

Systems Integration

APOGEE® Integration to Honeywell LONWORKS® Devices: Excel 10 Constant Volume Application 9073

Table 1. Excel10 W7750B APOGEE Points, Application Number: 9073, Program ID: 80:00:0C:50:1E:03:04:01.

| Point | Type | Description | Range/Units ^{a b c} |
|-------|-------|-----------------------------------|---|
| 1 | LAO | Space Temperature Input | °F °C |
| 2 | LAO | Temperature Setpoint Input | °F °C |
| 3 | LAI | Space Temperature Output | °F °C |
| 4 | LENUM | Unit Status Output Mode | See Table 2 |
| 5 | LAI | Unit Status Output Primary Heat | % |
| 6 | LAI | Unit Status Output Secondary Heat | % |
| 7 | LAI | Unit Status Output Cool | % |
| 8 | LAI | Unit Status Output Economizer | % |
| 9 | LAI | Unit Status Output Fan | % |
| 10 | LDI | Unit Status Output Alarm | Normal/Alarm |
| 11 | LENUM | Application Mode Input | See Table 2 |
| 12 | LENUM | Occupancy Input | 0=Oc_Occupied 1=Oc_Unoccupied 2=Oc_Bypass 3=Oc_Standby 255=Oc_Nul |
| 13 | LAO | Set Point Offset Input | °F °C |
| 14 | LAO | Outside Temperature Input | °F °C |
| 15 | LAO | Outside Humidity Input | % |
| 16 | LAI | Effective Setpoint Output | °F °C |
| 17 | LAI | Outside Temperature Output | °F °C |
| 18 | LAI | Outside Humidity Output | % |

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Table 1. Excel10 W7750B APOGEE Points, Application Number: 9073, Program ID: 80:00:0C:50:1E:03:04:01. (continued)

| Point | Type | Description | Range/Units ^{a b c} |
|-------|-------|---|--|
| 19 | LENUM | Emergency Command Input | 0=Emerg_Normal 1=Emerg_Pressurize 2=Emerg_Depressurize 3=Emerg_Purge 4=Emerg_Shutdown 5=Emerg_Fire 255=Emerg_Nul |
| 23 | LENUM | Occupancy Sensor Input | 0=Oc_Occupied 1=Oc_Unoccupied 2=Oc_Bypass 3=Oc_Standby 255=Oc_Nul |
| 24 | LAO | Window Switch In Value | % |
| 25 | LDO | Window Switch In State | Off/On |
| 26 | LAO | Bypass In Value | % |
| 27 | LDO | Bypass In State | Off/On |
| 28 | LAO | Economizer Enable Input Value | % |
| 29 | LDO | Economizer Enable Input State | Off/On |
| 30 | LAO | Indoor Air Quality Override Command Value | % |
| 31 | LAO | Indoor Air Quality Override Command State | – |
| 32 | LAO | Universal Input 1 Command Value | % |
| 33 | LDO | Universal Input 1 Command State | Off/On |
| 34 | LAO | Universal Input 2 Command Value | % |
| 35 | LDO | Universal Input 2 Command State | Off/On |
| 36 | LAI | Economizer Enabled Output Value | % |
| 37 | LDI | Economizer Enabled Output State | Off/On |
| 38 | LAO | Time Clock Input Value | % |
| 39 | LDO | Time Clock Input State | Off/On |
| 40 | LAO | Water Source Heat Pump Enable Value | % |
| 41 | LDO | Water Source Heat Pump Enable State | Off/On |
| 42 | LAI | Indoor Air Quality Override Value | % |
| 43 | LDI | Indoor Airquality Overide State | Off/On |
| 44 | LAI | Monitor Switch Value | % |
| 45 | LDI | Monitor Switch State | Off/On |
| 46 | LENUM | Occupancy Sensor Output | 0=Oc_Occupied 1=Oc_Unoccupied 2=Oc_Bypass 3=Oc_Standby 255=Oc_Nul |
| 47 | LAI | Window Switch Value | % |

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Table 1. Excel10 W7750B APOGEE Points, Application Number: 9073, Program ID: 80:00:0C:50:1E:03:04:01. (continued)

