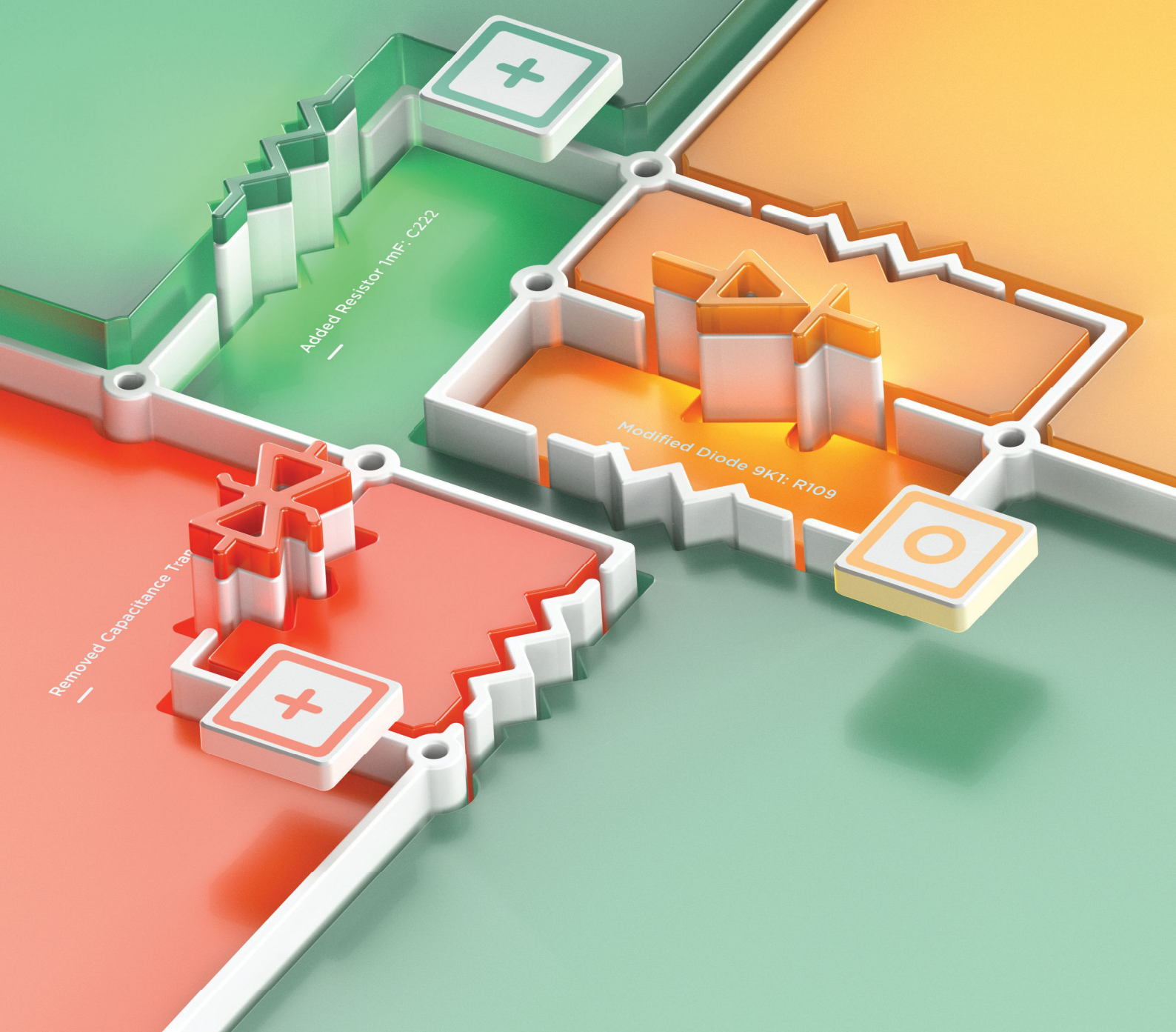


**Altium**

QUICK GUIDE

# Schematic Compare

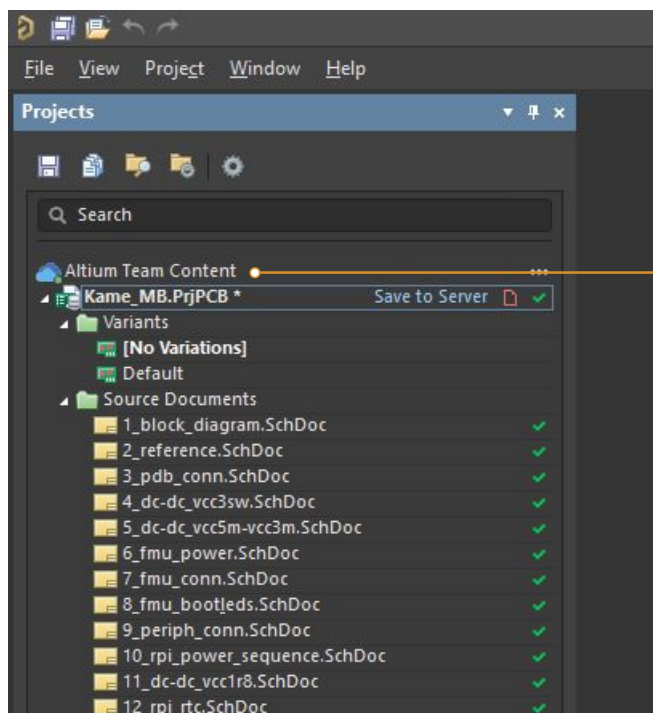


# The need for compare

A design project doesn't appear out of nowhere. The design process spreads over time, and project documents change. Schematic documents gradually become more complex, new functional blocks appear, and already finished parts can be modified and updated.

When the project is released and a series of boards is manufactured, adjustments will probably be made and a new release will be performed.

It is always useful to be able to track the evolution of a project. The **Altium 365** platform allows not only to store all the intermediate versions of documents, but also has a powerful built-in tool for comparing documents, particularly schematics.

