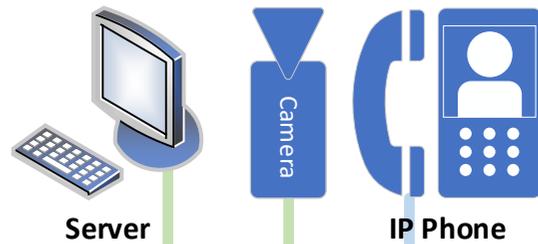
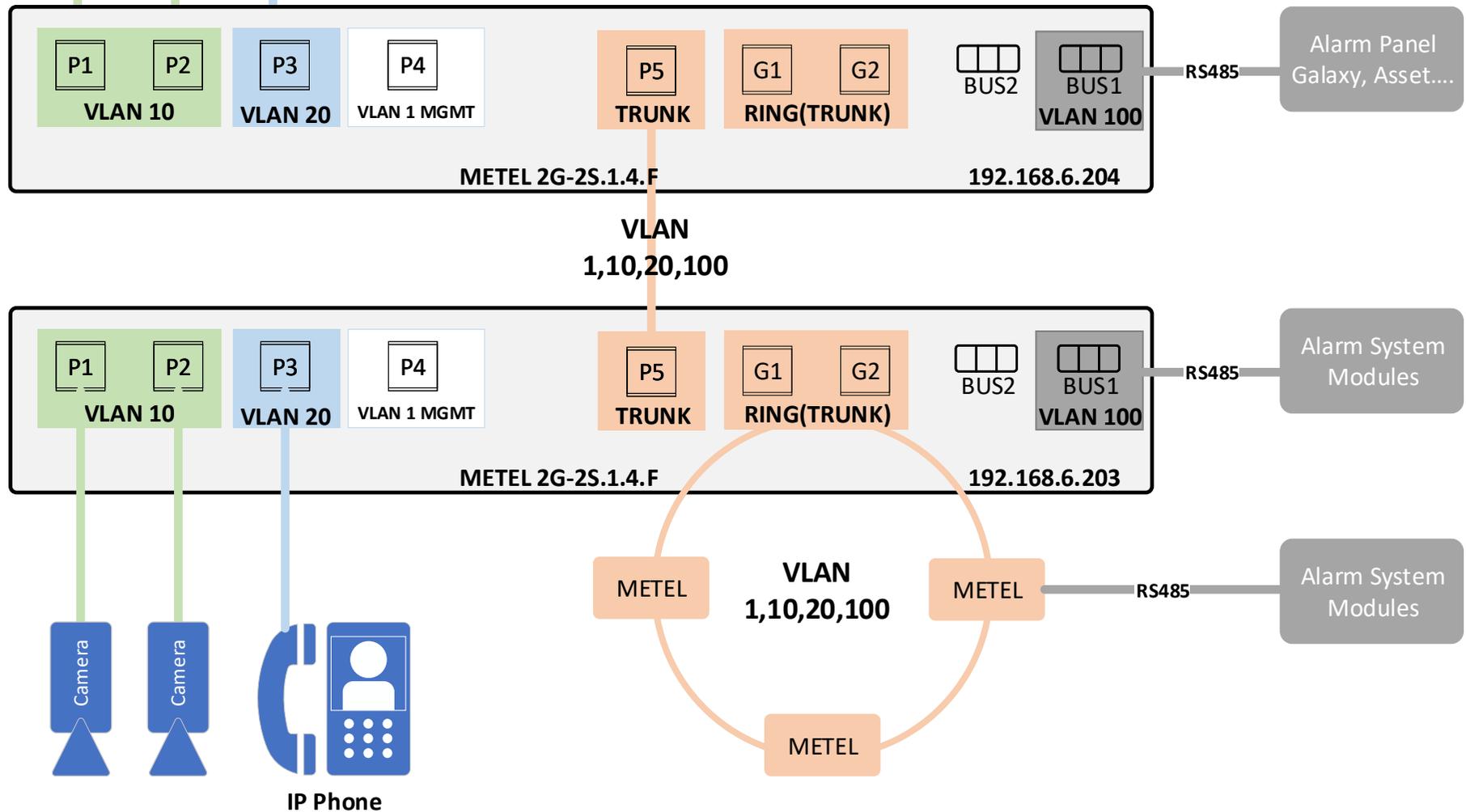


