



## **Monolith and SkyConnect Launch Kit**



## Table of Contents

<b>WHAT IS MONOLITH?</b> .....	<b>4</b>
WHAT IS NEEDED TO USE MONOLITH? .....	4
WHAT IS INCLUDED IN MONOLITH? .....	4
HOW DOES MONOLITH PROCESS?.....	4
<b>MONOLITH DATABASE AND STANDARD SETTINGS</b> .....	<b>6</b>
WHAT APPLICATIONS ARE INSTALLED TO MAKE MONOLITH FUNCTION?.....	6
WHERE IS MONOLITH'S DATABASE LOCATED?.....	6
WHERE IS THE MONOLITH DATABASE BACKUP LOCATED? .....	6
WHAT ARE MONOLITH'S STANDARD CAS SETTINGS?.....	6
WHERE IS THE CAS LOG FILE ? .....	8
WHAT IS MONOLITH'S STORAGE FOLDER?.....	8
WHAT IS MONOLITH'S EXTRACT FOLDER?.....	8
WHAT ARE MONOLITH'S STANDARD DAS SETTINGS?.....	8
WHERE IS THE DAS LOG FILE?.....	9
<b>APPLYING AN UPDATE WITH MONOLITH</b> .....	<b>10</b>
HOW DO I GET THE UPDATE FILE?.....	10
HOW DO I RUN MONOLITH TO PERFORM A SKYWARD UPDATE? .....	10
WHAT IS ADDENDUM TABLE LOAD?.....	10
<b>MONOLITH ADVANCED SETTINGS: SKYCONNECT</b> .....	<b>12</b>
WHAT IS SKYCONNECT ? .....	12
WHAT IS PULL MODE VS PUSH MODE FOR SKYCONNECT CONNECTIVITY?.....	14
WHAT IS THE IP ADDRESS OF SKYCONNECT.SKYWARD.COM? .....	15
WHAT IS THE PORT NUMBER FOR SKYCONNECT.SKYWARD.COM TRAFFIC?.....	15
WHAT IS COMMAND TO CHECK FOR CONNECTIVITY TO SKYCONNECT.SKYWARD.COM? .....	15
HOW TO SETUP SKYCONNECT PULL MODE? .....	16
HOW TO SETUP SKYCONNECT PUSH MODE? .....	16
WHAT IS EXTERNAL IP ADDRESS OF SKYWARD CAS SERVER? .....	17
WHAT IS TCP PORT NUMBER OF THE SKYWARD CAS SERVER FOR REAL TIME CONNECTIVITY TO/FROM THE SKYCONNECT SERVER? .....	17
HOW DO I KNOW IF SKYCONNECT IS COMMUNICATING?.....	17
HOW DO I TEST SKYCONNECT?.....	17
WHAT ARE COMMON ISSUES AS TO WHY SKYCONNECT IS NOT COMMUNICATING? .....	18
<b>MONOLITH ADVANCED SETTINGS: EMAIL PROCESSING</b> .....	<b>19</b>
HOW ARE EMAILS PROCESSED VIA THE CAS? .....	19
HOW DO I INCREASE THE PERFORMANCE OF SENDING EMAILS?.....	19
HOW DO I INCREASE THE PERFORMANCE OF EXTRACTING THE SKYWARD UPDATE FILES?.....	20
<b>MONOLITH ADVANCED SETTINGS: SCHEDULED TASKS</b> .....	<b>23</b>
UPDATE READ ONLY USER TASK .....	23
RUN DBTOOL .....	24
UPDATE STATISTICS .....	24
<b>FREQUENTLY ASKED QUESTIONS</b> .....	<b>25</b>
DO I HAVE TO REBOOT THE SKYWARD SERVER BEFORE RUNNING AN UPDATE? .....	25
DO USERS HAVE TO BE OUT OF SKYWARD WHEN I RUN A RELEASE? .....	25
DO USERS HAVE TO BE OUT OF SKYWARD WHEN I RUN AN ADDENDUM? .....	25



---

HOW DO I UPDATE SQL VIEWS MANUALLY?.....	25
HOW DO I VALIDATE THE CHECKSUM VALUE OF THE SKYWARD UPDATE FILE? .....	26
WHY DOES A MONOLITH UPDATE STOP THE SKYRAS SERVICE? .....	27
WHAT DOES THE FORCE EXIT BUTTON DO?.....	27
WHAT IS THE POINT OF NO RETURN WHEN RUNNING A RELEASE UPDATE? .....	27
<b>TROUBLESHOOTING MONOLITH.....</b>	<b>28</b>
THE CAS SERVICE IS STOPPED AND WILL NOT START. ....	28
A DAS SERVER IS NOT CONNECTED WHEN VIEWING DAS SERVER FROM MONOLITH. ....	28
AN ERROR OCCURRED WHILE GETTING CONVERSION DATA MESSAGE .....	28
SKYWARD UPDATE FILE WILL NOT EXTRACT .....	30
WHEN LOADING AN ADDENDUM, GET MESSAGE “AN ERROR OCCURRED WHILE EXTRACTING SKYCONNECT AGREEMENT FROM UPDATE FILE. ERROR: ONE OR MORE FILES FAILED TO EXTRACT.” .....	30
UPDATE SQL VIEWS PROCESS FAILS .....	31
SOME SKYWARD FILES DO NOT EXTRACT .....	31
SKYWARD DATABASE DOES NOT UPDATE DF SUCCESSFULLY .....	32



---

## What is Monolith?

Monolith's primary role is to update Skywards applications. Monolith is a tool for customers that manage their own updates using on premise Skyward servers. If your district utilizes Skyward's Managed Services or is hosted by ISCorp the Monolith and SkyConnect will be configured for your district.

In addition Monolith is also used as a communication subsystem for the following features:

- Email Processing
- SkyConnect (District 2 District / Mobile Apps)
- SkyRAS (Crystal for the Web)
- CAS/DAS aka EVO HTML to PDF 2/3 Printing
- Viper for the Web
- Scheduled Tasks

*Note: This User Guide was written under the pretense that Monolith has already been installed and setup on the Skyward servers.. This guide provides instructions for using and configuring features within Monolith, if you need assistance installing Monolith contact Skyward IT Services at 1.800.236.0001*

### What is needed to use Monolith?

Monolith uses a CAS (Central Administrative Server) process running on one Windows' server and a DAS (Distributed Administrative Server) process on each server.

Monolith requires Sun Java.

The CAS connects to an AppServer broker (asStuMon/asFinMon/asSkyMon) which is connected to the Skyward database.

### What is included in Monolith?

Monolith includes a shortcut on the desktop of the CAS server running Monolith2.exe. This shortcut was created during the running of the 10.2B – Role – Monolith 2.0 installer.

One Windows Service for the CAS process is setup and usually found on the Skyward database server.

One DAS Service is setup on each Skyward server; db/web/report, file share, ExComm, Data Warehouse servers.

### How Does Monolith Process?

The CAS .NET service runs on a Windows server. It controls all of the communications for the update program, the email processing for emails being generated from the Skyward database, and for SkyConnect processing for Update info, Skyward Mobile Access, District to District applications, and Support authorization for Training Center access.



The DAS Java process runs on each Skyward server including the CAS server. This service allows the CAS to communicate to each DAS server.

Scheduled Tasks are setup to grant read only rights to SQL Read Only User(s) setup within each Skyward database, to maintain 4gl vs SQL field length needs for all fields via the DBTool utility and to create a table of indices for faster SQL access/processing via the Update Statistics process.