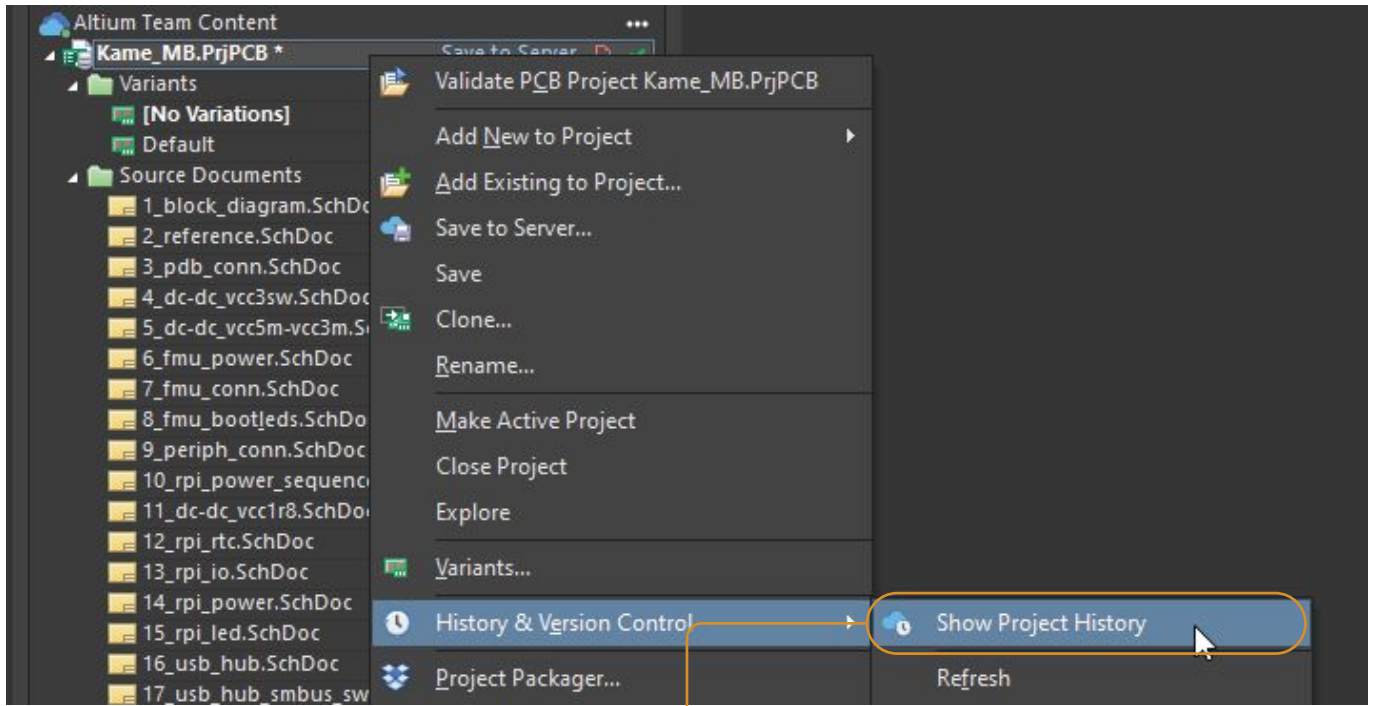


the project is managed by **Altium 365**

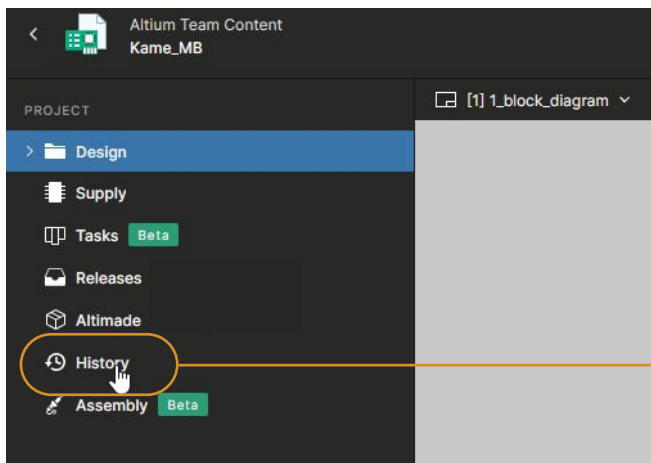
In order to fully benefit from the version control system and document comparison tool, your projects must be in the **Altium 365** workspace environment.

# Project history

You can access project history directly in **Altium Designer** (from the **Projects** panel) or in the **Altium 365** Workspace browser interface

