



SQL Server – Joins

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Joins unter SQL Server

Syntax

```
FROM first_table join_type second_table [ON (join_condition)]  
(ANSI-Syntax 99)
```

```
FROM first_table, second_table WHERE join_condition  
(ANSI-Syntax 92)
```

Unterstützte Arten:

- Inner Join (Equi Join als Spezialform)
- Self Join
- Cross Join (Kartesisches Produkt)
- Outer Join

Equi-Join (Spezialform des Inner-Join)

```
SELECT employees.employee_id, employees.last_name,  
employees.department_id, departments.location_id  
  
FROM employees INNER JOIN departments  
ON (employees.department_id = departments.department_id);
```

```
SELECT e.employee_id, e.last_name, e.department_id,  
d.location_id  
  
FROM employees e JOIN departments d  
ON (e.department_id = d.department_id);
```

Equi-Join über WHERE-Klausel: alte Schreibweise

```
SELECT  e.employee_id, e.last_name, e.department_id,  
        d.location_id  
  
FROM    employees e, departments d  
  
WHERE   e.department_id = d.department_id  
  
        AND d.location_id > 1000;
```

Mehrfach-Join

```
/* Das Schlüsselwort "ON" muss nach dem jeweiligen "JOIN"
folgen */
```

```
SELECT e.last_name, d.department_name, l.city, c.country_name
FROM employees e INNER JOIN departments d
      ON e.department_id = d.department_id
INNER JOIN locations l
      ON d.location_id = l.location_id
INNER JOIN countries c
      ON l.country_id = c.country_id ;
```

Non-Equi Join

```
select e.last_name, e.department_id,  
  
       d.department_id, d.department_name  
  
from employees e JOIN departments d  
  
     ON e.department_id > d.department_id  
  
WHERE e.department_id = 50 and e.employee_id = 140;
```

Outer Joins

```
SELECT e.employee_id, e.last_name, e.department_id,  
       d.department_id, d.department_name  
  
FROM employees e LEFT OUTER JOIN departments d  
ON (e.department_id = d.department_id);
```

```
SELECT d.department_id, e.last_name      -- Oracle-spez. Syntax  
FROM departments d, employees e  
WHERE d.department_id = e.department_id(+)  
ORDER BY d.department_id, e.last_name;
```

```
SELECT e.employee_id, e.last_name, d.department_id,  
       d.department_name  
  
FROM employees e FULL OUTER JOIN departments d  
ON (e.department_id = d.department_id);
```

Cross Join (Kartesisches Produkt)

```
SELECT e.employee_id, e.last_name, e.department_id,  
       d.department_id, d.department_name  
FROM employees e CROSS JOIN departments d  
WHERE e.department_id = d.department_id  
ORDER BY e.employee_id ;
```


Self Join

```
SELECT e.last_name AS emp, m.last_name AS man  
      FROM employees e INNER JOIN employees m  
      ON (e.manager_id = m.employee_id) ;
```