

# C3 and D3 Upgrade

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**SINCE VERSION 1.7.2**

, We have upgraded our xCharts **C3.js** dependency to **version 0.7.8** (from 0.4.11) for newer features, improvements, and bug fixes. This version of C3 depends on **D3.js version 5.11.0** (from 3.5.6). This in turn could lead to broken scripted charts due to few methods deprecated in the D3 library. We are unaware of any breaking changes in the C3 library itself.

It is **highly recommended** that you change your scripts that rely on D3 deprecated methods to use the newer ones. Generally, it only requires method call changes. However, if you want a quick workaround, the following snippets (for two widely used D3 methods: `d3.round()` and `d3.time.format()`) can help you while you migrate to the newer D3 methods.

For an exhaustive list of changes please check the [official notes](#) from D3.

## Workaround

You need to insert the snippets at the beginning of the Javascript layout file. You can follow this workaround pattern to add any deprecated methods by following through D3 source code. We do not provide support as this is not a recommended approach. See further below for a proper D3 version 5 approach.

```
// Put this at the beginning of your Layout Script Code

if (typeof (d3.round) === "undefined")
{
    d3.round = function (x, n)
    {
        return n
            ? Math.round(x * Math.pow(10, n)) * Math.pow(10, -n)
            : Math.round(x);
    };
}

if (typeof (d3.time && d3.time.format) === "undefined")
{
    d3.time = {};
    d3.time.format = d3.timeFormat;
}

//.... Your Layout Script Code continues below ...
```

## New methods

The corresponding D3 version 5 equivalent and **recommended approaches** are:

```
// for d3.round(val)
parseInt(d3.format("d")(val))

// for d3.round(val, 2);
parseFloat(d3.format("g")(val))

// for d3.time.format("%Y")(date)
d3.timeFormat("%Y")(date)
```

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If you still have questions, feel free to refer to our [support](#) team.