Metalogix® Replicator 7.4

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Initial Server Sync Prior to Replicating

This document covers how to synchronize your web applications prior to replicating, to ensure that both sides match. For instance, you require the same libraries to exist on both your source and target servers in order for changes made on either to replicate bi-directionally.

Setup can be done by copying an entire content database, by queuing content over from one server to another, or by running a site collection backup command.

Copying an entire content database over from one web application to another is the most complete method of backup. It is ideal for setting up a Disaster Recovery scenario where the DR environment needs to be identical to your main environment.

Queuing content over is the method that is focused on setting up your SharePoint environments with specified content. This method allows you to control what events and content you want queued over from one SharePoint environment to the other. It is the method you want to use if you have existing content on both your web applications that you want to preserve in this case you would queue content over bi-directionally.

Using this command and its frequency depends on a lot of factors like the size of the content, how often content changes, how up-to-date you want the site, etc.

[Refreshing a Remote Replication Server from a Backup](#)

Refreshing a Remote Replication Server from a Backup

This method is the most complete method of backup. It is ideal for setting up a disaster recovery scenario where the disaster recovery environment needs to be identical to your main environment. Use the method described here to get the second web application up and running using a backup of the SharePoint database from the first web application.

This scenario assumes that there are two servers involved: CorporateOffice and LondonOffice.

Configure Replicator to be in Manual mode:

1. Go to Central Administration on the Corporate Office server.

2. Click Application Management

3. Click Manage Map Families

4. Click the appropriate map family

5. Change the schedule for the map family to ⬚manually⬚

6. Go to central admin on the London Office server

7. Go to Configure Web Application and disable replication.

8. On London office go back to application management then Manage Map families.

9. Delete the map family for the site collection you will restore on the London office.

Behind the Scenes

Once you have completed the preceding steps, the source server, CorporateOffice, is still queuing packages in the background that will later be applied when the destination LondonOffice is up and accessible.
Changes to the web application data, that Replicator tracks, are captured while your backup is in transport. Later in this document you will see how to start replication and force these packages to run.

Bringing the New Server Up

At this point you are ready to back up your database. You do not need to disable Replicator, but keep in mind that this backup will only be valid for this process, because in the current state you will be backing up Replicator as well.

i | **NOTE:** If you plan to use this backup for purposes other than this procedure, disable Replicator first on the **Configure Web application** page.

1. Open SQL Server Management Studio for the source server - CorporateOffice.

2. Right click the content database you wish to back up, and select **All Tasks > Backup**.

3. Make a full backup, as described in the SQL Server documentation.

4. Once the backup is complete, and ship it to its final destination - in this case, London. Once the backup arrives in London you are ready to restore the database.

5. On the target server, open **Central Administration > Application Management** for the target server - LondonOffice. Then click manage content databases.

Databases
Manage content databases | Specify the default database server | Configure the data retrieval service

6. Select the correct web application in the top right hand corner.

7. Then choose the appropriate **Content Database**.

! | **CAUTION:** Take note of the name of the content database, it is an important part of the process to restore the database using the exact same name.

9. Change the **Database Status** to **Offline** and select **Remove Content Database**.

10. Click **OK**.

Restoring the Database

1. Open SQL Server Management Studio on the target server - LondonOffice.

2. Go to SQL Server and restore your backed up content database. Refer to SQL Server documentation for instructions. Be sure to use the **same** name for the content database as was originally used for the site collection.

i | **NOTE:** When restoring over an existing database, select **Overwrite Existing Database**. Also, you may need to stop the IIS service on the target server, LondonOffice, in order to restore the database over the previous one, as it will still be locked by SharePoint

3. Once the database has been restored, navigate to Manage Content Databases page of the target server, LondonOffice.
4. Click **Add A Content Database**.

5. 5. Add the database you just restored.

i | **NOTE:** SharePoint recognizes that the database already exists and adds the database instead of creating a new one.

6. Click **OK**.

7. Navigate back to the **Central Administration > Application Management > Metalogix Replicator > Configure Web Application** for the target server, LondonOffice.

8. You now need to refresh configuration. Do so by enabling replicator, disabling, and then enabling it again. It is important to do this to ensure property enabling after the restore.

Initiating Communication

Now that the database has been restored and packages are queued and ready to be processed, you must complete the following steps for Replicator to start transferring packages between the servers.

1. Go to your source server and then **Central Administration > Manage Replication Connections** for CorporateOffice.

2. Select the correct server.

3. Make no changes, click the test button and wait for it to succeed, then click **ok**.

4. Repeat the same steps on the Londonoffice.

5. Go back to the CorporateOffice and open the map family. Change the schedule from manual to the schedule of your choosing. Packages are delivered based on the selected schedule.

Conclusion

Make sure that the map family gets created on both farms. Updating the schedule as detailed above should send a map family update back to London Office.

Let any traffic reach a complete status on the Monitor Replication page and again confirm map families are in place.

Once this is complete both sides are synchronized.

Queue Map

This method is focused on setting up your SharePoint environments with specified content. This method allows you to control explicitly what events and content you want queued over from one SharePoint environment to the other. It is ideal if you have existing content on both web application that you want to preserve, as it allows you to queue content bi-directionally.

The Queue Replication Map Events page is accessed by selecting **View Maps** for the map family which you wish to queue content over from, and then selecting **Queue**.