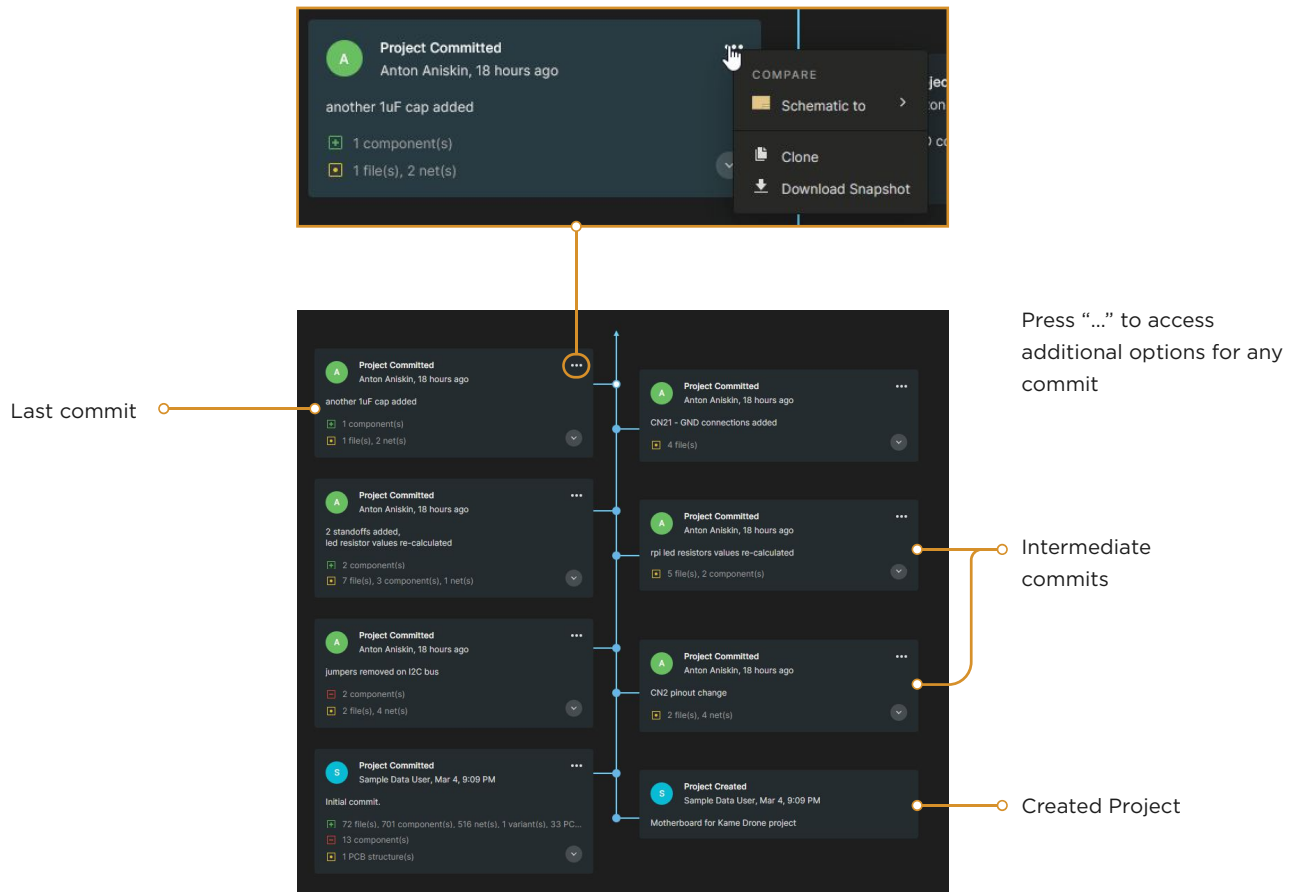


Altium Designer (Projects panel)



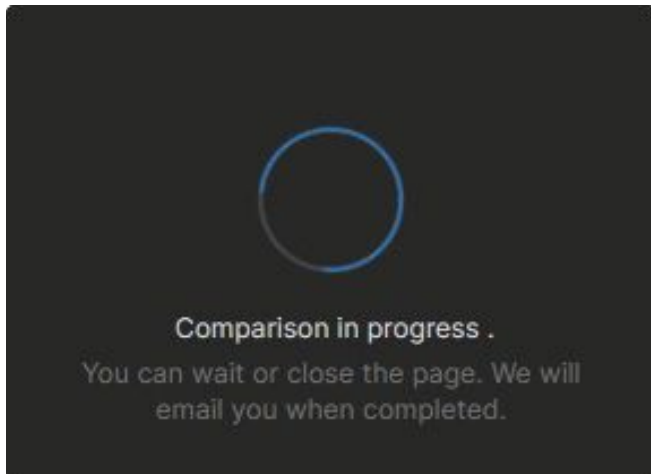
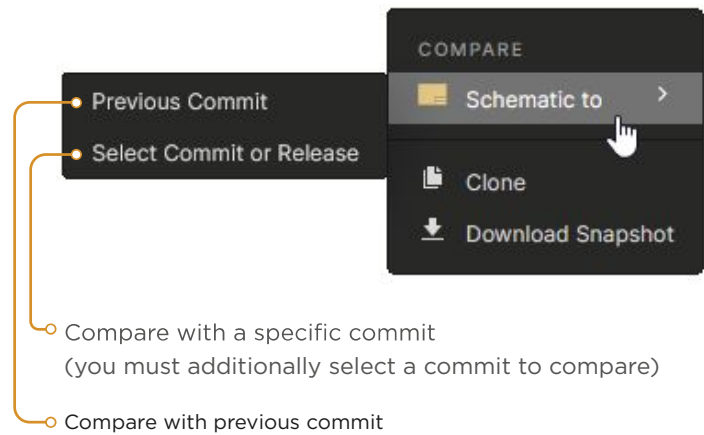
Altium365 Workspace

The project history is represented as an axis going from the bottom to the top that starts when the project was created and ends at its current state. The axis contains commits with a brief description of the changes made.



# How to launch comparison

Select the "Compare Schematic to" command and a commit you want to compare it to. It can be a previous commit, or any other commit.



After selecting an option, a web page with comparison results being loaded will open. You can either wait for the operation to complete or simply close the window. The results will not be lost - you will receive an email that will contain a link to the comparison result page. The process of generating results may take some time!

