

Olá, Admin, seja bem vindo ao Portal Poço Web!

 **PROJETOS**
Gerencia os projetos de poço

 **PAINEL**
Visualize indicadores de projetos de poço


APLICAÇÕES INTEGRADAS

 **DADOS BÁSICOS**

 **SEEDS**

 **MATRIZ**

 **PROJESAL**

 **SIMCO**

 **SIMCO**

 **SIMCARR**

 **SIMENTAR**

Intelie case study

Petrobras well planning tools

The challenge

Petrobras wanted to develop an integrated suite of web applications to support well design and planning, with particular focus on offshore wells. The objective was to aid in the flow of information across distinct teams working together, and to optimize the entire process.

BROAD GOALS WERE:

- Increase security and compliance to the company's best practices and norms;
- Formalize company's knowledge with information technology;
- Eliminate data inconsistencies;
- Eliminate rework and the need of entering same data multiple times;
- Enable data analytics.

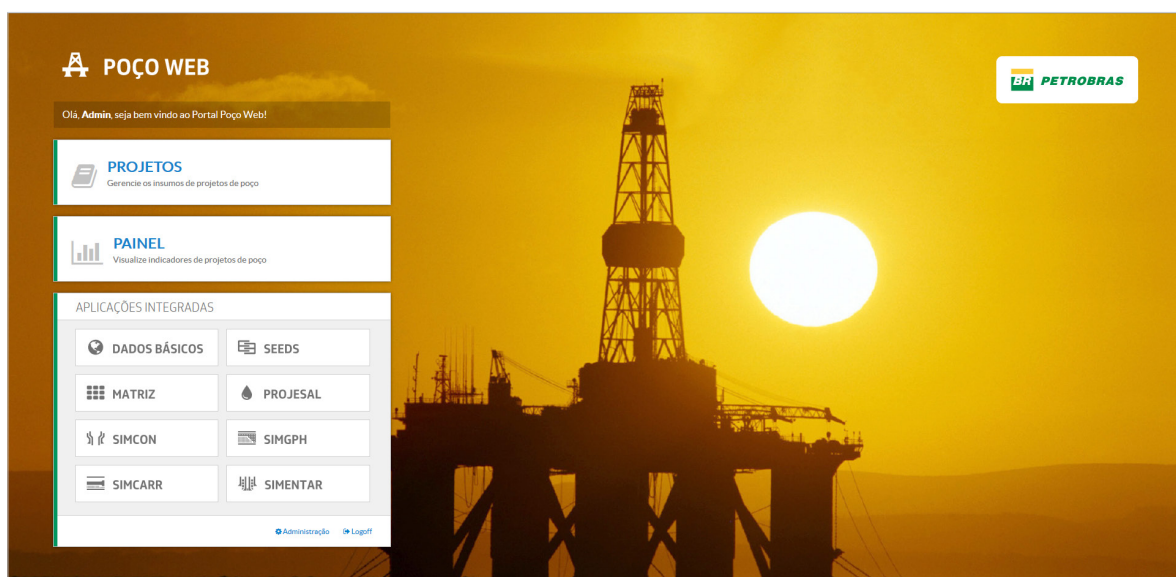


Intelie's solution

Intelie follows a pragmatic approach to software development, mainly driven by user experience and agile concepts, in close collaboration with Petrobras Research Center and Well Engineering Data Management team.

Top applications developed throughout the years of 2013 and 2016 are as follows:

Poço Web



Intelie devised a data oriented platform responsible for storing, versioning and organizing well cases and studies. It addresses the challenge of modeling and representing complex and dynamic schemas. The platform is extensible to new applications and data formats.

Contains a set of APIs following open protocols and a file system metaphor allowing diverse technologies to converse, which allowed various systems from different companies to be integrated.



