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Asia Pacific Upstream Solutions Digest 2015 Edition I



At IHS, we are committed to providing our customers with the energy industry's most comprehensive Exploration and Production (E&P) information in a variety of delivery methods that enable rapid screening and analysis. We offer products and solutions for all aspects of your oil and gas asset management workflow. Trusted information covering 425 oil and gas basins worldwide, including more than 5 million wells, are seamlessly integrated with more than 15 engineering, economics and interpretation software suites.

About Upstream Solutions Digest

As an opportunity arises, its exploration, production, commercial, legal, and political risks must be understood. Information about current right holders and the latest E&P activities need to be fully and quickly evaluated. The task is becoming more and more challenging due to the political and economic changes and the intensifying competition in the industry. Thus a reliable source of information with flexible and efficient tools is critical to acquiring a competitive advantage.

IHS Energy is uniquely positioned to provide customers with the critical information and tools for understanding various types of risks and E&P potential in order to build a successful strategy. This digest is created to help users effectively navigate the breadth and depth of IHS data, information and tools. The specific objectives of this digest are:

- To take customers' skills of IHS Energy products to the next level by introducing tips and case studies;
- (2) To enable customers to do independent analysis by presenting work flows and methodologies using IHS Energy data and applications; and
- (3) To inform customers of the latest improvements to our energy products and to gather feedback.

The typical products involved are shown below:

- EDIN
- EDIN Desktop
- Global Exploration & Production Services (GEPS)
- Petroleum Economics and Policy Solutions (PEPS)
- QUE\$TOR
- The IHS Connect platform

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PRODUCT UPDATES

The New Upcoming EDIN 6.13 Browser

By Zhang, Yongliang Yongliang.Zhang@ihs.com Related products: EDIN

EDIN Browser is one of the flagship products offering comprehensive petroleum industry data and information. The IHS product development team devotes great efforts in making improvements and adding new features to the product regularly based on your feedback.

The upcoming version EDIN Browser 6.13 will be available in April. New features and enhancements you can expect are as follows.

A. New Features

Block Restricted Rights

The attributes 'Block Restricted Rights' and 'Block Restricted Rights Code' have been added to the search & custom reporting capability for the application blocks, Contract blocks, Bidding Blocks, Open Area, Farm-in Opportunities subject areas.

Contract Alternative Name •

The attributes 'Contract Alternate name' and 'Block Alternate Name' have been added to the search & custom reporting capability for the application blocks, Contract blocks, Bidding Blocks, Open Area, Farm-in Opportunities subject areas.

City/Province & Latitude/Longitude

The City/Province name & the Latitude/Longitude have been added to a number of the Midstream reports.

Electric Plant Net Generation

The new attribute 'Net Generation Gwh' has been added to the Electric Plant subject & is now available within the Browse List & the Standard Reports (See Figure 1).

Operator Name	Operating Rate	Start Date	End Date	Operating Description	Net Generation Gwh
💁 UK Power Reserve Ltd	11.2	2007	2007	All Units	12.784
RWE Npower plc	54	01 January 2004	31 December 2004	All Units	
RWE Npower plc	34	01 January 2007	31 December 2007	All Units	4557.91
RWE Npower plc	61	01 January 2008	31 December 2008	All Units	8209.72
Acaim Energy Ltd	34	01 January 2012	31 December 2012	All Units	17.95
SSE Renewables Holdings Ltd		01 April 2004	31 March 2005	All Units	2.335
SSE Renewables Holdings Ltd		01 April 2005	31 March 2006	All Units	7.161

Figure 1: Net Generation - in the Browse List View

New Attributes within Refinery Costs

The following attributes have been added to the Refinery Costs report.

- Cost Orig Currency MM
- Cost Currency Unit
- Cost Exch Rate Used
- Cost Accuracy

B. Enhancements

Geological Lithostrat Sequence •

The sorting sequence in which Tops are presented in well reports has been enhanced (See Figure 2).

