



## XML data parsing and calculation

Issued by Raqsoft



## Contents



Types and characteristics of XML

Element content only

Elements and attributes

4

Different element structure

5

Example of comprehensive application

## Types and characteristics of XML



	<pre><?xml version="1.0" encoding="utf-8"?> <bookstore>      <book>           <title>Basic Mathematics</title>           <author>Roy</author>           <author>Jon</author>           <copies>5</copies>           <price>100</price>           </book></bookstore> </pre>
	Different element structure
Elements and attributes	<pre><?xml version="1.0" encoding="utf-8"?> <list></list></pre>
xml version="1.0" encoding="utf-8"? <library> <book category="COOKING"> <title lang="en">Everyday Italian</title></book></library>	<pre>     </pre>
<author country="it" name="Giada De Laurentiis"></author> <year>2005</year> <info>Hello Italian!</info>	<pre><columnx>item 1 table 2 row 1 col 1</columnx> <columny>item 1 table 2 row 1 col 2</columny> <columnz>item 1 table 2 row 1 col 3</columnz> </pre>

**Element content only** 

</list>

## Element content only

XML as a data source is a common requirement, but the existing Java technology is cumbersome to implement: poor business flexibility, many API interfaces, bloated code and so on. So the XML () function is provided by esProc, which can deal with all kinds of XML conveniently.





Multiple books form the bookstore list

 Each book may have multiple authors that need to be merged into one column. There may be unallowable characters in copies that need to be formatted as numeric



## Elements and attributes

The xml() function has the option @s, which can parse XML strings like <K F=v F=v ...>D</K> into records with K,F,... as fields, the value of K is D. When D has multiple layers of contents, it's parsed as array. In case of <K ..../K>, D is parsed as null. In case of <K ....></K>, D is parsed as empty string.

Index 1	[[[Harry Potte	r.en].[  K. Rowli	bookstore		a XML.en1.[Eri.	A2: Pa	rse into n seauence	multi-	xml</th <th><pre>version="1.0" encoding="utf-8"?&gt; </pre></th>	<pre>version="1.0" encoding="utf-8"?&gt; </pre>
The s attri	ub node is bute: <categoties< td=""><td><book>, gory&gt;</book></td><td>category</td><td></td><td></td><td></td><td></td><td></td><td><bo &lt; &lt; &lt;</bo </td><td><pre>pok category="CHILDREN"&gt; title lang="en"&gt;Harry Potter author country="it"&gt;J K. Rowling year&gt;2005</pre></td></categoties<>	<book>, gory&gt;</book>	category						<bo &lt; &lt; &lt;</bo 	<pre>pok category="CHILDREN"&gt; title lang="en"&gt;Harry Potter author country="it"&gt;J K. Rowling year&gt;2005</pre>
1 [	[Harry Potter, en], [Learning XML, en]	(J K. Rowli <u>CHILDI</u> ,[Erik T <u>WEB</u>	REN		title Harry Potter	lar en	ng		<td>price&gt;29.99 pook&gt; pok_category="WEB"&gt;</td>	price>29.99 pook> pok_category="WEB">
Eleme under	nts and att the < book	ributes > node			author	coun	ntry			title lang="en">Learning XML author country="uk">Erik T. Ray year>2003
inde	x 1 [Harry Po 2 [LK Row	Member htter, en]			vear	<u>IL</u>	5		× <td>price&gt;39.95 wook&gt; wstore&gt;</td>	price>39.95 wook> wstore>
	3 [2005]	ning, icj			2005					A1: Read file, parse to XML string
	4 [29.99]			$\longrightarrow$	price 29.99				xml v</td <td>version="1.0" encoding="utf-8"?&gt; <bookstore> <book book.xml").read()<="" category="&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Index&lt;/td&gt;&lt;td&gt;category&lt;/td&gt;&lt;td&gt;title&lt;/td&gt;&lt;td&gt;lang&lt;/td&gt;&lt;td&gt;author&lt;/td&gt;&lt;td&gt;country&lt;/td&gt;&lt;td&gt;year&lt;/td&gt;&lt;td&gt;price&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;A&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;1&lt;/td&gt;&lt;td&gt;CHILDREN&lt;/td&gt;&lt;td&gt;Harry Potter&lt;/td&gt;&lt;td&gt;&lt;u&gt;en&lt;/u&gt;&lt;/td&gt;&lt;td&gt;J.K. Rowling&lt;/td&gt;&lt;td&gt;it&lt;/td&gt;&lt;td&gt;2005&lt;/td&gt;&lt;td&gt;29.99&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;1&lt;/td&gt;&lt;td&gt;=file(" root="" td="" workspace=""></book></bookstore></td>	version="1.0" encoding="utf-8"?> <bookstore> <book book.xml").read()<="" category="&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Index&lt;/td&gt;&lt;td&gt;category&lt;/td&gt;&lt;td&gt;title&lt;/td&gt;&lt;td&gt;lang&lt;/td&gt;&lt;td&gt;author&lt;/td&gt;&lt;td&gt;country&lt;/td&gt;&lt;td&gt;year&lt;/td&gt;&lt;td&gt;price&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;A&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;1&lt;/td&gt;&lt;td&gt;CHILDREN&lt;/td&gt;&lt;td&gt;Harry Potter&lt;/td&gt;&lt;td&gt;&lt;u&gt;en&lt;/u&gt;&lt;/td&gt;&lt;td&gt;J.K. Rowling&lt;/td&gt;&lt;td&gt;it&lt;/td&gt;&lt;td&gt;2005&lt;/td&gt;&lt;td&gt;29.99&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;1&lt;/td&gt;&lt;td&gt;=file(" root="" td="" workspace=""></book></bookstore>
2	WEB	Learning XML	<u>en</u>	Erik T. Ray	uk	2003	39.95		2	=xml@s(A1)
		A	1: Generate	e a new sequ	uence table	and take	out		3	=xml@s(A1).bookstore
		tł va	ne correspo alue	onding elem	ent value ar	ıd attribu	ite		4	=A3.new(category,book(1).title:title,)

