

# Handling special characters

## Special characters in XML

When data loaded from XML file|string there are some special characters which can cause problem.

For XML those are < > &

There are two ways to store them in XML

a) Escaping - the characters can be replaced with related XML entities

```
> => &gt;  
< => &lt;  
& => &amp;
```

b) use CDATA section - any data can be stored inside CDATA section

```
<cell> Specail characters < > &</cell>      <= Incorrect  
<cell> Specail characters &lt; &gt; &amp;</cell>    <= Correct  
<cell><![CDATA[ Specail characters < > &]]></cell>    <= Correct
```

## Special encodings in XML

Component is encoding agnostic, it will support any encoding which supported by browser, just be sure to have correct XML header

```
<?xml version="1.0" encoding="ISO-8859-1" ?>
```

The encoding attribute must specify correct encoding value. ( if such attribute omitted, UTF-8 will be used by default)

## Special characters in dhtmlxGrid

By default grid threat all incoming data as HTML, so it will convert any HTML special chars ( and again they are include < > & characters )

To resolve such issue , the grid supports "pure" text excell. In contrast with default ones - they will not allow any HTML content inside them, but will preserve any special characters and allow correct edition of such special chars.

There are next "pure text" cell types

rotxt - readonly text excell  
edtxt - single line editor text excell  
txtxt - multi-line text editor  
corotxt - text only selectbox

```
mygrid.setColTypes("rotxt")  
...  
mygrid.addRow(1,"<&>"); // will render text correctly
```

## Special characters serialization

When grid serialized back to XML, special characters in cells can corrupt result XML. To prevent such issue , you can force usage of CDATA while serialization. ( CDATA make any content safe, so result XML will be valid in any case )  
Such mode can be enabled with `setSerializationLevel` command

```
grid.setSerializationLevel(false,false,false,false,false,true);
```