Stratbox

THE RPS CLOUD CATALOGUE

RPS MAKING COMPLEX EASY

ImagedReality

www.imagedreality.com

ImagedReality, develops immersive technologies with applications to Earth Sciences in Energy, Mining, Engineering and Academia. We help organisations collaborate and communicate complex environments, improve interpretations and create a better interaction between multi-disciplinary teams, resulting in better decision making, risk reduction and increased capital return. With our technology, users can create digital reservoir atlases and virtual core stores in immersive and collaborative environments, integrating data across different scales.

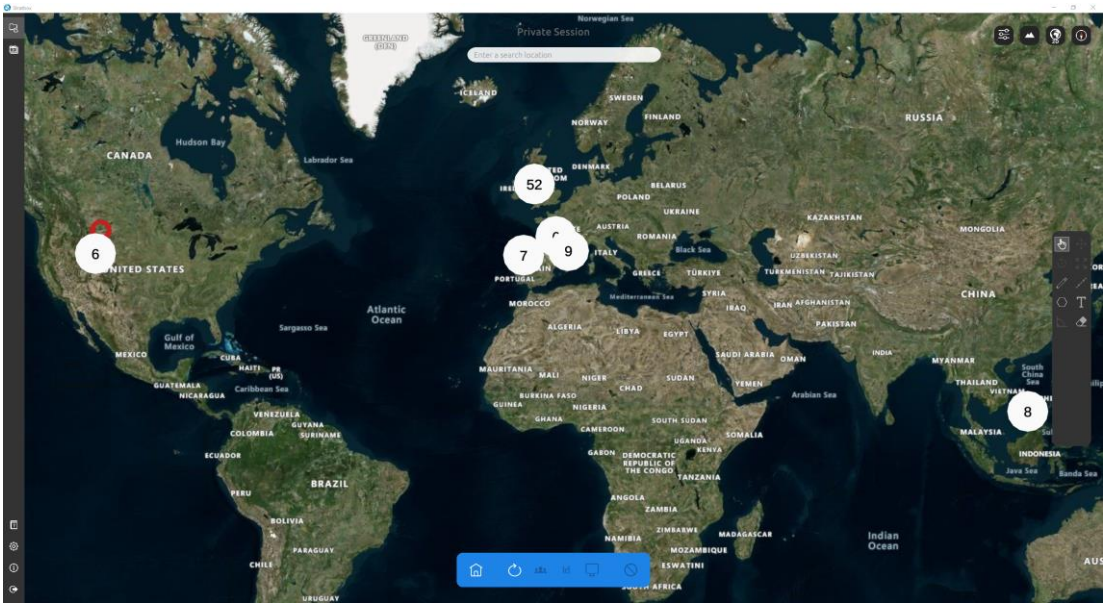
- **Stratbox®** is a SaaS (Software as a Service) platform which allows users to study and interpret reservoir analogues using 3D outcrop models, integrating data from regional to microscopic scale in a single 3D environment in which they can collaborate remotely. Stratbox®is available in Desktop (Windows and Mac) and VR versions.
- **Curated collections** of 3D outcrop models from RPS (global) and from ARES (Colombia) are accessible through Stratbox® (for an additional subscription which requires an active licence of the platform)
- **Virtual courses** in Stratbox® are available and taught by instructors experts in their field (access to the platform is included in the participant cost)
- **Stratbox® Core Explorer** is a web-based platform which facilitates organisations' on-demand access to their internal collections of well core and related data in an integrated manner through the automated upload of images and data of thin sections at the right depths, allowing users to collaborate in the description and interpretation of cores.

THE RPS COLLECTION

Imaged Reality, in collaboration with the world class geological training experts, RPS, is bringing the RPS Catalogue of 3D outcrop models to Stratbox Desktop Cloud service. The catalogue is separated in 3 collections based on general geological concepts: Clastic Sedimentology, Carbonate Sedimentology and Structure & Tectonics. The models cover basins of important geological interest for exploration and training of multidisciplinary teams.

The outcrop models are accessed directly in Stratbox Desktop after product subscription.

Terms and conditions of use apply.



Stratbox map showing the sum of all the RPS catalogues per region

Stratbox RPS Collection:

1. STRUCTURE AND TECTONICS
    a. Thrust and Contractional Tectonics
        1. Chevron and detachment folds in a turbidite sequence, Carboniferous, UK
        2. Chevron folding in a sand-dominated turbidite sequence, Carboniferous, UK
        3. Hinge and limb deformation features in chevron folds, Carboniferous, UK
        4. Recumbent chevron folds, Carboniferous, UK
        5. Thrust fault propagation in heterolithic shoreface facies, Miocene, Malaysia
        6. Parasitic fold complex, Jurassic, UK
        7. Concentric folding in carbonates, Carboniferous, Wales
    b. Rifts and Extensional Tectonics
        1. Extensional fault systems, Jurassic, UK
    c. Faulting, Stress and Fracturing
        1. Normal faulting and reservoir compartmentalisation, Miocene, Malaysia