## Elements and attributes – Aligned merging and filtering

• Each book may have multiple authors whose attributes name and country need to be combined in a column

Hello Italian! Giada De Laurentiis

result1

country

it

name

Filtering and grouping can be implemented after structuring

. Structured XML, in which author is list, and the values of attribute name and

lang

en

info

title

2005 Everyday Italian

country need to be connected with commas respectively

year

Index

category

1 COOKING

2	CHILDREN	2006	Harry Potter		en	Hello Potter!	J.K. Rowling		uk
3	WEB	2005	XQuery Kick	Start	en	Hello XQue.	James McGovern,Per B	Bothner	us, us
4	WEB	2003	Learning XMI	-	en	Hello XML!	Erik T. Ray		us
2. Str count	ructured XML, ir try need to be co	ombin	h the author i led into a colu	s list ımn	, anc	I the values of a	ttribute name and	resu	ılt2
ndex	title		category	yea	ar		author	in	fo
1	Everyday Italian COOKING 2005 Giada De Laurentiis[it]					Hello Ita	alian!		
2	Harry Potter	C	HILDREN	20	006	K. Rowling[uk]		Hello Po	otter!
3	XQuery Kick Sta	art W	EB	20	005	James McGoveri	Sovern[us],Per Bothner[us] Hello X		Query!
4	Learning XML	W	EB	20	203	Erik T. Rayus]		Hello X	M L!
2 00	the basis of 2	only t	bo 2005 bool	, infor	moti				
3. On	i the basis of 2,		ne 2005 book		mati	on is queried		resu	ılt3
Index	title		category	Vea	ar	â	author	in	fo
1	Everyday Italiar	1 (		20	05	Giada De Laurei	ntiis[it]	Hello Ita	alian!
2	XOuerv Kick Sta	art 🛛	NEB	20	05	lames McGoverr	usl.Per Bothner(us)	Hello X	Ouerv

#### <?xml version="1.0"?> <library> <book category="COOKING"> <title lang="en">Everyday Italian</title> <author name="Giada De Laurentiis" country="it"/> <year>2005</year> <info>Hello Italian!</info> </book> <book category="CHILDREN"> <title lang="en">Harry Potter</title> <author name="J K. Rowling" country="uk"/> <year>2006</year> <info>Hello Potter!</info> </book> <book category="WEB"> <title lang="en">XQuery Kick Start</title> <author name="James McGovern" country="us"/> <author name="Per Bothner" country="us"/> <year>2005</year> <info>Hello XQuery!</info> </book> <book category="WEB"> <title lang="en">Learning XML</title> <author name="Erik T. Ray" country="us"/> <vear>2003</vear> <info>Hello XML!</info> </book> </library>

## Elements and attributes — Aligned merging and filtering(Example)



esProc can directly parse and calculate XML, and its agile syntax system only needs a little code to complete the above requirements.

