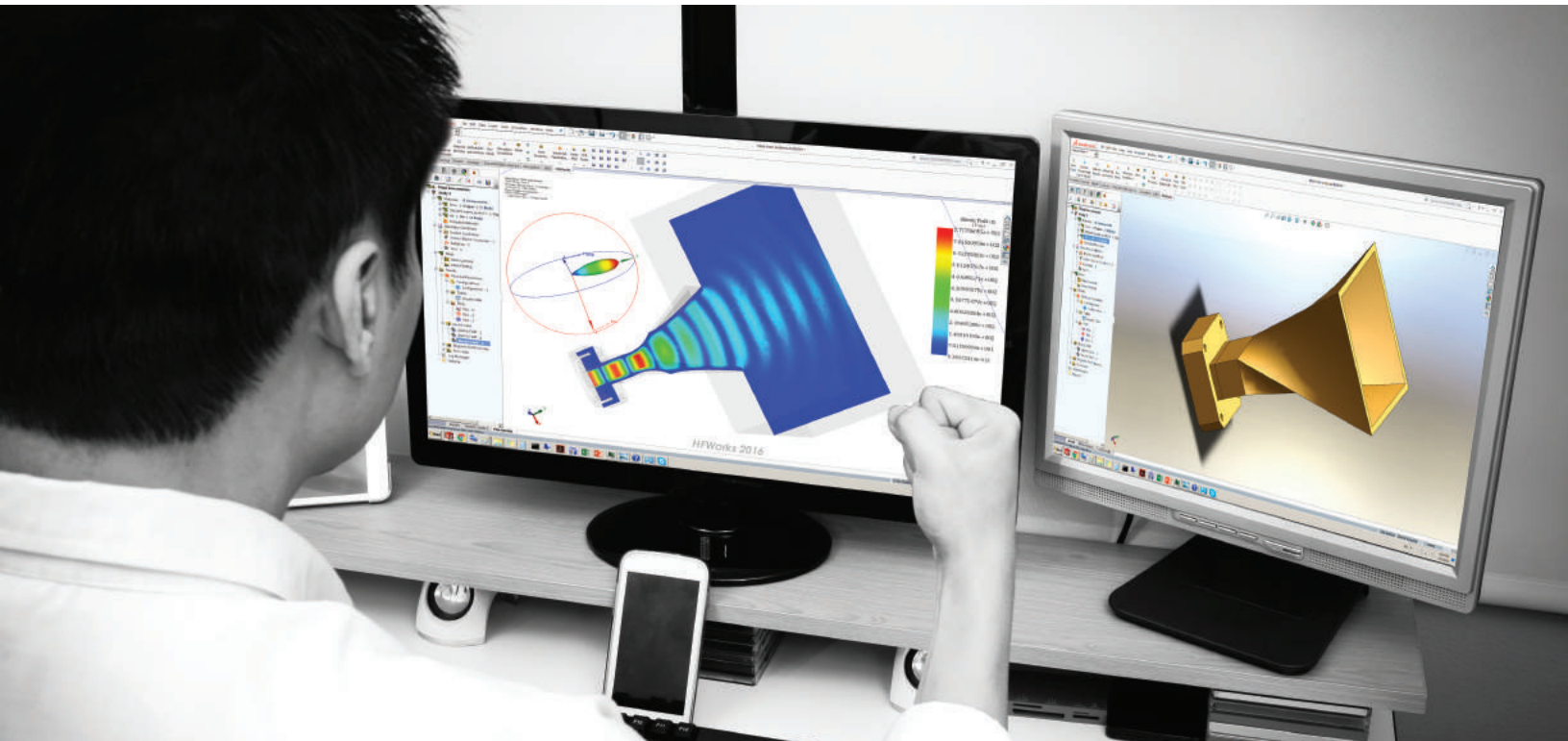


# HFWorks

High Frequency Simulation



Accurate, Powerful, Easy-to-use  
The ultimate workbench to test your design ideas!

## Available For:



ElectroMagneticWorks, Inc

7709 Corder  
LaSalle, Québec  
H8N 2X2, Canada  
Toll free: (800) 397-1557  
sales@emworks.com



## High Frequency Simulation

The premier high frequency field simulation package fully embedded within **SOLIDWORKS** and **ANSYS SpaceClaim**

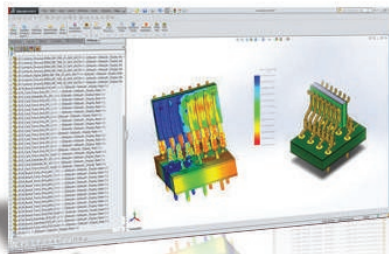
*Now coupled with  
Thermal analysis*



Antenna analysis – human head

### Antennas

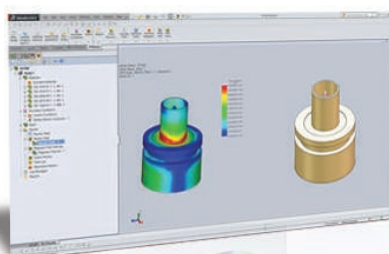
- How well does your antenna radiate?
- What is its radiation pattern and how does it vary over frequency?
- Do you need to reduce the side lobes?
- What are its gain, directivity and input impedance?
- What is its radiation resistance?
- What about polarization, axial ratio and front/back ratio?
- Do you need to make sure your design meets EMI/EMC norms?



S-parameter analysis – Connector

### S-Parameters

- Do you need to know the input impedance of your structure ?
- How does the return loss vary over frequency?
- Is the insertion loss acceptable?
- Are you concerned about coupling / isolation in your design?
- Do you want to make sure that you do not have mode conversion in your structure?
- What about cross-talk and signal integrity ?



Resonance analysis – Resonator

### Resonance

- Does your design require careful attention to resonance?
- Are you designing a resonator?
- Do you need to know the quality-factor of your resonant structure?
- Do you need to separate conductor and dielectric losses?
- What about optimizing pole-zero placement for your filter design?
- How does changing materials/geometry impact your resonator/filter design?

## Benefits

As HFWorks is fully embedded inside SOLIDWORKS and ANSYS SpaceClaim, it enhances your designing experience as well as productivity. With such a powerful tool at your disposal, you will be able to:

- Construct complex 3D models in record time.
- Import designs in a wide range of popular CAD formats.
- Exploit advanced visualization and rendering technologies that bring unprecedented realism to your models.
- Generate engineering drawings and CAM-ready files quickly and automatically and share your designs with your mechanical engineers.
- Shorten product design time and lower design cost.

#### Advanced Features

Design Tables

Parameterization

Multiconfigurations

- Quickly and efficiently compare alternative designs and choose the optimal one for final production.
- Drag and drop to create and clone analysis studies.
- Easily model air parts and gaps using features like molds and cavities.
- Easily apply metallization in printed circuit boards using split surfaces.
- Share your HFWorks models with mechanical, thermal and fluid flow analysis packages inside SOLIDWORKS for multi-physics applications.