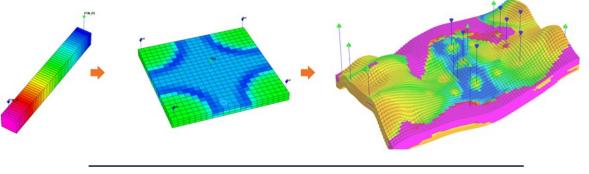






Building For The Future

Build new models for coreflood or pilot studies, up to the full field



Create sector models in a few clicks

- Fast Chemical EOR model building
- Build new models from scratch with a simple user interface
- Easy creation of sector models with accurate flux boundaries
- Add CEOR processes (polymer, surfactant, ASP, tracers, geochemistry)
- Well pattern designer
- Advanced injection slug and production schedule designer
- Engineering decisions can be saved as templates for future use
- Export as full Meteor or UTCHEM CEOR models

BUILD

BUILD

Building for the future



S3quickbuild is an easy-to-use tool for the rapid creation of chemical EOR simulation models for Meteor/UTCHEM. Models can be built from scratch using S3quickbuild's simple wizard interface or generated as sector models (or full conversions) from full-field models in ECLIPSE. The resulting simulation models can be exported to Meteor/UTCHEM or ECLIPSE. CEOR applications include coreflood modelling, simulation of CEOR pilot studies and full-field CEOR simulation. Sector models can be used for quick studies of problem areas of a field (in ECLIPSE) or to assess the impact of CEOR processes in pilot areas of the real field (in Meteor/UTCHEM), or even for full-field CEOR conversion.

S3quickbuild's builder has a sophisticated but intuitive interface that allows reservoir simulation models to be generated via a simple wizard: grid geometry and properties and well patterns are defined, and reservoir/fluid properties specified. Wells can be added and edited, individually or in patterns. All data defining the generated models can be saved to templates for later reuse. S3quickbuild is supplied with a set of basic simulation model and data templates that cover many CEOR modelling workflows (1D corefloods, spot patterns, etc.). It also includes full model templates enabling one-click simulation model creation.

Sector model generation in **S3quickbuild** is equally straightforward: sectors may be selected by several different methods, including polygon selection. Accurate flux boundary conditions, calculated from the output of the full-field simulation, and be applied using highly configurable pseudo wells placed at the edge of the sector region. The sector may also be refined.

BENEFITS

- Quick and easy CEOR simulation model building
- Fast and highly configurable sector model generation
- Automatic calculation of boundary fluxes
- Easy definition of chemical properties for Meteor/UTCHEM CEOR modelling
- Interactive injection/production schedule creation
- Simple injection slug design, including CEOR chemical concentrations
- Massively increases productivity

KEY FEATURES

QUICK MODEL BUILDING

- Coreflood and spot patterns supported
- Reservoir property definition
- Fluid properties, PVT and initial reservoir conditions
- Wells can be added and edited
- SECTOR MODEL GENERATION
- Accurate flux boundary conditions from full-field simulation output
- Pseudo-well implementation of flux boundaries is highly user configurable
- Sector refinement

CHEMICAL EOR MODELLING

- Meteor/UTCHEM CEOR components and properties can be specified
- Polymer, surfactant/polymer and ASP schemes
- Reactive and non-reactive water tracers for Single Well Tracer Tests
- Chemical properties and complete CEOR schemes can be saved to templates



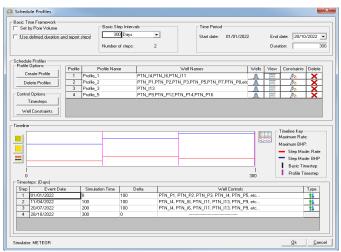
Sciencesoft Ltd Moorpark House 11 Orton Place Glasgow G51 2HF tel. +44 (0)141 445 0330 fax. +44 (0)141 445 2041 e-mail - sales@sciencesoft.com website - www.sciencesoft .com © 2022 Sciencesoft Ltd. All rights reserved. All trademarks are registered.





SCHEDULE CREATION AND SLUG DESIGN

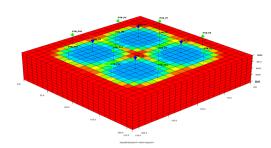
- Simulation schedules defined by time or injected pore volume
- Slug profile designer allows complex injection/production profiles to be created, saved and reused
- Schedule profiles can be created for groups of wells in a single step
- Fast schedule creation from existing slug designs and schedule templates



Injection/production schedule designer

Physical Pro	perty Setting	s (all val	ues in Meteor	UTCHEM u	nits)								×
			K Trapping & Wettability			Phase Control					🔢 Output Flags		
-		12	Surfactant	👌 ∿ Poly	mer	🔆 Anio	n (Cation 	, PH ,	Alcohol1	Alc	ohol2	😯 ASP
ASP Propert													
- S3chemBuik													
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SOPTSOAP	0			SIG	DPTSDAP	0							
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C160	en Ion Concen 0	tration											
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Alkaline I ALKAD	Retention	_									ALKBD	0	
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Template: ASP			Enter new te	nplate name			•	Save	Load			<u>0</u> k	Cancel

ASP designer



CEOR model with tiled 5-spot pattern