

# Dual Hierarchy Decomposition Tree Pro

Icon Reference · Version 1.0.0 · CBT — Convergent Business Technologies

## How icons work

The visual supports per-slot icons driven by your DAX measures. Each of the 4 KPI value slots can have its own icon that appears next to the value text.

To use icons:

1. Open the Field pane. Find the data wells labelled "KPI 1 Icon" through "KPI 4 Icon".
2. Write a DAX measure that returns an icon name as a string (see catalog below).
3. Drag your DAX measure into the appropriate "KPI N Icon" data well.
4. Open the Format pane. For the slot whose icon you want to show, find the "KPI Icon N" card.
5. Toggle **Enable Icon ON**.
6. Optionally adjust position (Left / Right) and size (Small / Medium / Large).

Icons appear at every level of the tree — leaf cards, intermediate rollup cards, and the Total card — with each card showing the DAX evaluation for its own scope.

## Icon catalogue

Icon Name (use in DAX)	Default colour	Style
arrow-up	Green #49D372	Stroke
arrow-down	Red #EE773F	Stroke
arrow-flat	Gray #9CA3AF	Stroke
dash	Gray #9CA3AF	Stroke
triangle-up	Green #49D372	Fill
triangle-down	Red #EE773F	Fill
circle	Gray #9CA3AF	Fill
check	Green #49D372	Fill
cross	Red #EE773F	Fill
warning	Yellow #E8E85C	Fill (with interior glyph)

## DAX syntax

Your DAX measure returns a string in one of two forms.

**Just the icon name** — the icon renders with its default colour from the catalogue above:

```
"arrow-up"  
"check"
```

```
"warning"
```

**Icon name with custom colour override** — use a pipe (|) separator followed by a hex colour to override the default. Use this whenever you want the icon to be a colour other than its default:

```
"arrow-up|#0066CC"  
"check|#00AA44"  
"warning|#FF6600"
```

The hex colour must be #RRGGBB (6 digits) or #RGB (3 digits). Invalid hex values are silently ignored and the icon falls back to its default colour.

**Empty or null DAX** returns no icon. This is useful for conditional hiding:

```
NoIconWhenZero = IF([Revenue] = 0, "", "arrow-up")
```

**Unknown icon names** render nothing. Typos will not break the visual; they just hide the icon for the affected cells.

## Common DAX patterns

### Three-state YoY indicator

Green up arrow for growth  $\geq 10\%$ , gray flat arrow for 6–10%, red down arrow below:

```
YoY Icon =  
    IF([YoY Growth (%) ] >= 0.10, "arrow-up",  
    IF([YoY Growth (%) ] >= 0.06, "arrow-flat",  
    "arrow-down"))
```

### Target performance (pass/fail)

Green checkmark when on or above target, red cross when below:

```
Target Icon =  
    IF([vs Target (%) ] >= 0, "check", "cross")
```

### Warning threshold

Yellow warning icon when margin drops below 50%, no icon otherwise:

```
Margin Warning Icon =  
    IF([Gross Margin %] < 0.50, "warning", "")
```

### Custom brand colours (inline override)

Use the pipe syntax to override default colours with your brand palette. Below each state has its own custom colour:

```
Brand Icon =  
    IF([YoY Growth (%) ] >= 0.10, "triangle-up|#7B80D0",  
    IF([YoY Growth (%) ] >= 0.06, "circle|#9CA3AF",  
    "triangle-down|#7B80D0"))
```

### Traffic-light pattern (one icon, three colours)

Same icon shape (filled circle) in three different colours via inline override:

```
Status Icon =  
    IF([YoY Growth (%) ] >= 0.10, "circle|#49D372",  
    IF([YoY Growth (%) ] >= 0.06, "circle|#E8E85C",  
    "circle|#EE773F"))
```

## Configuration reference

Per-slot settings live in the Format pane under "KPI Icon 1" through "KPI Icon 4":

Setting	Options	Default
Enable Icon	On / Off	Off
Position	Left, Right	Right
Size	Small, Medium, Large	Medium

Icon size is relative to the value text font size:

- Small = 80% of value font size
- Medium = 100% of value font size
- Large = 120% of value font size

Icons scale automatically with the slot's font size — there is no need to adjust icon size separately when you change the value font.

## Behaviour at rollup contexts

Icons appear at every node in the tree, not just leaf cards. The Total card, intermediate parent cards (for example MedSurg or Asia Pacific), and leaf cards all show DAX-driven icons evaluated at their own scope.

For example, if your YoY DAX returns "arrow-up" when  $YoY \geq 10\%$ , the Total card will show an up arrow when its rollup YoY is  $\geq 10\%$ , and a flat or down arrow when below. Each card's icon reflects its own data, not its parent's or its children's.

## Troubleshooting

### No icon appears even with DAX bound

- Confirm the slot's "Enable Icon" toggle is ON in the Format pane
- Confirm the DAX measure is dropped in the correct data well (KPI 1 Icon for slot 1, etc.)
- Confirm the DAX returns a known icon name (see catalogue above)
- Check for typos — icon names must match exactly (case is ignored automatically)

### Wrong icon colour

- If you specified an inline colour, confirm the hex format (#RRGGBB or #RGB)
- Invalid hex values fall back to the icon's default colour silently
- Hex must include the # prefix

### Icon size does not appear to change with the Size dropdown

Icon size is relative to the value text font size. If the value font is small, the relative multiplier (0.8 / 1.0 / 1.2) produces only a small visible difference. Increase the value font size in the Value Format card and the icon will scale proportionally.