| Point | Type | Description | Range/Units ^{a b c} |
|-------|-------|----------------------------------|--|
| 48 | LDI | Window Switch State | Off/On |
| 49 | LENUM | Emergency Mode Output | 0=Emerg_Normal 1=Emerg_Pressurize 2=Emerg_Depressurize 3=Emerg_Purge 4=Emerg_Shutdown 5=Emerg_Fire 255=Emerg_Nul |
| 50 | LAI | Bypass Output Value | % |
| 51 | LDI | Bypass Output State | Off/On |
| 52 | LAI | Time Clock Output Value | % |
| 53 | LDI | Time Clock Output State | Off/On |
| 60 | LAI | Bypass Timer | – |
| 61 | LAI | Controller Setpoint Value | °F °C |
| 62 | LAI | Space Temperature Setpoint value | °F °C |
| 63 | LAI | Discharge Temperature Output | °F °C |
| 64 | LAI | Discharge Setpoint Output | °F °C |
| 65 | LAI | Return Temperature Output | °F °C |
| 66 | LAI | Discharge Humidity Output | % |
| 67 | LAI | Return Air Enthalpy Output | % |
| 68 | LAI | Outdoor Temperature Output | °F °C |
| 69 | LAI | Outdoor Humidity Output | % |
| 70 | LAI | Outdoor Enthalpy Output | % |
| 71 | LAI | Filter Pressure Output | – |
| 72 | LAI | Space CO2 Output | % |
| 73 | LAI | Analog Input Monitor Value | – |
| 74 | LAI | Cooling Damper/Valve Position | % |
| 75 | LAI | Heating Damper/Valve Position | % |
| 76 | LAI | Economizer Valve/Damper Position | % |

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Table 1. Excel10 W7750B APOGEE Points, Application Number: 9073, Program ID: 80:00:0C:50:1E:03:04:01. (continued)

| Point | Type | Description | Range/Units ^{a b c} |
|-------|-------|---------------------------------|--|
| 80 | LAI | Mode Status | 0 - Start Up Wait 1 - Heat 2 - Cool 3 - Off Mode 4 - Disabled Mode 5 - Emerg Heat 6 - Smole Emergency 7 - Freeze Protect 8 - Manual 9 - Factory test 10 - Fan Only |
| 81 | LENUM | Effective Occupancy Output | 0=Oc_Occupied 1=Oc_Unoccupied 2=Oc_Bypass 3=Oc_Standby 255=Oc_Nul |
| 82 | LENUM | Override Output | 0=Oc_Occupied 1=Oc_Unoccupied 2=Oc_Bypass 3=Oc_Standby 255=Oc_Nul |
| 83 | LENUM | Scheduled Occupancy output | 0=Oc_Occupied 1=Oc_Unoccupied 2=Oc_Bypass 3=Oc_Standby 255=Oc_Nul |
| 84 | LENUM | Time Clock Occupancy Output | 0=Off 1=Low 2=Med 3=High 4=On 255=Nul |
| 85 | LENUM | Network Manual Occupancy Output | 0=Oc_Occupied 1=Oc_Unoccupied 2=Oc_Bypass 3=Oc_Standby 255=Oc_Nul |
| 86 | LENUM | Sensor Occupancy Output | 0=Oc_Occupied 1=Oc_Unoccupied 2=Oc_Bypass 3=Oc_Standby 255=Oc_Nul |
| 87 | LENUM | Economizer Enabled Output | 0=Off 1=Low 2=Med 3=High 4=On 255=Nul |

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Table 1. Excel10 W7750B APOGEE Points, Application Number: 9073, Program ID: 80:00:0C:50:1E:03:04:01. (continued)

| Point | Type | Description | Range/Units ^{a b c} |
|-------|-------|--|--|
| 88 | LENUM | Airflow Proof Output | 0=Off 1=Low 2=Med 3=High 4=On 255=Nul |
| 89 | LAI | Calculated Outdoor Enthalpy Output | % |
| 90 | LAI | Calculated Return Air Enthalpy Output | % |
| 93 | LDI | Universal Input 1 State | Off/On |
| 94 | LDI | Universal Input 2 State | Off/On |
| 95 | LDI | Occupancy State | Off/On |
| 96 | LDI | Fan State | Off/On |
| 97 | LDI | Auxilliar Economizer State | Off/On |
| 98 | LDI | Economizer Float State | Off/On |
| 99 | LDI | Demand Limit Control Mode | Off/On |
| 100 | LDI | Indoor Air Quality Override State | Off/On |
| 101 | LDI | Smoke Monitor State | Off/On |
| 102 | LDI | Window Open Detected | Off/On |
| 103 | LDI | Dirty Filter Detected | Off/On |
| 104 | LDI | Shut Down Detected | Off/On |
| 105 | LDI | Monitor Switch State | Off/On |
| 106 | LDI | Water Source Heatpump Enabled | Off/On |
| 107 | LDI | Coil Freeze Protection State | Off/On |
| 110 | LDI | Input NV Failure Alarm | Normal/Alarm |
| 111 | LDI | Node Disabled Alarm | Normal/Alarm |
| 112 | LDI | Sensor failure Alarm | Normal/Alarm |
| 113 | LDI | Frost Protection Alarm | Normal/Alarm |
| 114 | LDI | Invalid Setpoint Alarm | Normal/Alarm |
| 115 | LDI | Loss Of Air Flow Alarm | Normal/Alarm |
| 116 | LDI | Dirty Filter Alarm | Normal/Alarm |
| 117 | LDI | Smoke Alarm | Normal/Alarm |
| 118 | LDI | Indoor Air Quality Override Alarm | Normal/Alarm |
| 200 | LAO | Occupancy Temperature Setpoint Occupied Cool | °F °C |
| 201 | LAO | Occupancy Temperature Setpoint Standby Cool | °F °C |
| 202 | LAO | Occupancy Temperature Setpoint Unoccupied Cool | °F °C |

