

Development - Setting Up Bold Replication via DevOps

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Software Requirements for Bold Replication

Windows Server 2016, or newer

- IIS (will be installed via DevOps)
 - A certificate for IIS, can be self-signed
- .NET Core Framework 2.2.7 hosting bundle - <https://dotnet.microsoft.com/download/dotnet-core/thank-you/runtime-aspnetcore-2.2.7-windows-hosting-bundle-installer>



The application will not work properly if a newer version of .NET Core 2.2 is installed, this specific version must be used.

- .NET Core Framework 3.1 hosting bundle - <https://dotnet.microsoft.com/download/dotnet-core/thank-you/runtime-aspnetcore-3.1.0-windows-hosting-bundle-installer>



The two .NET Core packages mentioned above must be installed AFTER the deployment from DevOps is successful.

If you plan on using Bold Replication against a Manitou database, the minimum version of the Manitou installation must be at least 2.1.10

If you plan on using Bold Replication to clone a Manitou database, the minimum version of the Manitou installation must be at least 2.1.12

Replication Requirements for a Database

Bold Replication works by installing tables, triggers, stored procedures, and SQL Agent jobs within a SQL server where a database resides that will be installed with replication. For replication to work properly, the following will be needed on the server where the database resides:

- Each table must have a primary key-defined
- The SQL Server Agent service must be started

- The column types of TEXT, NTEXT, and IMAGE are not supported and will need to be changed before installation can begin

Additional Requirements for Database Cloning

The database clone/rebuild functionality uses a Microsoft technology called DACPAC, Data-Tier Application Package, that attempts to serialize a database and redeploy it to another server. This technology presently comes with some caveats.

- The directory that the source database MDF resides in must also exist on the target server.
- Depending on the presence of user mappings, users may not be copyable and may cause the clone process to fail. This is especially the case with Active Directory users.
- Encrypted objects cannot be cloned. This affects older versions of Manitou, which include several encrypted stored procedures.

Deployment from DevOps

The deployment job that runs from DevOps will configure the environment about 90% complete the first time a machine is targeted with a release

- Make sure to have installed the two, NET Core packages mentioned above
- Add the Azure DevOps agent to the target machine.
- Create a Release for the Deployment Group



The first time pushing a release to a target machine, there are additional steps needed before the application will run. See below. These steps should only need to be performed once.

- A server certificate needs to be used in IIS. Either import one you have or choose to create a self-signed certificate in the "Server Certificates" section of IIS Manager.
- Edit the bindings for "replication.boldgroup.com" in IIS and add a binding for port 443, select to use the server certificate you imported or created in the previous step.
- The user running the IIS application (typically IIS_IUSRS) needs to have read, write, List Folder Contents, Read & execute, and Modify privileges on the folder where the application is installed, typically under `c:\wwwroot\inetpub`