

## ANSA for morphing and optimization

<b>Training</b>	ANSA for morphing and optimization
<b>Duration</b>	2 days (16 hours)
<b>Level</b>	Entry
<b>Who should attend</b>	CAE analysts who perform reshaping and shape optimization tasks.
<b>Training description and objectives</b>	<p>This course introduces the concept of the morphing tool and the functionality for optimization set-up so that attendants become familiar with the main tools and terminology of morphing and optimization.</p> <p>Upon course completion, participants will be able to perform direct or parameterized model reshape on both FE and geometry models, and set-up and execute an optimization process.</p>
<b>Prerequisites</b>	<p>Participants should have an engineering background. Basic knowledge of ANSA is necessary.</p> <p>Basic optimization knowledge is required for the optimization set-up session.</p>
<b>Suggestions</b>	<p>Course can be combined with the training:</p> <ul style="list-style-type: none"> <li>– Introduction to preprocessing with ANSA</li> <li>– Introduction to CFD pre- &amp; post- processing with ANSA and META</li> </ul>
<b>Language</b>	<p>English, German, Italian</p> <p><i>*ask for more languages</i></p>



Suggested topics
Day 1
<ul style="list-style-type: none"><li>– ANSA morphing tool terminology</li><li>– Global morphing cases</li><li>– Box edge fitting</li><li>– 2d morphing boxes</li><li>– 1d morphing boxes</li><li>– Cylindrical morphing boxes</li><li>– Linked morphing boxes</li><li>– Morphing constraints : nested elements</li><li>– Morphing history tool</li><li>– Geometry morphing</li></ul>
Day 2
<ul style="list-style-type: none"><li>– Direct morphing</li><li>– Creating depressions</li><li>– Modifying holes</li><li>– ANSA optimization task terminology</li><li>– Shape optimization example</li><li>– Morphing process simulation</li><li>– Design of experiments (DOE)</li></ul>

*Course content is subject to change without notice.  
Course content may be adjusted to audience requirements or background.*