Fieldbus Foundation Mode

Parameter definition
Foundation Fieldbus Mode

The MODE parameter is defined as a data structure that consists of four (4) attributes:

- Target mode – the mode of operation requested by the plant operator
- Actual mode – the mode of operation that can be achieve based on input status, target mode, state of track input (if supported) and state of the device
- Permitted mode – the modes that that operator will be allowed to select for an instance of a block
- Normal mode – the designed mode of operation i.e the mode that should be selected for normal operations,

These attributes are bitstrings whose definition is defined by the Fieldbus Foundation Function Block Specification, Part 1, section 4.4.3.5.
Mode Determines the Source of Output & Setpoint

- **Input Parameters** (value + Status)
- **Setpoint Value**
- **Operator Entry**
  - RCAS_IN
  - CAS_IN
- **Block Algorithm** (internal)
- **Mode**
- **SP Value**
- **Output Value**
  - (Operator Entry)
  - ROUT_IN
  - TRK_IN
- **Select**
  - A
  - B
  - C
  - D
- **Back-calculation Parameters**
  - RCAS_OUT
  - CAS_OUT
  - ROUT_OUT

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Slide 3
## Supported Operator Modes

<table>
<thead>
<tr>
<th>Mode</th>
<th>Source of SP</th>
<th>Source of OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Out-of-Service (O/S)</td>
<td>Operator</td>
<td>Operator</td>
</tr>
<tr>
<td>Manual (Man)</td>
<td>Operator</td>
<td>Operator</td>
</tr>
<tr>
<td>Automatic (Auto)</td>
<td>Operator</td>
<td>Block</td>
</tr>
<tr>
<td>Cascade (Cas)</td>
<td>CAS_IN</td>
<td>Block</td>
</tr>
<tr>
<td>Remote Cascade (Rcas)</td>
<td>RCAS_IN</td>
<td>Block</td>
</tr>
<tr>
<td>Remote Output (Rout)</td>
<td>Operator</td>
<td>RCAS_OUT</td>
</tr>
</tbody>
</table>

Control and output blocks
## Other Actual Modes

<table>
<thead>
<tr>
<th>Actual Mode</th>
<th>What it means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Override (LO)</td>
<td>Track or Auto-tuning is active and in control of the output value</td>
</tr>
<tr>
<td>Initialization Manual (IMAN)</td>
<td>The forward path to a physical output is broken and the output is tracking the downstream block</td>
</tr>
</tbody>
</table>