---

## Monolith Database and Standard Settings

### What applications are installed to make Monolith function?

Third-party applications installed are Sun Java, MS SQL 2005 Compact Ed w/SP1; 32-bit and 64-bit and .NET Framework. What gets installed is dependent on whether the server is identified as a CAS/DAS or a DAS server

### Where is Monolith's database located?

The Monolith's Control Center configuration database is located in ?:\skyward\config\ folder. There will be a subfolder named the same as the CAS service name; SKYSTUCASv2, SKYFINCASv2 or SKYCASv2.

### Where is the Monolith database backup located?

The Monolith database is backed up each time the Database setting is saved in Monolith Control Center or the CAS is started. The location of the backup is ?:\skyward\backup folder. There will be a subfolder named the same as the CAS Service name; SKYSTUCASv2, SKYFINCASv2 or SKYCASv2.

### What are Monolith's Standard CAS Settings?

Monolith's CAS settings are located in the cas.exe.config file. This file is located in the \usi2\cas\run folder. There is a config file for each set of Skyward programs; ex. \skyward and \skyward\skyfin.

- add key="CASPort" value="2601"
- add key="CASHost" value="192.168.1.108"
- add key="CASExternalPort" value="3333/3334 or -1"
- add key="CASExternalHost" value="" or external ip address of server"
- add key="CASStorageDirectory" value="e:\skyward"
- add key="CASServiceName" value="SkyCASv2"
- add key="CASDatabasePath" value="c:\Skyward\Config\skycasv2"
- add key="CASDatabaseBackupPath" value="c:\Skyward\Backup\skycasv2"
- add key="CASLogPath" value="c:\Skyward\wrk\skycasv2\"
- add key="CASMinimumLoggingLevel" value="Default"
- add key="CASLogPersistFiles" value="5"
- add key="CASLogMaxFileSizeBytes" value="5000000"
- add key="CASAllowAppserverRestartAfterMinutes" value="5"
- add key="DeleteOldUpdateFilesAfterUpdate" value="true/false"
- add key="SkyConnectIsPullMode" value="False/True"
- add key="SkyConnectQueueDeleteAfterDays" value="30"
- add key="TCPIPMaxUserPort" value="65534"
- add key="TCPIPTcpTimedWaitDelay" value="30"
- add key="SkyConnectAgreementAccepted" value="True"
- add key="USISystemDescription" value="Skyward Combined"
- <add key="SMTPMaxIdleTime" value="2"/>



Here are all the key settings available for the CAS.

- The host/port used by clients to communicate with the CAS in the local network
  - add key="CASPort" value="2602"
  - add key="CASHost" value="enter host name here. Do not use 'localhost' or '127.0.0.1'."
- CASExternalHost/Port are used by clients that need to communicate with the CAS that are not in the local network (SkyConnect, Sky2Go) over an SSL connection. Do not specify these values if you are not sure if the host/port can be seen from the Internet. If not specifying these values, SkyConnectIsPullMode should be set to 'true' if this is a production CAS.
  - add key="CASExternalPort" value="3333/3334"
  - add key="CASExternalHost" value="enter the server's external ip"
- The directory that the CAS will use to store update files and other CAS related files
  - add key="CASStorageDirectory" value="D:\Skyward"
- The Name of the Windows Service that this CAS will run as
  - add key="CASServiceName" value="SkyStuCASv2"
- The path to the CAS configuration database file
  - add key="CASDatabasePath" value="D:\Skyward\Config"
- The path where the CAS configuration database file will be backed up to
  - add key="CASDatabaseBackupPath" value="D:\Skyward\Config"
- The path to the CAS log files
  - add key="CASLogPath" value="D:\Skyward\wrk"
- The Logging Level to use (None, ErrorOnly, Default, Verbose)
  - add key="CASMinimumLoggingLevel" value="Default"
- The number of log files to keep at one time
  - add key="CASLogPersistFiles" value="5"
- The max size of a log file in bytes
  - add key="CASLogMaxFileSizeBytes" value="5000000"
- The CAS will only attempt to restart AppServers this many minutes after the CAS has been started
  - add key="CASAllowAppserverRestartAfterMinutes" value="5"
- When running Release updates through Monolith, it will only delete old update files if this is true. Set this to false when more than one USI system is using the same storage directory. The USI system that runs the Release update last should set this to true
  - add key="DeleteOldUpdateFilesAfterUpdate" value="true"
- Set to true if Customer accepts to terms of the SkyConnect Agreement located in skyward/usi2/skyconnectagreement.txt. Customer will be prompted with each update that is applied until they accept the agreement.
  - add key="SkyConnectAgreementAccepted" value="false"/>
- Set SkyConnectIsPullMode to 'true' only when CASExternalPort/CASExternalHost cannot be used by the SkyConnect server to connect back to the CAS
  - add key="SkyConnectIsPullMode" value="false"
- Delete SkyConnect Queue records this many days after they were first queued
  - add key="SkyConnectQueueDeleteAfterDays" value="30"



- Determines the highest port number TCP can assign when an application requests an available user port from the system. Typically, ephemeral ports (those used briefly) are allocated to port numbers 1024 through 5000. Range 5000 to 65534.
  - add key="TCPIPMaxUserPort" value="65534"
- Determines the time that must elapse before TCP can release a closed connection and reuse its resources. This interval between closure and release is known as the TIME\_WAIT state or 2MSL state. During this time, the connection can be reopened at much less cost to the client and server than establishing a new connection. Range 30 to 300
  - add key="TCPIPTcpTimedWaitDelay" value="30"
- System Description is displayed on the title bar of each Monolith window
  - add key="USISystemDescription" value="Company Name - PRODUCTION"

### **Where is the CAS log file ?**

The CAS log files are located in the ?:\skyward\wrk folder. There will be a subfolder named the same as the CAS Service name; SKYSTUCASv2, SKYFINCASv2 or SKYCASv2. The log file name are USI.log – USI5.log as by default we retain the last five (5) log files.

### **What is Monolith's Storage folder?**

The Storage folder is a setting found in the Cas.exe.config file. This is where Monolith looks to find the Skyward Update file. When you download the Update file, if you have access to the Skyward server, download the file to the Storage folder then you do not have to run the Upload File process in Monolith. When you run Monolith, if the update file is found in the Storage folder, then file description will display in the listing that you choose from in Monolith.

### **What is Monolith's Extract folder?**

The Extract folder is a setting in Control Center on the DAS screen. This folder is where the extraction process 'starts'; ?:\skyward or ?:\skyward\skyfin.

### **What are Monolith's Standard DAS Settings?**

Monolith's DAS settings are included in the target line for the running of the DAS Service; SKYSTUDASv2, SKYFINDASv2 or SKYDASv2.

A typical target line would include a java heap size and port number for the DAS to communicate with the CAS. The java heap parameter is the -Xmx value. It should be set to default of 1024M. Each 256M will allow one extract thread to be used when extracting Skyward updates. The number of extract threads used is set in the Monolith Control Center for each DAS server.

A port number will be included at the end of the target line; 2701 for Student/Combined or 2702 for Finance.





### **Where is the DAS log file?**

The DAS log files are located in the ?:\skyward\wrk folder. There will be a subfolder named the same as the DAS; SKYSTUDASv2, SKYFINDASv2 or SKYDASv2. The log file name is DAS.log.



---

## Applying an update with Monolith

### How do I get the update file?

- 1. Log into <https://support.skyward.com> > Choose Downloads / Software Updates tab > The Release, PMP and Addendum are drop-down boxes where you can choose what update file version you wish to download. If you want to download a release file, change the Addendum version to 00. Then for the Addendum file, only the most current addendum is available for download.
  
- 2. Once the file version has been chosen, read the Announcement section of the page > Check the ‘I have read all of the announcements’ checkbox > Choose the Download button > Download the file and verify the size of the file.

