IC: Interactive Correlations

Powerful visualisation driving confident evaluations with powerful reporting displays utilising data from all disciplines.





Reflecting on the last year

Continuing our journey together.

Our team has been through a few big changes this year including our big company change.

The good humour, honesty and teamwork I am used to have allowed us to welcome our new development lead and embrace our new, more agile, company philosophy.

As a global digital products team we have always been used to working through the digital portal with each other to achieve our goals. These goals have not changed. We strive to build and grow our relationships with our Users while aiming to build a higher performance and robust application that is flexible enough to help them reach their own goals.

Our development team has recently undergone some changes but thanks to the foresight and planning we have in place, we have not missed a single deadline for our update releases throughout the year.

I have been fortunate this last year to share a series of LinkedIn posts that have allowed you to get to know some of our team a little better, specifically around the Energy Transition. As we enter the Geoactive Era, I anticipate sharing more posts on LinkedIn and on our YouTube channel in the future. Even before the COP26 event last year we were working on the ways in which we can share with everyone how IC (and IP) have been applied to non traditional oil and gas projects. The exploration and understanding of the subsurface remains the key to unlocking the potential of any resource, from fresh water, to heat, to brines and mineral ore. We are proud of the clarification and confidence IC has given our clients as they utilise its tools to evaluate and interpret whole regions for prospectivity, be that for fresh water aquifers, carbon storage sites or traditional oil and gas.

IC continues to break down communication barriers, with more of you sharing databases across cloud networks around the world. Expanding the power and flexibility of our file importer alongside a renewed Interpretations capability has also improved the means for collaboration between teams.

We have encapsulated a lot of feedback from our clients while building upon the strong foundation that IC can offer greater insight into your data.

Going forward I aim to focus on keeping things simple and improving our current toolkits to ensure that flexibility with higher performance many expect as we enter the 2020's.

Catriona Penman - IC Product Champion



Why choose IC?

Here in the Geoactive team, we believe in the power of communication and sharing information easily.

Over the last 20+ years we have developed a suite of tools in IC that aim to help with that collaboration. We believe IC sits at the heart of our subsurface, data-sharing mantle.

IC has a long history as a collaborative software platform, used to build a consistent, data-driven understanding of your subsurface. It allows for faster and easier communication across any team. Stratigraphers, petrophysicists, reservoir, and production engineers can all contribute to the story with confidence.

Several data QC and visualisation toolkits are available in a standard IC install. We believe the integration and use of data standardisation and comparison is at its best when it can be reviewed in a visual capacity as well as directly on tables and as a result of any interrogation. One that focuses on the transfer and integration of data without the mapping or visualisation features. These features are intrinsic to any data management and QC workflows and can be addressed quickly and logically within IC.

Build more reliable and consistent interpretations by using the QC tools available on all of your data across all of your wells in a fraction of the time.

Quickly produce well correlations, complex geological maps, and analysis reports to show your reasoning. Making decisions has never been simpler.

Additional toolkits can provide a strong stratigraphic reasoning to any evaluation or the addition of time-based data which adds a 4th dimension to your maps and plots. Integrate these data to grid, query, plot and report dynamic data. Monitoring your subsurface to optimise and share visual dashboards for regular reviews during production or injection.

There's no better way to collaborate with confidence. Each discipline can:

- Work independently on their own project while instantly sharing updates with others working with the same Wells.
- Track and document the entire life cycle of an asset from exploration to production and abandonment.
- Integrate valuable cross-functional analysis from a variety of sources and formats in one dynamic interface to quickly identify new solutions and ideas instantly.
- Re evaluate historical data with fresh eyes and ideas to ensure the most effective location for new prospects.
- Think beyond their own goals to visualise the bigger picture to make a more effective decision efficiently.

"IC continues to be our core subsurface data integration platform that provides our clients with high-quality visuals.

We have explored new ways to work with large data volumes in this release alongside some of our clients. We have worked hard to identify how we can provide an even better visualisation of their well to well data in a comprehensive and integrated way. Any way we can save you time is a good day to me."

IC Product Champion Catriona Penman



Guiding confident collaboration, IC 2023.

The team at Geoactive are proud to announce the release of the latest version of our subsurface data integration and visualisation application, IC 2023.

By upgrading or installing IC 2023, you can enjoy a host of new benefits to improve your day-to-day working and a speedy data integration.

IC 2023 gives you more flexibility and visualisation tools for team working than ever before.