POÇO WEB

ADMIN

Enahpe 2015

Unidades Operacionais / UO-XYZ / Campo ABC / Enahpe 2015

CENÁRIOS

NOME	SONDA	LDA (m)	MR (m)	MD FINAL (m)	Nº FASES	COMPLEX.	
Cenário 1 Prime	N5-30	2.120	24	5.751	4	2	

criar cenário

PUBLICAÇÕES NO POÇO

Dados Básicos

Dados Básicos Enahpe - Firme

Última revisão: há 9 meses por ADMIN

Nº de Revisões: 1

MATRIZ de Criticidade

SEEDS

SEEDS_Enahpe_firme

Última revisão: há 9 meses por ADMIN

Nº de Revisões: 1

proj_firme THD

Última revisão: há 9 meses por ADMIN

Nº de Revisões: 1

SIMCARR

ANEXOS

mapa-pre-sal.jpg

Última revisão: há 9 meses por ADMIN

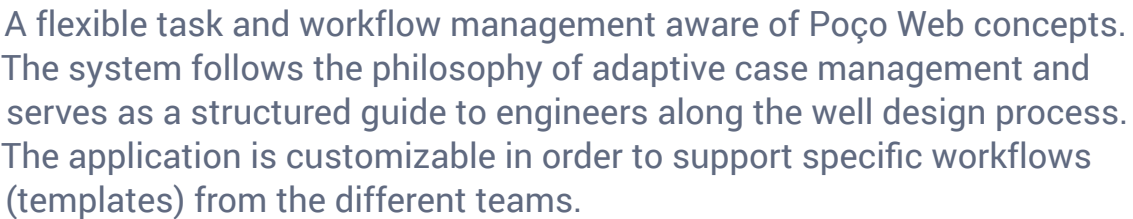
Tamanho: 0.15M

BOOKS

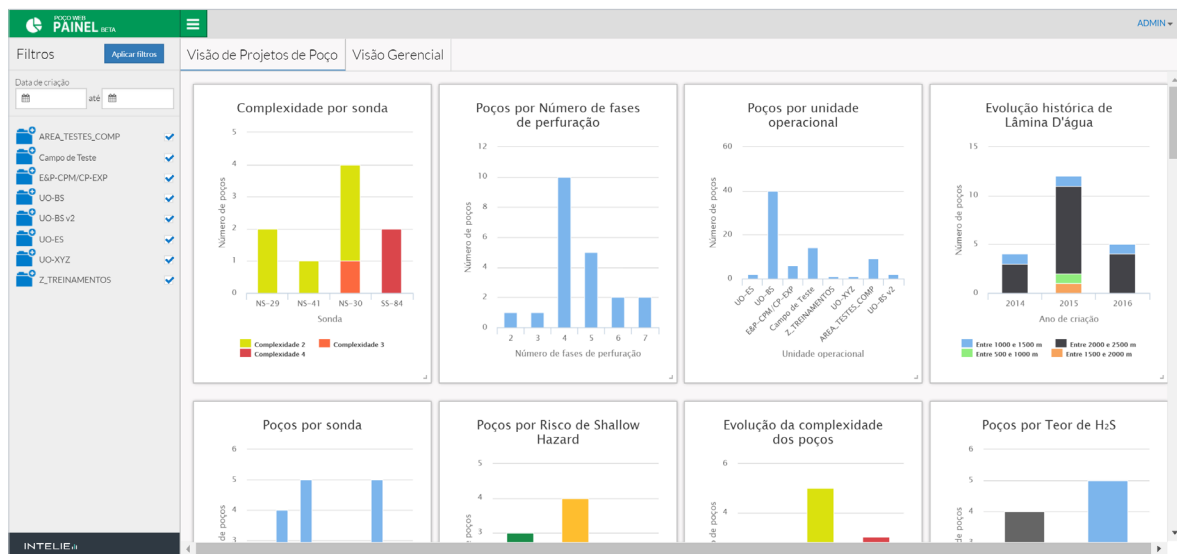
Book 1

criar book

Poço Web Workflow

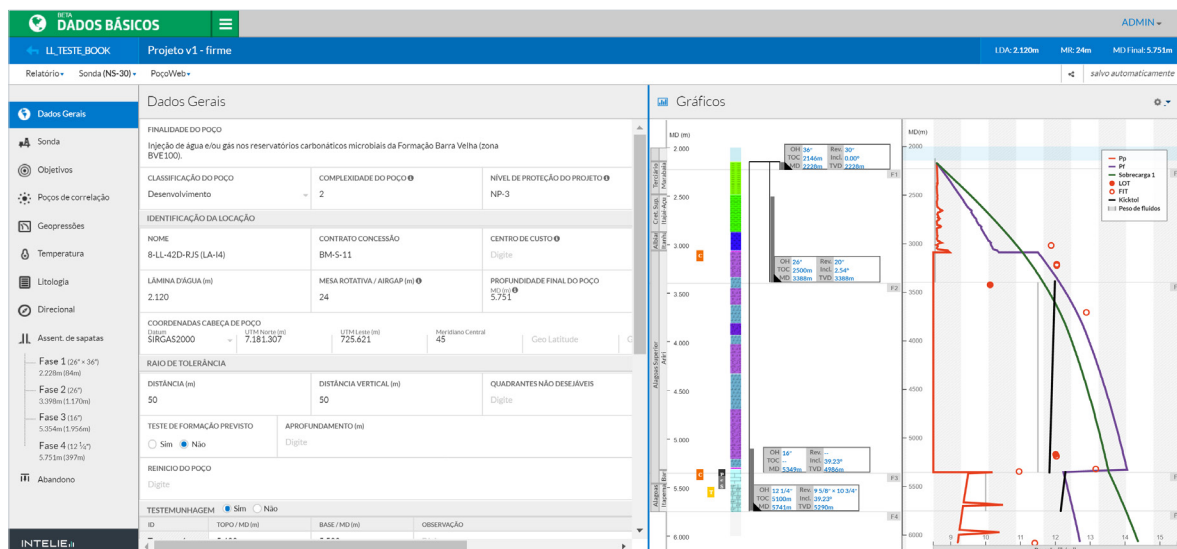


Poço Web Painel



Implements OLAP technology for modelling cubes from well and workflow data, currently displaying a set of dashboards that visually summarize the company's planning activities and portfolio.

Dados Básicos



Application responsible for holding the common data around a given well case, such as the the well objectives, geological information, available casing and other materials. It presents the user with well schematics, well trajectory,