### How do I run Monolith to perform a Skyward update?

Monolith is a client/server update system which means that you can run Monolith from a workstation that has access to the Skyward server's programs. To run Monolith from a workstation, create a shortcut to the Monolith 2 executable with the following properties.

The properties of the shortcut are:

- Target: ?:\Skyward\usi2\monolith\monolith2.exe -CASHost=ip address of server -CASPort=2600
- Typical CAS ports are:
  - 2600 - Student or School Management Suites
  - 2601 – School Business Suite
- Start In: ?:\Skyward\usi2\monolith
  - The ? represents the network drive letter or UNC path to the Skyward programs.
  - Example: \\server\share\skyward\usi2\monolith\monolith2.exe

To run Monolith double click the Monolith 2 icon, typically found on the desktop of your Skyward Database Server.

The Monolith Loading Instructions and Tutorials are located at <https://support.skyward.com/Page.ashx/Downloads> in the lower right corner of the page.

### What is Addendum Table Load?

The Addendum Table Load process will identify system tables that will need to be updated once an addendum is applied via Monolith.

You have two ways to run the Addendum Table Load process when in the Skyward software.

- The Addendum Table Load scheduled task is set to run via the Skyward report queue daily at 11:00PM. This process can be run manually by running the scheduled task and choosing Run Now button.
- By navigating to PS\CA\TO\LH and choose Load All Addendum Tables button > Are you sure? OK.



- [https://support.skyward.com/DeptDocs/Corporate/Documentation/Public%20Website/Tutorials/LoadTutorials/Web\\_TableLoads\\_2340068.pdf](https://support.skyward.com/DeptDocs/Corporate/Documentation/Public%20Website/Tutorials/LoadTutorials/Web_TableLoads_2340068.pdf)



---

## Monolith Advanced Settings: SkyConnect

### What is SkyConnect?

Skyward has added a software component called "SkyConnect". SkyConnect enables real time, automated communication between your school district and the Skyward corporate office. This communication is a required component of our District to District Student Transfer feature, Training Center, Skyward Mobile Access and Skyward Academy, it also provides Skyward with information about your environment to help streamline and provide you with the best customer support experience possible.

In order for SkyConnect to perform these functions, it needs to send several pieces of data from your district to Skyward. This transfer of information is performed automatically, without user interaction. Following is a list of the data that is transferred automatically:

#### Skyward Software Configuration Information

- Customer Serial Number
- Product Licenses
- District Code
- Database Type (Student / Finance / Both)
- Current Software Version
- URL of Web Product
- Web Only flag

#### Database Configuration Information

- Storage Type (Type I / Type II)
- Large Files Enabled
- After Imaging Type (Enabled/Disabled/Standby)
- Maximum Record ID

#### USI Information

- Monolith Version
- CAS SkyConnect Host
- CAS SkyConnect Port

#### Detailed Software Update Information

- Update file name
- Start / Stop time of each step of the update
- Errors encountered during each step of the update
- If a force exit was performed at the end of an update

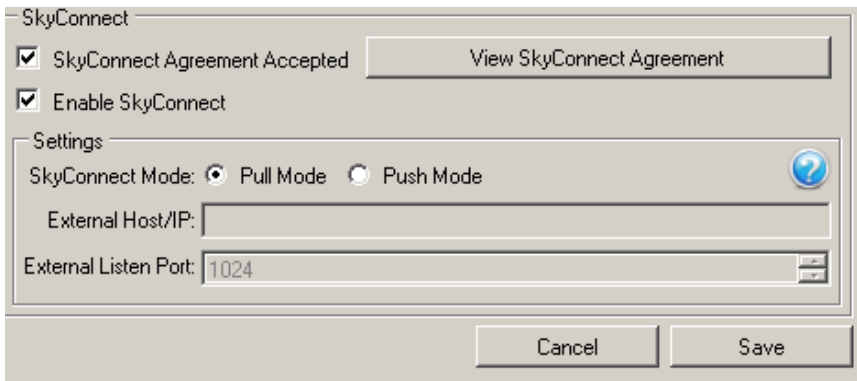


Additional fields of non-confidential set-up/configuration data may be added to this list without notice. You will always have the ability to view the current list of fields being passed by viewing the current SkyConnect Agreement in the Monolith Control Center.

Skyward will never be sent actual Student or Finance data except when the school district chooses to send a student's information via the "District to District Transfer" option.

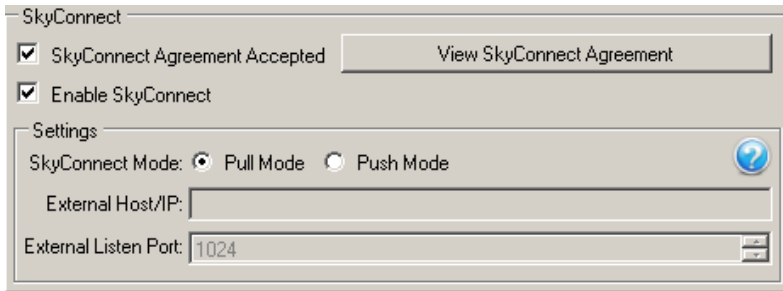
Please select the "Agree to Data Transfer" button if you agree to allow the automatic transfer of this information to Skyward. If you choose not to agree at this time, SkyConnect will be disabled, which will prevent District to District Student Transfer, Training Center, Skyward Mobile Access and Skyward Academy from functioning as well as possibly causing delays in support you receive from Skyward.

1. To verify if the “Agree to Data Transfer” button was chosen the first time Monolith was run on the database > Start Monolith > Choose Control Center > Choose CAS Settings > In SkyConnect/Settings area, there should be a check mark in the checkbox labeled, SkyConnect Agreement Accepted. > There also should be a check mark in the checkbox labeled, Enable SkyConnect. > If not, check both checkboxes > Save > The CAS will restart and SkyConnect will try to communicate as needed to Skyward.

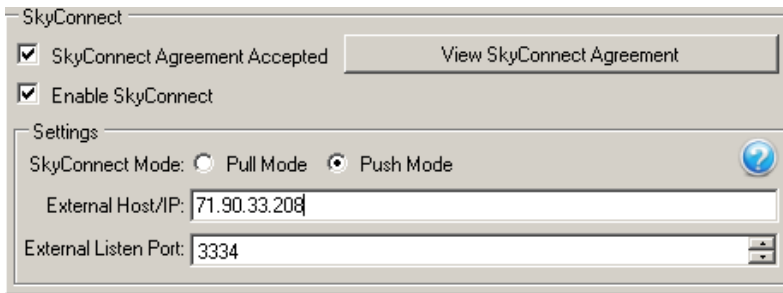


## What is Pull Mode vs Push Mode for SkyConnect connectivity?

1. Start Monolith > Choose Control Center > Choose CAS Settings > In SkyConnect/Settings area, check to see if Pull Mode or Push Mode radio button is chosen.



The screenshot shows the SkyConnect settings window. The 'SkyConnect Agreement Accepted' checkbox is checked, and the 'View SkyConnect Agreement' button is visible. The 'Enable SkyConnect' checkbox is also checked. In the 'Settings' section, the 'SkyConnect Mode' is set to 'Pull Mode' (indicated by a selected radio button). The 'External Host/IP' field is empty, and the 'External Listen Port' is set to 1024.



The screenshot shows the SkyConnect settings window. The 'SkyConnect Agreement Accepted' checkbox is checked, and the 'View SkyConnect Agreement' button is visible. The 'Enable SkyConnect' checkbox is also checked. In the 'Settings' section, the 'SkyConnect Mode' is set to 'Push Mode' (indicated by a selected radio button). The 'External Host/IP' field contains the value '71.90.33.208', and the 'External Listen Port' is set to 3334.

