

## USING FILE REPLICATION PRO TO REPLICATE SQL SERVER

### **Abstract**

File Replication Pro (FRP) can be used to backup your SQL Server databases. The replication procedure is not as straight forward as replicating other files due to file locking constraints by SQL server.

A backup and restore procedure can be implemented as follows:

1. Use SQL Server to create a database backup file.
2. Replicate the database backup file using FRP.
3. Restore the database backup file using FRP.
4. Use SQL Server to re-create the database from the database backup file.

The procedures for creating a database backup file and for restoring the database from the database backup file are almost identical. The only difference is the script written to the step commands window (See step 5 of the Backup/Restore Procedure).

This document describes how to perform a backup or restore of your SQL server database.

### **Backup/Restore Procedure**

1. Start an instance of Enterprise Manager, and navigate to the following location of the server in the left task pane of Enterprise manager (see below). **Microsoft SQL Servers → SQL Server Group → (Local) (Windows NT) → Management → Jobs** (See Figure 1). Please note that depending on your servers particular configuration the section “(Local) (Windows NT)” may differ from what is shown.

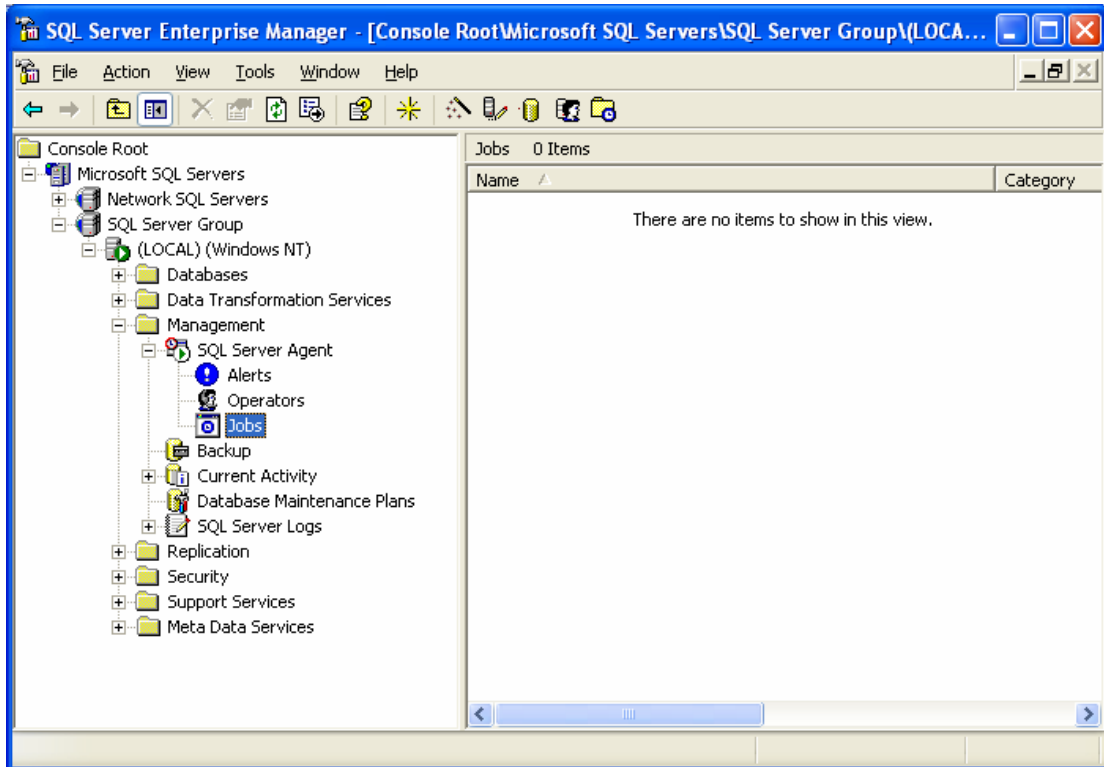


Figure 1 - SQL Jobs

- From the **Jobs** section of the Enterprise Manager, open a new Job Properties window by right clicking in the right task pane and selecting New Job (See Figure 2).