			Tops for period 1	- Initial drill
Top Depth Meter	Bottom Depth Meter	Geological Data Type	Lithostrat Unit	Age Old-Young
0	775	Interval		Quaternary - Quaternary
775	1924	Interval	Apsheron Formation	Lower Pleistocene - Lower Pleistocene
775		Hiatus		Pliocene - Quaternary
1924	2131	Interval	Akchagylian Formation	Upper Pliocene - Upper Pliocene
2131		Horizon	Lower Red Bed Series	Lower Pliocene - Middle Pliocene
2131		Hiatus		Miocene - Pliocene
3002	3346	Interval		Upper Cretaceous - pper Cretaceous
3002		Hiatus		Upper Cretaceous - liocene
	3002	Horizon	Upper Red Bed Series	Upper Pliocene - Up, er Pliocene
			Tops for period 1	- Initial drill
Top Depth Meter	Bottom Depth Meter	Geological Data Type	Lithostrat Unit	Age Old-Young
	0 77	75 Interval		Quaternary
77	5	Hiatus		Pliocene - Quate nary
77	5 192	4 Interval	Apsheron Formatio	on Lower Pleistocene
192	4 213	1 Interval	Akchagylian Formation	Upper Pliocene
213	1	Hiatus		Miocene - Pliocene
213	1	Horizon	Lower Red Bed Ser	ries Lower Pliocene - Middle Pliocene
	300	2 Horizon	Upper Red Bed Ser	ies Upper Pliocene
300	2	Hiatus		Upper Cretaceous - Pliocene
	2 22/	Interval 3		Upper Creteceous

Export Formats Removed

The following spatial export formats are no longer available or supported, because these formats are too old and no longer widely employed.

- MapInfo MID/MIF
- Geographix CDF
- ESRI Arc/Info E00
- ESRI Arc/Info Generate
- **FME** Feature Store

Country Limits Symbology •

The symbology of the Country Limits has been updated to avoid potential confusion with Pipelines in certain situations (See Figure 3).



II. FEATURED SOLUTIONS

Initial Prospective Analysis for Mexico

By Sachihiro Sakomoto <u>Sachihiro.Sakomoto@ihs.com</u> Related products: EDIN, GEPS, PEPS

When companies apply for a bid round, critical information can be obtained from EDIN, GEPS and PEPS for prospective and detailed analysis. IHS tracks and updates news daily, including reports and articles regarding the latest bid round so that you can refer to these materials when applying for a bid round. In this article, we use EDIN, GEPS and PEPS for a prospective analysis on Mexico's bid round 1.

A. Grasp the Big Picture of Project Legal & Fiscal Terms

In the early stages of considering the prospect of applying in a bid round, it is required to grasp the overall picture in regard to related laws, fiscal and contractual terms, risks, qualification, risks, and so on. Any Mexican or foreign companies or state producer companies (e.g. PEMEX) may participate in the bid round either individually or as a consortium, provided they meet the prescribed technical and financial criteria and capabilities. PEPS allows you to get the summary and detailed analysis reports containing such information. For example, for round 1, you may get the analysis report for the project from PEPS using the following workflow (Figure 4):

- (1) Login to PEPS and click 'Region / Country';
- (2) Choose 'Mexico' from country list;
- (3) Click blue button 'Apply Search Filters';
- (4) The layout will change. You can find '2014 Mexico
 Energy Reform Summary Analysis' and Detailed
 Analysis' reports in the Full Reports box.
- (5) Reports are available in or convertible PDF format. You can save them locally.



Figure 4: Workflow to Access Mexico Summary & Detailed Analysis Reports

B. Gather Information about Licence Activities from GEPS

GEPS allows you to easily search for and gather news, maps, acreage releases, and so on regarding round 1. An example of how to obtain reports, an acreage review and fiscal overviews about licence activity relating to round 1 is as follows:

- Login to GEPS and click 'Licence Activity' block (Figure 5);
- (2) Choose 'Mexico' from country list;
- (3) Click blue button 'Apply Search Filters' on the top;
- (4) The layout will change. We can see there are two rounds in progress. Click on the title to access a list of bidding blocks within each round:
 - Ronda 1 Exploitation Shallow Water
 - Ronda 1 Exploration Shallow Water

- (5) Click on the **block name** to view detailed information of each block which includes:
 - **Maps:** geographical location of the block;
 - Acreage Review: latest activities in or surrounding the block;
 - Area History: historical rounds and participants etc.;
 - Fiscal Overview: general fiscal information.

