



MeterMeterMeter

```
package main

import (
    "context"

    "go.opentelemetry.io/otel/exporters/prometheus"

    "github.com/gogf/gf/contrib/metric/otelmetric/v2"
    "github.com/gogf/gf/v2/frame/g"
    "github.com/gogf/gf/v2/os/gctx"
    "github.com/gogf/gf/v2/os/gmetric"
)

const (
    instrument      = "github.com/gogf/gf/example/metric/basic"
    instrumentVersion = "v1.0"
)

var (
    meter = gmetric.GetGlobalProvider().Meter(gmetric.MeterOption{
        Instrument:      instrument,
        InstrumentVersion: instrumentVersion,
        Attributes: gmetric.Attributes{
            gmetric.NewAttribute("meter_const_attr_1", 1),
        },
    })
    counter = meter.MustCounter(
        "goframe.metric.demo.counter",
        gmetric.MetricOption{
            Help: "This is a simple demo for Counter usage",
            Unit: "bytes",
            Attributes: gmetric.Attributes{
                gmetric.NewAttribute
("metric_const_attr_1", 1),
            },
        },
    )
    observableCounter = meter.MustObservableCounter(
        "goframe.metric.demo.observable_counter",
        gmetric.MetricOption{
            Help: "This is a simple demo for ObservableCounter
usage",
            Unit: "%",
            Attributes: gmetric.Attributes{
                gmetric.NewAttribute
("metric_const_attr_2", 2),
            },
        },
    )
)

func main() {
    var ctx = gctx.New()
    // Callback for observable metrics.
    meter.MustRegisterCallback(func(ctx context.Context, obs gmetric.
Observer) error {
```

```

        obs.Observe(observableCounter, 10)
        return nil
    }, observableCounter)

// Prometheus exporter to export metrics as Prometheus format.
exporter, err := prometheus.New(
    prometheus.WithoutCounterSuffixes(),
    prometheus.WithoutUnits(),
)

if err != nil {
    g.Log().Fatal(ctx, err)
}

// OpenTelemetry provider.
provider := otelmetric.MustProvider(
    otelmetric.WithReader(exporter),
)

provider.SetAsGlobal()
defer provider.Shutdown(ctx)

// Counter.
counter.Inc(ctx)
counter.Add(ctx, 10)

// HTTP Server for metrics exporting.
otelmetric.StartPrometheusMetricsServer(8000, "/metrics")
}

```

MeterMetricMeterOptionMetricOptionAttributes

<http://127.0.0.1:8000/metrics> Meter

The screenshot shows a web browser window with the address bar displaying 'http://127.0.0.1:8000/metrics'. The page content is a large block of JSON-formatted metrics, which is a standard Prometheus output. The metrics include various counters and gauges, such as 'go.opentelemetry.io/otel/exporters/prometheus' and 'github.com/gogf/gf/v2/frame/g'. The JSON is minified and contains many lines of data.

```

package main

import (
    "context"

    "go.opentelemetry.io/otel/exporters/prometheus"

    "github.com/gogf/gf/contrib/metric/otelmetric/v2"
    "github.com/gogf/gf/v2/frame/g"
    "github.com/gogf/gf/v2/os/gctx"
    "github.com/gogf/gf/v2/os/gmetric"
)

const (

