

Technical Education Services



Autodesk Simulation Moldflow Insight Advanced Flow

Course Length: 2 days

The Autodesk Simulation Moldflow Insight Advanced Flow training material consists of two training courses: Theory & Concepts, and Practice. The Theory & Concepts course discusses the theory, background, and workflows used in Autodesk Simulation Moldflow Insight to teach students to apply Moldflow advanced flow workflows to their parts. In the Practice course students are provided with problems to practice the workflows discussed in the Theory & Concepts guide. Overall, the goal is to teach students to become more efficient at creating digital prototypes, running analyses and interpreting the results for all flow related problems.

Topics include:

- Working with and editing databases.
- Analyzing family tools.
- Analyzing multi-gated parts.
- Optimizing the packing profile to minimize volumetric shrinkage variation in the part.
- Analyzing parts with molded in inserts.
- Analyzing a two-shot sequential molding process
- Running a design of experiments analysis.

To see the current course schedule and to register for this course:

Go to imaginit.com/scheduleSIMMOLDINSADV

Prerequisites

Autodesk Simulation Moldflow Insight Fundamentals or its equivalent should be completed prior to taking this course. Workflows discussed in this course build on the knowledge of the Fundamentals course.

Course description shown for Autodesk Simulation Moldflow Insight 2014. Topics, curriculum, and/or prerequisites may change depending on software version.



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Chapter 1: Database Management

- Theory and Concepts - Database Management
- Database commands
- Editing a thermoplastic material
- Using personal databases
- Chapter Summary

Chapter 2: Family Tools

- Theory and Concepts - Family Tools
- Family tool analysis process
- Create a study for all parts
- Move parts to tool position
- Determine molding conditions for all parts
- Verifying filling
- Create a family tool study
- Creating the runner system
- Calculate a flow rate
- Run a fill analysis
- Determine the target pressure
- Runner balancing
- Review results
- Review runner sizes
- Verify runner sizes
- Chapter Summary

Chapter 3: Multiple Gates

- Theory and Concepts - Multiple Gates
- Multiple gate considerations

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- Determine if multiple gates are required
- Designing the runner system
- Working with clamp force limits

Chapter 4: Packing Optimization

- Theory and Concepts - Packing Optimization
- Volumetric Shrinkage
- Packing input definitions
- Packing analysis setup
- Using pack profiles
- Optimizing part flow
- Optimizing a packing profile
- Chapter Summary

Chapter 5: Part Insert Overmolding

- Theory and Concepts - Part insert overmolding
- Definitions
- Why analyze a part with inserts?
- Part insert overmolding analysis capabilities
- Part insert overmolding - modeling requirements
- Part insert creation for tetrahedral meshes
- Setting up an overmolding analysis
- Reviewing results for an overmolding analysis
- Chapter Summary

Chapter 6: Two-Shot Sequential Overmolding

- Theory and Concepts - Two-Shot Sequential Overmolding
- Definitions
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- Chapter Summary

Chapter 7: Design of Experiments (DOE) Analysis

- Theory and Concepts - Design of Experiments (DOE) Analysis
- DOE considerations
- Taguchi DOE experiment type
- Factorial DOE experiment type
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Appendix A: Molding Window Analysis

- Theory and Concepts - Molding Window Analysis
- Molding window benefits
- Molding window analysis inputs
- Running a Molding Window Analysis
- Molding Window Analysis Interpretation
- Answering questions with the molding window analysis

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Cancellation Policy

The following cancellation policy shall apply to all training engagements, Live Online, Consulting Services and Dedicated/ Custom Training:

- Company reserves the right to reschedule or cancel the date, time and location of its class at any time. In the event that a Training Class is cancelled by Company, Customer is entitled to a full refund. Company shall not be responsible for any other loss incurred by Customer as a result of a cancellation or reschedule.
- For Customer cancellations when written notice is received (i) at least ten (10) business days in advance of the class, the Customer is entitled to a full refund of its payment or reschedule enrollment, (ii) less than ten (10) business days, Customer shall not be entitled to a refund, but shall receive a class credit to be used within three (3) months of the date of the original class.
- Student substitutions are acceptable with at least two (2) days prior notice to the class, provided substitution meets course prerequisites and is approved by Company's Training Coordinator (trainingcoordinator@rand.com)
- For all Training orders, cancellation notices must be submitted to trainingcoordinator@rand.com. Company is not responsible for any error in the delivery of the email notice. In the event of any reschedule of Consulting Services and/or Dedicated/Custom Training by Customer, Company will invoice Customer for all non-cancellable travel expenses.

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To request more information or to see training locations, visit imaginit.com/contact.

