



**STN Express<sup>®</sup>**  
**Version 8.5 for Windows<sup>®</sup>**  
**User Guide**

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## WELCOME TO STN EXPRESS, VERSION 8.5

STN Express 8.5 enhancements are designed to:

- Increase efficiency of searching and postprocessing
- Support effective communication of results with others
- Add power to advanced search capabilities
- Enhance security

New features include:

- Save Answers for the web version of SciFinder to improve workflow between information professionals and scientists
- Default RSA Encryption in Logon Setup
- [Patent Family Manager](#) wizard enhanced with new functionality: Remove twin multiple basics from CA/CAplus answer sets
- Updated table and report post-processing to allow parsing of the assembled FQHIT, QHIT, FQHITEXG, and QHITEXG display formats in MARPAT
- MEDLINE Cited References hyperlinks



# LOGON SETUP

## Setup Overview

For an overview of logon setup, see the following topics:

- [STN Setup Wizard](#)
- [Creating and Modifying Logon Setups](#)
- [Managing Setups](#)
- [Secure Session](#)
- [Secure and Encrypted Connection](#)
- [Logon for Academic Accounts](#)
- [Logon to CAS Registry BLAST](#)
- [Setup for WPIX/WPIDS Subscribers - changes needed for STN AnaVist](#)
- Setup for Questel and/or Merged Markush Service (MMS)

For additional assistance with STN Express contact your [STN Service Center](#).

## STN Setup Wizard

Your online connection and logon information are required each time you connect to STN, CAS Registry BLAST, or other online hosts. This information is stored in a logon setup created by the wizard in a file named express.ini located in your My Documents\STN Express 8.5 folder. The STN Express Setup Wizard wizards walk you through the setup process, asking simple questions regarding your computer and connection options.

The wizard automatically starts up if you do not have any setups defined. Press the 'Before I Begin' button for specific details on what you will need to complete the wizard.

You may also access the wizard from the **Setup** menu.

For additional assistance with logon setup for STN Express contact your [STN Service Center](#).

## Managing Setup

Open the STN Setup dialog by selecting **Setup** and **Connections** from the Main Menu or by clicking the **Setup** button on the Toolbar.

Choose from the following options:

- **New** - to create a new setup
- **Modify** - to modify a setup
- **Duplicate** - to copy a setup
- **Delete** - to delete a setup
- **Password Options** - to password-protect your setups

## Creating and Modifying Standard Logon Setups

1. Select **STN Setup**.
2. Select **New** to create a new setup. Choose a Setup Name and click **Modify** to modify a logon setup. **Modify** and **New** use the same dialog. Click **OK**.
3. Click **Save** and then **OK** to save and exit.

### Standard Setup dialog options

Option	How to use
Setup Name	Name to identify a specific setup. The name must be 20 or fewer characters and can include any combination of letters, numbers, special characters, and spaces.
Host Name	Select the STN Service Center for your account from the <b>Host Name</b> pop-up menu.
Login ID	Entering a login ID is optional. If you do not enter it here, you will be prompted to enter it every time you log on to STN.
Password	Entering a password is optional. If you do not enter it here, you will be prompted to enter it every time you log on to STN. Saved passwords are encrypted in the express.ini file.

Continued on next page

Host Settings	<p>These are settings specific to STN; many are critically important and cannot be changed.</p> <p>Select the <b>Command Window</b> box to cause STN Express to open a Command Window when you log on to STN.</p> <p>The <b>Close Window at logoff</b> box is checked by default; it tells STN Express to close the session window after you log off. Uncheck this box if you do not want to close the session window at log off.</p> <p>In the <b>Execute at first Host Prompt</b> window, you may enter up to five commands. The first command is sent when the first =&gt; prompt is received, and the remaining commands are sent, one at a time, with each succeeding arrow prompt. By default, a carriage return is sent after each line. Add the keyword NOCR as the last word on the last line to indicate that this line is to be displayed in the STN Online and Results window, but not sent. This allows you to enter data after the defined character string, before it is sent.</p>
STN Port	<p>The STN Port is X by default for commercial accounts. You may change it to the port letter appropriate for your <a href="#">academic account</a>.</p>
Connect via	<p>Winsock (Internet) option is selected. The Host Name or IP Address, Port, and Echo fields are displayed. Winsock will use the Telnet protocol to communicate with the STN servers.</p>
Standard Logon	<p>Use to connect to STN via one of the supported networks.</p>
Standard Logoff	<p>Use to disconnect from STN via one of the supported connections.</p>
<a href="#">Encryption provided by RSA</a>	<p>Select for encrypted Telnet sessions to STN hosts (Default).</p>
Communication Settings	<p>These settings are for the <b>Winsock (Internet)</b> option selected in Connect via.</p>

