Sunbelt HTTP/Mail/FTP

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OVERVIEW

- HTTP Statement

- MAILSEND Statement

- FTP Object

- Possible Future Additions

HTTP Overview

- Hypertext Transfer Protocol

- HTTP is the network protocol of the World Wide Web

- Clients are known as Browsers

- Used to transmit resources not just files

HTTP Overview

- A resource is identified by a Universal Resource Location

- Protocol is text based

- GET request is used to get a resource

- POST request is used to send data to the server

HTTP Protocol

- Initial request or response line

- Zero or more header lines

- Blank line

- Optional message body

HTTP Protocol Example

- GET mypage.html HTTP/1.1
- HOST: www.myserver.com:80
- Connection: close

- HTTP/1.0 200 OK
- Content-Type: text/html
- Content-Length: 1354

- <data from mypage.html>

HTTP Statement

- Uses Hypertext Transfer Protocol

- Supports Secure Socket Layer (SSL)

- Used to make HTTP requests

- Requires host name or IP address of a web server

- Requires the resource path and optional query string data

HTTP Statement

- Default HTTP command is sent as a 'GET'

    HTTP   "www.myserver.com":

           "myimage.jpg":

           *FILENAME="local.jpg"

- Many options are provided

- *ERROR receives any error information returned

HTTP Statement

- •*FLAGS
- –$HTTP_FLAG_RAWCOMMAND
- •Command is a full HTTP message

- –$HTTP_FLAG_NOHEADER
- •Do not return any HTTP header information

- –$HTTP_FLAG_JUSTHEADER
- •Use HEAD request

HTTP Statement

- *FLAGS
- $HTTP_FLAG_SSL
- Use SSL

- $HTTP_FLAG_HTTP11
- Use HTTP 1.1 rules

- $HTTP_FLAG_RAW_RESULT
- Return the entire unedited response

HTTP Statement

- •***FILENAME file name where the result body is to be stored**
- –**Entire message stored with $HTTP_FLAG_RAW_RESULT flag**

- •***PORT is the port number of the web server**

- •***POSTMESSAGE contains data that is sent using a POST request**

HTTP Statement

- •*HTTPAUTH 'username:password' for HTTP Basic Authentication

- •*HTTPLENGTH returns the value as specified by the 'Content-Length:'

- •*HTTPRESULT the result that was sent by the web server as a response line

HTTP Statement

- •**HTTPTYPE returns the 'Content-Type:' field**

- •**MAXDATASIZE identifies data limit before terminating the request**

- •**MAXTIMEOUT identifies the maximum time to spend before terminating the request**

- •**RESULT returns data received from the web server**

HTTP Statement

- •***RESULTLENGTH returns the total number of characters that have been returned**

- •***SUNDM specifies the URL or IP address and port number for a Sunbelt Data Manager**

- •***TIMEOUT the timeout value used when communicating with the web server**

HTTP Example

Response   DIM 400

HostName   INIT "tycho.usno.navy.mil"

ResourcePath   INIT "/cgi-bin/timer.pl"

HTTP   HostName:

          ResourcePath:

          *Result=Response

MAILSEND Statement

- Uses Simple Mail Transport Protocol

- Supports Secure Socket Layer (SSL)

- Requires SMTP outgoing mail server address

- Requires e-mail address(es) of the recipients

MAILSEND Statement

- Requires the single e-mail address of the sender

- Requires the subject of the message

- Requires the message body to be sent

MAILSEND Statement Options

- •*ATTACHMENT one or more file names separated ';'

- •*BCC e-mail address(es) of the Blind Copy recipients

- •*CC e-mail address(es) of the Copy recipients

MAILSEND Statement Options

- •*DSNRECEIPT Delivery Service Notification of "Never" or "Success,Failure,Delay" combination

- •*ERROR receives any error information

- •*MDNRECEIPT requests that a client program receipt when read

MAILSEND Statement Options

- •***OPENSSL enables the SSL (Secure Sockets Layer) support**

- •***PASSWORD the password for the login to the e-mail server**

- •***PORT the port number for the e-mail server**

MAILSEND Statement Options

- *RETURN format of the return receipt when the *DSNRECEIPT keyword is used

- *REPLYTO e-mail address that a recipient will send a reply

- *SUNDM the Data Manager used when sending an email

MAILSEND Statement Options

- *TIMEOUT is the timeout value used when communicating with the e-mail server

- *TRACE file name created to store trace messages

- *TRACEAPPEND trace data is appended to an existing trace log file

MAILSEND Statement Options

- ***TYPE specifies the body Content-Type**
- **0 - text/plain ascii**
- **1 - text/html**
- **2 - text/richtext**
- **3 - text/plain iso-8859-1**

- ***USER username used for the login to the e-mail server**

MAILSEND Example

Out   INIT "www.outgoing.com"

From   INIT "Me@sunbelt-plb.com"

To   INIT "Someone@sunbelt-plb.com"

Subject INIT "Test Mail Message"

Body   INIT "Hello World!"

    MAILSEND Out,To,From,Subject,Body

FTP Object

- Uses File Transport Protocol

- Supports Secure Socket Layer (SSL)

- Allows re-use of SSL session

- No need to CREATE or DESTROY

FTP Object

- Connect method to start a session

- Close method to terminate a session

- Debug method will set up debug level and logging

- Delete, Get, Put, and Rename methods to manipulate files

FTP Object

- Size and ModDate methods for file information

- Ascii and Binary methods to change transfer options

- Cd and Pwd methods to handle paths

- MkDir and RmDir methods to manipulate directories

FTP Object

- Dir and DirItem methods to list directories

- SysType and LastResponse methods for information

- Site method for FTP specific commands

Possible Future Additions

- HTTP Object

- FTP Server for SUNDM, PWS

Questions?