The additional interpretations priority lists opens a host of new workflows, including the fast generation of multiple-source well plots from a single template to using different sources for ties across a correlation.

As always, any new release includes a range of performance improvements and modifications, this year, a .NET6 upgrade and chart refactoring of the code to allow for faster, bigger and better presentations.

Easy team colaboration driving deeper understanding of your subsurface.



Data Import

Our updated file importer is continually improved and includes more data conversion options, additional template elements as well. The flexibility of moving back and forth from data to wells for new layouts and files has been included.

Interpretations

Utilise the power of IC Interpretation flags with a new priority list for each User throughout the database to generate quick comparisons of any data type will ensure the most effective and team driven interpretations across your wells.



Dynamic Templates

Generate a stacked or comparison well plot for a single well to utilise the different Interpretation priroities set in the database to highlight multiple inputs and where they might be able to set a company standard based on everyones input quickly.



Performance

Enhanced charts as well as the searching and loading of data has sped up almost 20 times faster than previous releases.

This includes loading the project browser and is more noticable on larger datasets.



"The understanding of the subsurface develops with time and knowledge. IC can save you valuable time through detailed stratigraphic analysis and interpretation to regional play identification and mapping.

While getting to a timely understanding is one thing, sharing and modifying this understanding through collaboration and agreement across a team is another, and is frequently the key to successful decision making. IC provides a visual subsurface data dashboard for the team, your peers and stakeholders, to all come together on one page and in one place to pull out pertinent information to drive forward understanding and decisions with confidence."

Derek Crombie Managing Director, Geoactive

Explore IC



Quickly scale your evaluation from a regional perspective down to thin section, fine detail, to ensure you know your subsurface at all levels, ensuring high confidence in your interpretations.



Import data from anywhere into a flexible, yet structured database and share easily between teams for a broader and deeper understanding of your subsurface.



Powerful and consistent visualisations produce coherent results for efficient and flexible conversations leading to wider understanding and confident decision making.



Incomparable stratigraphic awareness gives a faster and more confident understanding of your subsurface across your whole region, unconformities and all.

IC Data Management.

Integrate disparate data sets of both regular or irregular, text, image or curve to allow your entire team to work together flawlessly.

IC Geological Evaluation.

Generate the most up-to-date reviews, correlations and maps for your wells quickly incorporating a multitude of displays on a single dashboard.

IC Stratigraphic Awareness.

Utilise an understanding of the stratigraphic relationships encountered downhole across your database to build interpretations and build a consistent framework.

IC Monitoring.

Pull in the history data from your field to generate dynamic reviews with up-to-date field understanding to guide and highlight areas of concern of future work.

Switch to IC[™]

Enabling confident insight through collaboration and powerful visualisation.

IC offers a cost-effective option that makes the most use of your existing data while optimising your analysis. The flexible database structure and connectivity allows geologists, reservoir engineers, production engineers and data managers work together, and share data with ease.

IC is an efficient way to communicate. Visualise and present your data effectively to highlight your geological evaluations in a way anyone can understand. Uitilise the tools within IC to apply your geological understanding to any of a range of studies.

The diverse application of IC can be used to evaluate and review palaeo climate change, detail and investigate both macro and micro scale anomalies found across the subsurface.

IC does not bind you to using it's toolkits for only traditional oil and gas exploration projects. It's flexible integration and visualisation can result in a wide and varied application of your data for any type of project.

If you'd like to learn more please get in touch.

Be insightful. Move to IC. Here are seven reasons why:

- It's collaborative and insightful. Integrate valuable cross-functional analysis from a variety of sources and formats in one dynamic interface
- It's enabling and fit-for-purpose. Work the way you want to work without the limitations of software-set workflows or rigid structures
- It's intuitive and interactive. Interrogate, interpret and visualise your data with ease
- It's intelligent and flexible. Work as a geologist within a geology-centric tool that understands geological concepts rather than a software-centric tool
- Its time saving and cost effective. Use one robust solution instead of several applications, saving you both time and money
- It's automated and makes the most of your data. Easily create, share and use existing Templates to promote standardised presentation across teams
- **It's organised and constructive.** Use intuitive tools to identify, standardise and manage your data individually or in bulk

Equinor have used IC to map out and explore the potential for gas storage in several CCS projects on the Norwegian continental shelf.

