

# WorkingWithCompoundKeys

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The RDB DAS provides the ability to work with single-column keys as well as keys composed of multiple columns (**compound keys**). RDB DAS clients can specify the primary key for a table as well as foreign keys that reference other tables. The primary key for a table can be identified to the DAS via configuration (typically via a configuration xml file). The following is an example config file that defines a compound primary key:

```
<Config xsi:noNamespaceSchemaLocation="http://org.apache.tuscany.das.rdb/config.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

    <Table tableName="ORDERDETAILS">
        <Column columnName="ORDERID" primaryKey="true"/>
        <Column columnName="PRODUCTID" primaryKey="true"/>
    </Table>

</Config>
```

Relationships between tables are in terms of primary keys and foreign keys and so foreign keys can also be compound. The following example illustrates a relationship using a compound foreign key:

```
<Config xsi:noNamespaceSchemaLocation="http://org.apache.tuscany.das.rdb/config.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

    <Table tableName="ORDERDETAILS">
        <Column columnName="ORDERID" primaryKey="true"/>
        <Column columnName="PRODUCTID" primaryKey="true"/>
    </Table>

    <Table tableName="ORDERDETAILSDESC">
        <Column columnName="ID" primaryKey="true"/>
    </Table>

    <Relationship name="orderDetailsDesc" primaryKeyTable="ORDERDETAILS"
                  foreignKeyTable="ORDERDETAILSDESC" many="true">
        <KeyValuePair primaryKeyColumn="ORDERID" foreignKeyColumn="ORDERID" />
        <KeyValuePair primaryKeyColumn="PRODUCTID" foreignKeyColumn="PRODUCTID" />
    </Relationship>
</Config>
```