Global E&P Servic Energy Scouting Servi	e (GEPS) Reports Search.	R Q		Glob Energ	oal E&P	Service (GEPS) Reports	5				
Back to Map Apply Search Filters	Breaking News (Egypt) - Apache Corp Berenice, Ptah fields 01 Apr 2015	Licence Activity Farm	m In/Farm Out	Sear	ch Filters: Cle laying: 1 - 14 c	ear All x Country = Mexico x AND	Bid Round	= Ronda 1 E	xploration Shallow Water >	<	
Weekly Highlights Only Date Rance	Weekly Highlights	International Oil Dail	ilv Exploration		Country	Bid Round / Block Name 🔅	Start Date 🗇	End Date 💠	Basin Names 🛛 💠 🗍 Te	errain	Block SqKM
+ Region / Country + Subject / Topic		Letter	Alert	6	Mexico	Ronda 1 Exploration Shallow Water / Block 1	2014-12- 11	2015-07- 14	Salina Sub-basin (Sureste Basin)	Shelf	195
Global E&P Servi Energy Scouting Ser Licence Activity	ce (GEPS) Reports vice - News - Maps Licence Round Opportunities			E Filters	Mexico	Ronda 1 Exploration Shallow Water / Block 10	2014-12- 11	2015-07- 14	Salina Sub-basin (Sureste Basin)~Comalcalco Sub-basin (Sureste Basin)	Shelf	232
Back to Map Apply Search Filters	Search Filters: Country = Mexico x Select/Deselect Visible, Displaying: 1 - 2 of 2 Items				Mexico	Ronda 1 Exploration Shallow Water / Block 11	2014-12- 11	2015-07- 14	Sureste Basin~Campeche Deep Sea Basin	Shelf	309
- Region / Country + Australasia + Europe	Region Country A Bid Round	ion Shallow Water 2015-02-27	2015-09-30		Mexico	Ronda 1 Exploration Shallow Water / Block 12	2014-12- 11	2015-07- 14	Comalcalco Sub-bas (Sureste Basin)	in Shelf	387
 Far East Frontier North America Latin America Argentina Mexico 	2	ion Shallow Water 2014-12-11	2015-07-14		Mexico	Ronda 1 Exploration Shallow Water / Block 13	2014-12- 11	2015-07- 14	Sureste Basin~Campeche Deep Sea Basin	Shelf	501

Figure 5: Workflow to Access Licence Activities in Mexico

C. Basin Monitors from EDIN Browser

EDIN Browser is useful for gathering data & information on Basin as well as E&P data. 'Basin Monitors' is introduced as a valuable report aggregating the information in terms of technical, geological, reserves and so on. The workflow to download the Basin Monitor of Sureste Basin (This basin is related to Round 1 through steps A and B mentioned above) is introduced below (Figure 6).

- Login EDIN Browser and click 'Start a New Data Search';
- (2) Set as **Domain**='<u>Basin</u>', **Subject**='<u>Basin</u>';
- (3) Click **Basin** on the left panel;
- (4) Type 'Sureste' in Basin Name box, click 'Filter' button, and select 'Sureste Basin' in Relevant Filters, then click OK button;
- (5) Click 'Browse List' icon on the top;
- (6) Find Sureste Basin and click the downward arrow to download Basin Monitor locally as a zip file;
- (7) Open the Basin Monitor of Sureste Basin. You may use this method to download any basin related to Round 1.