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Table 1. Excel10 W7750B APOGEE Points, Application Number: 9073, Program ID: 80:00:0C:50:1E:03:04:01. (continued)

| Point | Type | Description | Range/Units ^{a b c} |
|--|------|--|------------------------------|
| 203 | LAO | Occupancy Temperature Setpoint Occupied Heat | °F °C |
| 204 | LAO | Occupancy Temperature Setpoint Standby Heat | °F °C |
| 205 | LAO | Occupancy Temperature Setpoint Unoccupied Heat | °F °C |
| 206 | LAO | Receive Heartbeat CP Input | sec |
| <p>^a Values noted for LDIs and LDOs are in the following format: OFF text/ON text.</p> <p>^b This column indicates the value/range or engineering units or both if known.</p> <p>^c The default English value is not italicized. An italicized entry indicates an SI value.</p> | | | |

Table 2. HVAC Mode/Status (hvac_t).

| Value | Description |
|-------|------------------|
| 0 | Hvac_Auto |
| 1 | Hvac_Heat |
| 2 | Hvac_Mrng_Wrmup |
| 3 | Hvac_Cool |
| 4 | Hvac_Night_Purge |
| 5 | Hvac_Pre_Cool |
| 6 | Hvac_Off |
| 7 | Hvac_Test |
| 8 | Hvac_Emerg_Heat |
| 9 | Hvac_Fan_Only |
| 10 | Hvac_Free_Cool |
| 11 | Hvac_Ice |
| 255 | Hvac_Nul |

Table 3. Excel10 W7750B LONWORKS Network Variables, Program ID: 80:00:0C:50:1E:03:04:01.

| Point | NVO Name | NVI Name | CP Name |
|-------|-------------------------------------|-----------------|-----------------|
| 1 | - | nviSpaceTemp | nviSpaceTemp |
| 2 | - | nviSetPoint | nviSetPoint |
| 3 | nvoSpaceTemp | - | - |
| 4 | nvoUnitStatus.mode | - | - |
| 5 | nvoUnitStatus.heat_output_primary | - | - |
| 6 | nvoUnitStatus.heat_output_secondary | - | - |
| 7 | nvoUnitStatus.cool_output | - | - |
| 8 | nvoUnitStatus.econ_output | - | - |
| 9 | nvoUnitStatus.fan_output | - | - |
| 10 | nvoUnitStatus.in_alarm | - | - |
| 11 | - | nviApplMode | nviApplMode |
| 12 | - | nviManOcc | nviManOcc |
| 13 | - | nviSetPtOffset | nviSetPtOffset |
| 14 | - | nviOdTemp | nviOdTemp |
| 15 | - | nviOdHum | nviOdHum |
| 16 | nvoEffectSetPt | - | - |
| 17 | nvoOdTemp | - | - |
| 18 | nvoOdHum | - | - |
| 19 | - | nviEmerg | nviEmerg |
| 23 | - | nviSensorOcc | nviSensorOcc |
| 24 | - | nviWindow.value | nviWindow.value |
| 25 | - | nviWindow.state | nviWindow.state |
| 26 | - | nviBypass.value | nviBypass.value |
| 27 | - | nviBypass.state | nviBypass.state |
| 28 | - | nviEcon.value | nviEcon.value |
| 29 | - | nviEcon.state | nviEcon.state |
| 30 | - | nviIaqOvr.value | nviIaqOvr.value |
| 31 | - | nviIaqOvr.state | nviIaqOvr.state |
| 32 | - | nviFree1.value | nviFree1.value |
| 33 | - | nviFree1.state | nviFree1.state |

