version (i.e., 25.03.7).

4.1.4.

```
sudo /opt/ont/platform/bin/ont-rollback-minknow rollback
```

4.1.4.1. What happens:

This command performs a rollback by removing all PromethION packages and reinstalling the ones present in the rollback repository (25.03.7).

4.1.5.

```
sudo reboot now
```

4.1.5.1. Breakdown:

- *sudo:* executes the command with superuser (admin) privileges
- *reboot:* command to restart the compute from Command Line
- *now:* enable to start the reboot procedure straight away.