For drilling projects, it is a computer-aided system for casing design and shoe depth selection, including kick tolerance, riser safety margin, slip crushing and BOP pressure analysis. The system provides just-in-time visualizations and calculations as the user simulates with different scenarios. The system knows how to employ rig parameters for safety and environmental regulations considerations.

SEEDS

Etnahpe.2015 |
 SEEDS_Etnahpe_firme |
 Limite f/água: 212.000,00m |
 Air gap: 24m |
 Profundidade final: 5.751m

Projeto > Sonda IN-30 / VITORIA 10000 > Histórico > Visualizar > Gráficos > Padrões e recomendações > Pacotes > PocoWeb > salvo automaticamente

Fases

- Fase 1
Profundidade: 2228m
- Fase 2
Profundidade: 3398m
- Fase 3
Profundidade: 5354m
- Fase 4
Profundidade: 5751m

[+ adicionar fase](#)

Fase 2
X

Dados gerais
Brocas
Coluna de Perfuração
Coluna de Revestimento

☐ Teste de BOP com SDR
☐ Instalar RCD

Profundidade final da fase
 3.398 m

Diâmetro do poço
 26 pol.

Revestimento
 Revestimento ▾

Taxa de manobra a poço aberto
 178 m/h

Taxa de manobra a poço revestido
 429 m/h

Taxa de perfuração cimento
 10 m/h

Vazão equivalente
 800 gpm

Diâmetro do Revestimento
 20 pol.

