

## SQL Server Tutorial

### Part 124 - TRY\_CONVERT function in SQL Server 2012

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# In this session we will learn

- TRY\_CONVERT function
- Difference between CONVERT and TRY\_CONVERT functions
- Difference between TRY\_PARSE and TRY\_CONVERT functions

**Link to Dot Net Basics, ASP.NET, C#, ADO.NET and SQL Server video series**

<http://www.youtube.com/user/kudvenkat/playlists>

## **Suggested Videos**

**Part 121 - Choose function in SQL Server**

**Part 122 - IIF function in SQL Server**

**Part 123 - TRY\_PARSE function in SQL Server 2012**

# TRY\_CONVERT function in SQL Server

If you are in need of the DVD with all the videos and PPT's, please visit

<http://pragimtech.com/order.aspx>

## TRY\_CONVERT function

- Introduced in SQL Server 2012
- Converts a value to the specified data type
- Returns NULL if the provided value cannot be converted to the specified data type
- If you request a conversion that is explicitly not permitted, then TRY\_CONVERT fails with an error

**Syntax:** TRY\_CONVERT ( data\_type, value, [style] )

**Style parameter is optional.** The range of acceptable values is determined by the target data\_type

<https://msdn.microsoft.com/en-us/library/ms187928.aspx>

**Example :** As the string can be converted to INT, the result will be 99

SELECT TRY_CONVERT(INT, '99') AS Result	→	<table><tr><th>Result</th></tr><tr><td>99</td></tr></table>	Result	99
Result				
99				

# TRY\_CONVERT function in SQL Server

**Example :** As the string cannot be converted to INT, TRY\_CONVERT returns NULL

```
SELECT TRY_CONVERT(INT, 'ABC') AS Result
```

Result
NULL

**Example :** Converting an integer to XML is not explicitly permitted. so in this case TRY\_CONVERT fails with an error

```
SELECT TRY_CONVERT(XML, 10) AS Result
```

**CASE statement or IIF function** can be used to provide a meaningful error message instead of NULL when the conversion fails

**Using CASE statement to provide a meaningful error message when the conversion fails**

```
SELECT  
CASE WHEN TRY_CONVERT(INT, 'ABC') IS NULL  
      THEN 'Conversion Failed'  
      ELSE 'Conversion Successful'  
END AS Result
```

Result
Conversion Failed

**Using IIF function to provide a meaningful error message when the conversion fails**

```
SELECT IIF(TRY_CONVERT(INT, 'ABC') IS NULL, 'Conversion Failed',  
          'Conversion Successful') AS Result
```

Result
Conversion Failed

# TRY\_CONVERT function in SQL Server

## What is the difference between CONVERT and TRY\_CONVERT

CONVERT will result in an error if the conversion fails, whereas TRY\_CONVERT will return NULL instead of an error

Since ABC cannot be converted to INT, CONVERT will return an error

```
SELECT CONVERT(INT, 'ABC') AS Result
```

Since ABC cannot be converted to INT, TRY\_CONVERT will return NULL instead of an error

```
SELECT TRY_CONVERT(INT, 'ABC') AS Result
```

Result
NULL

**Example :** Using TRY\_CONVERT() function with table data

```
SELECT Name, TRY_CONVERT(INT, Age) AS Age  
FROM Employees
```

Id	Name	Age		Name	Age
1	Mark	40		Mark	40
2	John	20		John	20
3	Amy	THIRTY	→	Amy	NULL
4	Ben	21		Ben	21
5	Sara	FIFTY		Sara	NULL
6	David	25		David	25

# TRY\_CONVERT function in SQL Server

If you use CONVERT instead of TRY\_CONVERT, the query fails with an error

```
SELECT NAME, CONVERT(INT, Age) AS Age  
FROM Employees
```



Conversion failed when converting the nvarchar value 'THIRTY' to data type int

## Difference between TRY\_PARSE and TRY\_CONVERT functions

TRY\_PARSE can only be used for converting from string to date/time or number data types whereas TRY\_CONVERT can be used for any general type conversions.

For example, you can use TRY\_CONVERT to convert a string to XML data type, whereas you can do the same using TRY\_PARSE

```
SELECT TRY_CONVERT(XML, '<root><child/></root>') AS [XML]
```

XML
<root><child /></root>

```
SELECT TRY_PARSE('<root><child/></root>' AS XML) AS [XML]
```



Invalid data type xml in function TRY\_PARSE

Another difference is TRY\_PARSE relies on the presence of the .NET Framework Common Language Runtime (CLR) whereas TRY\_CONVERT does not.

# Additional Resources

## PRAGIM Home Page:

[www.PragimTech.com](http://www.PragimTech.com)

## Resources:

C#, ADO.NET, ASP.NET, SQL Server & MVC youtube Playlists

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