2. If Pull Mode radio button is active, this means that

**Pull Mode:**  
CAS will poll for queued messages from the SkyConnect server every hour (by default).

3. If Push Mode radio button is active, this means that

**Push Mode: (recommended)**  
SkyConnect will send messages to the CAS using the external host\port in real-time.  
To use push mode, your firewall will have to allow communication from skyconnect.skyward.com to the external host\port.

### What is the IP address of Skyconnect.skyward.com?

```
C:\Users\Pegf>ping skyconnect.skyward.com

Pinging rms.skyward.com [12.28.97.21] with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 12.28.97.21:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

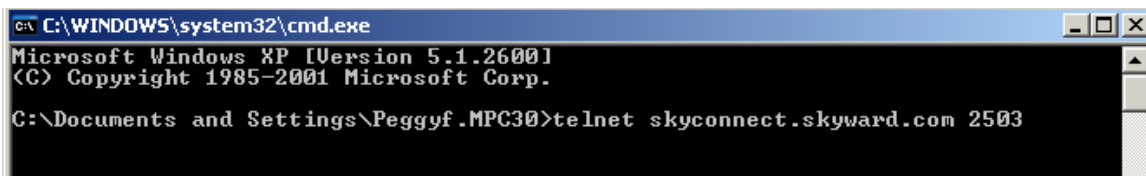
### What is the Port number for Skyconnect.skyward.com traffic?

Port number 2503 is used for skyconnect.skyward.com traffic.

Note: SkyConnect uses the https protocol over port 2503 and many content filters will intercept and block the https traffic. For this reason we recommend that districts add a filtering exception for “skyconnect.skyward.com”.

### What is command to check for connectivity to skyconnect.skyward.com?

Open a Command Prompt on the Skyward CAS server > Type ‘telnet skyconnect.skyward.com 2503’ > Enter.



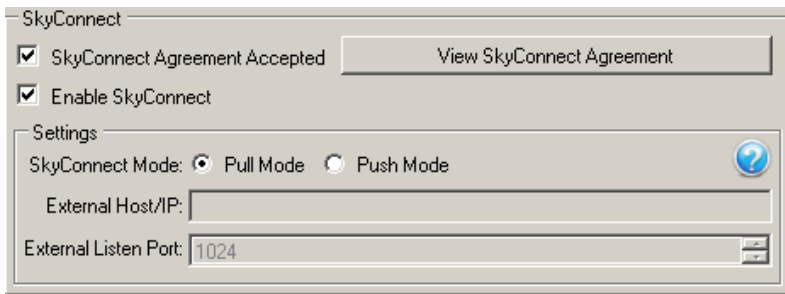
```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\Peggyf.MPC30>telnet skyconnect.skyward.com 2503
```

## How to setup SkyConnect Pull Mode?

□ 1. Most Monolith installs are initially setup for Pull Mode > This mode does not require an external ip address or inbound firewall rule as all communication is initiated by the CAS as outbound traffic. The CAS will contact skyconnect.skyward.com using TCP port 2503 every 60 minutes so long as this port is not blocked by a firewall or a content filter. If customers are blocking outbound traffic from the Skyward server they will need to allow the CAS server to connect to the SkyConnect server. You can setup for Pull Mode first, then move to Push Mode for real time connectivity.

- Start Monolith > Choose Control Center > Choose CAS Settings > In SkyConnect/Settings area, check Pull Mode radio button > No External Host/IP or Listen Port needed > Save.

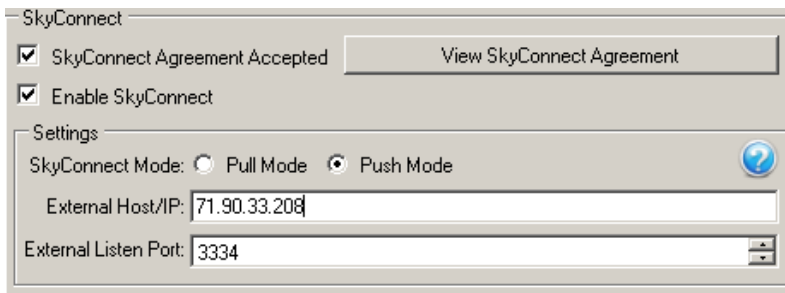


The screenshot shows the SkyConnect settings window. The 'SkyConnect Agreement Accepted' checkbox is checked, and there is a 'View SkyConnect Agreement' button. The 'Enable SkyConnect' checkbox is also checked. Under the 'Settings' section, the 'SkyConnect Mode' is set to 'Pull Mode' (selected with a radio button). The 'External Host/IP' field is empty, and the 'External Listen Port' is set to 1024.

## How to setup SkyConnect Push Mode?

□ 1. For Push mode to be successful, you need to have an external ip address and port number for the CAS for inbound and outbound traffic for real time connectivity. Open Monolith -> Control Center. You can setup for Pull Mode first, then move to Push Mode for real time connectivity.

- Start Monolith > Choose Control Center > Choose CAS Settings > In SkyConnect/Settings area, check Push Mode radio button > The External Host/IP or Listen Port field values are needed. > Follow next two sections to acquire the two fields' values.



The screenshot shows the SkyConnect settings window. The 'SkyConnect Agreement Accepted' checkbox is checked, and there is a 'View SkyConnect Agreement' button. The 'Enable SkyConnect' checkbox is also checked. Under the 'Settings' section, the 'SkyConnect Mode' is set to 'Push Mode' (selected with a radio button). The 'External Host/IP' field contains the value '71.90.33.208', and the 'External Listen Port' is set to 3334.



