

# CST STUDIO SUITE Getting started

## How to Get Started Quickly

We recommend that you proceed as follows:

1. Work through this document carefully. It provides you with all the basic information necessary to understand further documentation.
2. Each of the solver modules mentioned above comes with a dedicated manual. Once you have determined which modules are best suited to solve your problems, continue by reading the corresponding manual. The manuals provide valuable information to help you use the software quickly and efficiently.
3. Browse through the online help system and familiarize yourself with its content. As an entry point, you may follow the links on the online help system's start page.
4. Do not hesitate to contact technical support if you encounter any problems or if any questions remain. Since a variety of different applications exists, the documentation may not be able to cover all special cases equally. The support team will be more than happy to assist you in solving your simulation problems as soon as possible.

This lectures is primarily designed to enable a quick start to CST STUDIO SUITE. It is not intended to be a complete reference guide to all available features, but it will give you an overview of the key concepts. Understanding these concepts will allow you to learn how to use the software efficiently with the help of the online documentation.

## Document Conventions

Buttons that should be pressed within dialog boxes are always written in italics, e.g.

OK.

- Key combinations are always joined with a plus (+) sign. *Ctrl+S* means that you should hold down the "Ctrl" key while pressing the "S" key.
- The program's features can be accessed through a Ribbon command bar at the top of the main window. The commands are organized in a series of tabs within the Ribbon. In this document a command is printed as follows: *Tab name: Group name Button name Command name*. This means that you should activate the proper tab first and then press the button *Command name*, which belongs to the group *Group name*. If a keyboard shortcut exists it is shown in brackets after the command.

Example: *View: Change View Reset View (Space)*

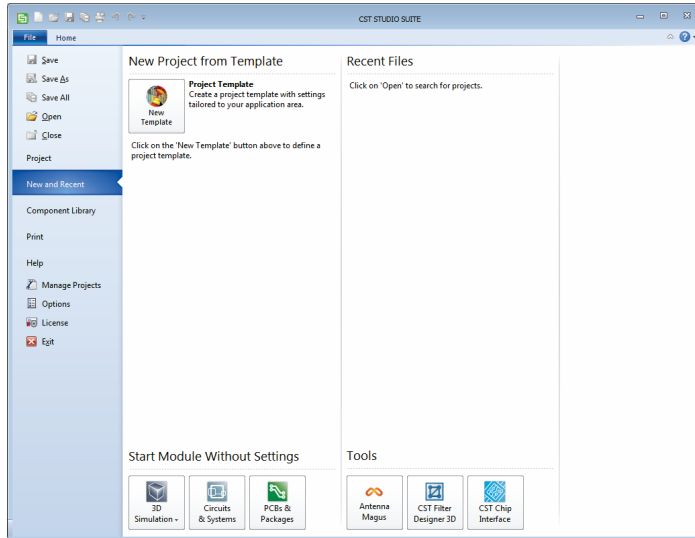
- The project data is accessible through the navigation tree on the left side of the application's main window. An item of the navigation tree is referenced in the following way: *NT: Tree folder Sub folder Tree item*.  
Example: *NT: 1D Results Port Signals i1*

## Chapter 3 — User Interface

After successfully installing the software, remember to log in as standard user rather than keeping administrator privileges for security reasons.

Start the application by selecting the *CST STUDIO SUITE* entry in the Windows *Start* menu's *CST STUDIO SUITE 2017* folder. You will see the main window of the CST STUDIO SUITE user interface:

If no project is opened, this is the default view of the application. You can activate it at any time by selecting the *File* tab.



On the left pane you have direct access to typical file related options like *Open*, *Save*, and *Print*. In addition to those standard controls the following three pages are provided:

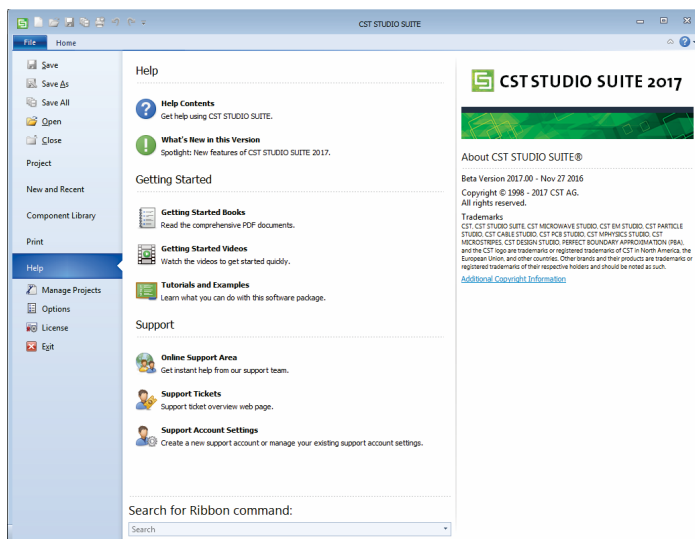
**Project:** The *Project* page gives a brief overview of the currently active project and offers project related operations like *Archive As* or quick access to the project folder in the windows explorer. Please note: this page is only enabled if a project is loaded.