Data Searches	1	Now Data Soarch Start a Now Man	aved Searches	Domain Basins	Subject Basins	· 5
New Data Search	Start	Start a New Map	My Searches Colleagues Shared Searches			Items Browse List Ro Count
Last Data Search			Save			
My Saved Searches (17)						
Colleagues Shared Searches (215)	Daily Alert	(4) Latest Searches Latest Mans	3 bal Filters 👻	Basin		_
watch Data Search Video		(i) Latest dealones Latest maps	Region	Basin hierarchy:	Parent Basins -	
Maps	29-Sep-2015	Ulyanovsk auction Region: C.I.S. Country: Russia Subject: Petro	Basin	Dusin merareny.	Sorted main/sub	NOTE when you pick a Main
Last Man		Rights Company: Govt	Country		Sorted Alphabet	includes its Sub-basins for y Sub-basins are shown inder
My Saved Maps (15)		An auction is planned 17 Nov '15 for 4 blocks in the Ulyanovsk Oblast, Volga-Ural Province, applications	Company	Basin Nama		Filter
Colleagues Shared Maps (116)		by 26 October : -Borlinskiy block, 1,228 sq km,	Contract	Dasin Name:	(%-wildcard) and click Filter	
Watch Mapping Video	29-Sep-2015	Deadline extension	Contract	Polovant Filtore:	Sureste Basin	
My Files		Region: Europe Country: Croatia Subject: Petroleur Rights Company: Govt	BIOCK			
		Plans to launch the 2nd phase of both onshore and	Field		No of values	
Batch Process Files (2)		offshore licensing have been delayed from later this month to towards year-end, after the upcoming generation of the second sec	Situation		Clear	Ok
و استال وال الم و المالي مل الم الم المالي	******		ענג באי הייני היי היי היי היי היי היי היי היי	••••••••••••••••••••••••••••••••••••••		
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Mexico	BASIN	0	Saved Searches My Searches Colleagues Shared Searches	Domain Basins	Subject Basins	T Ems Browse List F
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Mexico The Source Basin Overview Geological Summar General Remarks Play details		Zithostratigraphy Datasheets Reserves by Field Reserves by Reservoir Reserves by Play	Saved Searches ✓ Wy Searches ● Colleagues Shared Searches Save Global Filters ← Region ✓ Basin Sureste Basin Country	Domain Basins Browse List Basins 1 - <u>6</u> of 6 item(s)	Subject Basins 0 selected item(s Basin Name V) Batch mode
Mexico The Source Cathor International Program Basin Overview Geological Summar General Remarks Play details Petroleum System Det	BASIN TY J Lails J	7 Lithostratigraphy Datasheets Reserves by Field Reserves by Reservoir Reserves by Play Exploration Summary	Saved Searches Vy Searches Global Filters Region Sureste Basin Country Company Context	Domain Basins Browse List Basins 1 - <u>6</u> of 6 item(s) Compared to the second seco	Subject Basins 0 selected item(s Basin Name Sureste Basin	Batch mode
Mexico The Source Control Information Weights Basin Overview Geological Summar General Remarks Play details Petroleum System Det Petroleum System Ch	BASIN	Lithostratigraphy Datasheets Reserves by Field Reserves by Reservoir Reserves by Play Exploration Summary Exploration Graphs	Saved Searches	Domain Basins Browse List Basins 1 - £ of 6 item(s)	Subject Basins 0 selected item(s Basin Name Sureste Basin Salina Sub-basin (Sureste Basi) Batch mode () (6) BM
Mexico Mexico Control Human and Human Basin Overview Geological Summar General Remarks Play details Petroleum System Det Petroleum System Ch Basin Images	BASIN	Lithostratigraphy Datasheets Reserves by Field Reserves by Reservoir Reserves by Play Reserves by Play Exploration Summary Exploration Graphs Development Summary	Saved Searches My Searches Colleagues Shared Searches Save Global Filters Region Surste Basin Country Company Contract Block Field Charlies	Domain Basins Browse List Basins 1 - £ of 6 item(s) 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Subject Basins 0 selected item(s Basin Name Sureste Basin Salina Sub-basin (Sureste Basi Salina Sub-basin (Sureste Basi) Batch mode Batch mode Court EM Court Court of Cou

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III. TYPICAL CASE STUDIES

Company Analysis for A Specific Basin

By Gulati, Mohit <u>Mohit.Gulati@ihs.com</u> Related products: EDIN DESKTOP

Policies such as New Exploration Licensing Policy have been put in place to encourage petroleum investments in India. It is known that 48% of the India's sedimentary area is yet to be explored. With the upcoming bidding round, More than 50 blocks are to be offered in the upcoming bidding round. Many IOCs are looking to participate and they may want to current companies in these basins. Such information can be found and analyze with the help of EDIN Desktop. Instructions are as follow:

- Open EDIN Desktop and run 'New Query'; Set 'Contracts and Application' under Query Data box(See Figure 7);
- (2) Select Basin from left pane;
- (3) Type basin name in the central pane, select the basin name once it appears in the search box(make Krishna-Godavari Basin as an example);
- (4) Click 'Add' button and 'Get Count'. The results panel shows that there are 73 contracts in the basin.
- (5) Click on '**Add to Map**' to plot this information on Map which will open another window.



Figure 7: Query Contracts by Basin

 (6) Right click on 'Contraction& Application' layer; choose 'Symbolize' from the list(See Figure 8); (7) Choose 'Operator Name' from Symbolize By. And add all Values (company name) to the right box. Click 'OK' button. The contracts will by symbolized by operator.



Figure 8: Workflow to Symbolize Contract



Figure 9: Contract Distribution Map by Operator

From this map (See Figure 9), we can easily identify that Oil & Natural Gas Company, a NOC of India, is the dominant player in this basin. Beyond that, BP is the most actively IOCs in this area.

Reserve Distribution Analysis

By Quinn, Matthew <u>Matthew.Quinn@ihs.com</u> Related products: EDIN Desktop

IHS EDIN Desktop has 100% coverage of 2P reserves at a field level. This coverage makes these products ideal for field distribution analysis work.

