

Jupiter Data Sync Client – Documentation

December 17, 2019

Description

A commandline WCF client .NET application (that will act as a Client to the Jupiter Server). This application will only run on a Microsoft Windows Operating System to synchronize some data between CommitCRM and IT Portal.

The application will be called Jupiter Data Sync Client [jdsc.exe]

System Requirements of Jupiter Data Sync Client

.NET 4.7.2

Windows 10 Pro or Windows Server 2019

Jupiter Server 1.4.0 installed on the same computer or another computer that is accessible over a TCP/IP based network.

The files provided are

CommandLine.dll	(3 rd Party package)
CommandLine.xml	(3 rd Party package config file)
jdsc.exe	(Jupiter Data Sync Client application)
jdsc.exe.config	(WCF config file)

The above four files must all be in the same directory for the Jupiter Data Sync Client to successfully run.

The other two critical files are a config file and a state file.

The config file and the state file are created when the Jupiter Data Sync Client is first run.

Scope of version 1.0.0

The Jupiter Data Sync Client will

- be able to be automated by setting up a scheduled task in Windows
- will have a plain text XML config file, and a plain text XML state file
- will have a log file

The Jupiter Data Sync Client will perform the following operations, since last data retrieved time (defined in state file) or in the initial time period (defined in config file) or defined on the commandline.

1. Account created in CommitCRM is automatically created in IT Portal
2. Contact created in IT Portal is automatically created in CommitCRM
3. Contact updated in IT Portal is automatically updated in CommitCRM
4. Contact marked as inactive in CommitCRM is automatically marked inactive in IT Portal (deleted) *(The contact will need manual purging in ITPortal)*

Operation

The Jupiter Data Sync Client is a single commandline executable called jdsc.exe that can be run from Powershell, Windows Explorer, or from a Scheduled Task.

The behaviour of Jupiter data Sync Client is controlled by the config file, the state file and/or commandline arguments.

```
jdsc.exe [-i | --initialtime]
```

Used to specify an initial time period to scan for new data in CommitCRM and ITPortal

If Initial Time Period (in hours) is specified on the commandline, then this will override the settings in the config file and the last time stamp in the State File.

```
jdsc.exe [-c | --configdir]
```

Used if the location of the config file is not the default of

C:\ProgramData\Dentaur Pty Ltd\Jupiter Data Sync Client\config

```
jdsc.exe [-h | --help]
```

Displays a short help message

```
jdsc.exe [-v | --version]
```

Displays the version of the application.

The first time jdsc.exe is run, if the location of the config file is not specified on the commandline then a config file (XML format) with default values will be created at C:\ProgramData\Dentaur Pty Ltd\Jupiter Data Sync Client\config

Daily Log files will be stored by default in

C:\ProgramData\Dentaur Pty Ltd\Jupiter Data Sync Client\log

This location can be changed in the config file

Config file

The config file provides the Jupiter Data Sync Client with information on how to connect to the Jupiter Server while also being able to control various aspects of the Jupiter Data Sync Client.

Element	XMLConfig Name	Type	Description of config
Jupiter Server Host	ServiceDomainName	string	Hostname or ipAddress
Jupiter Server Port	ServicePort	integer	portNumber
Jupiter Server SSLPort	ServicePortSSL	integer	portNumber
Jupiter Server SSL	ServiceSSL	bool	Enabled [True False]
Jupiter Server Auth	ServiceAuth	bool	Enabled [True False]
Jupiter Server SelfSigned	ServiceSelfSigned	bool	Enabled [True False]
Jupiter Server Timeout	ServiceTimeout	integer	seconds
Jupiter Server Username	ServiceUser	string	username
Jupiter Server Password	Password	string	password
Client StateFile	StateFile	string	statePathName
Client Logging	Logging	bool	Enabled [True False]
Client LogAge	LogAge	integer	days
Client LogFile	LogFile	string	logPathName
ITPortal Seed from CommitCRM	ITPortalSeeding	bool	Enabled [True False]
CommitCRM Records to process	CommitCRMRecordCount	integer	Number of records
Jupiter Server InitialTimePeriod	InitialTimePeriod	integer	Hours
Max retries to connect to Jupiter Server and other systems	MaxRetries	integer	Number of retries
ITPortal Default Account Type	DefaultItPortalAccountType	string	Valid type in ITPortal
ITPortal Default First Name	DefaultItPortalFirstName	string	Default value to use
ITPortal Default Last Name	DefaultItPortalLastName	string	Default value to use
ITPortal Default Address Line 1	DefaultItPortalAddressLine1	string	Default value to use
ITPortal Default Status	DefaultItPortalStatus	string	Default value to use
CommitCRM default Ext Suffix	DefaultCommitCRMExtensionSuffix	string	Default value to use