2. CLASTIC SEDIMENTOLOGY
    a. Continental Clastic
        1. Meander-belt sandstone body, Lower Cretaceous, Isle of Wight, UK
        2. Multistorey fluvial sandstone bodies, Jurassic, Portugal
        3. Multistorey pebbly-sandy braided river deposits, Jurassic, Portugal
        4. Heterolithic fluvial channel-fill deposits, Jurassic, Portugal
        5. Fluvial-aeolian interactions, Devonian, Ireland
        6. Low-sinuosity fluvial sandstones, Devonian, Ireland
        7. Multistorey fluvial complex, Carboniferous, South Wales
        8. Delta front and delta top succession, Carboniferous, South Wales
        9. Delta plain succession, Carboniferous, South Wales
        10. Fluvial sheet sandstone, Devonian, South Wales
        11. Braided fluvial and aeolian deposits, Triassic, UK
        12. Meander-belt and lacustrine deposits, Triassic, UK
        13. Inland sabkha and ephemeral lake deposits, Triassic, UK
        14. Incised valleys and sheet sandstone fluvial systems, Cretaceous, Wyoming, USA
        15. Multistorey fluvial sandstone bodies and overbank facies, Miocene, Spain
        16. Heterogeneous and multistorey fluvial channel sandstones, Miocene, Northern Spain
        17. Pebbly and sandy braided river channel deposits, Oilgo-Miocene, Northern Spain
        18. Alluvial fan conglomerates, Tabernas, Spain
        19. Reservoir architecture and heterogeneities in aeolian systems, Utah, USA
    b. Shore Zone/Deltaic Clastic
        1. Tidal estuary sandstone, Lower Cretaceous, Isle of Wight, UK.
        2. Shallow marine and tidal facies, Miocene, Malaysia
        3. Growth fault, Carboniferous, County Clare, Ireland
        4. Prograding shoreface parasequence, Cretaceous, Utah USA
        5. Transgressive sequence, Cretaceous, Utah, USA
        6. Highstand shorefaces and distributary channel, Cretaceous, Wyoming, USA
        7. Tidal sandbodies in a tide-dominated delta, Eocene, Spain
        8. Wave and tidal-influenced shallow marine parasequences, Miocene, Malaysia
        9. Shallow marine depositional systems and oil sands, Upper Jurassic, UK

c. Shelf Clastic
    1. Shoreface sandstones, Lower Cretaceous, Isle of Wight, UK
    2. Shoreface sandstones and mudstones, Lower Cretaceous, Isle of Wight, UK
    3. Small scale heterolithic cross bedding in tidal sandstones, Ager Basin, Spain
    4. Stacked delta front parasequences and incised valley fill, Trusklieve, Ireland
    5. Cyclicity in source rocks, Jurassic, UK
    6. Variations in reservoir quality and connectivity in a clastic shoreface system, Jurassic, UK
d. Deep Water Clastic
    1. Distal fan sheet sandstones, Namurian, County Clare, Ireland
    2. Deepwater channel sandbodies, Namurian, County Clare, Ireland
    3. Distal outer fan and fan fringe deposition, Namurian, County Clare, Ireland
    4. Slope sedimentation and syn-sedimentary deformation, Namurian, County Clare, Ireland
    5. Amalgamated deepwater channels, Namurian, County Clare, Ireland
    6. Sheet-like turbidites, Eocene, Spain
    7. Deepwater channel complex, Eocene, Spain
    8. Deepwater sandy-lobe heterogeneity, Miocene, Spain
    9. Channel-linked erosion surfaces and scours, Namurian, County Clare, Ireland

3. CARBONATE SEDIMENTOLOGY
    a. Shoreline/lagoonal Carbonates
        1. Restricted and marginal carbonates, Miocene, Spain
        2. Inner ramp margin, Miocene, Spain
    b. Platform/Shelf Carbonates
        1. Sequence stratigraphy of the Llucmayor Reef Complex, Miocene, Spain
        2. Lithofacies of the Llucmayor Reef Complex, Miocene, Spain
        3. Carbonate sand body successions, Jurassic, UK

Selected Examples

Chevron and detachment folds in a turbidite sequence, Carboniferous, UK

Maer Cliff is a classic location for the examination of chevron folds and associated structures including varieties of hinge zone deformation, thrusts and duplexes. In addition, incompetent shale horizons form decollements for detachment folds.

Extensional fault systems, Jurassic, UK

World-class, three-dimensional examples of small-scale extensional fault systems are exposed on the foreshore at Kilve. Extensional faults are exposed in plan-view allowing clear observation of fault geometries and displacement patterns in map view.

