



Key Relationships

Composition

- **UUTReport** contains:
 - `info: UUTInfo` - Test execution information
 - `root: SequenceCall` - Root sequence with all test steps
 - `sub_units: List[UUTSubUnit]` - Sub-components tested
 - `assets: List[Asset]` - Test equipment used
 - `binary_data: List[BinaryData]` - Embedded data
 - `misc_info: MiscInfo` - Key-value metadata

Hierarchy

- **Step Types** (all inherit from `Step`):
 - `SequenceCall` - Container for child steps
 - `NumericStep` - Numeric limit test
 - `MultiNumericStep` - Multiple numeric measurements
 - `PassFailStep` - Boolean pass/fail test
 - `MultiBooleanStep` - Multiple boolean tests
 - `StringValueStep` - String value test
 - `MultiStringStep` - Multiple string tests
 - `GenericStep` - Generic flow control step
 - `ActionStep` - Action execution step
 - `ChartStep` - Chart data step
 - `UnknownStep` - Fallback for unknown types

Measurement Types

- `NumericMeasurement` - Value with limits and comparison operator
- `BooleanMeasurement` - True/false value
- `StringMeasurement` - String value

Usage Example

```
from pywats.domains.report import UUTReport, CompOp

# Create UUT report
report = UUTReport(
    pn="WIDGET-001",
    sn="SN123456",
    rev="A",
    process_code=100,
    station_name="Station1",
    location="Lab",
    purpose="Production"
)

# Add root sequence
root = report.root
root.name = "MainSequence"

# Add numeric test
voltage_step = root.add_numeric_step(
    name="Supply Voltage",
    value=5.0,
    comp=CompOp.GELE,
    limit_l=4.5,
    limit_h=5.5,
    unit="V"
)

# Add sub-sequence
functional_tests = root.add_sequence_call("Functional Tests")

# Add boolean test
led_test = functional_tests.add_boolean_step(
    name="LED Check",
    value=True
)

# Add asset
report.add_asset(Asset(
    sn="DMM-001",
    asset_type="Multimeter"
```

```
))
```

```
# Submit report
```

```
await api.report.submit_uut(report)
```

Related Documentation:

- [UURReport Object Model](#)
- [Report Domain Guide](#)
- [Step Types Reference](#)