### What is external IP address of Skyward CAS server?

1. Open a browser, type address <http://es.skyward.com/scripts/ip.asp>



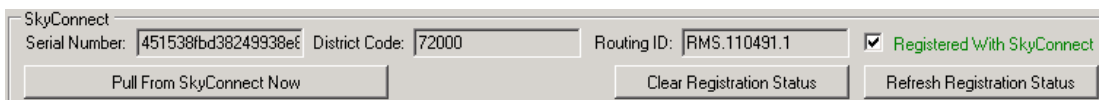
68.190.155.216

### What is TCP port number of the Skyward CAS server for real time connectivity to/from the SkyConnect server?

By default Skyward uses port 3333 for Student/Combined databases and 3334 for Finance databases. > Save once this information is entered on CAS Settings screen. > The added info will be 'written' to the cas.exe.config file and the CAS Service will be restarted.

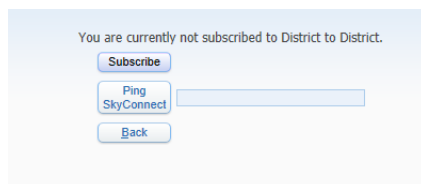
### How do I know if SkyConnect is communicating?

1. Started Monolith > Choose Control Center > Click DAS server which holds the Skyward Database > Click Configure 'servername' Databases button in middle of window > Click on the Skyward database > In the middle of the window there is a SkyConnect section which indicates if the CAS has communicated with SkyConnect > Green-colored words Registered With SkyConnect means that the CAS has communicated with the SkyConnect server at least once. > To re-register, choose the Clear Registration Status button; which changes to Unregistered. > Choose Refresh Registration Status which should then change to Registered again. This means that the CAS communicated with SkyConnect server.



### How do I test SkyConnect?

1. Navigate to `WS\ST\DD\PS\CF\SU` > Choose **Ping SkyConnect** button.





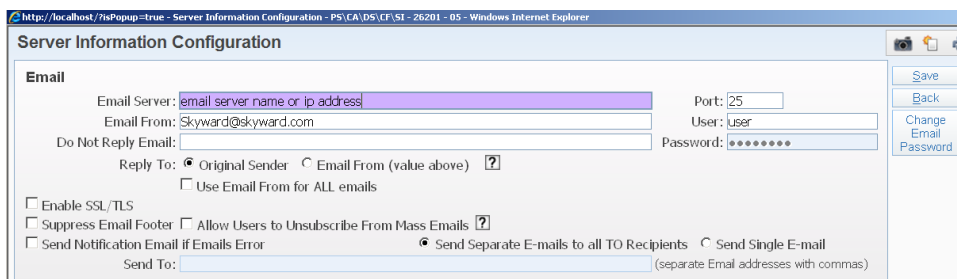
**What are common issues as to why SkyConnect is not communicating?**

The customer's serial number is not entered into the database or the database has not been identified as a Production database in Monolith.

## Monolith Advanced Settings: Email Processing

### How are emails processed via the CAS?

The CAS is a .NET based Windows Service that acts as an email client and sends outbound emails using the Simple Mail Transfer Protocol (SMTP). The CAS service sends all outbound emails to an SMTP server that is configured in the email setup screen within the Skyward application (Menu Path PS\CA\DS\CF\SI).



Server Information Configuration

**Email**

Email Server:  Port:

Email From:  User:

Do Not Reply Email:  Password:

Reply To:  Original Sender  Email From (value above) 

Use Email From for ALL emails

Enable SSL/TLS

Suppress Email Footer  Allow Users to Unsubscribe From Mass Emails 

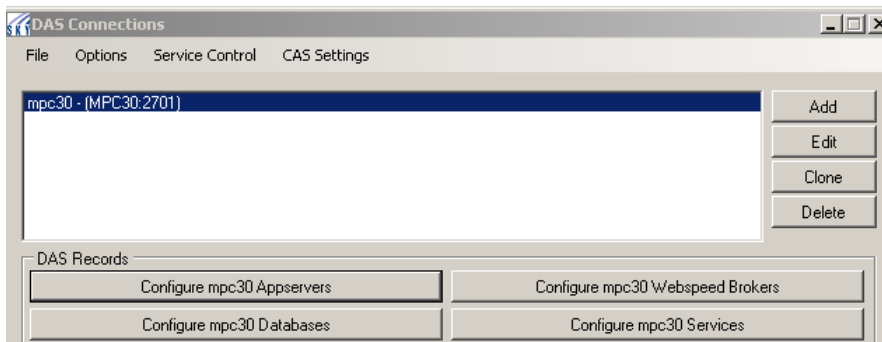
Send Notification Email if Emails Error  Send Separate E-mails to all TO Recipients  Send Single E-mail

Send To:  (separate Email addresses with commas)

Buttons: Save, Back, Change Email Password

### How do I increase the performance of sending emails?

**1.** Start Monolith > Choose Control Center > Click DAS Server which holds the Monolith AppServer > Click Configure 'servername' AppServers button in middle of window.



DAS Connections

File Options Service Control CAS Settings

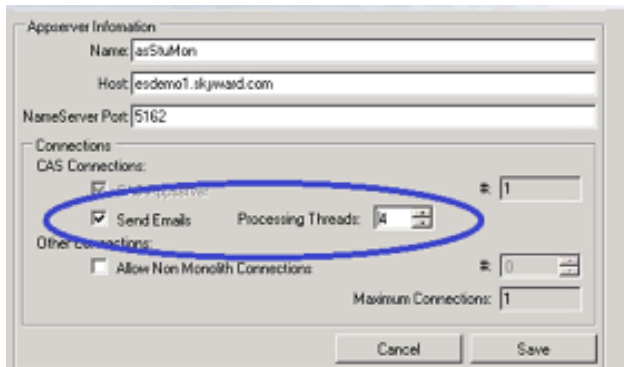
mpc30 - (MPC30:2701)

Buttons: Add, Edit, Clone, Delete

DAS Records

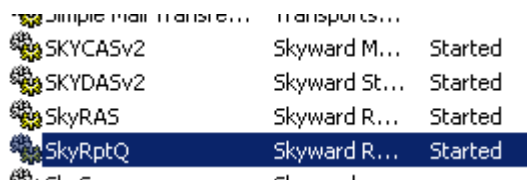
Buttons: Configure mpc30 Appservers, Configure mpc30 Webspeed Brokers, Configure mpc30 Databases, Configure mpc30 Services

2. Choose the AppServer, asStuMon, asFinMon or asSkyMon > In the Connections/CAS Connections section, the Processing Threads: field states 1 (by default). This is the number of threads set to send emails to the SMTP server configured in the Skyward software. This is a CAS Service .Net process. Most SMTP servers have many threads waiting to process emails. We recommend setting this number to four (4) which is also a good number for the large Skyward districts. When set, this is the number of simultaneous threads of emails being sent to the SMTP server. The maximum setting for this field is 32. > Save.