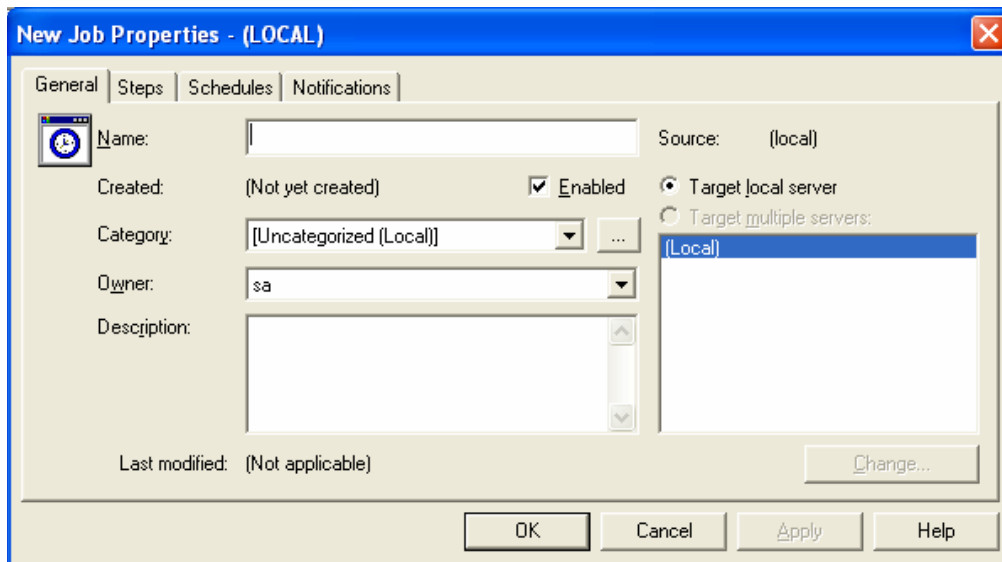
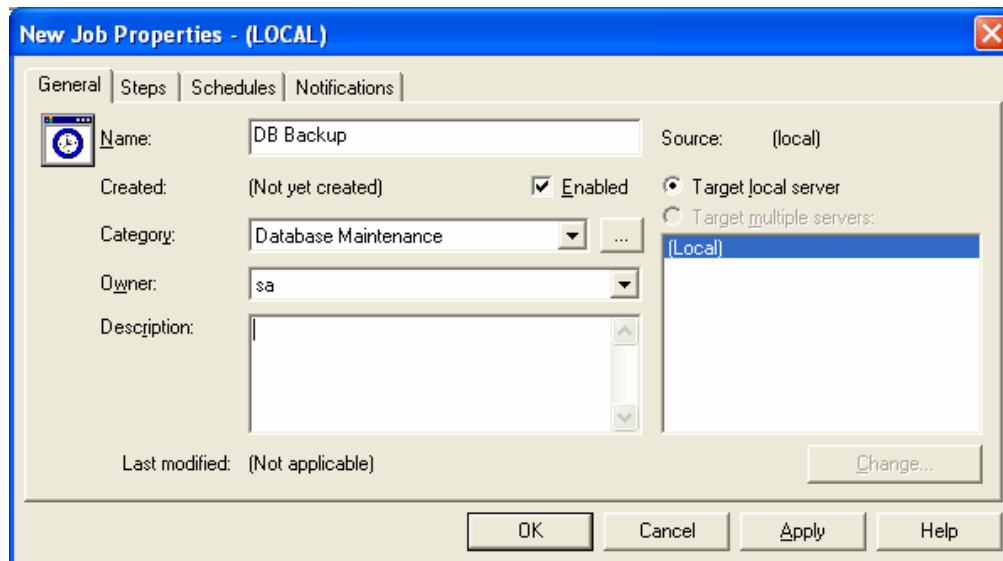


Figure 2 - New Job Properties

- Under the **General** tab, enter a job name and select Database maintenance from the **Category** drop down field (See Figure 3).



**Figure 3 - New Job Entry**

- From the **Steps** tab, open a New Job Step window by clicking the **New** button located at the bottom. Enter a Step name for this step, its type should be Transact-SQL Script (TSQL), select the database that is associated with this step
- Paste one of the following SQL Scripts into the command window. Be sure to replace the highlighted section of code with the proper database name, database backup location, and the name of the backup file (see below) that is going to be restored. You may optionally enter a description.