Analysis with EDIN Desktop will be covered in this article. To query all fields in the basin of interest (See Figure 10):

- (1) Select 'Field' at 'Query Data';
- (2) Select 'Basin';
- (3) Choose specific Basin for analysis;
- (4) Click Add button;
- (5) Open 'Graph' .



Figure 10: Workflow to Query Field in Basin

Different graphs can be accessed through the 'Template' dropdown list.in **Graph** Interface.

Note: All distribution analysis should be carried out on geologically coherent data such as a basin or play areas like blocks or countries should not be used.

A. Reserves Size Distribution

This graph plots the number of fields per reserves size category. The Central Sumatra Basin example indicates a mature field size distribution with an increasing number of fields with decreasing reserves size. The Sureste Basin is an example of a less mature field size distribution (See Figure11).



B. Original Reserves LogNormal

These examples are continued in the **Original Reserves LogNormal** graphs below. A (green) line of best fit following a lognormal distribution is applied to the data. The graphs are used to estimate the occurrence of a specific reserves size in a basin (See Figure 12). *Note:The SwansonMean calculates the mean as* 0.3P10+0.4P50+0.3P90.



C. Yet to Find

Yet to Find analysis is based on ranking fields on their MMboe size and plotting field size (y axis) and rank (x axis) on a log-log scale. A line of best fit is applied to the top 40% of fields and extrapolated to give the Estimated Total Reserves curve (blue). The gap between the two gives the yet to find reserves.in the Basin (See Figure 13)



Figure 13: Yet to Find Graph of Sureste Basin

Method A applies a line of best fit through the top 40% of all discoveries. **Method B** forces this line not to exceed the reserves to date line and so is more conservative (Figure 14).

Actual Reserves Field :	size distribution(A) Fie	ld size distribution(B)		Actual Reserves Field	size distribution(A)	Field size distribution(8	3)
Field Size (MMboe)	Estimated Total	Reserves To Date	Yet To Find (No	Field Size (MMbo	Estimated Tot	Reserves To Da	Yet To Find (No
>1 and <=5	0	36	-36	>1 and <=5	0	36	-36
>5 and <=10	244	26	218	>5 and <=10	244	26	218
>10 and <=25	425	42	383	>10 and <=25	425	42	383
>25 and <=50	161	34	127	>25 and <=50	161	34	127
>50 and <=100	83	22	61	>50 and <=100	93	22	71
>100 and <=250	51	41	10	>100 and <=250	41	41	0
>250 and <=500	23	23	0	>250 and <=500	23	23	0
>500 and <=1000	10	10	0	>500 and <=1000	10	10	0
>1000 and <=2500	7	7	0	>1000 and <=2500	7	7	0
>2500	4	4	0	>2500	4	4	0
Total Hyd	83980.784	60944.413	23036.371	Total Hyd	78338.688	60944.413	17394.275
Intersect	-1.075	Slope	4.117	Intersect	-1.075	Slope	4.117
Correlation	-0.989	Standard Error of	-2.517	Correlation	-0.989	Standard Error of	-2.517

Figure 14: Total Reserves for Each Field Size using Method A & B

Initial Risk Assessment & Benchmarking of Legal and Fiscal Terms

By Sakomoto, Sachihiro <u>Sachihiro.Sakomoto@ihs.com</u> Related products: PEPS

PEPS increases your E&P country knowledge and allows you to:

- Compare countries on attractiveness and risk levels;
- Understand in detail all the legal, fiscal and contractual terms and access relevant legislation to ensure you are aware of all potential 'red flags';
- Carry out fiscal and contractual benchmarking in order to see how the relevant terms compare to those of other countries;
- Access key E&P information and quickly generate reports throughout the screening process.

A. Reports of Key Legal and Contractual Terms

PEPS allows you to access more than 3,400 documents online in terms of: Framework Laws, regulations, tax legislation and model contracts (See Figure 15).

Login to PEPS and check 'Laws and Contracts' under 'Module / Subject';

- (2) Choose the country of interest under 'Region/Country';
- (3) Click 'Apply Search Filters' button on the top;
- (4-A) Access laws, regulations by clicking the title.
- B. Summary and Detailed Reports for Specific Areas

In order to understand the fiscal, legal and contractual terms and identify negotiable elements for specific areas, you may use the '**Summary Analysis**' and '**Detailed Analysis**' of 'Country and Legal Terms' in PEPS (See Figure 15).

- (1) Login to PEPS and check 'Summary Analysis' or 'Detailed Analysis' under 'Module / Subject';
- (2) Choose the country of interest under 'Region/Country';

(3) Click 'Apply Search Filters' button on the top;(4-B) Click the title to view each section of the Detailed Analysis or download full report from the blue box.