## Encrypted Connection by RSA

RSA encryption is selected by default when a Logon Setup is created and Connect via Winsock (Internet) is selected. To change this setting:

1. Launch STN Express.
2. Click the **Setup** button on the toolbar.
3. Create a new Setup or modify an existing one.
4. Select or deselect **Encryption provided by RSA**.
5. Click **OK** to exit the setup creation window. Click **Save** in the STN Setup window and then click **OK** to exit.

When you are working in an encrypted session, the lock icon displays at the bottom of the STN Express window.

For additional assistance with logon setup for STN Express contact your [STN Service Center](#).

The screenshot shows the 'Logon Setup' dialog box with the following settings:

- Setup Name: [Empty]
- Login ID: [Empty]
- Host Name: STN-Columbus
- Password: [Empty]
- Connect via: Winsock (Internet)
- Logon Method: Standard (WINSOCK)
- Communication Settings: Host Name or IP address: stnc.cas.org, Port: 23, Echo: YES
- Encryption provided by RSA:

*Related topic:*

- [Secure Connection to STN via SSL VPN](#)

## Secure Connection to STN via SSL-VPN

SSL-VPN connection creates a Virtual Private Network by using the Secure Sockets Layer protocol. This provides a secure, encrypted communication connection from your computer to the STN servers. SSL-VPN is available for connections only to the STN service centers, not to other database suppliers.

To set up a secure and encrypted connection to STN via SSL-VPN:

## A. Configure STN Express®

1. Launch the STN Express main toolbar, but do not log on to STN Express.
2. Create a new setup by selecting **Setup** and **Connections** from the Main Menu of STN Express. Alternatively, click on the **Setup** button on the main STN Express task bar.
3. Select **New** in the STN Setup Window.
4. Enter the following in the Setup Definition dialog box:
  - Setup Name: **SSL-VPN** (used in this example, but you can choose your own name)
  - Host Name: **STN-Tokyo** or **STN-Karlsruhe** or **STN-Columbus**
  - Connect via: **SSL-VPN**
  - Logon Method: **Standard (Winsock)** (set automatically)
  - Host Name: **localhost** (set automatically)
  - Port: **55555** (set for STN-Tokyo or STN-Columbus); **6000** (set for STN-Karlsruhe)

Click **OK** to exit the setup creation window. Click **Save** in the STN Setup window and then click **OK** to exit.

The screenshot shows the 'Setup Definition' dialog box with the following configuration:

- Setup Name: SSL-VPN
- Host Name: STN-Columbus
- Connect via: SSL-VPN
- Logon Method: Standard (Winsock)
- Host Name or IP address: localhost
- Port: 55555
- Echo: YES

Annotations in the image include:

- A red box highlights the Login ID and Password fields, with a red arrow pointing to the Password field.
- A blue box highlights the 'Encryption provided by RSA' checkbox, with a blue arrow pointing to it and the text 'Should not be used in conjunction with SSL-VPN'.

## B. Establish a secure and encrypted communication with STN

- Click on the Logon button and select the SSL-VPN setup from your list of setups.
- If you are prompted, select the desired STN Service Center (STN Columbus or STN Tokyo) on the SSL/VPN Connect web page.



If you have difficulty with the automatic logon, you can connect manually by doing the following:

1. From the STN Express main toolbar, click **Web**, highlight **STN Tokyo** or **STN Karlsruhe** or **STN Columbus**, and choose **STN [Host Name] Secure Connection**.
2. Confirm all security advices and security certificates. Confirm the web browser's security certificate in order to install and execute the signed JAVA Secure Applet on your PC. Confirm the installation and execution of the JAVA Secure Applet.
3. Wait until the secure connection is established. A separate small status window reports the status of connection. A green flashing signal confirms successful connection. Leave the status window open for the duration of your STN Express session.



4. Launch STN Express. Click the **Logon** button from the Main Menu /Toolbar.
5. Select the **SSL-VPN** setup in the Select Logon Settings window. Click **OK** to log on using the SSL-VPN connection.

**Note:** If you have logged on to STN and the session manager window Sent and Received packets remain at 0 bytes, you did not log on using the SSL-VPN setup and your session is not being encrypted. Log off from STN and log on again using your SSL-VPN setup.