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Table 3. Excel10 W7750B LONWORKS Network Variables, Program ID: 80:00:0C:50:1E:03:04:01. (continued)

| Point | NVO Name | NVI Name | CP Name |
|-------|------------------|--------------------|--------------------|
| 34 | - | nvIFree2.value | nvIFree2.value |
| 35 | - | nvIFree2.state | nvIFree2.state |
| 36 | nvoEcon.value | - | - |
| 37 | nvoEcon.state | - | - |
| 38 | - | nviTimeCik.value | nviTimeCik.value |
| 39 | - | nviTimeCik.state | nviTimeCik.state |
| 40 | - | nviWHPEnable.value | nviWHPEnable.value |
| 41 | - | nviWHPEnable.state | nviWHPEnable.state |
| 42 | nvolaqOvr.value | - | - |
| 43 | nvolaqOvr.state | - | - |
| 44 | nvoMonSw.value | - | - |
| 45 | nvoMonSw.state | - | - |
| 46 | nvoSensorOcc | - | - |
| 47 | nvoWindow.value | - | - |
| 48 | nvoWindow.value | - | - |
| 49 | nvoEmerg | - | - |
| 50 | nvoBypass.value | - | - |
| 51 | nvoBypass.state | - | - |
| 52 | nvoTimeCik.value | - | - |
| 53 | nvoTimeCik.state | - | - |
| 60 | nvoCtlDataG2.1 | - | - |
| 61 | nvoCtlDataG2.3 | - | - |
| 62 | nvoCtlDataG2.5 | - | - |
| 63 | nvoCtlDataG2.7 | - | - |
| 64 | nvoCtlDataG2.9 | - | - |
| 65 | nvoCtlDataG2.11 | - | - |
| 66 | nvoCtlDataG2.13 | - | - |
| 67 | nvoCtlDataG2.14 | - | - |
| 68 | nvoCtlDataG2.16 | - | - |
| 69 | nvoCtlDataG2.18 | - | - |

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Table 3. Excel10 W7750B LONWORKS Network Variables, Program ID: 80:00:0C:50:1E:03:04:01. (continued)

| Point | NVO Name | NVI Name | CP Name |
|-------|-------------------|----------|---------|
| 70 | nvoCtlDataG2.19 | - | - |
| 71 | nvoCtlDataG2.21 | - | - |
| 72 | nvoCtlDataG2.23 | - | - |
| 73 | nvoCtlDataG2.25 | - | - |
| 74 | nvoCtlDataG2.27 | - | - |
| 75 | nvoCtlDataG2.28 | - | - |
| 76 | nvoCtlDataG2.29 | - | - |
| 80 | nvoCtlDataG1.1 | - | - |
| 81 | nvoCtlDataG1.2 | - | - |
| 82 | nvoCtlDataG1.3 | - | - |
| 83 | nvoCtlDataG1.4 | - | - |
| 84 | nvoCtlDataG1.5 | - | - |
| 85 | nvoCtlDataG1.6 | - | - |
| 86 | nvoCtlDataG1.7 | - | - |
| 87 | nvoCtlDataG1.8 | - | - |
| 88 | nvoCtlDataG1.9 | - | - |
| 89 | nvoCtlDataG1.10 | - | - |
| 90 | nvoCtlDataG1.11 | - | - |
| 93 | nvoCtlDataG1.14.6 | - | - |
| 94 | nvoCtlDataG1.14.7 | - | - |
| 95 | nvoCtlDataG1.15.0 | - | - |
| 96 | nvoCtlDataG1.15.1 | - | - |
| 97 | nvoCtlDataG1.15.2 | - | - |
| 98 | nvoCtlDataG1.15.3 | - | - |
| 99 | nvoCtlDataG1.15.4 | - | - |
| 100 | nvoCtlDataG1.15.5 | - | - |
| 101 | nvoCtlDataG1.15.6 | - | - |
| 102 | nvoCtlDataG1.15.7 | - | - |
| 103 | nvoCtlDataG1.16.0 | - | - |
| 104 | nvoCtlDataG1.16.1 | - | - |

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Table 3. Excel10 W7750B LONWORKS Network Variables, Program ID: 80:00:0C:50:1E:03:04:01. (continued)

| Point | NVO Name | NVI Name | CP Name |
|-------|-------------------|----------|-------------------------------|
| 105 | nvoCtlDataG1.16.2 | - | - |
| 106 | nvoCtlDataG1.16.3 | - | - |
| 107 | nvoCtlDataG1.16.4 | - | - |
| 110 | nvoAlarmStatus.0 | - | - |
| 111 | nvoAlarmStatus.0 | - | - |
| 112 | nvoAlarmStatus.2 | - | - |
| 113 | nvoAlarmStatus.3 | - | - |
| 114 | nvoAlarmStatus.4 | - | - |
| 115 | nvoAlarmStatus.5 | - | - |
| 116 | nvoAlarmStatus.6 | - | - |
| 117 | nvoAlarmStatus.7 | - | - |
| 118 | nvoAlarmStatus.8 | - | - |
| 200 | - | - | nciTempSetPts.occupied_cool |
| 201 | - | - | nciTempSetPts.standby_cool |
| 202 | - | - | nciTempSetPts.unoccupied_cool |
| 203 | - | - | nciTempSetPts.occupied_heat |
| 204 | - | - | nciTempSetPts.standby_heat |
| 205 | - | - | nciTempSetPts.unoccupied_heat |
| 206 | - | - | nciRtuRcvT |