In case you decide not to wait for the result right now, you will receive an email with a link:

Schematic comparison **Sample - Kame\_MB** is ready to view



[Open in Altium 365](#)

# Comparison window overview

The comparison page consists of two main regions: the **Differences** panel where all changes are grouped and listed, and the main viewing area with graphical representation.

The screenshot displays the Altium Schematic Compare interface. On the left, the 'Differences (13) BETA' panel is open, showing a list of modifications under 'COMPONENTS' and 'NETS'. The 'NETS' section includes items like 'Modified GND', 'Modified RPI\_I2C.SCL', and 'Modified ESC\_M6'. The main area shows a 'Kame-1 Block Diagram' with various components like 'NGFF key M', 'USB hub', and 'Power Monitor' connected by lines. A 'Feedback' button is visible in the bottom right corner of the diagram area.

List of modifications  
(the **Differences** panel)

Visualization

The screenshot shows the 'Differences (16/16) BETA' window. At the top, it displays the total number of differences and a search bar. Below this, there are filter options for 'All', 'Component', and 'Net', with 'All' selected. The main area is divided into two sections: 'COMPONENTS' and 'NETS'. The 'COMPONENTS' section is expanded to show a specific difference: 'Modified Resistor 9K1 +/-5 % 0402 63 mW: R109, R110, R165, R166, R168'. This entry is highlighted with a yellow background, indicating a modification. Below this, a table shows the details of the component replacement, including the Design Item ID, Comment, Description, Tolerance, and Value. The 'NETS' section is also expanded, showing four modified nets: GND, VCC3\_RPI, RPL\_I2C.SCL, and RPL\_I2C.SDA. Annotations with orange lines point to various parts of the interface: 'Total amount of differences' points to the 'Differences (16/16)' text; 'Filter by type of change' points to the 'All Component Net' filter buttons; 'Components' group points to the 'COMPONENTS' section header; 'Nets' group points to the 'NETS' section header; 'Show/hide text search' points to the search icon; 'Search bar' points to the search input field; and 'Specific difference with color code and details' points to the expanded resistor difference entry.

Total amount of differences

Filter by type of change

“Components” group

“Nets” group

Show/hide text search

Search bar

Specific difference with color code and details

(red “-” - deleted, red “+” - added, yellow “\*” - modified)



# Changed component example

Let's take a closer look at the description of one of the differences - component replacement

List of modified objects (modified components)

Text description

Click on a designator and it will be shown in Differences panel

Modified Resistor 9K1 +/-5 % 0402 63 mW: R109, R110, R165, R166, R168	
<b>Component Replaced</b>	
Design Item ID	CMP-009-00135-3 CMP-009-00149-3
<b>Modified Parameters</b>	
Comment	Resistor 9K1 +/-5 % 0402 63 mW Resistor 10K +/-1 % 0402 63 mW
Description	Chip Resistor, 9,1 kOhms, +/-5 %, 63 mW, ... Chip Resistor, 10 kOhms, +/-1 %, 63 mW, ...
Tolerance	5% 1%
Value	9.1k 10k

5-IG

VCC3\_RPI

R110  
9.1k

RPI "PWR" LED

LED7  
QBLP595-R

Description of parameter changes (gray - new value, red - old value)

# Changed net example

Example with changes in one net:

Text description

Clicking on the sheet icon opens a list of all sheets in the schematic where this net is used. Sheets with modifications are marked in yellow.



Detailed description:

