**ZES Payload App Testing Guide V1.0**

**[Configuration]**

It is necessary to setup the config.py according to the VM and hardware setup from Antaris before any test.

Steps:

1. Open zesUART/config.py
2. Fill in the ANTARIS settings from line 21 to line 27  
   Text

   Description automatically generated
3. Save the revised config.py

**[Ground Test]**

This test is to check whether the VM can communicate to the payload via UART / the previously configured SERIAL\_DEVICE, and a few self-tests for the ZES payload.

Steps:

1. Open terminal / console.
2. Change directory to the zesUART folder, e.g.,   
   cd /home/pi/zesUART
3. Run python3
4. Enter the following command:  
   >>> from test import zes\_app\_test  
   >>> zes\_app\_test('ground')
5. Expected result to see:  
   ...

[Debug] >>> Ground Test Passed.

...

1. If there’s any error, the information will be printed into the terminal / console.

**[Flight Mode Test]**

This test is to check the operations of the ZES payload running in flight mode, including the function to download file to ground stations.

Steps:

1. Open terminal / console.
2. Change directory to the zesUART folder, e.g.,   
   cd /home/pi/zesUART
3. Run python3
4. Enter the following command:  
   >>> from test import zes\_app\_test  
   >>> zes\_app\_test('flight')
5. Expected result to see:  
   ...

[Debug] >>> Flight Operation Completed.

...

1. If there’s any error, the information will be printed into the terminal / console.