- Jupiter Server Host
(XML Key: ServiceDomainName)
Either the Fully Qualified Domain Name or the IP Address of the Jupiter Server
- Jupiter Server Port
(XML Key: ServicePort)
The non-SSL port number that the Jupiter Server is listening on.
Only important if ServiceSSL is set to false

- Jupiter Server SSLPort
(XML Key: ServicePortSSL)
The SSL port number that the Jupiter Server is listening on.
Only important if ServiceSSL is set to true
- Jupiter Server SSL
(XML Key: ServiceSSL)
If true, then communication between the Jupiter Data Sync Client and the Jupiter Server is encrypted with TLS 1.2. Assumes that SSL is enabled in the Jupiter Server config.

If false, then there is no encryption between the Jupiter Data Sync Client and the Jupiter Server. Assumes that SSL is not enabled in the Jupiter Server config.
- Jupiter Server Auth
(XML Key: ServiceAuth)
If true, then the value of ServiceUser and the value of Password will be sent to the Jupiter Server to authenticate the connection into the Jupiter Server. The authentication process is encrypted with TLS 1.2. Assumes that Service SSL is set to true.

If false, then there is no encryption between the Jupiter Data Sync Client and the Jupiter Server.
- Jupiter Server SelfSigned
(XML Key: ServiceSelfSigned)
If true then the Jupiter Data Sync Client trusts the certificate it receives from the Jupiter Server.

If false, then the Jupiter Data Sync Client will rely on the Windows Operating System to check if the certificate should be trusted.
- Jupiter Server Timeout
(XML Key: ServiceTimeout)
Timeout value in seconds to wait for a response from the Jupiter Server
- Jupiter Server Username
(XML Key: ServiceUser)
The username used by the Jupiter Data Sync Client to authenticate with the Jupiter Server
- Jupiter Server Password
(XML Key: Password)
The password used by the Jupiter Data Sync Client to authenticate with the Jupiter Server
- Client StateFile
(XML Key: StateFile)
The location of the state file

- Client Logging
(XML Key: Logging)
If true, then the activities of the Jupiter Data Sync Client will be recorded in a log file. Each day will have a new log file.

If false, then the activities of the Jupiter Data Sync Client will not be recorded in a log file.
- Client LogAge
(XML Key: LogAge)
Number of days to keep log files.
- Client LogFile
(XML Key: LogFile)
The location of the log file
- ITPortal Seed to CommitCRM
(XML Key: ITPortalSeeding)
This setting will trigger a seeding process of Account names in CommitCRM to be created as Companies in ITPortal. The Accounts that are seeded from CommitCRM to ITPortal are limited by those accounts created within the last number of hours as configured in the XML settings, InitialTimePeriod.
An example value might be 43800 which is equivalent to 5 years. Once the seeding is done, the ITPortal seed value should be set to false for normal operation.
- CommitCRM Records to process
(XML Key: CommitCRMRecordCount)
Maximum number of CommitCRM records to retrieve when searching the CommitCRM database. A high number can slow down access to CommitCRM. Suggest this is set high enough to include the maximum expected number of CommitCRM contacts for a single CommitCRM account.
- Jupiter Server InitialTimePeriod
(XML Key: InitialTimePeriod)
When the Jupiter Data Sync Client is first run, this is the time in hours to search back from the run time to find Accounts in CommitCRM but not in ITPortal.
After the first run this, this value will have no effect as the time period to search is calculated by subtracting the time in the state file from the run time.
- ITPortal Default Account Type
(XML Key DefaultItPortalAccountType)
CommitCRM Account Types may not be the same as ITPortal Types. The ITPortal API does not support adding new Company Types

- **ITPortal Default First Name**
(XML Key: DefaultItPortalFirstName)
CommitCRM allows an Account to be created without a contact name. ITPortal doesn't support the main contact for a Company having a Null value for the firstName field in ITPortal.
The config element DefaultItPortalFirstName allows a default value to be used for First Name in ITPortal, if the Jupiter Data Sync Client encounters a Null value for the contact name of an Account in CommitCRM.
- **ITPortal Default Last Name**
(XML Key: DefaultItPortalLastName)
CommitCRM allows an Account to be created without a contact name. ITPortal doesn't support the main contact for a Company having a Null value for the lastName field in ITPortal.
The config element DefaultItPortalLastName allows a default value to be used for Last Name in ITPortal, if the Jupiter Data Sync Client encounters a Null value for the contact name of an Account in CommitCRM.
- **ITPortal Default Address Line 1**
(XML Key: DefaultItPortalAddressLine1)
CommitCRM allows an Account to be created without an address. ITPortal doesn't support a Company having a Null value for the Address Line 1 field in ITPortal.
The config element DefaultItPortalAddressLine1 allows a default value to be used for Address Line, if the Jupiter Data Sync Client encounters a null value for in Address Line 1 of an Account in CommitCRM.
- **ITPortal Default Status**
(XML Key: DefaultItPortalStatus)
When an Account is created in CommitCRM the default Status of the Account is set to Active. However, this field is not accessible via the CommitCRM API, therefore if the field is set to Not Active, it isn't possible for Jupiter Data Sync Client to copy this settings to IT Portal.