Geoscience Australia and partners have used IC to map, correlate and understand the distribution and hetreogeneity within the Great Artesian Basin. Identifying and understanding the each hydrogeological unit based on a standard chronostratigraphic framework contributes to the understanding of connectivity within and between aguifers.

Stratum Reservoir are using IC to understand lateral sedimentological and diagenetic variability in the context of a sequence stratigraphic framework to map facies and diagenetic trends.

Getting the most out of these materials.

We changed the look of our digital materials last year to provide you with a better fit on your screens. This year we continue to update these materials with the lastest information to ensure you have easy access to helpful documents and workflow guides when getting started or working in new areas of IC, such as the online, continuously updated helpfile now available with IC.

As our Subsurface products continue to improve and grow, we think it is important to show how we got here and where we are going from here on. As the very foundation of Geoactive Ltd, our subsurface offerings, IP and IC have grown to envelop new toolkits while maintaining their core purpose; to help clarify and understand the subsurface.

Making communication even easier, using both of our products as a continuous workflow, using toolkits that help you achieve your goals; be that traditional hydrocarbon exploration, enhanced recovery or tracking and understanding carbon offset or mapping geothermal productivity, our subsurface suite can help you.

The powerful well analysis toolkits available in IP marry with the powerful reporting toolkits available within IC to create a collaborative environment your entire subsurface team can engage with to achieve fast outcomes they are confident with.

The accessibility to our Support team 24/7 is supplemented with access to our support guide documentation directly from within IC itself via the workflows button. We are continually adding to these guides as we hear from clients to ensure fast and effective responses to help.



What our customers have to say

It's worth highlighting IC is the choice of many biostratigraphers for it's built-in data links with Stratabugs and data integration capability.

Evaluate biostratigraphy data in Stratabugs; Integrate with well data and interpret in IC; Integrate again with built-in links to Petrel, Openworks or using other plugins. Simple, fully integrative workflow to take our fossil data from the microscope to the workstation.

> Richard Hallett (Biostratigraphy Advisor)

IC has allowed me to build comprehensive well databases within which I can integrate most well data types for stratigraphic analysis and depositional system mapping.

Most recently this has involved building a regional scale database of wells in the UK & Faroes West of Shetland province, for the purposes of play mapping and prospect evaluation, a function for which other widely used software packages are not currently suitable.

Senior Exploration Geologist

IC provides a unique tool that makes it possible to extract information from well interpretation on a stratigraphic level. The greatest benefit from using IC in Play evaluation (exploration) is the possibility to query well data on stratigraphic level and display the results geographically.

Senior Stratigrapher

IC has enabled us to effectivity visualise and interrogate core-based data including lithofacies, lithofacies associations, thin section and core analysis and provided the tools to generate georeferenced facies tand diagenetic trend maps all in one platform.

The linking and plotting various datasets within IC has proven invaluable to assess issues such as the relationship of wireline data to depositional environments in the cored and uncored intervals, cross-plotting core analysis data to a range of reservoir descriptions and providing proportional thickness data of facies to reservoir zones, without the need export and code data in Excel.

> Quintin Davies (Senior Geologist)



IC Licenced Modules.

The main IC toolkits are housed in three separately licenced modules, but together they provide the core power of IC integration and visualisation. Optional Data Links or the Monitoring module open your interpretations even further.



IC Licenced Modules - details.

IC Platform

IC's data management system provides invaluable QA/ QC tools and flexible structure options for both Administrators and individual Users. History logs and audit capabilities are tied to secure User logins which can be configured to provide the desired access level and control for your multi-user database.

Whether working with corporate partners or as part of a specific Asset team, you can use a standard database structure that everyone can use to work with the same data to build interpretations while maintaining control of read/write access to every well, project or dataset.

This module includes the basic import/export tools needed to populate your database, including a direct Stratabugs Link.

IC Geology

At it's core, IC builds, directly from the data, a range of 2D visual displays. Each element generated is used to further evaluate and interpret your subsurface. From robust mapping to correlation or cross section building to interactive dashboard generation on our Charts, IC enables the progression of conversations and understanding of your subsurface for everyone.

Beyond the 2D displays, IC includes a 3D viewer, which integrates structural grids, wellpath deviations and data to QC seismic to well ties easily.

IC Stratigraphy

Take your geological interpretation further with the IC Strat module. Use the dictionaries created with IC Platform to build hierarchical Strat Schemes which can then be applied to your data throughout your database. Use these relationships to build new data and transform the stratigraphic understanding via new visualisations.