Taxa de manobra de revestimento
 36 m/h

Comp. de Cimento no interior do Revest./ Liner
 30 m

Atualizar Planejamento
📄 🖨️ ⚙️

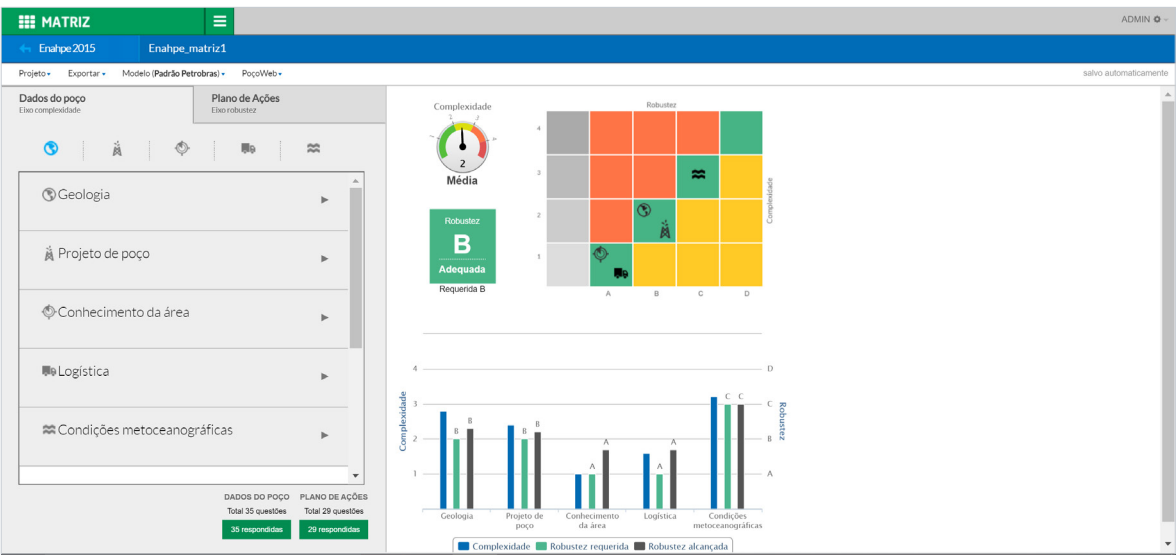
Atividade	Operação	Descrição	Profundidade	Duração	
Fase 0	Movimentação da unidade	➡ Navegar para locação		24h	
	Positionando unidade	➡ Localizar bóias demarcatórias		6h	
		➡ Lançar beacons		6h	
	Calibração de DP	➡ Calibrar sistema DP	0	6h	
	Positionando unidade	➡ Estufar back load/Receber materiais		24h	
	Montagem de BHA	➡ Montar e estaleirar seção com cabeça de cimentação		12h	
		➡ Montar BHA 36 pol	0	11h	
		➡ Descer BHA 36 pol com coluna de perfuração	2144m	5h	
		➡ Decida de coluna em poço revestido			
		Perfuração	➡ Perfuração (operações com avanço)		5h36m
Rev / Cimentação		Condicionalmento de poço	➡ Circular p/ limpar poço	2228m	0h30m
			➡ Retirar coluna até o mudline (poço aberto)		0h20m
			➡ Retirada de coluna em poço revestido		5h
			➡ Retirar coluna até a superfície (mar aberto)		
			Desmontagem de BHA		6h
Cabeça de poço			➡ Preparar plataforma para revestir		2h
			➡ Descer revestimento 30" na mesa rotativa		7h
			➡ Trocar elevador		1h
			➡ Descer stringer (coluna interna)		0h12m
		➡ Conectar Alojador de Baixa Pressão (ABP)		2h	
		➡ Descer revestimento 30" com coluna de			

INTELIE

SEEDS automatically generates an operational sequence based on the company's knowledge base, currently supporting drilling, and abandonment operations. The software allows users to collaborate and share recommendations and norms about particular activities, and integrates with other programs including MS Project.