		А			В					
1	=file("/workspace/book1.	xml")			/Open xml file					
2	=xml@s(A1.read(),"librar	$\rightarrow$	/Parse the record with XML string as a field, and obtain the node value							
3	<pre>3 =A2.new(category,book.field("year").ifn():year,book.field("title").ifn ():title,book.field("lang").ifn():lang,book.field("info").ifn():info,b //Generate a new sequence table, obtain the field value of eac ook.field("name").select(~).concat@c():name,book.field("country").sele the list needs to be connected as a string ct(~).concat(","):country)</pre>									
4	<pre>4 =A3.new(title,category,year,(lang,name.array().(~+"[")++country.array( ).(~+"]")).concat@c():author,info)</pre>									
5	=A4.select(year==2005)				/Filter according to cor	nditions on the basis of A4				
	title lang				A2:Process deco	omposed				
Everyd	lay Italian en	Index Member	Index	b	book	category				
outho	ar nama country	1 [Everyday Italian, en]	1	[[Everyday Italian, e	en],[,Giada De Laur	COOKING				
(null)	Giada De Laurentiis it	2 [,Giada De Laurentiis,it]	2	[[Harry Potter, en],	[,] K. Rowling,uk],[2	CHILDREN				
		3 [2005]	3	[[XQuery Kick Star	t,en],[,James McGov	WEB				
year 4 [Hello Italian!] 4 [[Learning XML, en], [, Erik T. Ray, us], [2 WEB										

### Different element structure



XML (x, s) function, where s represents the layer ID to be taken out, multi-layer is / separated, and empty represents to be taken from the root. When there are elements of different structures under the node, s can be used to accurately get some layer elements.





- List of multiple items
- Each item has a fixed number of tables, and the tables are different. Each table has a variable number of rows

						tak	ole1					
ltemID	column1			CO	lumn	2						
	1 item 1 table 1 row 1 co	11	item 1	table	1 rov	v 1 (	col 2					
	1 item 1 table 1 row 2 co	11	item 1	table	1 rov	v 2 (	col 2	~				
	2 item 2 table 1 row 1 co	11	item 2	table	1 rov	v 1 (	col 2					
	2 item 2 table 1 row 2 co	11	item 2	table	1 rov	v 2 (	col 2					
									tal	ble	2	
ltemID	columnX		coli	umnY				colu	tal	ble	2	
ltemID 1	columnX item 1 table 2 row 1 col 1	item	coli 1 table	umnY 2 row	1 col	<u>2</u>	item 1	colu table 2	tal ImnZ 2 row	<b>b]e</b> 1 co	2 11 <u>3</u>	
ItemID 1	columnX item 1 table 2 row 1 col 1 item 1 table 2 row 2 col 1	item	coli 1 table 1 table	umnY 2 row 2 row	1 col 2 col	2 j	item 1 t	colu table 2 table 2	tal ImnZ 2 row 2 row	<b>b]e</b> 1 co 2 co	2 11 3 11 3	1
ItemID 1 1 2	columnX item 1 table 2 row 1 col 1 item 1 table 2 row 2 col 1 item 2 table 2 row 1 col 1	item item item	coli 1 table 1 table 2 table	umnY 2 row 2 row 2 row	1 col 2 col 1 col	2 i 2 i 2 i	item 1 i item 1 i	colu table 2 table 2 table 2	tal ImnZ 2 row 2 row 2 row	<b>b]e</b> 1 co 2 co 1 co	2 01 3 01 3 01 3	4