**New and Recent:** The *New and Recent* page is the central place to start a new project or quickly load one of the recent projects.

**Component Library:** On the *Component Library* page you can manage and share your reusable projects with your colleagues. For more information about the Component Library please refer to the online help system.

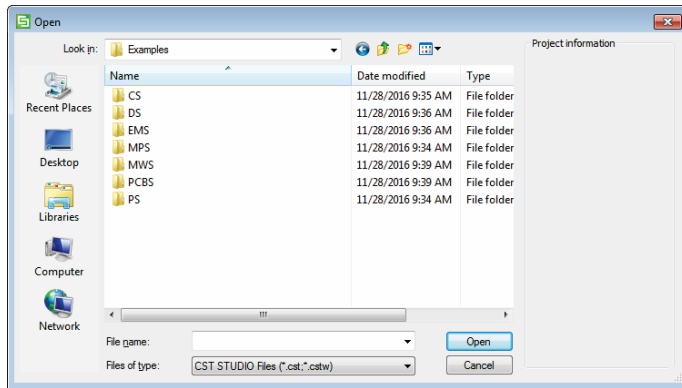
## Version Information

Sometimes the technical support team will ask you which software version you have. You can easily find this information by selecting *File: Help*:



## Opening a Project

Use the *File: Open* command to open an existing project:



Here you can select a project file with the extension *.cst*.

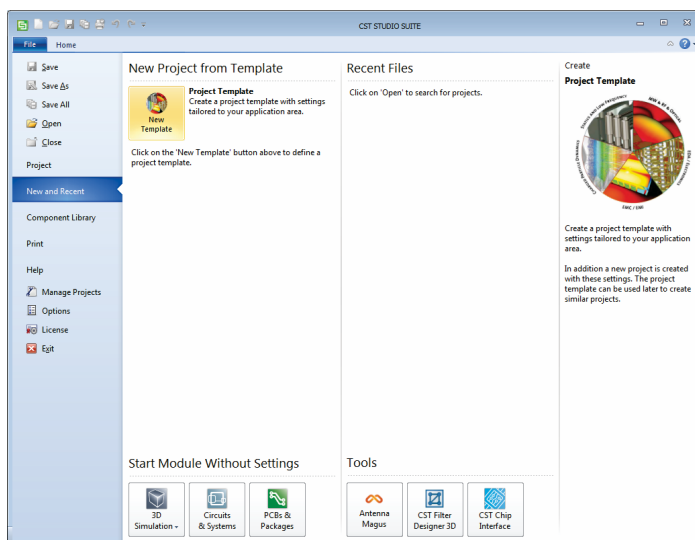
**Note:** Previous versions of CST STUDIO SUITE used different file extensions (*.mod*, *.ems*, *.psf*) depending on the project type. For backward compatibility the dialog box still offers these extensions as well.

If you want to open a project, which you have used recently, just activate *File: New and Recent* and select the project from the list of recent projects.

## Creating a New Project

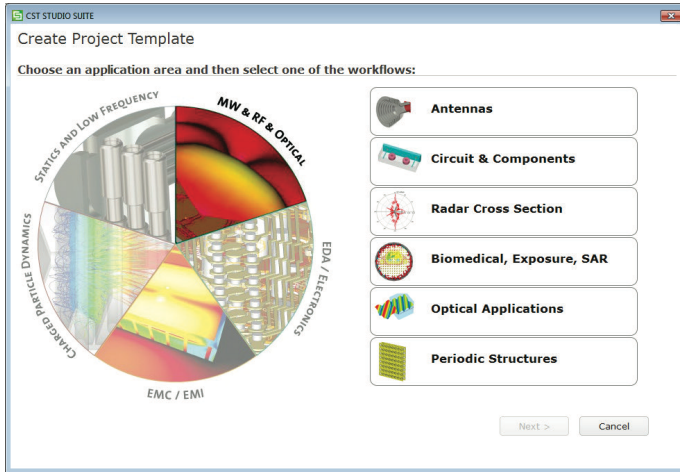
A new project can be created by clicking on the *New Template* button in the *New and Recent* page. This will start the template wizard, which guides you through a series of questions in order to specify the application area of your new project.