IC Platform and IC Geology are both needed for this module.

RPM (Monitoring)

Explore the history of your Well and integrate it with the current analysis. Our Reservoir Performance Monitoring Module amplifies the power of IC over the whole life cycle of the field by expanding the visualisation capabilities of the IC Geology Module and the storage capabilities of IC Platform's data management system to include time-based data. This, combined with RPM's additional database links and display options, provides a powerful approach to field surveillance in near real-time.

Data Links

Direct data links to a range of external applications make the transfer of data to and from IC easier, reducing the risk of data loss and increasing productivity. These include the latest Petrel (from 2012) and Openworks versions.





Training

We pride ourselves in working with our clients to design the most effective training program to meet their needs. While we have a set Introductory Data Management course and a Geological evaluation course available, we find most of our new Users would prefer to have time with one of our experts working through their own workflows and building their own set of best practices to share.

The Data Management Course includes database set up and security options. Exercises include recommended workflows to achieve each step in integrating and QCing your well data.

The Geological Evaluation Course builds on the data management elements covered, using the data to create each of the major visualisation features available within IC. Maps, and Correlations alongside single well summaries allow for a flexible and vast range of display styles building field/asset reviews.

These sessions can be successfully delivered via a series of online Teams meetings or in person in a classroom environment.

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"The flexibility and format suited my needs perfectly. I now have a more rounded idea of what tools I have available to me from the Database management system."

First time IC user Data Manager - UK based E&P company

"It's not easy to always having to be reliant on and working through Teams or other video conference tools. But for these sessions, I think it went really well and the training covered the basics as expected. Maybe we shouldn't have gone so far into some of the topics/ issues we discussed and spent more time looking at other features, but overall I think this was a good session."

Current IC user

Geoscience Application Manager - E&P Norway



IC has been my favourite software for storing, displaying, and analysing well data. Its main strength is handling of all sorts of depth referenced data - numbers, text, images - in a well.

My favourite analyses are log averages (e.g. gamma ray, porosity, XRF elemental ratios) across a stratigraphic interval and interval/interval analyses (e.g. percent of lithology type across a stratigraphic interval). Both types of analyses can be directly plotted on the map and therefore enable quick visualisations of large amounts of wells on a regional scale. This kind of geological framework is useful for management presentations when applying for new acreage in licensing rounds and when taking a business development decision. Regional well analyses are also useful when we consider entering an unproved play.

In addition to quick analyses of large amounts of wells relevant for regional work, IC is used for license work where different types of stratigraphic data (e.g. biostratigraphy, XRF, XRD, QEMSCAN) are integrated within the same software platform in order to better constrain well correlations and differentiate between the sandstones and mudstones originating from different sediment source areas.

IC offers a whole range of user-defined visualizations, which can be overwhelming for the inexperienced user. Predefined templates are one of the solutions for the wider audience, quickresponding and solution-oriented software support the other.

Alenka Crne - Exploration Geologist

Meet some of the team who help bring you IC.

Our digital products family is made up of lots of people. We span the globe with bases in KL, Abu Dhabi, London, Aberdeen and Houston. The assortment of people with a wide range of experience and passion helps drive a dynamic and interactive team of developers, testers, technical experts and support staff. We all have a fundamental belief that the power of subsurface data gathered can result in a wealth of understanding and software should only help achieve those goals, not get in the way.



Meet more of our team on the next page



Catriona Penman Product Champion - Geology

I love speaking to our clients and hearing how they are using IC for and when they get excited about new additions they can see will make their day better. When I'm not speaking to our clients, I enjoy feeding people :) and take every opportunity to bake cakes and goodies to share.



Jamie Colvin Software Testing Engineer

I love working on new features that I know will make a real difference to our clients operational productivity. Outside of work, when I'm not hacking up a golf course somewhere, I'll be out chasing my dogs around the woods.

Ryan Wright IC Team Manager

I enjoy working as part of a team to create quality software that meets the needs of customers. Outside work hours, I enjoy going on mini adventures exploring the surrounding areas with my family and our dog Mia.

Mario Suarez Maranon Customer Support Manager

What makes my job fascinating is identifying common questions, problems and queries that customers around the world have, so we can work collaboratively to answer them and provide first class support service whilst we improve our products. I am passionate about travelling and always keen to try new food!





David Cain Software Developer - Senior

It is very satisfying when we are given a problem – something new that a user wants, or something that isn't working right - and we share knowledge and ideas to solve it. I love the fruit and vegetable alchemy that is making chutnev.