### Backup Script

Use the following script when configuring an SQL backup job (See Figure 4):

```

SET QUOTED_IDENTIFIER off
select getdate() "Start Time"
set nocount on

declare @dbname varchar(36),@cmd varchar(255)
declare dbname_cursor cursor
    for select name from master..sysdatabases where
name = 'Insert DB name here'
    order by name

open dbname_cursor
fetch dbname_cursor into @dbname
    
```

```
while @@fetch_status = 0
begin
DECLARE @DATE VARCHAR(36)
SELECT @DATE = (select CONVERT(char(8),DATEADD(dd,-
30,GETDATE()),112))
if DATABASEPROPERTYEX(@dbname,'Status') = 'ONLINE'
begin
select @cmd ='backup database '+@dbname+' to
DISK="Insert database location here'+@dbname+'.bak"
with init'
print @cmd
execute (@cmd)
end

fetch dbname_cursor into @dbname
end

close dbname_cursor
deallocate dbname_cursor
select GETDATE() "End Time"
```

\*\*\* Note: If you would like to backup all the databases on a particular SQL Server, then make the following changes to the code above. Replace following line of code

```
for select name from master..sysdatabases where
name = 'Insert DB name here'
```

with the following line of code:

```
for select name from master..sysdatabases where
name != 'tempdb'
```

This will create a backup file for each database on the server, with out creating one for the temp database.

## Restore Script

Use the following script when configuring an SQL restore job (See Figure 5):

```
replace database 'Insert database name'
from disk = 'Insert database backup location'
with replace;
```