Figure 15: Workflow to Access Country Terms

C. Country Petroleum Risk Rating & Ranking

You can also view and benchmark country overall petroleum risk, simply clicking 'Country Rating and Ranking' under Module/Subject (See Figure 16).

It is composed of approximately 50 variables related to political environment, fiscal risk, and recent E&P activity. Each variable is assigned a rating in the range 0 to 5 (where zero is the best score) and this is then weighted.

You can easily get a big picture of what countries are more attractive and friendly to foreign petroleum investment.

Apply Search Filters	Search Filters:	Current Rankir	ngs AND	Year/Quarter = 201	5/1Q x		
+ Module / Subject	Edit IHS Defa	ault Weightings					
Country Ratings and Rankings	Displaying: 1 -	129 of 129 Items		Display	Display:≡ Summary		h ld Export ≡
Country Legal Terms Detailed Analysis Summary Analysis Laws and Contracts	PEPS Overall Rank	Country	RRI Issue	PEPS Overall Rating	E&P Overall Rating (50%)	Fiscal Overall Rating (35%)	Political Overall Rating (15%)
Environmental Terms - Country Fiscal Fiscal Overview		1 Canada	2015 1Q	1.11	0.25	2.59	0.52
Fiscal Rankings Fiscal Results		2 Brazil	2015 1Q	1.37	0.81	2.06	1.67
- Country Petroleum Risk Political Risk Analysis		3 United States	2015 1Q	1.55	1.71	1.71	0.64
Political Risk Rankings - Country Awards Awards Analysis		4 China	2015 1Q	1.83	1.45	2.57	1.38
Global Awards Statistics - Country E&P Data Country Data		5 Norway	2015 1Q	1.87	1.42	3.05	0.65
Regional Data Country Rankings		6 Israel	2015 1Q	1.91	1.79	2.05	2.00
Company Seismic Company Exploration Success		7 Iran	2015 1Q	1.97	0.57	4.01	1.87
Company Resources Added Company Rightholding Company Drilling		3 Qatar	2015 1Q	1.99	1.97	2.66	0.45
IHS Herold Production and Reserv IHS Herold Company Financials	es	9 Azerbaijan	2015 1Q	2.01	1.53	2.71	1.99
	10	Mozambique	2015 1Q	2.06	1.83	2.47	1.85

Figure 16: Country Rating and Ranking

IV. TIPS & TRICKS

Combining Procurement Strategies into a Single QUE\$TOR Project

By Wang, Yaxing <u>Yaxing.Wang@ihs.com</u> Related products: QUE\$TOR

When you create a procurement strategy in QUE\$TOR, each cost center (Equipment, Materials, Fabrication etc.) is only allowed to be purchased from one of the QUE\$TOR regional databases. But in reality, we procure from different regions.

In this article, we show you how to adopt various procurement strategies in one project. We will be using a project in Kazakhstan as an example.

A. Create a Base Procurement Strategy

Create procurement strategy for the project in Kazakhstan and give it a specific name e.g. Kazakhstan(C). Then select China from Equipment dropdown list in Cost Database (See Figure 17).

Litle Kazakhstan(C)			0	к
Region	C.I.S.		- Car	icel
Country (Kazakhstan		·	
ine procurement strat	egy - Kazakhstan(c)			
w procurement strategy current	2y			
lame US Dollars	Symbol S	Exchange	rate (per US\$)	1
shore				
1				Cushanaa
	Cost database		Cumpou	rate
ntingency	Rueeia	T	US Dollar	(per 055)
ninment	China		US Dollar	
papinen.		•	UC Dallas	
atenais	S. E. Asia	•	US Dolar	
efabrication	S. E. Asia	•	US Dollar	1
nepipe	S. E. Asia	•	US Dollar	1
onstruction	Russia	•	US Dollar	1
esign and Project management	Western Europe	•	US Dollar	1
ertification	Russia	•	US Dollar	1
PEX	Russia	•	US Dollar	- 1
	1.0000			

Community Data is at an d Course

B. Complete Project and Save

Complete the project modelling with the procurement strategy of Kazakhstan(C), and save the project locally with name as Kazakhstan.

C. Prepare a Reference Project

Find the saved project file, make a copy and named Kazakhstan2. This project will be used as a reference project for the following steps.

D. Create New Procurement Strategy

Create another procurement strategy and name it as Kazakhstan(R), the equipment of which is appointed to purchase from Russia (See Figure 18).