xml vers:</th <th>ion="1.0" encoding="utf-8"?&gt;</th>	ion="1.0" encoding="utf-8"?>
<list></list>	
<item:< td=""><td><b>&gt;</b></td></item:<>	<b>&gt;</b>
	<pre><table1></table1></pre>
	<row></row>
	<pre><column1>item 1 table 1 row 1 col 1</column1></pre>
	<pre><column2>item 1 table 1 row 1 col 2</column2></pre>
	<row></row>
	<pre><column1>item 1 table 1 row 2 col 1</column1></pre>
	<pre><column2>item 1 table 1 row 2 col 2</column2></pre>
•	
4	<pre><table2></table2></pre>
	<row></row>
	<pre><columnx>item 1 table 2 row 1 col 1</columnx></pre>
	<pre><columny>item 1 table 2 row 1 col 2</columny></pre>
	<pre><columnz>item 1 table 2 row 1 col 3</columnz></pre>
	<row></row>
	<pre><columnx>item 1 table 2 row 2 col 1</columnx></pre>
	<pre><columny>item 1 table 2 row 2 col 2</columny></pre>
	<pre><columnz>item 1 table 2 row 2 col 3</columnz></pre>
<pre></pre>	
<td></td>	
<item:< td=""><td>lict</td></item:<>	lict
<pre>/item:</pre>	

## Different element structure — Sub nodes contain different elements(Example)



#### In the function, specify the level ID to obtain the element value of this level accurately.

			ltemID			column1	column2	
ltemID	row			1	item 1 t	able 1 row 1 col 1	item 1 table 1 row 1 col 2	
1	[[item 1 table 1 row 1 col 1,item 1 table 1 row	1 c		→ 1	item 1 t	able 1 row 2 col 1	tem 1 table 1 row 2 col 2	
2	[[item 2 table 1 row 1 col 1,item 2 table 1 row	1 c		→ 2	item 2 t	able 1 row 1 col 1	tem 2 table 1 row 1 col 2	
	A3: Process decompo	ed		→ 2	item 2 t	able 1 row 2 col 1	tem 2 table 1 row 2 col 2	
	A						В	
1 =fi	<pre>le("/workspace/items.xml")</pre>		/Open xml file					
2 =xm	nl(A1.read(),"list/item/table1")				/ r	Parse the record with XM	L string as a field, and obtain the	
3 =A2	<pre>2.new(#:ItemID,row)</pre>		/Generate sequence number, node valu					
4 =A3	<pre>B.news(row;ItemID,row.column1:colur</pre>	n1,row.columr	n2:col	olumn2) /Expand the set to generate a new table				
5 =xm	nl(A1.read(),"list/item/table2")			/Parse the record with XML string as a field, and of node value				
6 =A5	5.new(#:ItemID,row)		/Generate sequence number, node value se					
7 =A6 z:c	5.news(row;ItemID,row.columnX:colur columnZ)	nX,row.columr	IY:col	umnY,row.co	olumn/ t	Expand the set to	generate a new sequence	
	A6: Process decomposed							
	↓		ltemID	column×		columnY	columnZ	
ltemID	row		1	item 1 table 2 rov	v 1 col 1	item 1 table 2 row 1 col	2 item 1 table 2 row 1 col 3	
1	1 [[item 1 table 2 row 1 col 1,item 1 table 2 row 1 col 2	ite	1	item 1 table 2 rov	v 2 col 1	item 1 table 2 row 2 col	2 item 1 table 2 row 2 col 3	
2	[[item 2 table 2 row 1 col 1,item 2 table 2 row 1 col 2	ite	2	item 2 table 2 row 1 col 1		ol 1   item 2 table 2 row 1 col 2   item 2 table 2 r		
			2	item 2 table 2 rov	v 2 col 1	item 2 table 2 row 2 col	2 item 2 table 2 row 2 col 3	

### Example of comprehensive application — database and XML Join



The cities table is from MySQL database, and the state data is from XML file. After the join calculation, the population of each state is grouped and counted.