Heterogeneous and multistorey fluvial channel sandstones, Miocene, Northern Spain

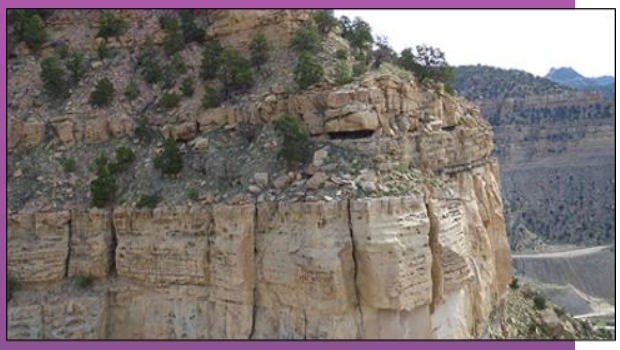
Sandstone bodies deposited by river channels display different scales of heterogeneity. This outcrop provides an example of stacked channel-fill in a multistorey complex of four channel-fill events with variable incision of channels into each other and preservation of overbank mudrocks.

Multistorey fluvial sandstone bodies, Jurassic, Portugal

Individual fluvial channel-fill sandstone bodies can be amalgamated to form reservoir sandstone bodies tens of meters thick. Three separate channel sandstone units form this example, formed by later channels cutting down into older channel-fill facies.

Selected Examples

Prograding shoreface parasequence, Cretaceous, Utah USA



Wave-dominated paralic successions in the Book Cliffs preserve archetypal parasequences indicative of shoreface progradation. The model described here shows a single parasequence formed as a result of progradation of a shoreface where sediment flux has outpaced accommodation creation.

Transgressive sequence, Cretaceous, Utah, USA

The model provides an example of transgressive deposits in the upper part of the Ferron Sandstone. Transgressive deposits accumulate during a relative rise in sea level and show an upward deepening of facies that culminates in a zone of maximum flooding.

Growth fault, Carboniferous, County Clare, Ireland

The locality preserves a syn-sedimentary growth fault and associated sequence of delta front turbidites.

Tidal estuary sandstone, Lower Cretaceous, Isle of Wight, UK

Sandstones deposited in tidally-influenced settings such as deltas, estuaries and shoreface environments are characterised by heterogeneity that results from variations in tidal flow strengths and directions. All scales of heterogeneity that affect reservoir character are illustrated in this sandstone body.

Selected Examples

Wave and tidal-influenced shallow marine parasequences, Miocene, Malaysia

Miocene deltaic and shallow marine sequences comprise significant reservoirs in the Baram Delta Province and elsewhere around the South China Sea. The section exposed here at Kampung Lopeng illustrates the facies associations and stacking of parasequences developed in a mixed wave and tidally-influenced system.

Shoreface sandstones, Lower Cretaceous, Isle of Wight, UK

Sandstone bodies formed in shallow marine settings can be tens of meters thick and laterally extensive. This example of a sandstone formed in a shoreface setting shows little variation within and between the three main divisions. Sedimentary structures that indicate the environment of deposition are sparse and the beds are generally homogenous. This provides an analogue for shelf sandstone reservoir units.

Stacked delta front parasequences and incised valley fill, Trusklieve, Ireland

The stratigraphic architecture of the Central Clare Group deltaics can be explored in this continuous, 65m high section. A variety of depositional elements can be observed including fluvial channels as part of an incised valley fill, mouth bar deposits and delta front parasequences.

Variations in reservoir quality and connectivity in a clastic shoreface system, Jurassic, UK

The Bridport Sandstone Formation is an example of a shallow marine clastic deposit of 'enigmatic' origin. Not only is it an important secondary reservoir in the Wytch Farm oilfield in the Wessex Basin but it has similarities to North Sea reservoirs including the Tarbert, Emerald, Fulmar and Ula formations.

Selected Examples

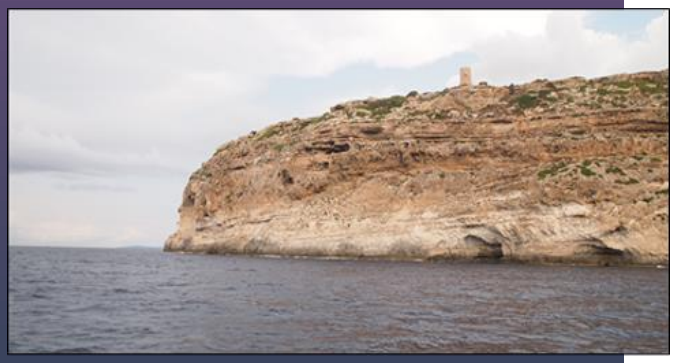
Distal fan sheet sandstones, Namurian, County Clare, Ireland

The most sand-rich sector of the Ross Sandstone is towards the lower parts of the Formation and by inference towards the more distal parts of the turbidite system. Channels are absent or rare and sheet-like sandstone geometries dominate in this highest net:gross sector.

Deepwater channel complex, Eocene, Spain

In the Ainsa Basin of the southern Pyrenees Eocene several packages of channel-fill turbidite successions are well exposed. These form part of a westerly-directed deepwater succession, the architecture of which was determined by growth anticlines within the foreland basin.

Lithofacies of the Llucmayor Reef Complex, Miocene, Spain



Using high resolution imagery the key lithofacies divisions within the Llucmayor platform can be observed in the Cap Blanc cliff section. Differences in colour, texture and bedding allow the geometries and interrelationships of the components of the Reef Complex to be determined.

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