Onshore	oymoor p	Excitating of table (per loose)	1 .
			Exchang
	Cost database	Currency	(per US
Contingency	Russia	US Dollar	
Equipment	Russia	▼ US Dollar	
Materials	S. E. Asia	▼ US Dollar	
Prefabrication	S. E. Asia	US Dollar	
Linepipe	S. E. Asia	▼ US Dollar	
Construction	Russia	▼ US Dollar	
Design and Project management	Western Europe	▼ US Dollar	
Certification	Russia	US Dollar	
OPEX	Bussia	US Dollar	

Figure 18: Assign Procurement Strategy: Equipment to be purchased from Russia

E. Exchange Procurement Strategy of Reference Project

Change the procurement strategy of Kazakhstan2 project from Kazakhstan(C) to Kazakhstan(R) using the QUE\$TOR project editor utility (See Figure 19).

QUE\$TOR project e	ditor - 'Kazakhstan2.qpr' *	
<u>File</u> <u>H</u> elp		
Project details:		
Name:	Kazakhstan2.gpr	
Project version	14.3	
Offshore databases:		
Procurement strategy:	No file exists.	
Technical database:	No file exists.	
Onshore databases:		
Procurement strateg	y: Kazakhstan(R)	Browse View
Technical database:	Russia	Browse
	(1) Database is a template.	
		Save Close

Figure 19: Project Editor

F. Combine the Procurement Strategies

Run projects for both Kazakhstan and Kazakhstan2 and open the cost center respectively. Then manually change the Unit cost of separator of project Kazakhstan according to project of Kazakhstan2. Save it as Kazakhstan (See Figure 20).

	QUESTOR - K	azakhstain2					
	File Project (Options Reports Tools Help					
	Distant All						
OUESTOR - Kazakt	stain					1	
File Deplect Option	ns Reports Tools U	ala			_	4	
Ene Eroject Optio	ins Deboirs Tools D	eib				1	
	Bur 🛪 💰						Production facility
omponent	Cost (million \$) ~					1	
 Reduction facility 1 	353.785					1	350,159,000
Equipment	91.817	Production facility 1	Name	P	roduction facility 1	1	
Facilities						-	
Manifolding	Water injection	TOTAL COST	US Dollars		353,785,000	FIL UNIT OUTC	cored from: Husse
Cil mocessing	Custom equipment						810.00
ET Communica	ET Cashad and summer					70,000	010,00
Cias processing	Control and comms	EQUIPMENT		Pi	ocured from: China	126.000	
Produced water	Process utilities		QUANTITY	UNIT RATE	COST	100,000	
Product storage	Power	Manifolding	50 te	18,000	900,000		
Product export	Civile Civile	Multiphase meters (0-6 Mbbliday)	0	70,000	0	20.600	2 214 00
Cas compression		Multiphase meters (6-20 Mbb/iday)	0	127,000	0	20,000	4.414.00
		Multiphase meters (20-75 Mbbl/day)	0	300.000		-	420.00
Primary Design conditions	Prefabrication Winterisation	Oil processing		· · · · · ·		26.000	442.00
Location		Separation	108 te	a 20,500	2,214,000	26,000	442,00
Termin	Devet	Dehydration	0 te	22,000	- 0	12,000	
Becation		Dehydration (tankage)	52,509 bbl	8	420,000	10.000	
Do rason	m voi	Heating	17 te	25,000	425,000		
Functions		Shell & tube cooling	0 te	25,700	0	1	
Manifolding 🔽	Compression 🔽	Fin fan cooling	0 te	14,700	0		
B.1.5.		Desalting	0 te	21,500	0	3	

Figure 20: Combine Procurement Strategies

As a result, the cost estimation is employing two procurement strategies i.e. purchasing separator from Russia and other equipment from China region.

Note: This procedure will lock the unit rates. When you re-design the equipment that has different unit rates, you should make modification in the reference project and update the unit rates accordingly.

A Quick Guide to EDIN Browser

By Zhang, Yongliang <u>Yongliang.Zhang@ihs.com</u> Related Products: EDIN

EDIN is a web-based application that can be used to query and view the International exploration, production and midstream data as well as produce reports, maps and spatial data.

This article summarizes the features in a table which enable you to be familiar with the main features and key procedures in searching data and information (Figure 21 & Table 1).