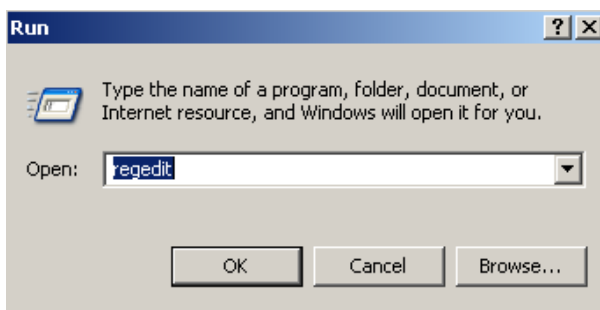


### How do I increase the performance of extracting the Skyward Update files?

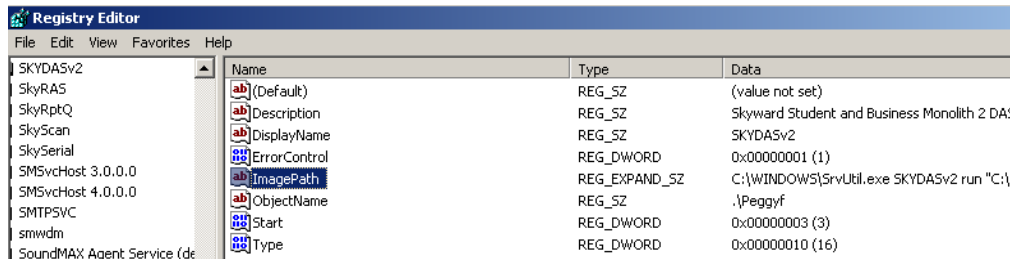
1. Start Windows Services > Locate the DAS service name > Stop the DAS Service.



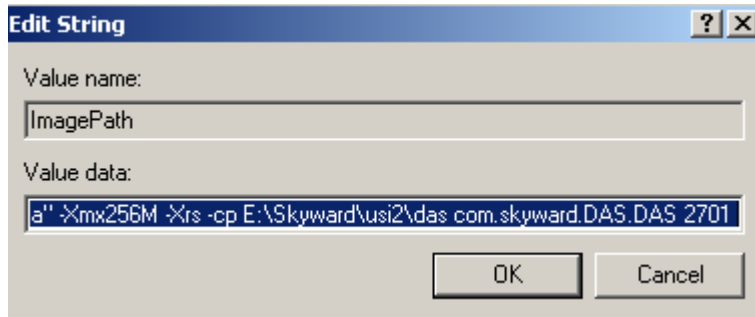
2. Start > Run > regedit > OK.



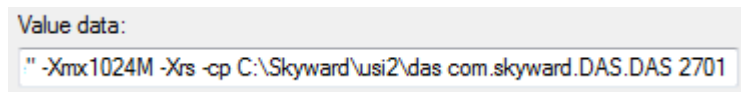
3. Edit > Find > Type “DAS Service Name” > Find Next button > Once the Find locates the name, press F3 to continue until Image Path is displaying in right frame.



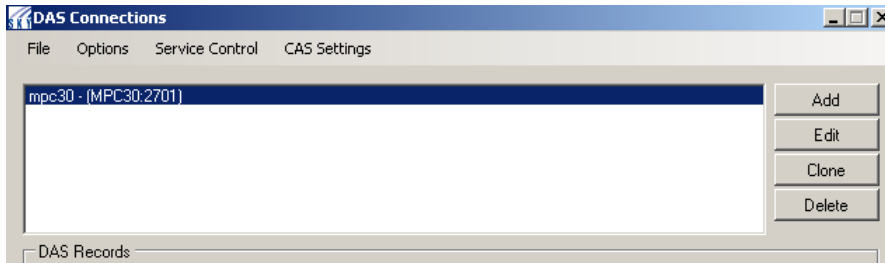
4. Double click on Image Path in right frame and the window below will display > Edit the -Xmx256M number to be 1024 so the entered parameter will be -Xmx1024M > OK to save. > Repeat this for as many Image Paths that display > Once the entire Registry has been searched, close regedit.



5. Start Windows Services > Start the Skyward DAS Service > This process on each Skyward DAS Service > If you have a non-Windows DAS server, contact Skyward IT Services at 1-800-236-0001 for assistance in changing the Java Heap size for Monolith File Extract Threads.



6. Start Monolith > Choose Control Center > Choose the DAS Connection where the Windows Services is located > Choose Edit.



7. Start Monolith > Choose Control Center > Choose the DAS Connection where the Windows Services is located > Choose Edit > Increase the Extract Threads for the Extract Directory to 4 > Save. Note: Intervals of 256 for the -Xmx value is equal to one thread.

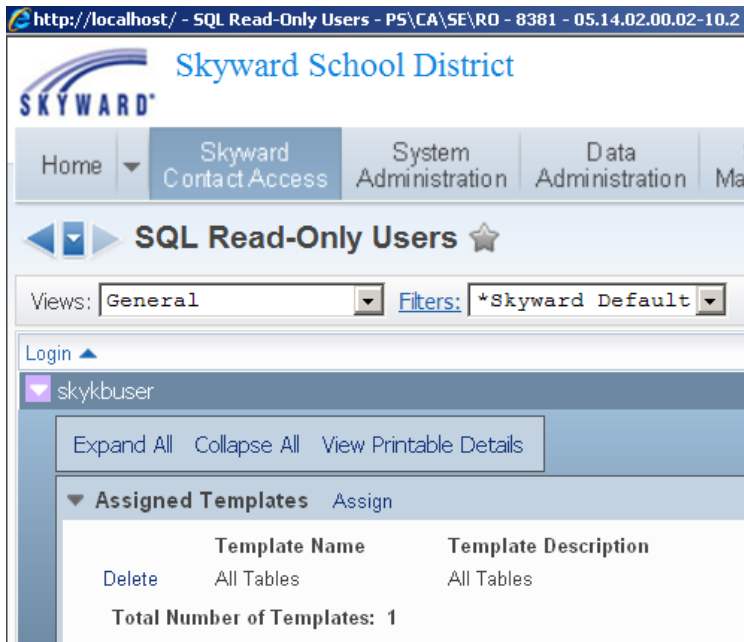




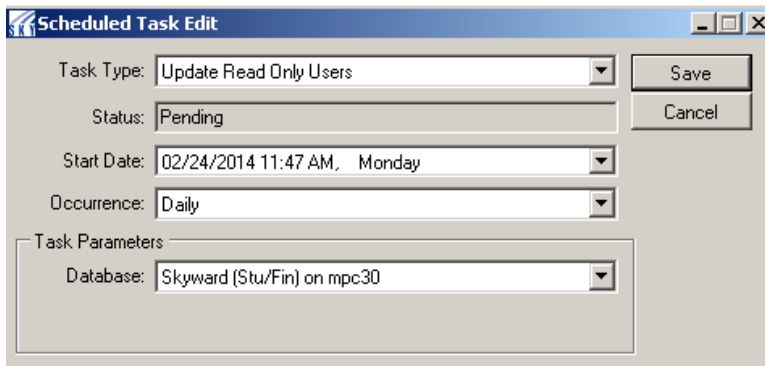
## Monolith Advanced Settings: Scheduled Tasks

### Update Read Only User Task

1. This task reads the Read Only SQL Users in the database.

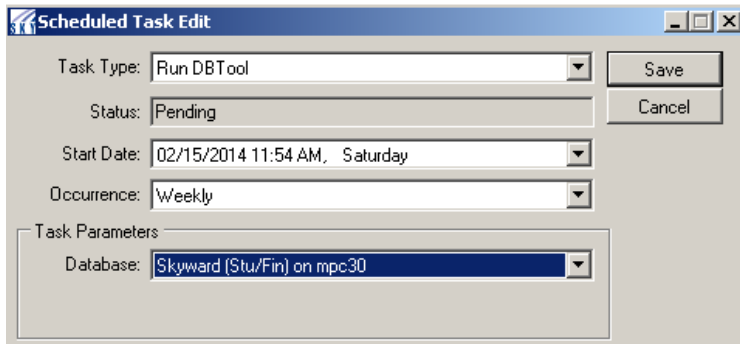


2. The CAS then runs the grant read only command to those users according to the tables assigned.



## Run DBTool

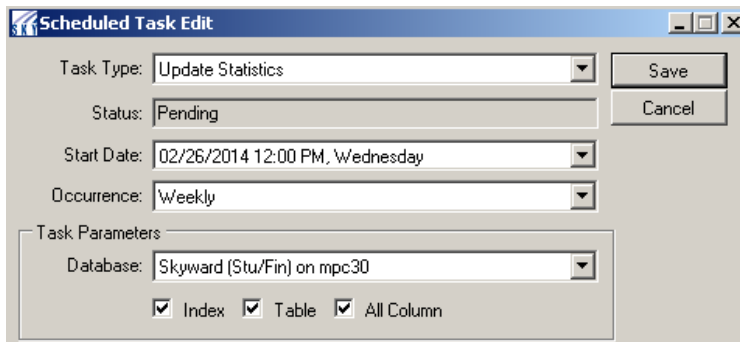
1. This task adjusts the SQL field lengths and pads them 100%. If the SQL field length is too short to include the actual data, the ODBC process would fail and not just truncate the data. This task is usually run either Weekly on Saturday or daily but not while the backup process is being run on the database.



The screenshot shows the 'Scheduled Task Edit' dialog box. The 'Task Type' is set to 'Run DBTool'. The 'Status' is 'Pending'. The 'Start Date' is '02/15/2014 11:54 AM, Saturday'. The 'Occurrence' is 'Weekly'. Under 'Task Parameters', the 'Database' is set to 'Skyward (Stu/Fin) on mpc30'. There are 'Save' and 'Cancel' buttons.

## Update Statistics

1. This task goes through the database and creates statistics based on the data in tables/fields so that the query optimizer can make the best “decision” on which index (es) to use for optimal query performance. This process is a heavy task on the database so we set it up for weekly running on a Sunday.



The screenshot shows the 'Scheduled Task Edit' dialog box. The 'Task Type' is set to 'Update Statistics'. The 'Status' is 'Pending'. The 'Start Date' is '02/26/2014 12:00 PM, Wednesday'. The 'Occurrence' is 'Weekly'. Under 'Task Parameters', the 'Database' is set to 'Skyward (Stu/Fin) on mpc30'. There are three checked checkboxes: 'Index', 'Table', and 'All Column'. There are 'Save' and 'Cancel' buttons.