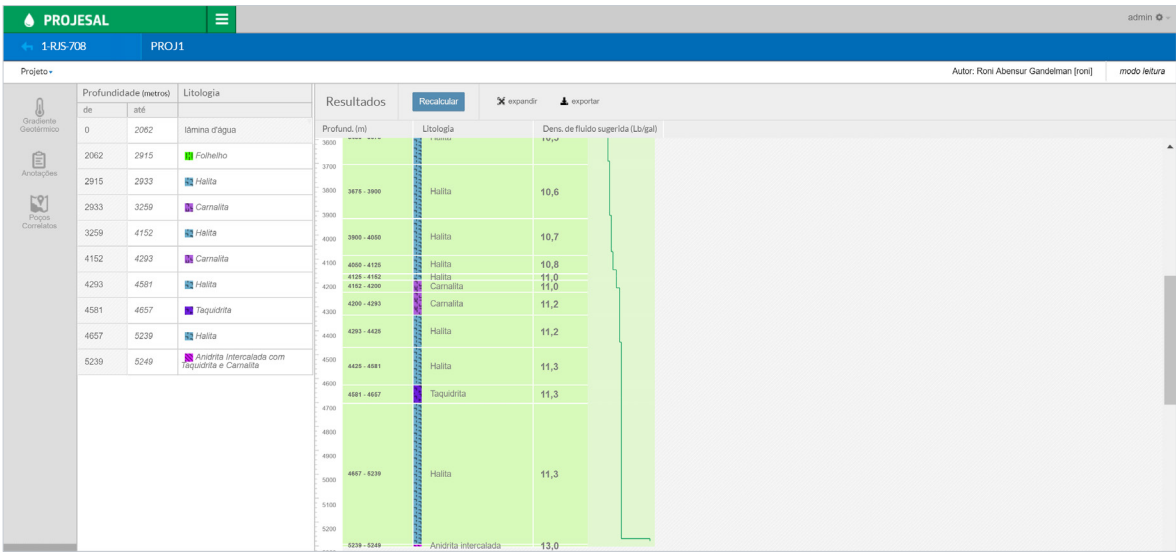


Matriz de Complexidade



This application implements a deterministic model for quantifying the complexity of a given well into a numeric scale based on several input data, as well as it recommends the required actions plan for mitigating possible risks associated with that case.

Projetal



This application implements a machine learning model for estimating the density of drilling fluid in pre-salt zones. Since there was a lack of physical models for this scenario, the main purpose of the project was to avoid stuck pipes by learning based on similar past cases.



Key results

Intelie's software have already been used for hundreds of wells, helping engineers in their planning jobs.

HIGHLIGHTS OF KEY BENEFITS TO PETROBRAS:

- Reduced over 50% time for elaboration of a well plan;
- Integrations decreased inconsistencies and need to enter same data multiple times;
- Increased security and compliance to the company's best practices and norms;
- Modern tools that foster collaboration amongst specialists;
- Data platform allows many use cases for further workflow optimizations;
- Allowed various systems from different companies to be integrated.

Testimonial

"The POÇO WEB suite condenses all our efforts in safety, management process, best engineering practices for well design. Reduces substantially the time for elaboration of a well plan, increasing the security and compliance to the company's best practices and norms and allowing customized reports of well projects for national regulatory agency (ANP), partners, rig operators etc."

PEDRO ESTEVES ARANHA TECHNICAL ADVISOR PETROBRAS



Contact us

contact@intelie.com

www.intelie.com

Houston

10810 Katy Fwy, Suite 106

Houston - TX

Zip code 77043

+1 (713) 333 9869

Rio de Janeiro

Avenida Nilo Peçanha 50, sala 1401

Centro - Rio de Janeiro - RJ

CEP 20020-100

+55 21 2240 1193

São Paulo

Rua Claudio Soares 72, sala 420

Pinheiros - São Paulo - SP

CEP 05422-030

+55 11 9 5766 9992