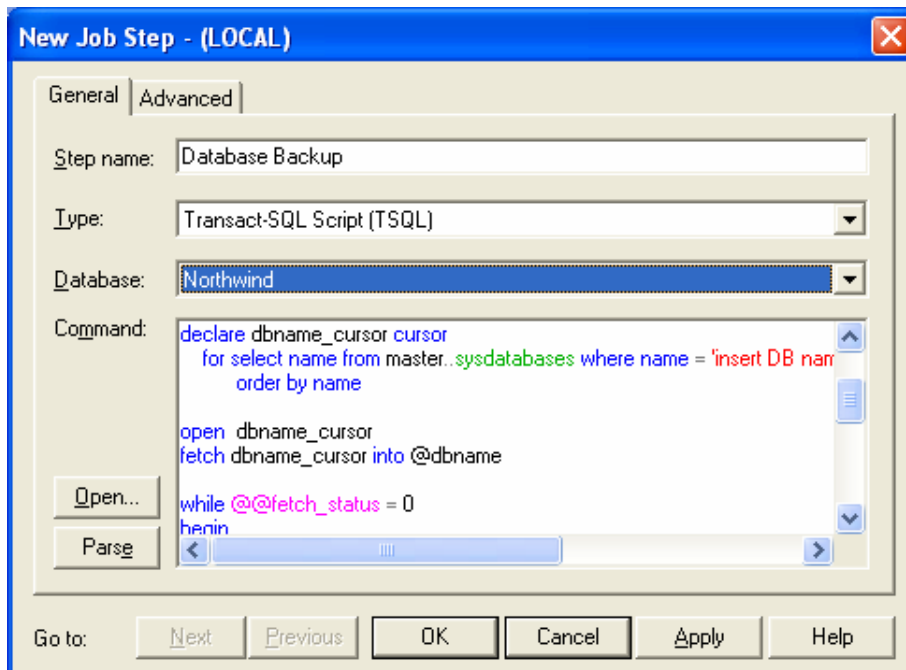


Figure 4 - New Job Step for Backup

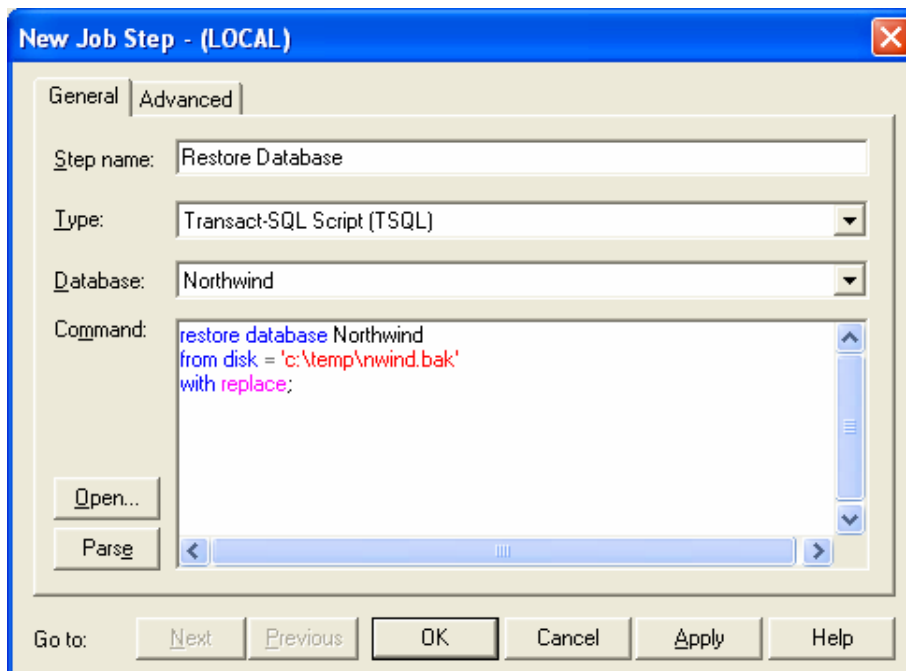
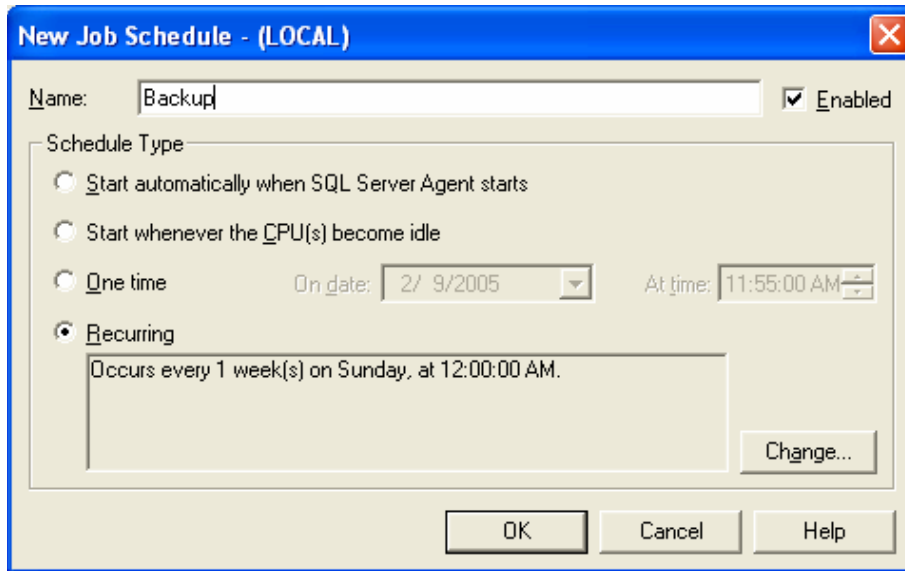


Figure 5 - New Job Step for Restore

When you have finished adding the new step, click the **OK** button.

6. From the **Schedules** Tab, open a New Job Schedule by clicking the **New Schedule** button
7. This screen allows you to schedule when the restoration job will run. Enter a schedule name and select the **Schedule Type** (See Figure 6).



**Figure 6 - New Job Schedule**

The schedule for a **Schedule Type - Recurring** is configured in the Edit Recurring Job Schedule screen (Figure 7) by clicking the **Change** button.