Topology



By setting of VLAN you can create a virtual local area networks (VLAN). Ports assigned to one VLAN can intercommunicate and be separated from ports assigned to other VLANs. Switches also support so-called VLAN trunks. Typical uses for a VLAN trunk is to permit all VLANs on optical ports. This way it is possible to interconnect ports on remote switches and at the same time separate them from other ports.

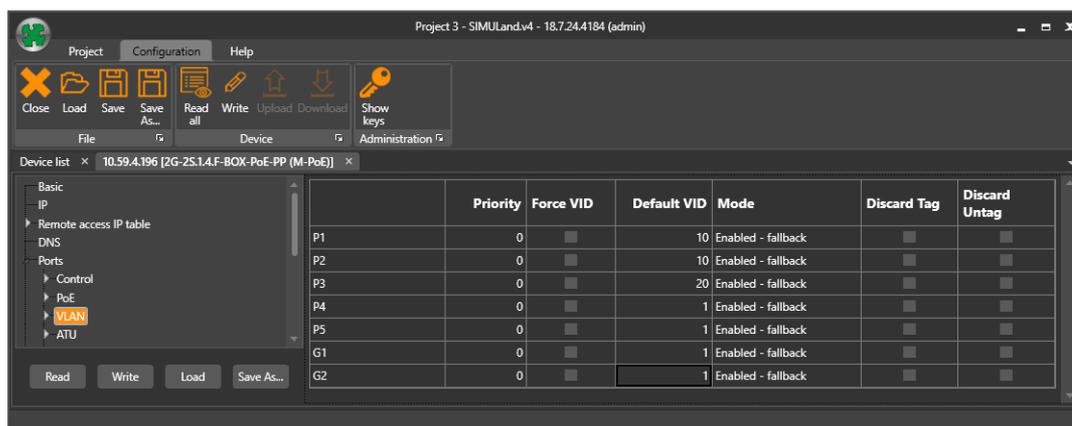


METEL Configuration

METEL devices are configured via SIMULand.v4 configuration software which is available for download at our website www.metel.eu. It is free without login policies.

Assign ports to VLAN

From default all ports are set to VLAN 1 including management VLAN. By the **Default VID** the port is assigned to a specific VLAN.



Default VID (VLAN Identifier)

The initial VLAN identifier is used as a packet VLAN identifier, if mode 802.1Q is on and the packet has no IEEE VID (VLAN identifier) tag or if it has a priority in the tag. The tag is also used as packet VID, if its original VID is 0x000 or if a forced override of the VID packet is set (checkbox Forced VID setting).

Extended configuration

For the basic configuration, it is not necessary to change the next configuration in the section Ports->VLAN.

Priority- allows to set the importance of frames and prioritize them before others with lower priority. You must enter values 0-7 in the field, where the value 7 is the highest priority. This value is only assigned to frames that they do not contain more information about the priority.

Force VID – enables overriding of the VID input frames if this packet already contains an VLAN ID. This option is never used at "Trunk" ports is to avoid overwriting identifiers to the one VLAN.

Mode

Disabled - 802.1Q is disabled on this port.

Fallback - Incoming frames are not discarded if their VLAN VID is not defined in the VLAN table. Outgoing frames can then be left, if the port is a member of a VLAN defined in the VLAN table or if the VLAN VID frame is not defined in the VLAN table.

Check - The VLAN VID of the incoming frame must be defined in the VLAN table otherwise it is discarded. The frame will not be discarded if the input port is not a member of this VLAN. At this port, only the frames whose VLANs are port members can exit.

Secure - The incoming frame's VLAN VID must be defined in the VLAN table and the input port must be a member of this VLAN. Only frames can be left whose VLAN is a port member.