This ensures that the appropriate module is started automatically. In addition all project settings are set correctly for the particular type of device you want to analyze. These settings are also stored as a project template for later use. Just click on this template in the list of project templates whenever you want to create another project of the same type.

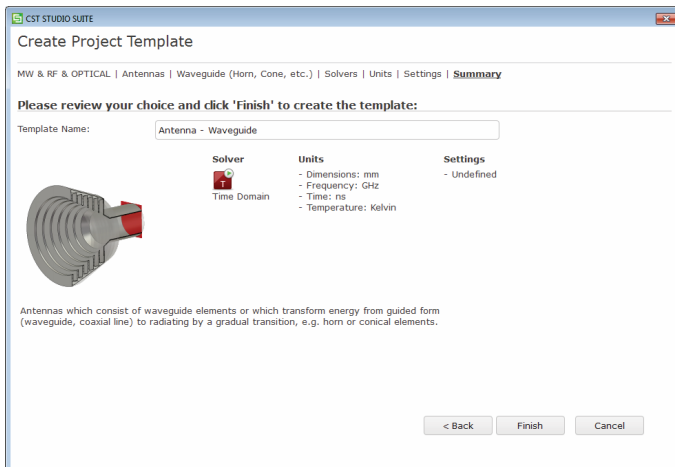


Besides the template wizard you can use the buttons in the *Start Modules Without Settings* group to create a new project. The *Tools* buttons offer quick access to additional applications.

Now we want to create a new project. Press the button *File: New and Recent New Template* to start the template wizard. In this document we just introduce the common steps needed when using this wizard for project creation. Please refer to the other CST STUDIO SUITE documents for more details.



For this introduction we do not rely on any specific project settings, so just select *MW & RF & OPTICAL* and *Antennas* and press the *Next* button multiple times without any change. At the end of the project definition you can verify your choices on the summary page. On this page the name of the project template can also be changed, if needed:



Finally press the *Finish* button to start the appropriate module. In this case this is CST MICROWAVE STUDIO.

## Overview of the User Interface

In this section the controls and commands of CST MICROWAVE STUDIO are described. Since the user interface concept of CST EM STUDIO, CST PARTICLE STUDIO, and CST MPHYSICS STUDIO is identical, it should be straightforward to follow the explanations below in case you are using any one of these modules.

After the module has started you will see the user interface of CST MICROWAVE STUDIO. Now let's have a closer look at the various user interface elements:

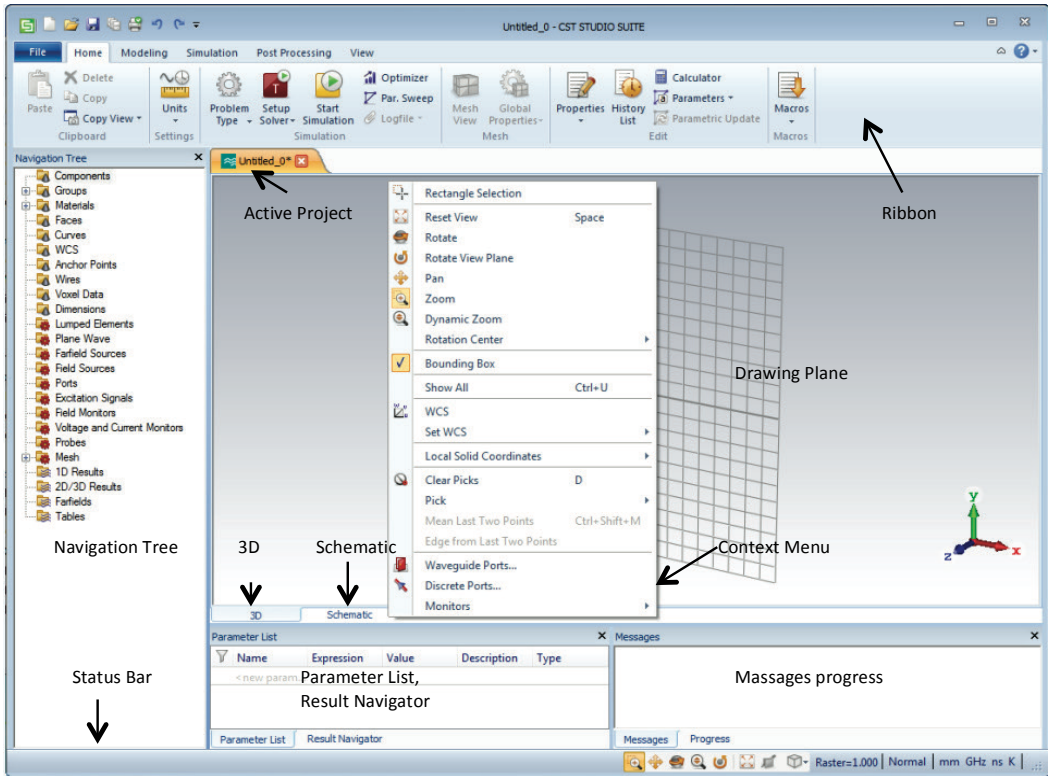


figure 1

## Ribbon

The Ribbon command bar organizes all user interface controls in a series of tabs. It is a replacement for the classical menus and toolbars.

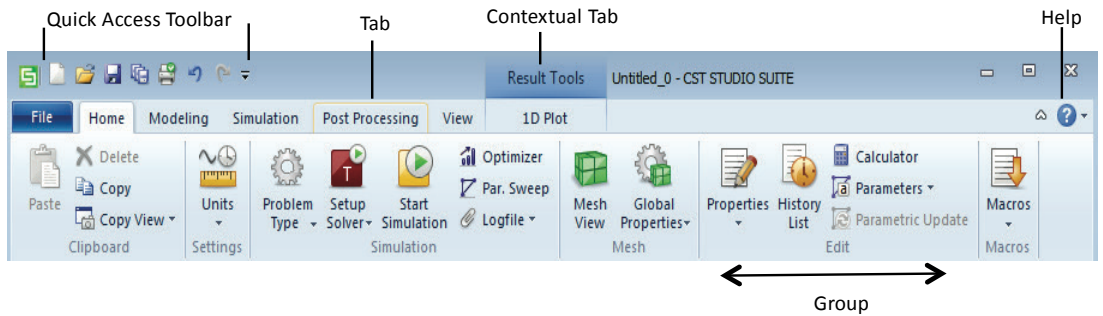


Figure2

All commands in a Ribbon tab are structured in groups which are labeled. Besides tabs and groups the Ribbon consists of:

- A Quick Access Toolbar. This is a small, customizable toolbar that displays commands which are frequently used.
- Core tabs are the tabs that are always displayed. When switching from 3D to Schematic the core tabs are changed, because each mode has its own set of individual controls.
- Contextual tabs are displayed only when a particular object is selected or special view is active.
- The File tab consists of a set of commands related to file handling. General application options and additional help can also be found here.
- A *Help* button to access the online help and the support account. Also, the QuickStart Guide can be started here if a CST MWS project or a project of a similar type is active.
- The *Minimize the Ribbon (Ctrl+F1)* button can be used to hide all the Ribbon groups. Instead only the tab labels are permanently visible.

## Other User Interface Elements

**Active Project:** Use the tabs at the top of the central main window to switch between the currently loaded projects.

**Navigation Tree:** The navigation tree is an important part of the user interface. From here you may access structural elements as well as simulation results.

**Context Menu:** The context menus are a flexible way of accessing frequently used menu commands for the current context. The content of this menu (which can be opened by pressing the right mouse button) changes dynamically.

**Drawing Plane:** The drawing plane is the plane on which you will draw the structure's primitives. As the mouse is only a 2D locator, even when defining 3D structures, the coordinates must be projected onto the drawing plane in order to specify a 3D location. Since you may change the location and orientation of the drawing plane by means of various tools, this feature makes the modeling very powerful.

**3D and Schematic:** With the tabs at the bottom of the central main window you can switch between the 3D modeling view and the Schematic view. Besides these two, you also have access to additional temporary views, e.g. results. The user interface for the Schematic view is described in the *CST DESIGN STUDIO – Workflow* documentation.

**Parameter List:** The parameter list window displays a list of all previously defined parameters together with their current values.

**Result Navigator:** The result navigator window displays a list of all previously calculated parametric results. It allows you to browse all results available within the current result view.

**Messages and Progress:** The messages window displays information text (e.g. solver output) whenever applicable. In the progress window a progress bar is shown for every running simulation, even if another project is currently active.

**Status Bar:** The status bar provides some useful information about the current project settings. You can click on the text for direct access to these values. In addition you can alter how you manipulate the view with the mouse. The different mouse modes are explained later in this document.