Table 1: Detailed Steps to Conduct A Search

Step I:Start A New Data Search	Step II: Filters Setting	Step III: View Details using Multiple Functions
 1. Choose Domain Exploration and Production Basin Midstream Unconventional Note: depending to your subscriptions 2. Choose Subject Various Subjects are available based on the Domain selected. Exploration and Production: Bidding Blocks Contracts Contract Blocks Farm-in Opportunities Fields Open Areas Platforms Prospects Surveys Wells etc. Basins Lithostrate Units Petroleum Systems Plays Midstream: Ammonia Plants Compressor Station Electric Plants FPSO Gas Contracts Gas Distribution Gas Processing Plants LING Pipelines Pumping Stations Ports Storages etc. 	 1. Set Global Filters General filters are offered in this panel including: Region Basin Country Company Situation etc. 2. Set Template Filters Commonly used filters are offered for each Subject (Basin\Fields\Wells etc.) For Example: Field: General Hydrocarbon Type: Production Status Discovery Date Production Start Date Well: Classification Technical Status General Content Spud Date Last Completion Date 3. Set Subject Filters More specific attributes are offered to set up filters for each Subject (Basin\Fields\Wells etc.) For example: Field: Reserve Magnitude Number of Reservoirs Water Depth Oil Recoverable Cond Recoverable etc. Well: Water Depth TD Depth BH Lithostrat Unit Objective BH Lithostrat Unit Rig days etc. 	 Items Count Provide a count of the number of data items that match you filters. Browser List Display search results in a simple table format allowing users to view the basic attributes for the subject and access the summary sheets, PDF\EXCEL\Word reports Report Offer a set of standards spreadsheets allow users to view the results
		map locally.

Note: Quick Reference Guide can be found and downloaded in Home page of EDIN.

V. FAQs

FAQs of EDIN

By Zhang, Yongliang <u>Yongliang.Zhang@ihs.com</u> Related Products: EDIN

1. I want to change the login password of Web-based products. Why the system does not accept my new password?

A: The password must contain at least one lower-case letter, one upper-case letter, and one numeric digit. No whitespaces are allowed. The letters must be Standard English(ASCII) characters. The password length must between 8 and 20 characters.

2. The Map interface of my EDIN Browser is blocked and unable to access. How can I fix this issue?

A: You may need to remove the pop-up blocker to enable some of the EDIN functionality to operate normally. It may also be advisable to clear the PC caching on a regular basis.

3. Where can I find the attributes descriptions for spatial export files?

A: This can be found in Spatial Export interface. Simply click on the Resource Link which will bring you to the Spatial Export Resources interface, where you can find proper descriptions for specific items.

4. What does the Batch Mode mean in Browser List and Report interface of EDIN Browser?

A: Checking on Batch Mode will enable you to download reports under background which can save your time. The reports you have chosen to download will be saved under My Files panel in Home page.

5. How often is the data behind EDIN Browser updated?

A: The IHS International E&P and Midstream databases behind EDIN are updated on a weekly basis. So you can be sure that you are accessing the latest information whenever you use EDIN.

6. Is the data accurate?

A: IHS is committed to providing high-quality information you need to make good decisions. You've told us that information quality is the single most important asset that IHS delivers, and we've listened. We publish our quality goals and update our metrics for each goal quarterly so that you can monitor our progress in addressing your quality concerns. To find out more about our Information Quality initiatives and goals for: Correctness, Currency, Completeness, and Consistency, please go to the following website – http://www.ihs.com/permission/en/energy-resource/international-data/

7. What browser technologies can EDIN Browser operate on?

A: EDIN supportsIE9+ $\$ Firefox (v3.5+). Chrome (4.x)

8. Will I need to purchase specialist software to use EDIN Browser?

A: You should not need to purchase additional software to use EDIN on the IHS hosting centre. If you do not already have access to a PDF reader, we provide a link on the EDIN Home to download the free Adobe Acrobat reader. All other EDIN reports require the use of standard Microsoft products (Word &/or Excel).

9. Are there any restrictions on where I can access EDIN Browser?

A: No – you can access EDIN from any computer with an internet connection.

10. Can I share my login details with colleagues?

A: No – your login details are unique & should not be shared with colleagues. If your organization requires additional people to have access to EDIN, please contact your local IHS representative.

About APAC Energy Technical Support Team

Our team consists of members with diversified professional background including geophysics, geology and engineering. Our mission is to facilitate you in making critical decision efficiently and confidently, powered by comprehensive industry data and software tools that is easy to use. To achieve this, we will do our best to help you find the best solution, optimizing your workflow while saving time & cost.

Below are our brief profiles; please contact us whenever you have any questions or suggestions.



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