Discard Tag

TRUE: The Incoming frames with VLAN tag according to 802.1Q are removed.

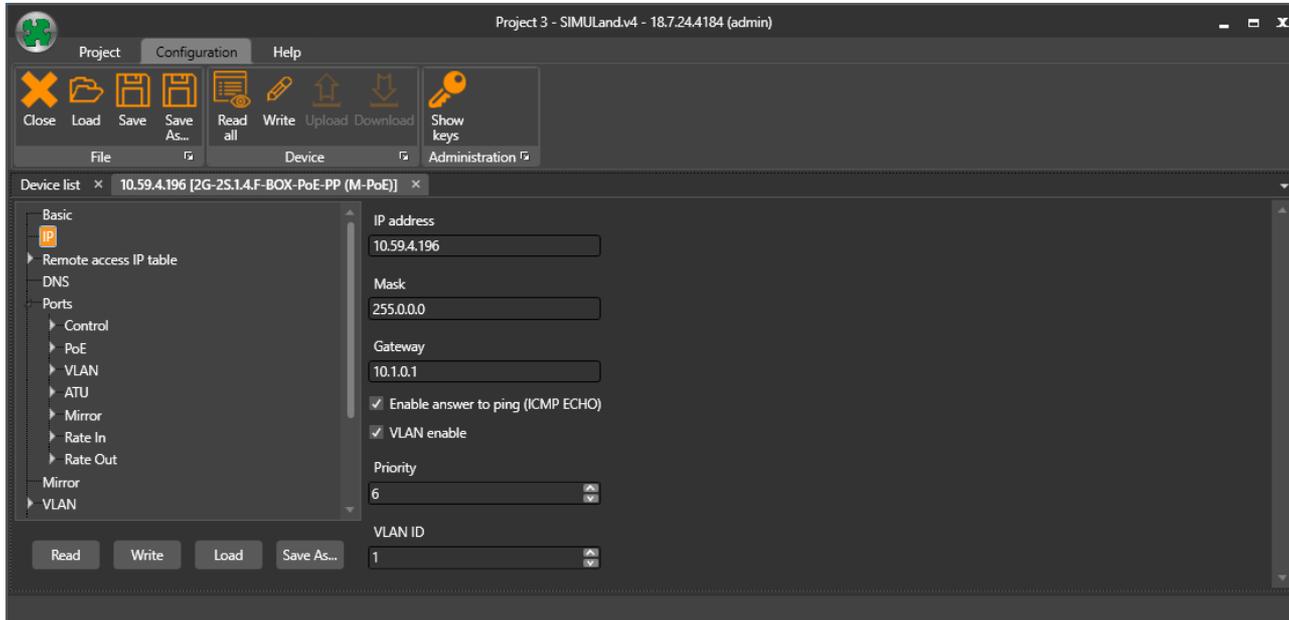
FALSE: Disabled

Discard Untag

TRUE: The Incoming frames with not set VLAN tag according to 802.1Q are removed.