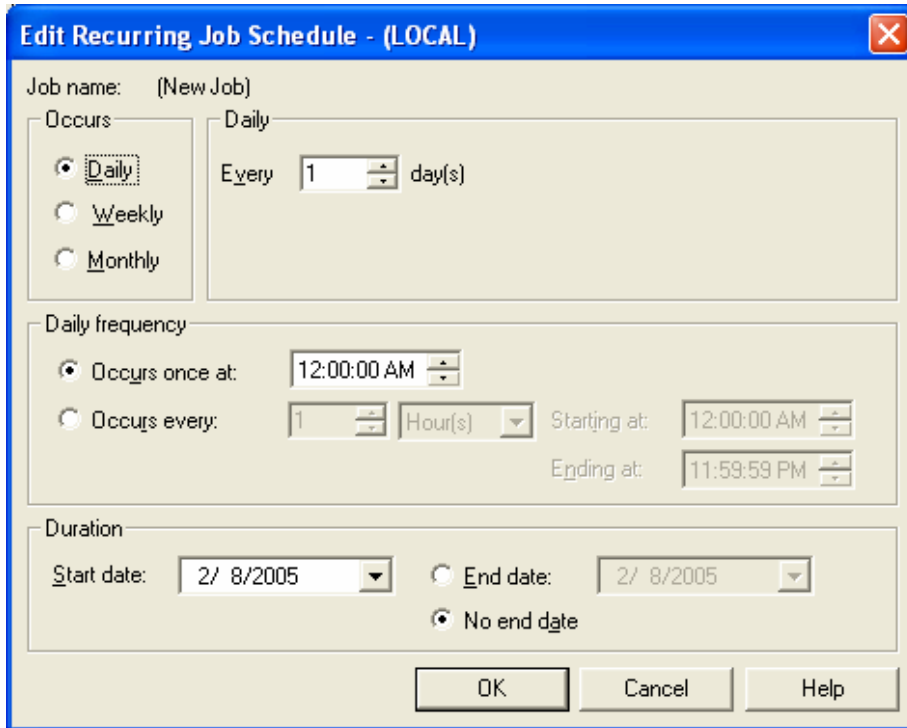


Figure 7 - Edit Recurring Job Schedule

8. Once you have scheduled the job to run, click the **OK** button three times to exit the New Job Properties window. Your newly created job will appear in the right task pane of the Enterprise Manager Window (Figure 8).

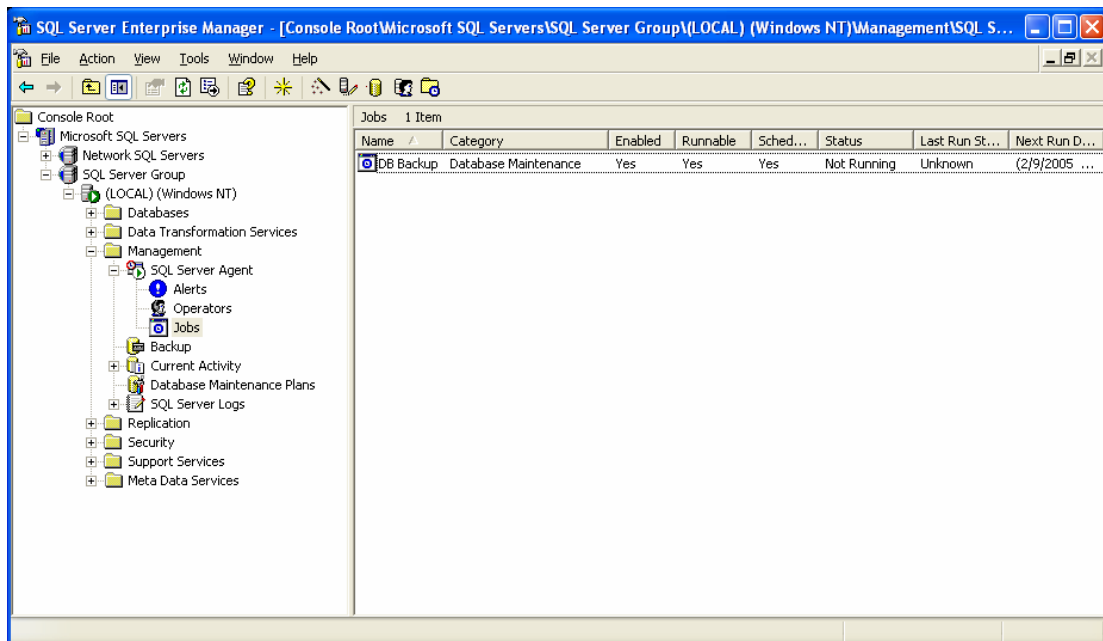


Figure 8 - Completed Entry

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## ***Replication Procedures***

1. Use File Replication Pro to replicate the SQL file from your primary server to your backup server or from your backup server to your primary server.