								cities
				Index	CID	NAME	POPULATION	STATEID
				1	1	New York	8084316.0	2
				2	2	Los Angeles	3798981.0	5
				3	3	Chicago	2886251.0	1
				4	4	Houston	2009834.0	1
				5	5	<u>Philadelphia</u>	1492231.0	2
				6	6	<u>Phoenix</u>	1371960.0	1
1 2	<u>Alabama</u> <u>Alaska</u>	9576547.0	JOIN			<pre><?xml version <data>         <state>         <stateid>         <abbr>"AI         </abbr></stateid></state>         <state>         <state>         <stateid>         <abbr>"AI         </abbr></stateid></state>         <stateid>         <abbr>"AI         </abbr></stateid></state>         <stateid>         <abbr>"AI          <stateid>  </stateid></abbr></stateid></pre>	n="1.0" encodin >1 Labama" _" >2 Laska" <"	<pre>state.xml g="utf-8"?&gt;</pre>



esProc can directly read XML and MySQL data for mixed calculation; it provides a consistent calculation interface, and various data sources can be calculated in a unified style.

						А						В				
1	=Mys	ql.query	("se	lect	* from c	ities whe	ere STATEID	0<=2")			/Query ci	ties tab	le			
2	=xml	(file("/	works	space	/state.x	ml").read	l(),"data/s	state")			/Parse the node value	/Parse the record with XML string as a field, and obtain the node value				
3	=A2.	A2.new(STATEID,NAME,ABBR).keys(STATEID)											/Generate sequence table and set primary key			
4	>A1.	switch(S	TATE	ED,A3	:STATEID		/cities a	nd state	join							
5	=A1.	groups(S	TATE	ED.NA	ME:STATE	/Group an	d aggrega	ate								
	A3:After Xml												ctured			
	Index	CID	NA	ME	POPULATION	STATEID		Γ	Index	STATEID	NAME	ABBR				
	1	1	New Yo	<u>rk</u>	8084316.0	2			1	1	Alabama	labama AL				
	2	3	Chicago		2886251.0	1			2	2 /	Alaska	AK				
	3	4	Houston	<u> </u>	2009834.0	1		$\searrow$ / $^{\shortparallel}$								
	4	5	Philadel	phia	1492231.0	2	A4:After ioin									
	5	6	Phoenix		1371960.0	1										
								<del>\\</del>								
				Index	CID	NAME Now York	POPULATION	STATEID		STATEID	NAME		ABBR			
				1	1	Chicogo	8084316.0 2			→ 2	<u>Alaska</u>	AK				
	3 4 Houston 2009834.0 1								-							
				4		Philadelphia	1492231.0 2	•		STATEID	NAME		ABBR			
		5 6 Phoenix 1371960 0 1									Alapama	AL				
					Ŭ Ŭ	111305411175	1011000.0									

## Example of comprehensive application — Batch parsing





## Example of comprehensive application — Structuring WebService



- Call the external WebService according to the incoming parameters to return the weather conditions of the region
- Structuring xml result set

									result		
Index	str1	str2	str3	str4	str5	strб	str7	str8	str9		
1	Henan (Province).	Xinyang(City).	464000	57297.jpg	2019/12/20 16:00:31	0°C/10°C	December 20 is cloudy to overcast	East to north is less than category 3	<u></u>		
		0" encoding="utf-8"?>	ther.xml								
"ht the the	<pre>'http://www.webxml.com.cn/WebServices/Wea therWebService.asmx/getWeatherbyCityName? theCityName=%E4%BF%A1%E9%98%B3":"UTF-8" </pre> <pre></pre>										
	(string>2019/12/20 16:00:31       (string>0°C/10°C       (string>December 20 is cloudy to overcast       (string>East to north is less than category 3       (string> List										
					А		·, · · · · · · · · · · · · · · · · · ·	В			
1	=wsdl=cor etWeather	ncat("\"ht byCityNam	tp://ww e?theC	ww.webxn ityName=	ll.com.cn/webSe ",urlencode(ar	rvices/ gCity,"	WeatherWebService.asr UTF-8"),"\":\"UTF-8\'	<pre>mx/g /Combine the argcity pa "") spell the complete WSDL</pre>	arameter to URL		
2	=httpfile	/Turn URL results in stream	to a file								
3	=xml(file	/Parse xml									
4	=create(	S{A1.(conc	at("sti	r",#)).c	concat@c()})			/Create empty sequence 1	table		
5	>A4.recor	rd(A3)						/Fill records in sequence	ce table		

## Example of comprehensive application — Get different data according to parameters



- An XML contains multiple label structures, each of which has the same number of column label attributes
- Get corresponding data and present different reports according to different parameters