## SSL-VPN tips for optimal use

- While RSA encryption can be used with an SSL-VPN session, it is recommended that you choose one or the other as each accomplishes the same thing - a secure and encrypted session. Using both together will cause the data being sent back and forth from your PC to the STN host to be doubly encrypted and could cause a degradation of service.
- Within your browser, it is recommended that you check "Don't reuse the browser window" to keep from accidentally overlaying the session manager window and accidentally terminating the connection.
- The SSL-VPN connection to STN relies for its connection on the secure session manager running in the web browser window. This window is labeled: "DO NOT CLOSE - Secure Application Manager". If this is the last active web browser window used and you click on a link from another application (including STN), you may get a dialog that asks: "Are you sure you want to navigate away from this window?" If you respond Yes, your SSL-VPN connection is disconnected along with your STN session. In your STN window, you will see a message: "Connection closed by remote host".
- If you click "End Session" within the secure application session manager window, this will end your SSL-VPN and STN sessions.

## Connectivity Problems

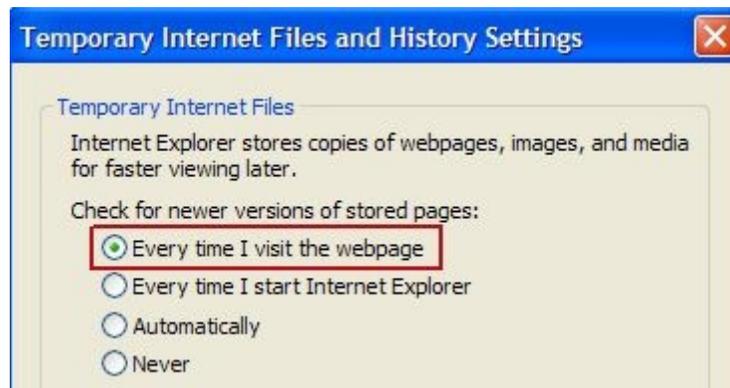
If you are having problems getting the SSL-VPN session established, here are a few reasons this could happen:

- The HTTPS protocol may be blocked. Confirm that port 443/TCP is permitted through your firewall and/or proxy server. (To test this, try going to an https web-site to confirm it works, e.g., <https://stnweb.cas.org>)
- You have a pop-up blocker enabled within your browser preventing the session manager window from launching. In order for the SSL-VPN session to connect, you can either turn off your pop-up blocker, or add \*.cas.org and/or \*.fiz-karlsruhe.de as an allowed web site.
  - **Microsoft Internet Explorer:** Choose Tools | Pop-up Blocker | Pop-up Blocker Settings and under "Address of web-sites to allow", add \*.cas.org and/or \*.fiz-karlsruhe.de.

- **Firefox:** Choose Tools | Options | Content and click on Exceptions to the right of Block pop-up windows and add \*.cas.org and/or \*.fiz-karlsruhe.de.
- The web page has been cached and thus instead of running the program that launches the secure application manager session, it redirects you to an error page.
- **Microsoft Internet Explorer:** Choose Tools | Internet Options | General tab - Browsing history section and click the Settings button. Make the page refresh change below.
- **Firefox:** No changes are necessary.

Within a browser window:

- Choose Tools | Options and in the "Temporary Internet Settings" section, click "Delete Files" to clear the cache.
- In this same section, click the "Settings" button and make sure "Every visit to the page" is checked.



- Finally, close all browser windows and then within STN Express, choose Secure Connection from the appropriate service center within the Web menu and that will allow you to establish a new SSL-VPN session.

Related topic:

- [Encrypted Connection by RSA](#)

## Logon to CAS Registry BLAST

To connect to CAS Registry BLAST®:

1. Click **Logon** from the Main Menu. Select **CAS Registry BLAST**. Alternatively, select **Blast** from the Main Toolbar.
2. Select the desired setup from the pop-up list and click **Yes**. Or, click **No** to enter your login ID, password, and STN Service Center manually.

## CAS Registry BLAST Overview

For information about how to search using CAS Registry BLAST®, visit <http://www.cas.org/help/expressblast/expblast.htm>.

## Logon for Academic Accounts

If you have an academic account, you need to change your Account Preferences as follows:

1. Select **Setup** from the Main Menu. Select **Preferences** and **STN Online and Results**.
2. Click the **Account** tab of Preferences.
  - In the **STN Account Type** box, select the type of account you have and its features.
  - Under **Property Data Databases**, select the property databases that the *Discover!* Wizards are authorized to access.
  - Under **Spectra Databases** select the spectra databases that the *Discover!* Wizards are authorized to access.
  - Click **OK**.