The config element DefaultItPortalStatus allows a default value to be used for Status in ITPortal. If the default value isn't in ITPortal, then the value will be created as a possible status in ITPortal
- **CommitCRM default Ext Suffix**
(XML Key: DefaultCommitCRMExtensionSuffix)
ITPortal has a field for a telephone extension.
CommitCRM doesn't have a field for telephone extension.
The config element DefaultCommitCRMExtensionSuffix allows a suffix to be inserted between the phone number and the extension number. Enabling the telephone number and the telephone extension to be transferred from ITPortal to CommitCRM.

The value of DefaultCommitCRMExtensionSuffix can be any string that suits the local method of denoting an integer is a telephone extension.

Mapping Accounts between CommitCRM and ITPortal Companies

Some fields in CommitCRM are not in ITPortal, and vice versa.

CommitCRM	ITPortal
Company Name	Company Name
Type	Type
Status (Not accessible by CommitCRM API and therefore not able to be synced with ITPortal)	Status
** Not in CommitCRM **	Description
** Not in CommitCRM **	Abbreviation
** Not in CommitCRM **	Diagram
** Not in CommitCRM **	Parent Company
** Not in CommitCRM **	Main Site
** Not in CommitCRM **	Logo
Contact	Contact
Address Line 1	Address Line 1
Address Line 2	Address Line 1
Address Line 3	** Not in ITPortal **
City	City
State	State
Country	** Not in ITPortal **
Phone 1	Telephone (or Business Phone)
Phone 2	** Not in ITPortal **
Fax	Fax (or Business Fax)
Email	** Not in ITPortal **
Web Address 1	Website
Status	Status
Notes	Notes

The Status field in CommitCRM is a problem for the Jupiter Data Sync Client. While being in both systems, the Status field in CommitCRM is not accessible via the CommitCRM API. This is handled in the config file for Jupiter Data Sync Client by a variable called DefaultITPortalStatus.

When an account is created in CommitCRM an entry in the Contact field can be created. The Last Name field in CommitCRM is determined by the last word in the Contact field.

When the account record is created in ITPortal, a separate Contact record is also created in ITPortal. The contents of the Last Name field in CommitCRM is copied to the Last Name field in new ITPortal Contact record. The first word in the Contact field of CommitCRM is copied to the First Name field in the new ITPortal Contact record.

CommitCRM allows Accounts to be created with no Contact. ITPortal will not allow a Company to be created without a Contact. DefaultITPortalFirstName and DefaultITPortalLastName are available in the config to provide a way to handle this problem.

Mapping Contacts between CommitCRM and ITPortal

Some fields in CommitCRM are not in ITPortal, and vice versa.

CommitCRM	ITPortal
Contact	** Not in ITPortal **
** Not in CommitCRM **	First Name
** Not in CommitCRM **	Middle Initial
** Not in CommitCRM **	Last Name
Company	Company
** Not in CommitCRM **	Site
** Not in CommitCRM **	Type
** Not in CommitCRM **	Title / Description (MultiLine)
Title Single Line	** Not in ITPortal **
** Not in CommitCRM **	Image
Depart	** Not in ITPortal **
Dear	** Not in ITPortal **
Last Name	** Not in ITPortal **
Address	** Not in ITPortal **
Phone 1	Direct Number
** Not in CommitCRM **	Extension
Phone 2	** Not in ITPortal **
Fax	Direct Fax
** Not in CommitCRM **	Home Phone
** Not in CommitCRM **	Mobile
** Not in CommitCRM **	SMS Email Address
** Not in CommitCRM **	Website
Email	Email
Birthdate	** Not in ITPortal **
Code	** Not in ITPortal **
Notes	** Not in ITPortal **

When a Contact in ITPortal is created in CommitCRM, the contents of Phone 1 in CommitCRM is determined by appending Extension in ITPortal to the Direct Number in ITPortal. The config file of the Jupiter Data Sync Client allows an Extension suffix to be provided to assist in readability.

CommitCRM Phone 1 = <Direct Number>< DefaultCommitCRMExtensionSuffix><Extension>