## Frequently Asked Questions

### Do I have to reboot the Skyward server before running an update?

- We recommend that you reboot the Skyward servers prior to running a Release update to clear any client connections to the servers. Although not required a reboot will reduce the chance of a hung process or client connection interrupting the update process. You do not need to reboot for Addendum or RMA updates.

### Do users have to be out of Skyward when I run a Release?

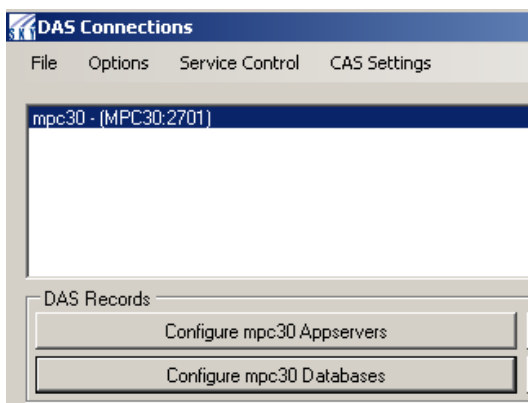
- Yes. A Release update ‘works’ on the database and changes the database schema; adds, changes, deletes to the tables.

### Do users have to be out of Skyward when I run an Addendum?

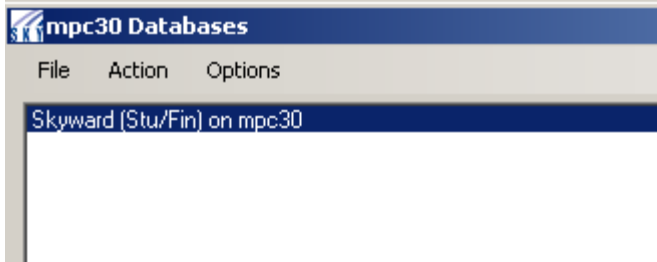
- Only if the Download page tells you that you have to be out. Usually not as an Addendum extracts program files and does not ‘touch’ the database.

### How do I Update SQL Views manually?

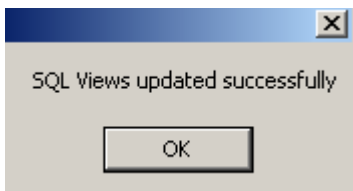
1. Start Monolith > Choose **Control Center** > Click the **DAS Server** where the database resides > Choose **Configure ‘server’ Databases** button.



2... Choose **Options/Update SQL Views** menu option.

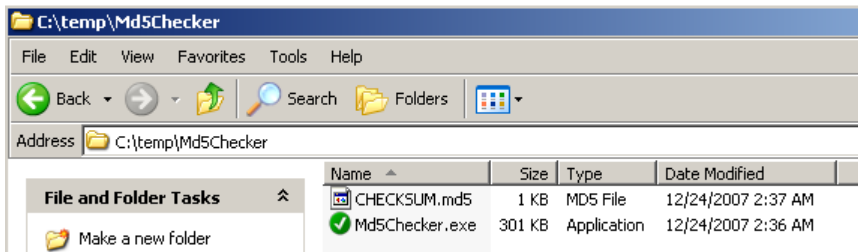


3. When complete, **OK**.

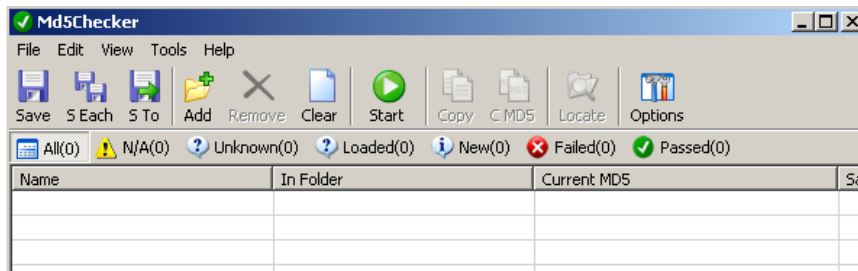


### How do I validate the checksum value of the Skyward Update file?

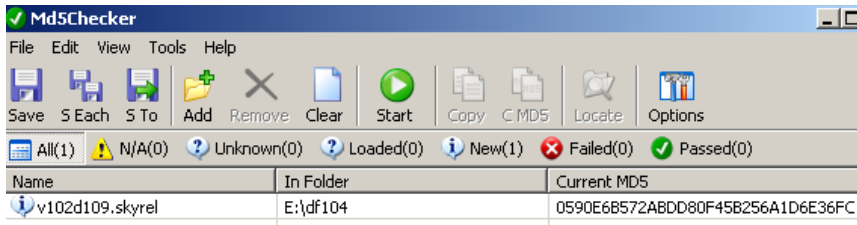
1. Download a free program named "md5checker" from the Internet > <http://getmd5checker.com/download/latest/md5checker.zip> > Unzip the file; it will create an MD5Checker folder with two files in it.



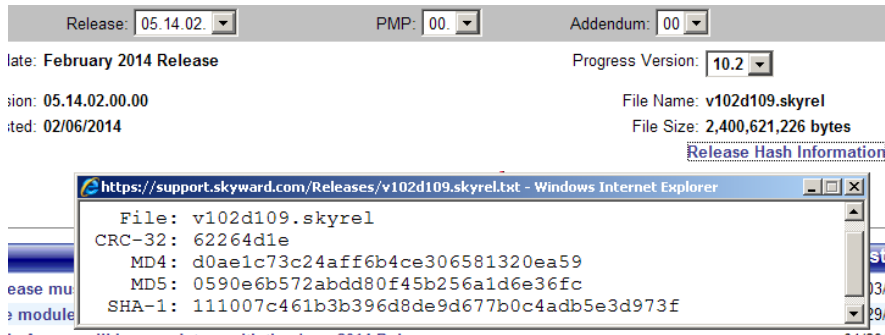
2. Double click Md5Checker.exe to run the program



3. Drag the downloaded Skyward Update file into the program. It will compute the local checksum.



4. Check that the Current MSD field matches what is posted for MD5 info on the Skyward Download page.



### Why does a Monolith update stop the SkyRAS Service?

- The SkyRAS Service is stopped because it runs an .exe file that is included in a Skyward folder.
- It has to be stopped in case the .exe file is included in the Update file and needs to be extracted.
- If the Service is not stopped, the new .exe file will be in use and will fail when extracted.

### What does the Force Exit button do?

- This hard stops the Monolith process. You will get dialog boxes displaying asking if you are sure, if you want the components to be restarted and if you want the database to be unlocked.

### What is the point of no return when running a Release Update?

- If the one or more databases are DF'd to new update level and programs are being extracted.

## Troubleshooting Monolith

### **The CAS Service is stopped and will not start.**

- You could reboot the Skyward server to see if this resolves the issue.
- You could look in ?:\skyward\wrk\casname\usi.log to review to assist in getting a resolution.
- In Services, manually start it. If you get a message that Logon Account is incorrect, the Skyward!5233 account password may have been entered incorrectly.
- There may be different cas.exe files located in ?:\skyward\usi2\cas\run folder and the ?:\skyward\usi2\cas\run\tempextract\usi2\cas folder. Compare file date and size.

### **A DAS server is not connected when viewing DAS Server from Monolith.**

- Open Windows Services, locate the Sky DAS name and restart it.
- Review the das.log file located in ?:\skyward\wrk\skydasname folder for any information to assist you in a resolution.

### **An error occurred while Getting Conversion Data message**

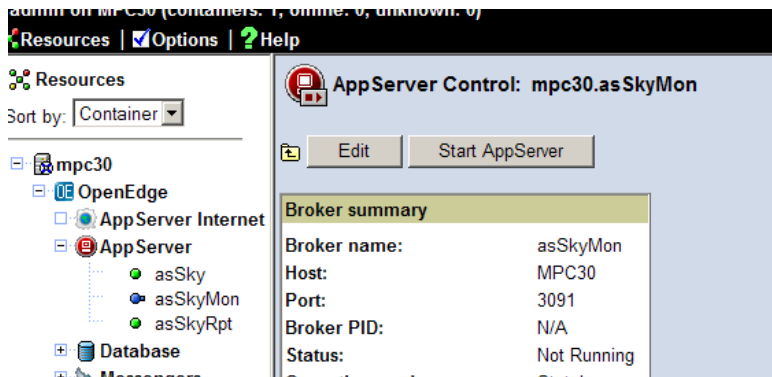
1. Started Monolith > chose Update Skyward Software and this message displayed > Click OK to clear screen.



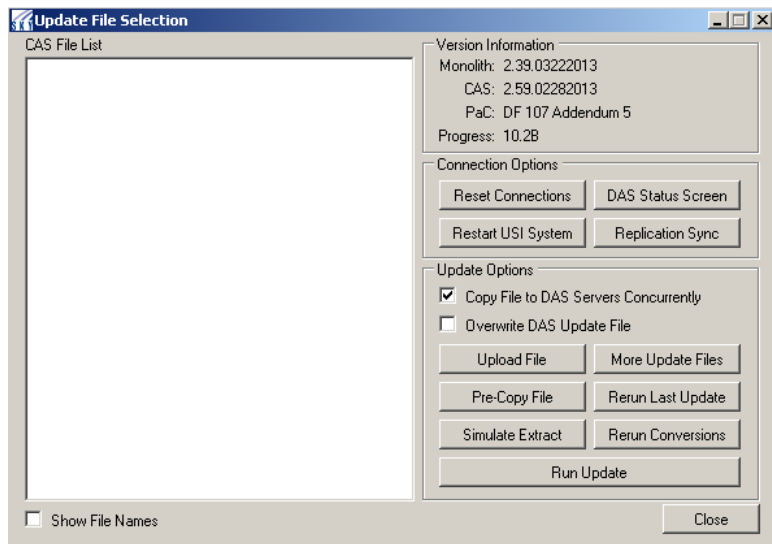
2. Check the USI.log file located in ?:\skyward\wrk\skycas subfolder. (skycasv2, skyfincasv2 or skystucasv2 subfolder).