green "+" - pin is connected to the net

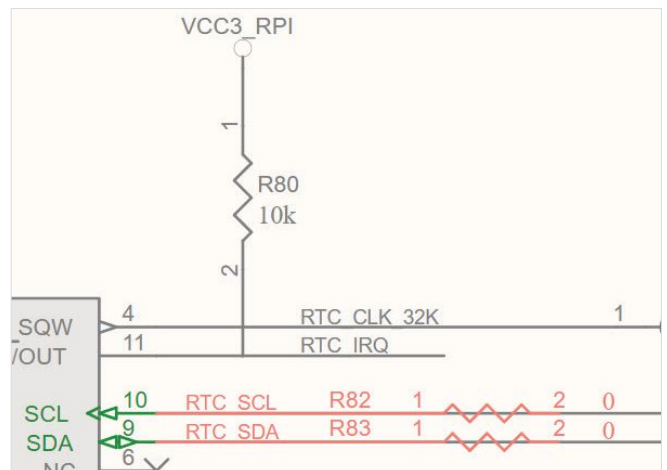
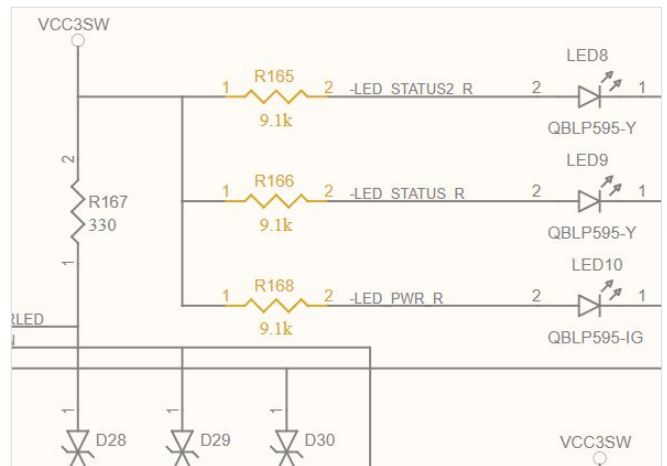
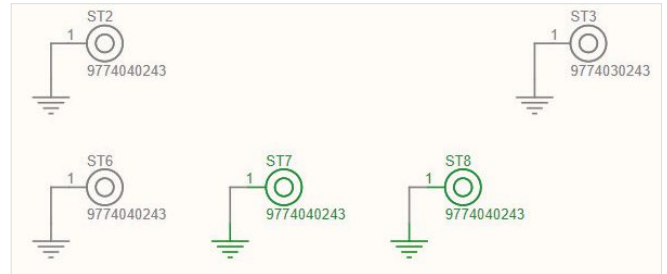
red "-" - pin is excluded from the net

Pin designations are clickable links!

# Visualization of changes

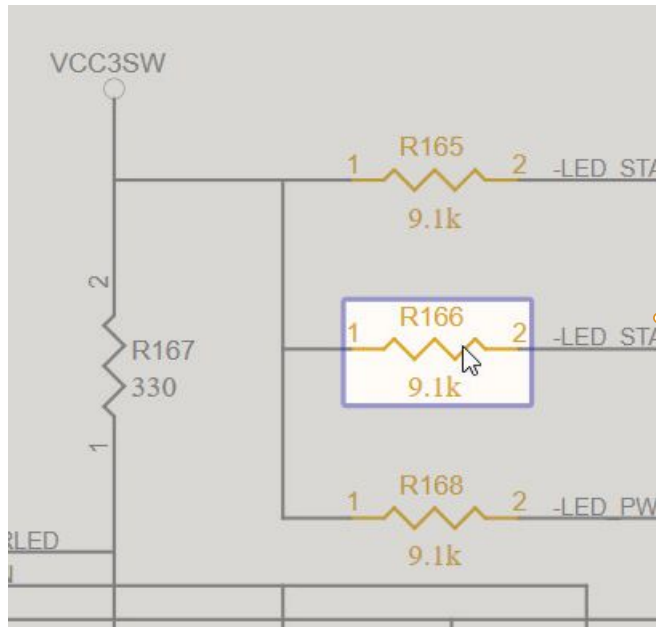
The green objects were added, the yellow ones were edited, and the red ones were deleted.

In addition to the detailed text description in the Differences panel, the visualization of these changes is also very interesting.



# Cross-probing

When you click on an object in the graphical field, it activates the corresponding line in the **Differences** panel.



Modified Resistor 9K1 +/-5 % 0402 63 mW:  
R109, R110, R165, **R166** Show All

**Component Replaced**

- Design Item ID CMP-009-00135-3  
CMP-009-00149-3

**Modified Parameters**

- Comment Resistor 9K1 +/-5 ...  
Resistor 10K +/-1 %...
- Description Chip Resistor, 9,1 k...  
Chip Resistor, 10 k...
- Tolerance 5%  
1%
- Value 9.1k  
10k

# Text search

There is another interesting feature. It is possible to perform a text search for the content of modifications in the **Differences** panel.