## Setup for WPIX/WPIDS Subscribers - changes needed for STN AnaVist

If you are an STN Express user with WPIX or WPIDS subscriber access, and you want to be able to view WPI documents exported STN AnaVist in WPIX or WPIDS format, you first need to make a change to your STN Express account setup.

**NOTE:** STN Express users with WPINDEX access do not need to make this setup change.

### To change your account setup:

1. Access the Preferences panel for STN Online and Results:
  - On the STN Express main menu, select **Setup > Preferences > STN Online and Results...**
  - On the STN Online and Results menu, select **Preferences!**
2. Select the Account tab.
3. In the STN Account Type section, make sure that  DERWENT subscriber is checked.
4. From the Display AnaVist WPI family answers in: list, select the appropriate choice, either:
  - **WPIDS** (default)
  - **WPIX**

**NOTE:** If you are not sure of your institution's WPI subscriber version, check with your Site Administrator or help desk, or contact CAS Customer Center. Your choice must match your institution's WPI subscriber version.

5. Click **OK**.

Using the Display from STN AnaVist wizard, you should now be able to view your STN AnaVist data in full format, in the WPIDS or WPIX subscriber version.

## Merged Markush Service from Questel

To access the Merged Markush Service (MMS) via STN Express<sup>®</sup>, follow these steps:

1. Launch STN Express.
2. Click on the **Setup** button on the toolbar of the STN Express Main Menu and select **New**. Create an STN Express setup to access Questel. For logon setup information for Questel, visit Create Questel Merged Markush Service (MMS) setup.
3. Log on using the Setup created for Questel. Capture session to create a transcript of your session.
4. Type MMS text commands to create a structure query, or retrieve a saved file with all commands listed.
5. Type the 'VE' command for query verification. The MMS viewer opens in a new window to display the query.
6. Click **Exit** to close the viewer. The graphic image of the query is inserted into the online session. Note the hyperlinked "MMS Display" above the query. Click on that link to re-open the viewer with the query.
7. Type 'FI' to finish, then 'RE' to initiate a structure search. Generally an Atom-by-Atom search is also done.
8. When the search is completed, use 'VI' to display answers. The viewer will open and display the first selected answer.
9. Click **Exit** to close the viewer and return to the main window. Note that graphic images of the structures selected for display have been inserted into the online session.



## MAIN MENU AND TOOLBAR

### Main Menu Overview

The Main Menu contains the following menus:

- [File](#)
- [Logon](#)
- [Query](#)
- [Results](#)
- [Setup](#)
- [Web](#)
- [Help](#)

### File Menu

The File Menu on the Main Menu bar contains the following:

File Menu Item	Function
Edit Text File	Edit a text file, such as a script.
Exit STN Express	Close the STN Express® application and all associated applications.

### Logon Menu

**Logon** on the Main Menu allows you to connect to an online host, e.g., STN®, CAS Registry BLAST® and STN AnaVist™.

## Query Menu

The Query Menu on the Main Menu bar contains the following:

Query Menu Item	Function
Prepare Structure Query	Open a new Standard structure drawing window.
Prepare Command File	Open a file to create a script of commands for your online session.
Check Command File	Check a script for errors. If errors are found, STNEdit highlights appropriate script lines and displays a message at the bottom of the STNEdit window. To learn the nature of the error, move the mouse pointer over the highlighted part of a line. Correct the error, save the script, and check the script again until no errors are found.
Edit WPI Strategy	Edit an existing Derwent WPI fragmentation code strategy.
<a href="#">Generate WPI Strategy</a>	Generate a WPI fragmentation code strategy for a WPI query structure.
Print WPI Strategy	Print a WPI fragmentation code search strategy.
<a href="#">Include WPI Other Code Concepts</a>	Select Other Code Concepts to include when generating a WPI fragmentation code strategy.
<a href="#">Create Command File from SciFinder Answer Keys</a>	Create command file from a SciFinder answer set.
<a href="#">Create and Run command File from SciFinder Answer Keys</a>	Create and run a command file from a SciFinder answer set.
<a href="#">Create Search Term Command File</a>	Create a command file from search terms.
<a href="#">Create Query Summary File</a>	Create a file with a summary of search history.