Replication Map	Enabled	Parent Map	Rules	Actions
⬤ Portal Map Family - / - Web Application	True		0	Rules | Queue | Lists

On the Queue Replication Map Settings page you can specify exactly what events are queued over. You can also select **Include child maps** to queue events from this map and any maps under its scope. This will queue events for the site collection and web site maps for the map in question, as well as maps for other site collections and web sites under the web application.
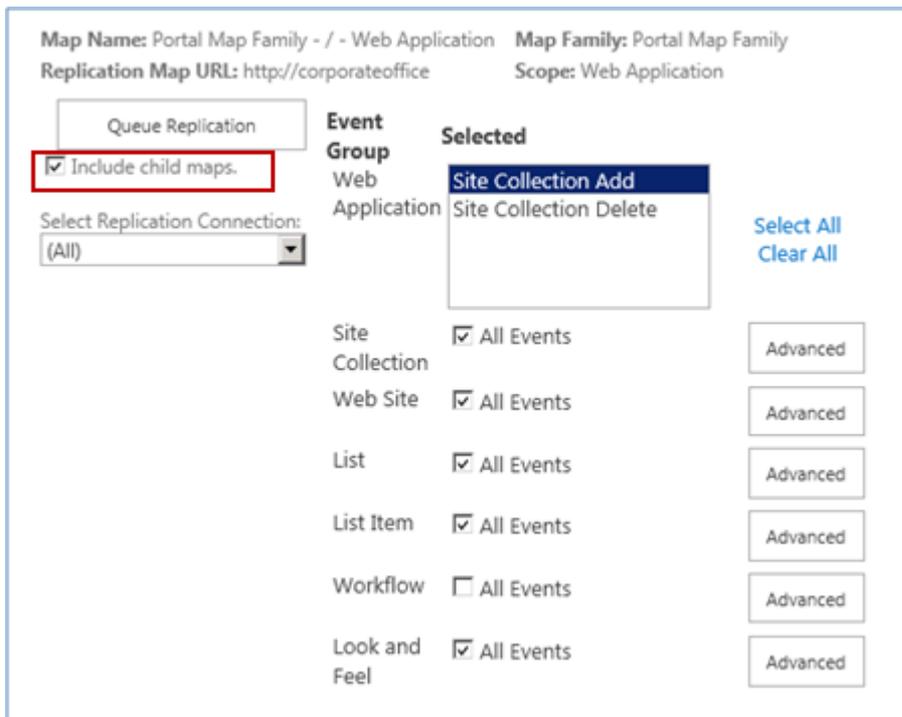
The events to queue settings define which SharePoint events are queued for immediate replication. If **All Events** are selected, all events under the selected category are queued for every Replication Map.

Click **Advanced** to open the Advanced selection options, which allow highly detailed, very specific customization of the replication process.

Once you have specified which events you want queued over, you can click **Queue Replication** to queue these events over to your target server.

Command Line Queuing

Queuing a map can also be done through the use of a repadm command. This is the ideal option if you have a very large environment. This command will queue the map of the specified URL, including the child web sites. When queuing large amounts of content, we recommend separating the content into batches. For example, you can queue only site structure, then permissions, and then list items. Or you can queue one site collection or web site at a time.

Command Line: `repadm -o QueueMap -Url http://corporateoffice -MapFamily "Portal Map Family" -ListTitle "HR Documents" -IncludeEvents "100;0"`

PowerShell: `PS>Schedule-ReplicatorMap "http://localwebapplication" true`

For more information about the arguments for this command, please see the Replicator Command-Line Reference.

Lookup Lists

The Queue map function is not aware of any list dependencies. As a result, lookup lists with any dependent content need to be queued before any dependent lists.

If you are running the QueueMap command, and you have a lookup list that is used by other lists, use the ListTitle argument to queue the lookup list ahead of any list that depends on it. For more information about this command, please see the Replicator Command-Line Reference.

Queue Order

We recommend that you queue your content in separate stages. Order your queues in the following order, waiting for the previous queue operation to finish before starting the next:

1. Structure

2. Permissions

3. Content

4. Workflow Instances

5. Look and Feel

Site Collection Backup Command

This method requires you to run the QueueMap command with the ⬜BackupMode argument set to true. This command will back up your site collection. It can be used in a Disaster Recovery environment when Replicator is enabled. Using this command and its frequency depends on a lot of factors like the size of the content, how often content changes, how up-to-date you want the DR site and so on.

There are a few considerations to note with regards to BackupMode option.

QueueMap -BackupMode True

The"QueueMap" "BackupMode true" option is equivalent to running stsam o Backup or the Backup-SPSite Powershell command. It backs up the local site collections content, transports it, and then restores it on the remote farms.
This approach requires the following:

- The target farm must be running the same or a newer version of SharePoint.

- The source and target farms share the same Active Directory domain.

- The target site collection is an exact match of the source. i.e., you're not skipping events with rules or changing permissions on the target.

- One way replication from the primary site collection to the DR site collection. This command completely overwrites the DR site collection with the contents and settings from the primary one.

- Per Microsoft, the recommended maximum size for a site collection backup is 15 GB in SharePoint 2007 and 85 GB in SharePoint 2010.

- Per Microsoft, the site collection will be set to read-only for the duration of the backup to reduce the potential for user activity during the backup operation to corrupt the backup.

SharePoint 2010 allows you to use the '-UseSGLSnapshot' switch with the Backup-SPSite command. This creates a temporary SGL database that only holds the one site collection and performs the site collection backup against that database so that users can continue to use the actual site collection while the backup is running. This is actually the MS preferred method for backups. It could be useful if this option was included with the Replicator backup command.

For more information about this command, see the Replicator Command-Line Reference.