Serialization Fundamentals

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Serialization? (And Deserialization?)

```
{
  "name": "Xavier Morera",
  "courses": [
    "Solr",
    "dotTrace"
  ],
  "since": "2014-01-14T00:00:00",
  "happy": true,
  "issues": null,
  "car": {
    "model": "Land Rover Series III",
    "year": 1976
  }
}
```

Name	Value	Type
xavierAuthor	{m1.Author}	m1.Author
car	{m1.Car}	m1.Car
model	"Land Rover Series III"	string
year	1976	int
courses	{string[2]}	string[]
happy	true	bool
issues	null	object
name	"Xavier Morera"	string
since	{1/14/2014 12:00:00 AM}	System.DateTime

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```
JsonSerializer serializer = new JsonSerializer();
                            serializer.Serialize();
```

JsonSerializer

Class in charge of serialization and deserialization

Control & Customization

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```
string author = JsonConvert.SerializeObject(AuthorObject);
                DeserializerObject<Author>(author);
```

JsonConvert

Easy to use

Wrapper over JsonSerializer

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Settings & Attributes

```
new JsonSerializerSettings
{
    TypeNameHandling = TypeNameHandling.All,
    Formatting = Formatting.Indented
});
```

```
[JsonProperty]
public string name { get; set; }

[NonSerialized]
public bool happy;

[JsonIgnoreAttribute]
public object issues { get; set; }
```

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Demo 3: JsonConvert

Mapping JSON to/from .NET

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One Size Fits All?

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JsonReader & JsonWriter

Large objects and files
Non-cache, forward only
Reading JSON

JsonTextReader

Control and Performance
Non-cached, forward only
Creating JSON

JsonTextWriter

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Demo 4: JsonSerializer

JsonReader

JsonWriter

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Dates in JSON

Dates are Tricky
No Date Type

Javascript Dates
String or Number

ISO 8601
Microsoft Format
Custom

1441329748

‘Fri, 04 Sep 2015 01:21:31 GMT’

“date”: “2009-07-11T19:00:00-04:00”

“date”: "\/Date(1247353200)\/"new

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Demo 5: Dates in JSON

Dates are hard!

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Error Handling

Handle

Throw

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Demo 6: Error Handling

Everybody makes mistakes

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Takeaway

Serialization
Deserialization

JsonSerializer
JsonConvert

Dates

Errors

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