FALSE: Disabled

Management VLAN Configuration

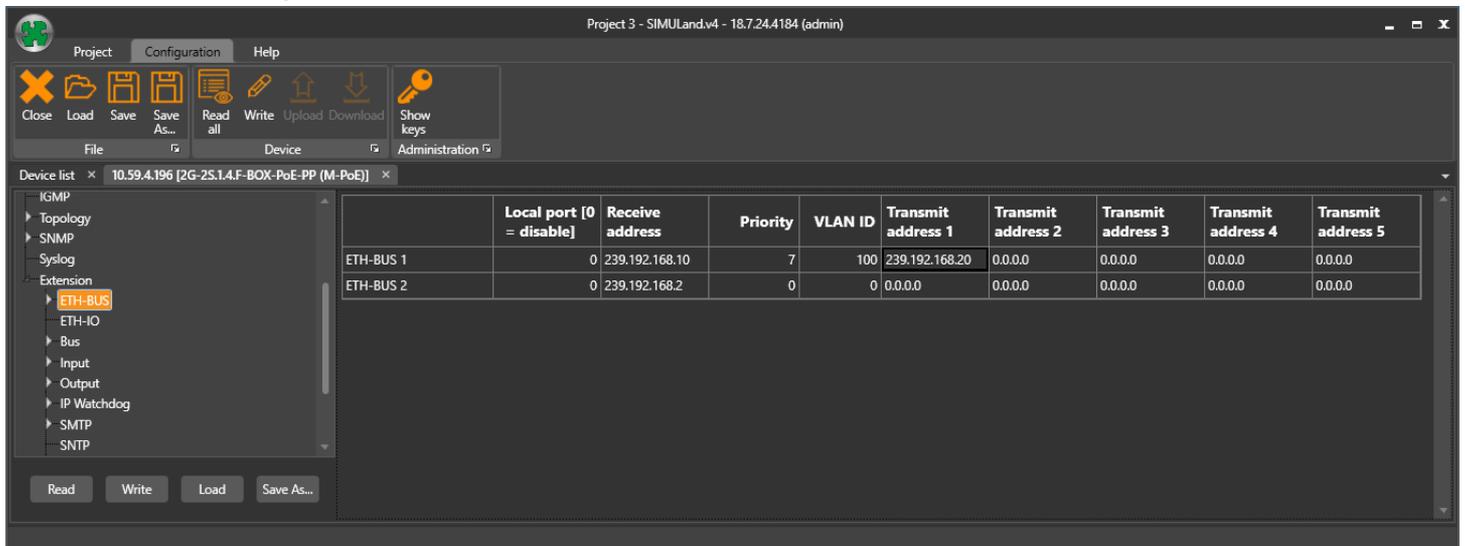


VLAN Enable – allows 802.1q for management.

Priority- allows to set the importance of frames and prioritize them before others with lower priority. You must enter values 0-7 in the field, where the value 7 it is marked as the highest priority. This value is only assigned to frames that they don't contain more information about the priority.

VLAN ID - VLAN number used as a packet VLAN identifier.

RS485 VLAN Configuration



Priority- Allows to set the importance of frames and prioritize them before others with lower priority. You must enter values 0-7 in the field, where the value 7 It is marked as the highest priority. This value is only assigned to frames that they don't contain more information about the priority.

VLAN ID - VLAN number used as a packet VLAN identifier.

Receive Address – If the remote switch sends the BUS data to the same address (exam. 239.192.168.10) the switch receives data and forwards it to the local RS485 bus.

Transmit Address – if the RS485 device is connected to the local RS485 the bus then will forward data to the switch, the switch wraps the data into an Ethernet packet and sends it to the Transmit address.

VLAN table setting

The packets forwarding rules are specified in the VLAN table found below.

Enabled

TRUE: VLAN is active.

FALSE: VLAN is inactive.

VID

VID (VLAN Identifier) of this VLAN. It is used for VLAN identification for each incoming packet.

Ports

Member – Unmodified - This port is a member of this VLAN and packets will be leaving this port unmodified.

Member – Untagged - This port is a member of this VLAN and packets will be leaving this port without IEEE tag (without VID).

Member – Tagged - This port is a member of this VLAN and packets will be leaving this port with IEEE tag (with VID).

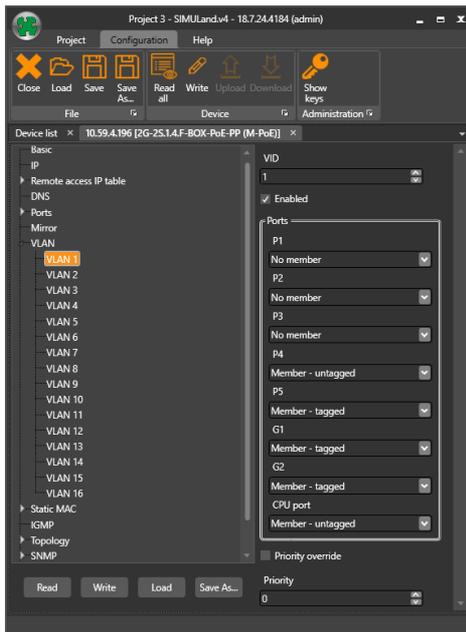
Not a Member - This port is not a member of this VLAN.