```
05/13/2013 13:39:04:6093 An error occurred while running TESTCONNECTION on
asSkyMon (MPC30:5162). Progress.Open4GL.Exceptions.NoSuchAppServiceException:
Connect Failure: Application Service asSkyMon Unknown at NameServer at Host MPC30
Port 5162. (8234)
```

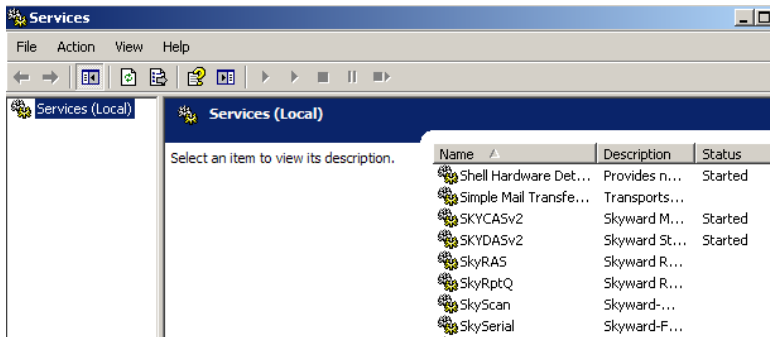
3. Start/Restart AppServer for Monolith > Start Open Edge Explorer > Stop/Start asSkyMon/asStuMon/asFinMon.



4. Choose **Update Skyward Software** > the screen below should now display and you can continue loading the Skyward update.



5. If you get the original ‘error’ message, you will have to restart the CAS Service also. > Close Monolith > Start Windows Services. > Stop/Start the CAS Service (SKYCASv2/SKYSTUCASv2/SKYFINCASv2)



### Skyward Update file will not extract

- Run a checksum validation.
- Verify the size of the file with that listed on the Software Update page of the Skyward website.
- Download the file again.

SOFTWARE UPDATES
REMOTE INSTALL SERVICE
RELEASE DVD REQUEST

**You must install Addendum12 or later to the June release prior to installing the October release.**  
**Failure to install Addendum12 or later to the June release may result in loss of data when installing the October release!**

Release: 
PMP: 
Addendum:

Software Update: **Addendum10 to the October 2013 Release** Progress Version:

Version: 05.13.10.00.10  
 Posted: 01/23/2014

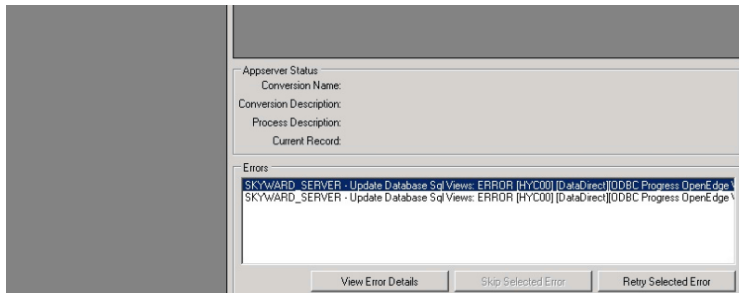
File Name: v102d100a10.skysfs  
 File Size: 396,708,251 bytes  
[Release Hash Information](#)

**When loading an Addendum, get message “An error occurred while extracting SkyConnect Agreement from update file. Error: One or more files failed to extract.”**

1. Verify that the Release file is in the Monolith Storage folder; ?:\skyward, on the CAS Server. > The .skyrel file has to remain in the Storage folder until after the next Release is run.

## Update SQL Views process fails

1. When Update Databases SQL Views process runs, it fails with Errors below. → Click on **Update Database SQL Views entry** below, choose **Retry Selected Error** button. → If successful, the update will continue on. → If not successful, Click on **Update Database SQL Views entry** below, choose **Skip Selected Error** button. > Updating SQL Views will be skipped. This does not harm the Skyward database in any way.



2. After Skyward Update finishes, run Update SQL View process manually.

## Some Skyward Files do not Extract

1. Display states that one/many files did not extract during Monolith Update →
- a. If the list has many files, it may indicate that the Drive on that server may be full. > The quickest response to this issue may be to 'clean up' the Drive on the server in question.
    - a. Clean up Skyward drive
  - b. If the list has one/few files, it indicates that the file is in use. >
    - a. Connect to the server in question. > Right click Computer > Manage > Shared Folders > Open Files > Disconnect File(s).
    - b. If the file is an .exe file, retry to extract for a couple times with waiting one minute between each retry. The next alternative would be to end the process via Task Manager or Stop the Windows Service that is running the .exe file
  - c. After each of the above resolutions, you can click the Error message listed in Monolith, choose Retry Selected Error button to continue the extraction.



---

## Skyward Database does not update DF successfully

- 1. If a database does not DF successfully, the resolution may need IT Services assistance.
  - You may have multiple databases where some DF successfully and others don't, the Monolith process continues leaving behind the un-DF'd database. Here you will need IT Services assistance by calling 1.800.236.0001. The database will need to be manually DF'd.
  - You have one database and it does not successfully DF, the Monolith process 'stops'.
    - Try:
      - End Monolith by choosing Force Exit. > Yes/OK to all dialog boxes that display > Reboot Skyward Server > Try running Update again.
      - Check checksum validation of the Release file. > Download file again, if needed.