```

```

instrument      = "github.com/gogf/gf/example/metric/basic"
instrumentVersion = "v1.0"
)

var (
    meter = gmetric.GetGlobalProvider().Meter(gmetric.MeterOption{
        Instrument:      instrument,
        InstrumentVersion: instrumentVersion,
        Attributes: gmetric.Attributes{
            gmetric.NewAttribute("meter_const_attr_1", 1),
        },
    })
    counter = meter.MustCounter(
        "goframe.metric.demo.counter",
        gmetric.MetricOption{
            Help: "This is a simple demo for Counter usage",
            Unit: "bytes",
            Attributes: gmetric.Attributes{
                gmetric.NewAttribute
("metric_const_attr_1", 1),
            },
        },
    )
    observableCounter = meter.MustObservableCounter(
        "goframe.metric.demo.observable_counter",
        gmetric.MetricOption{
            Help: "This is a simple demo for ObservableCounter
usage",
            Unit: "%",
            Attributes: gmetric.Attributes{
                gmetric.NewAttribute
("metric_const_attr_2", 2),
            },
        },
    )
)

func main() {
    var ctx = gctx.New()
    // Callback for observable metrics.
    meter.MustRegisterCallback(func(ctx context.Context, obs gmetric.
Observer) error {
        obs.Observed(observableCounter, 10, gmetric.Option{
            Attributes: gmetric.Attributes{
                gmetric.NewAttribute("dynamic_attr_1", 1),
            },
        })
        return nil
    }, observableCounter)

    // Prometheus exporter to export metrics as Prometheus format.
    exporter, err := prometheus.New(
        prometheus.WithoutCounterSuffixes(),
        prometheus.WithoutUnits(),
    )
    if err != nil {
        g.Log().Fatal(ctx, err)
    }

    // OpenTelemetry provider.
    provider := otelmetric.MustProvider(
        otelmetric.WithReader(exporter),
    )
    provider.SetAsGlobal()
    defer provider.Shutdown(ctx)

    // Counter.
    counter.Inc(ctx, gmetric.Option{
        Attributes: gmetric.Attributes{
            gmetric.NewAttribute("dynamic_attr_2", 2),
        },
    })
}

```



```

        Attributes: gmetric.Attributes{
            gmetric.NewAttribute
("metric_const_attr_1", 1),
        },
    ),
    observableCounter = meter.MustObservableCounter(
        "goframe.metric.demo.observable_counter",
        gmetric.MetricOption{
            Help: "This is a simple demo for ObservableCounter
usage",
            Unit: "%",
            Attributes: gmetric.Attributes{
                gmetric.NewAttribute
("metric_const_attr_2", 2),
            },
        )
    )
}

func main() {
    var ctx = gctx.New()

    gmetric.SetGlobalAttributes(gmetric.Attributes{
        gmetric.NewAttribute("global_attr_1", 1),
    }, gmetric.SetGlobalAttributesOption{
        Instrument:      instrument,
        InstrumentVersion: instrumentVersion,
        InstrumentPattern: "",
    })

    // Callback for observable metrics.
    meter.MustRegisterCallback(func(ctx context.Context, obs gmetric.
Observer) error {
        obs.Observe(observableCounter, 10, gmetric.Option{
            Attributes: gmetric.Attributes{
                gmetric.NewAttribute("dynamic_attr_1", 1),
            },
        })
        return nil
    }, observableCounter)

    // Prometheus exporter to export metrics as Prometheus format.
    exporter, err := prometheus.New(
        prometheus.WithoutCounterSuffixes(),
        prometheus.WithoutUnits(),
    )
    if err != nil {
        g.Log().Fatal(ctx, err)
    }

    // OpenTelemetry provider.
    provider := otelmetric.MustProvider(
        otelmetric.WithReader(exporter),
    )
    provider.SetAsGlobal()
    defer provider.Shutdown(ctx)

    // Counter.
    counter.Inc(ctx, gmetric.Option{
        Attributes: gmetric.Attributes{
            gmetric.NewAttribute("dynamic_attr_2", 2),
        },
    })
    counter.Add(ctx, 10, gmetric.Option{
        Attributes: gmetric.Attributes{
            gmetric.NewAttribute("dynamic_attr_3", 3),
        },
    })

    // HTTP Server for metrics exporting.

```

```
otelmetric.StartPrometheusMetricsServer(8000, "/metrics")
}
```

gmetric.SetGlobalAttributesgmetric.SetGlobalAttributesOption

<http://127.0.0.1:8000/metrics>