Jennifer Duarte

I enjoy the interaction I have with our customers where the aim is always to build that technical trust and educate our customers with our IP and IC Software. When I'm not working. I like to practice water/outdoor sports such as wakesurfing and trekking.



I love supporting our clients to gain

too. I'm always looking for ideas for my

Inca Trail... what will be next?!

Louise Mason

Ross Brackenridge Product Champion - Cased Hole

There's nothing I like better than demoing a new version to clients and showing how their idea from our last meeting has been implemented! I'm also happy to chat about football too!



Roger Watkinson Software Developer Senior

It's my job to take ideas from customers and in house geologists and weave them into existing IC code in the most user friendly way. IC is just stunning in what it can do and the wonderful graphics that it produces to enable users to easily visualise their data.



Derek Crombie

smile when we show them a software

feature that they like and addresses a

pain point they had. A fun fact I collect

rare vinvl records and have over ten

Geoactive

thousand in my collection.

The favorite part of my job is interacting and inspiring such a wonderful and diverse aroup of people and seeing users



Budong Drummond Software Testing Engineer

Fuziana Rozalli

Support Geoscientist - Level 3

Nothing makes me happier than making

someone's day a little bit brighter.

especially having the opportunity to help customers with workflows and

workarounds. I also love cats and we can chat about that all day long.

It's very rewarding to be part of the IC team for so many years and still get along with everybody. I love problem solving and safeguarding the quality of the product on a daily basis. Outwith work, you most likely to see me shredding in the forest on my MTB or armed with a camera in remote of Scottish hills

Andy Mcdonald

I enjoy creating new technical documentation and training material to allow our clients to get the most from our software. I am also happy to discuss anything Python related and latest developments in space



Oscar Ruiz Rodriguez

I love helping our customers discovering the big value of our Products. Supporting them, highlighting workflows and functionalities in a record time! As an extra bonus. come and talk to me/ask me anything about....(If you need a drummer joining your Rock band!



Graham Melvin Software Support Team Lead - Malaysia

I enjoy engaging with clients directly, in person, via a web meeting or even a phone call. It's really rewarding to listen to a customers challenges and show the features our software has to offer to help tackle that challenge. I enjoy trail running (hashing) through the rainforest here in Malaysia but I also enjoy others sports such as golf, tennis and squash.



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One constant, whenever you need us.

Our dedicated IC[™] support team operates around the world providing outstanding customer service 24/7.

As a maintained IC licence holder. you have access to the Geoactive Software Support Team. Our team is available 365 days a year via phone/MS Teams, email, our web portal. We have team members spread across the globe including Aberdeen and Kuala Lumpur meaning you have access all day no matter where you are based to get the help you need when you need it.

Operating alongside the Product Experts, core Development and Testing teams, the Support team are always ready to guide you as you get started and setting up your licences.

They are the prime source of help for our products. With geoscientific backgrounds and a combined 151 years of experience, their ability to understand your requests and guide you through any issues is paramount to our success.

Regular updates are released throughout the year. Dependent upon the nature of the request, you may see ~3 months between your initial report and the fix being released for your use. Ensuring fast turn-around times and maintaining visibity with you is a key goal of ours.



As a global Software Support Team we have successfully



Support provides 24/7 coverage via phone, email, portal or web meetinas.



Multilingual team operating worldwide (Spanish, Malay, Mandarin and English)

Closed 86% of all 597 IC tickets received in 2021



Over 95% of IC tickets were replied to within the first hour through 2021.



Approximately 1/2 of IC tickets are resolved in the first day.



Only 4% of all IC tickets received are bug reports.



Get in touch

Please visit <u>www.geoactive.com</u> for more information Or email <u>softwaresupport@geoactive.com</u>



Training

We offers training courses in various locations around the world for both IC and IP. We can also provide tailored in-house courses for individual clients, please email <u>Softwaresupport@geoactive.com</u>

Sales

We have regional Account Managers to ensure all non-technical questions are answered across Europe and Scandinavia, the Americas, the Middle East, Asia and Pacific. To contact one of our sales teams for any of these regions, please email <u>salesenquiries@geoactive.com</u>

Software Support

Our web portal provides first class support by a team dedicated to our subsurface software products. Email ICsupport@geoactive.com or Call: UK: +44-2036088024

IC_Brochure_V5.0.pdf Updated: 12.January.2023

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