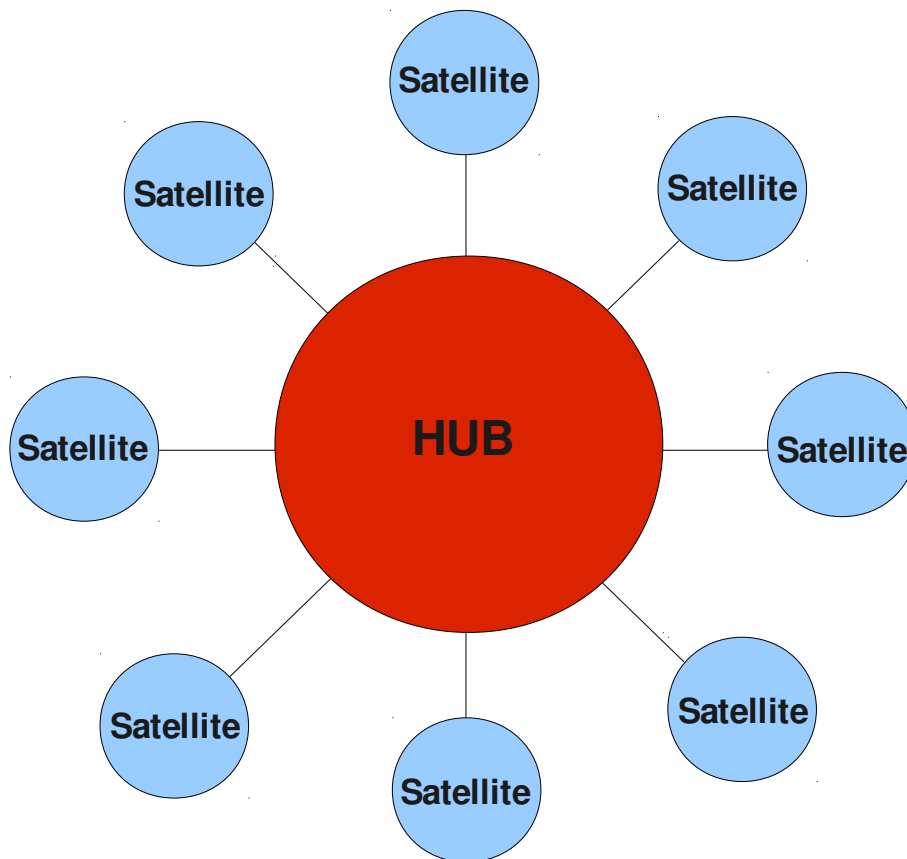


Feasa Legend LED Analyser



Setup Guide



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About this Manual

Feasa operates a policy of continuous development. Feasa reserves the right to make changes and improvements to any of the products described in this document without prior notice.

Feasa reserves the right to revise this document or withdraw it at any time without prior notice.

This manual is written for the Feasa Legend Hub and Satellite LED Analyser.

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Introduction

This Guide outlines the steps required to get the Legend system up and running as efficiently as possible. More detailed information about the system can be found in the *User* and *FeasaLimits* manuals. These documents can be found on the CD supplied with the system.

Preparing to use the System

There are a number of items to consider before using the Legend Test system.

- 1/ A Fixture must be constructed that will be able to apply power to the LED's to be tested and position the Optical Heads/Fibers over each LED.
The LED Analysers must be mounted on the Test Fixture and the Fibers routed to the Optical Heads. The Hub may be mounted on the Fixture with the 6-Way Flat Cables connecting the Analysers to the Hub. Alternately, the Hub can be mounted separately from the Fixture. However, provision must be made to connect the 6-way Flat Cables through the Fixture Interface to the Hub. The maximum length of the Flat cables is 3 Meters.
- 2/ The Hub is supplied with an external Power Supply. This Power Supply is used to provide power to the Analysers through the Flat Cables. The Hub can be connected to the Controlling PC through a Serial or USB port. The Fixture must provide a means to turn on the LED's before being tested.
- 3/ The type of test to be carried out on the LED's should be decided before using the system. If the LED's are a single colour such as Red, Green, etc then it may only be necessary to test Colour and Intensity. The Hue, Saturation and Intensity (HSI) may be suitable. Another possibility would be to test Intensity and Dominant Wavelength. For White LED's the options include Intensity, xy Chromaticity, CCT and Saturation. For most applications Intensity and one other test (xy or CCT) may be suitable. The more tests

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implemented on each LED the longer will be the Test Time.

- 4/ If a PCB contains LED's with different colours it is advisable to group similar colours sequentially.
For example, a PCB contains 25 Red, 35 White and 15 Blue LED's. Assign Fibers 1 - 25 to Red, Fibers 26 - 60 to White and Fibers 61 - 75 to Blue. This will make debugging with the FeasLimits Program much easier. All the same colour LED's can be easily selected and operated on together.
- 5/ A known Good Board is required to set the limits more accurately. The System can measure the LED's and apply Maximum and Minimum Pass Limits automatically. All limits can be changed individually or globally using the Feasalimits software.

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Setup and Learning Limits

The following steps are a guide to help the user to get the system up and running quickly.

- 1/ Install the software supplied on the CD. If this is the first time then also install the USB drivers.
- 2/ Plug in the external Power Supply to the Hub. The Green Power indicators should light on the Hub and Satellite Analysers. If the Satellites are not indicating power then check that the Flat cables are plugged in correctly. Plug one end of the USB cable into the Hub and the other end into a port on the PC.
- 3/ Start the FeasaLimits program. This is found in :-
Program Files→Feasa Legend→FeasaLimits.
- 4/ If this is a new project or the first time *FeasaLimits* has been run then create a new project. The next step is add the Hardware by clicking on *Hardware settings*. Ensure that all the the Hardware detected is as expected. If any Hardware is missing from the list check the cables and retry.
- 5/ Turn on Power to the LED's.
- 6/ Click on *Verify Analysers* and run this task by clicking on the Green Icon. This program measures all the LED's and checks that some light is reaching the sensors. A *Pass* is displayed if all sensors detect light.
- 7/ The next step is to run the *External Tools* to balance the LED measurements. The *User Gains* will balance the Intensities. Only LED's of the same type should be balanced at a time. LED's of different type may have different Intensities. If xy Chromaticity is being tested then these values should also be balanced.

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- 8/ The next step is to run the Set Test Limits function. This function is used to learn the Minimum and Maximum limits for each Test. See the *FeasaLimits User manual* for more information regarding how to set the limits. Initially the limits are stored in the memory of the PC and can be verified before storing them on the Satellites. Save the project before exiting the program.