

----- DataBug XML Retrieval -----

EMAIL

As a developmental and/or sales tool, we can configure the system to send copies of data records at about 15 minute intervals to any designated email address. This is not meant for production data, has no affect on production data, shouldn't be considered a secure transport mechanism, and is intended only as a means of facilitating demonstration and/or development. The email component can be enabled for all records, or for only a single device, or a limited subset of devices.

DATA RETRIEVAL

Production data retrieval is very simple and very reliable. We do not actively send records. We enable customers to retrieve and delete them, so that the process is entirely within their explicit control.

The system requires that you provide us with a password that you like, in format "password@XX.XX.XX.XX" where the portion following the @ symbol optional, and is the IP address of the system making the query (which will be validated before data is presented). Please provide the password you wish to use, and the IP address if desired. Passwords can be altered at any time you wish by notifying Landel by email or phone.

There are only two core commands you need, both simple, secure, and common enough that your network folks can do them very easily.

<https://dbug.mailbug.net:444/dbpull.cgi?getxml=index&client=&pass=>
<https://dbug.mailbug.net:444/dbpull.cgi?deletexml&client=&pass=>

- ...where "getxml" retrieves records, and "deletexml" deletes previously retrieved records
- ...where the client name is unique to your company
- ...where the password has been designated by you, and is subject to change at any time you wish

Note that you can retrieve records as many times as necessary until you are ready to delete them, and that "deletexml" affects only those records previously retrieved with "getxml" and will not affect unread records.

What you can expect when making queries is as follows:
getxml http result codes are:

200 xml record follows
410 no new records
401 invalid password
400 some other error
deletexml http result codes are:
200 ok
401 invalid password
400 some other error

The basic retrieval process is:

A: - getxml
- If response 410 (no new records), go to B
- If response is not 200 (not ok), go to C
- Process the xml data, ignoring duplicate records
- deletexml
- If response is not 200 (not ok), go to C
- errors=0
- Go to A (repeat until no new records)

B: - errors=0
- Go to D

C: - If ++errors==3 then generate an alarm

D: - Sleep 5 minutes (average age of record 2.5 minutes)
- Go to A

If done correctly, the worst case transactional failure results in duplicate records, never lost records.

NOTES

- o Individual pulling/polling has an artificial limit imposed for network load and balance of 1000 records. No more than 1000 records will be returned in a single pull. Retrieving 1900 records, for example, requires get-delete-get-delete.
- o Data records are wrapped in a unique hash so they can be individually identified, pulled multiple times, etc. This unique hash includes a time stamp (pacific) and appears as: <DB index='2005...!>
- o Records are purged after 3 days, whether retrieved or not. (We assume your systems will not be down longer than 3 minutes or 3 hours, much less 3 days, especially when they are expecting to get data every 5 minutes.)
- o The ssl cert is self-signed. If concerned about

man-in-the-middle, verify it against the local copy per connection.

- o For smaller applications, this process can be done manually through the simple use of standard browsers, such as IE or Firefox. If using those tools, please pay attention to the cache scheme in use by your browser to avoid confusion. For a how-to guide and some sample data that can be used to see the IE to Excel import process, visit:

<http://www.landel.com/databugsamplefile.html>

----- End DataBug XML Retrieval -----