Priority override - Frame priority will be overridden from field Priority, if this checkbox is checked.

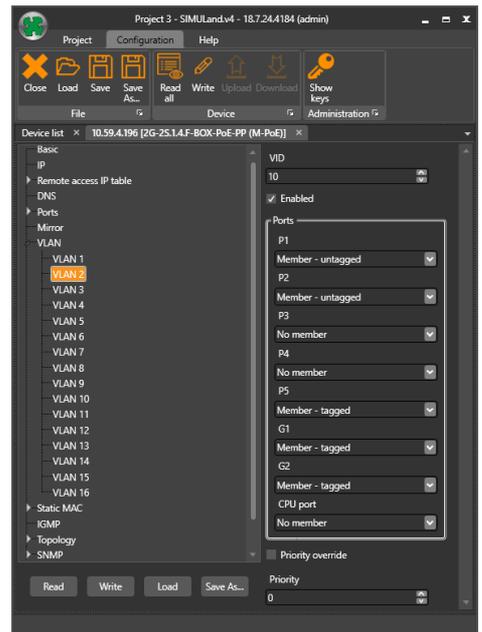
Priority - Priority of transmitted data via Ethernet is used for overriding. The default value is 0 (lowest priority). The highest priority is 7.

CPU Port – for data that is intended for the CPU as management, RS485, IO. Data can be tagged and untagged as well.

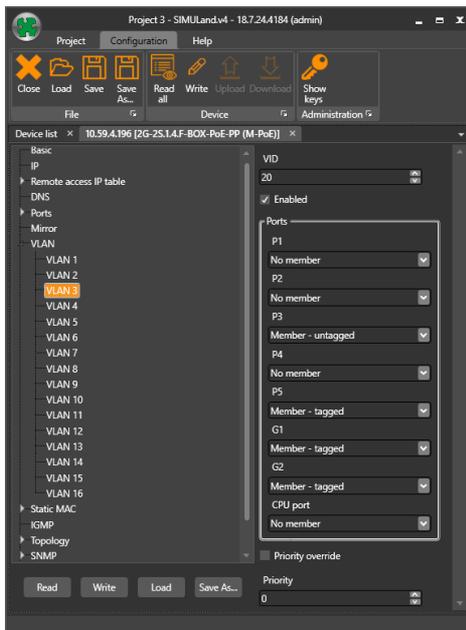
Configuration for VLAN 1 (Management and default TRUNK VLAN)



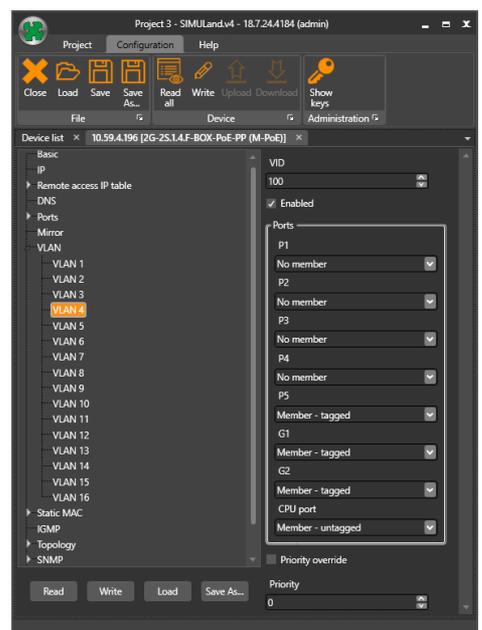
Configuration for VLAN 10



Configuration for VLAN 20



Configuration for VLAN 100 (TRUNK)



Internal Connection

