



telent's Optima Controller Integral UG405 Control

Optima iUG405 is an integral UG405 solution that exploits the Optima platform to implement the latest UTMC UG405 MIB using the controllers existing hardware.

Overview

telent's Optima iUG405 is an integral UG405 solution that exploits the Optima platform to implement the full UTMC Type II MIB – also known as UM008 using the controller's existing hardware.

telent's Optima iUG405 software is designed to run on the traffic signal controller's CPU using the existing IO allowing multiple sites/streams of control. This produces a cost effective and extremely reliable solution. The software is installed as an "app" that only requires a licence number to be activated.

With this solution there is no extra physical wiring involved as the SCOOT detection is connected to the controller eliminating the difficulties of wiring free standing units and their interfaces.

Features

- Utilises the controller I/O to interface to additional equipment such as external controllers or detector packs.
- UTMC compliant (Full UTMC Type 2 MIB), using SNMP over UDP/IP to send and receive traffic control data.
- Supports sending reply data both by polling of variables and by reply by exception.
- Supports both "do now" control and pre-programming of stage demands up to 22 hours into the future.

Features—Continued

- Ability to control eight traffic signal sites/streams, with each site addressed differently in the UTMC OID.
- Supports NTP for maintaining synchronisation of the internal clock with a central time server.
- Application log, logging events that will affect traffic signal control such as loss of communications

Configuration

Control and reply bits, as defined in the UG405 MIB, are mapped to virtual bits in the controller configuration using a simple, man readable, XML file. An example of this file is shown.

```
<?xml version='1.0' encoding='UTF-8' standalone='no'?>
<UG405>
  <version>1</version>
  <date>24/09/2015</date>

  <parameter name='port'>16161</parameter>

  <site name='J09999'>
    <control name='F1'> <output>F01</output> </control>
    <control name='F2'> <output>F02</output> </control>
    <control name='F3'> <output>F03</output> </control>
    <control name='F4'> <output>F04</output> </control>
    <control name='DX'> <output>DX1</output> </control>
    <control name='D2'> <output>D02</output> </control>
    <control name='D3'> <output>D03</output> </control>
    <control name='D4'> <output>D04</output> </control>
    <control name='TS'> <output>TS</output> </control>
    <control name='SO'> <output>SO</output> </control>

    <reply name='G1'> <input>G1</input> </reply>
    <reply name='G2'> <input>G2</input> </reply>
    <reply name='G3'> <input>G3</input> </reply>
    <reply name='G4'> <input>G4</input> </reply>
    <reply name='DF'> <input>DF</input> </reply>
    <reply name='LF1'> <input>LF1</input> </reply>
    <reply name='LF2'> <input>LF2</input> </reply>
    <reply name='LF3'> <input>LF</input> </reply>
    <reply name='CS'> <input>RT</input> </reply>
    <reply name='RR'> <input>RR</input> </reply>
    <reply name='CF'> <input>CF</input> </reply>
    <reply name='BD1'> <input>BPA</input> </reply>
    <reply name='BD2'> <input>BPC</input> </reply>

  </site>
</UG405>
```

Summary:

An efficient, cost effective, integral implementation of UTMC control by the simple addition of a software package onto new or existing Optima Controllers.

Benefits:

- No additional hardware—cost effective solution.
- Maintenance spares reduced.
- No extra space required in the controller cabinet.
- Reduced single points of failure
- Free up existing external O.T.U.s for use elsewhere.