#### big.xml

P	Input	argument	×	arg=	book, Extra		eled book	
	Title	Value	OK					
arg	boo	k	<u>C</u> ancel				report1	
Index	category	t	itle	lang	name	country	year	
1	COOKING	The Spanish	n Cook Book	es	Miguel Ortiz	es	2005	T
2	CHILDREN	Everyone is	Super Special	en	Sally Bush	us	2005	"\

P	In	put a	rgument		×	ara-aud	io Ext	ract (	tata	laholod a	udio	
	Title		Value	OK		ai y–auu	rg-addro, Extract data					
arg		audio										
				<u> </u>	.el					repo	rt2	
Index	catego	bry	title	2	lang	g r	iame	CO	untry	yea	ar	
1	MUSIC		We All Sing	) Perty	en	Mary	Rogers	us			2006	K
2	MUSIC		The Bluest	Blues	en	Barry	Sadley	us			2006	

<pre>xml version="1.0" encoding="utf-8"?&gt;</pre>	
ibrary>	
<book category="COOKING"></book>	
<pre><title lang="es">The Spanish Cook Book&lt;</title></pre>	/title> "/>
<pre><book categorv="CHILDREN"></book></pre>	
<pre><title lang="en">Everyone is Super Spec <author <year="" country="us" name="Sally Bush">2005</author></title></pre>	ial
<pre><audio category="MUSIC" format="CD"></audio></pre>	
<pre><title lang="en">We All Sing Pertv</title></pre>	le>
<pre>(artist name="Mary Rogers" country="us")</pre>	15
<pre><vear>2006</vear></pre>	12
<pre>caudio format="CD" category="MUSIC"&gt;</pre>	
<pre>//iiii ang_"en"</pre> //iiii ang_"en"	<b>a</b> \
<pre>(citie lang- en /me bluest bluest/citi</pre>	.∈∕ ₩/\
Cartist name= barry Sauley country= us	12
<year>2006</year>	
(audio) LIST	
library>	

## Example of comprehensive application — Get different data according to parameters (Example)



After XML is parsed by esProc, its agile syntax system can complete logical judgment with little code, and its unique macro mechanism greatly improves the degree of code reuse.

	А		В		C						
1	=file("/workspace/big.xml	<pre>le("/workspace/big.xml")</pre>			/Open xml file						
2	=xml@s(A1.read())	=\${arg}=null			/A2:parse xml,B2:Dedine the macro variable arg, null by default						
3	=A2.library				/Get library node value						
4	for A3	if(A4.fname(1)==arg)			/A4:Loop the node,B4:Judge the first field name according to the parameter						
5				=\${arg}=if(\${arg}==null,create(category,\${A4.\${arg}.conj(~ .fname()).concat@c()}).record(A4.\${arg}.conj(~.array()).in sert(1,A4.category)),\${arg}.record(A4.\${arg}.conj(~.array( )).insert(1,A4.category)))							
6	6 =\${arg}=\${arg}.new(category,title,lang,name,country,year)										
A3:	A3: Get library node value as sequence C5: When the loop variable is empty for the first time, create the columns contained in the empty sequence table, then insert a record into the empty sequence table, and then insert until the end.										
Index	Member		Index ca	ategory	title	lang	author	name	country	year	
1	1 [[The Spanish Cook Book, es], [, Miguel Ortiz, es], [2005],]		1 <u>COO</u>	OKING	The Spanish Cook Book	es	(null)	Miguel Ortiz	<u>es</u>	2005	
3	3 [[We All Sing Perty en] [ Mary Rogers us] [2005],]		2 <u>CHIL</u>	LDREN	Everyone is Super Special	<u>en</u>	(null)	Sally Bush	<u>us</u>	2005	
4 [[The Bluest Blues, en], [, Barry Sadley, us], [2006],]											
A6:Generate new sequence table, return the general columns required by the report											

Index	category	title	lang	name	country	year
1	COOKING	The Spanish Cook Book	es	Miguel Ortiz	<u>es</u>	2005
2	CHILDREN	Everyone is Super Special	en	Sally Bush	us	2005

# Innovation makes progress!



#### 各设备故障分析







A Designation of the local division of the l