## Results Menu

The Results Menu on the Main Menu bar contains the following:

Results Menu Item	Function
Browse Document	Open (display) a transcript in Browse mode.
Print Transcript	Print one or more transcripts.
Edit Transcript	Edit the text portion of a .trn transcript.
Export Transcript	Export a transcript to a new RTF file.
Accounting	Create a cost report for STN online sessions.
<a href="#">Table Tool</a>	Create a custom table from search results in transcripts.
<a href="#">Report Tool</a>	Create a custom report from search results in transcripts.
BLAST <sup>®</sup> Report with Alignment Data	Create a report that merges BLAST report alignment data with fields from an STN transcript.
<a href="#">Predefined Reports</a>	Create a predefined report from search results in transcripts.
<a href="#">R-group Analysis Table Tool</a>	Create a variable group analysis table and identify a common substructure for a saved REGISTRY answer set.
<a href="#">Create Analyze Plus chart</a> from saved data	Create Analyze Plus chart from saved data
<a href="#">Edit Personal Dictionary</a>	Edit Personal Dictionary
<a href="#">Edit Data Group File</a>	Edit Data Group File in Analyze Plus wizard
Open	Open the Trnscpt folder to browse transcripts, reports, and tables.

## Setup Menu

The Setup Menu on the Main Menu bar contains the following:

Setup Menu Item	Function
<a href="#">STN Setup Wizard</a>	Create an automated logon setup.
<a href="#">Connections</a>	Create or modify a logon setup configuration for an online host.
<a href="#">Preferences</a>	Customize Preferences.
Save Configuration	Save all <a href="#">logon setups</a> .
Restore Saved Configuration	Restore all logon setups to the last saved configuration.

## Web Menu

The Web Menu on the Main Menu bar contains the following:

Web Menu Item	Function
STN Columbus	Link web browser to STN Columbus services.
STN Karlsruhe	Link web browser to STN Karlsruhe services.
STN Tokyo	Link web browser to STN Tokyo services.

## Help Menu

The Help Menu on the Main Menu bar contains the following:

Help Menu Item	Function
Help	Obtain help topics for STN Express®.
View STN Express User Guide	Provide access to the STN Express User Guide.
View Getting Started	Provide access to Getting Started for STN Express.
Request Help	Send an e-mail message requesting help from your STN Service Center.
About STN Express	View copyright and version information.

## Main Toolbar

Tool Button Name	Function
 Setup	<a href="#">Create logon setups.</a>
 Logon	Log on to an online service.
 BLAST®	<a href="#">Launch CAS Registry BLAST®.</a>
 STN® AnaVist	Launch STN AnaVist.
 Prepare Query	Open a Structure Drawing window.
 Browse Document	Open transcript or other files for browsing.
 Print Transcript	Print transcript and other files.
 Table Tool	<a href="#">Create custom tables</a> from transcript search results.
 R-group Analysis	Create a table from saved <a href="#">R-group analysis</a> data.
 Custom Report	Create <a href="#">custom reports</a> from transcripts.

 Predefined Report	Create a report from transcripts using <a href="#">predefined</a> templates.
 Edit Transcript	Open a transcript file for editing.
 Prefs	Set <a href="#">Preferences</a> .
 Help	Display a list of help topics.
 Exit	Quit STN Express <sup>®</sup> .

This toolbar can be customized by adding a tool button, removing a tool button or gap in the same way that the [toolbar in the STN Online and Results](#) window may be customized.

# ONLINE SESSION

## Online Session Overview

The following topics are covered in this section:

- [Connecting to STN](#)
- [Capturing Transcripts](#)
- [Entering Online Commands](#)
- Change STN Password
- [Creating Search Term Command Files](#)
- [Viewing Images Online](#)
- [Create Command File from a SciFinder Answer Set](#)
- [Create and Run Command File from a SciFinder Answer Set](#)
- [Creating Query Summary File](#)

## Connecting to STN

1. Click **Logon** on the STN Express® Main Menu or the Toolbar and select **STN**.
2. The Select Logon Settings dialog is displayed, if you have more than one setup. If you have only one setup, this dialog is not displayed.
3. Select a setup name and click **OK**. If your login ID and password are not included in the setup, you will be prompted for them.

## Capturing Transcripts

The Capture Session dialog is displayed at login.

To capture your online session as a transcript, type a name for the session in the **File name** text box and click **Open**. The default type format is \*.trn. Select another file type, e.g., RTF (Rich Text Format) if you want your transcript captured in Rich Text Format.

Click **Cancel** to continue the logon process with no transcript.

If you choose the name of an existing transcript, a message is displayed asking if you want to append or overwrite the existing transcript. You may also cancel session capture.

Check **Show structure queries** to include structure queries in your transcript.

When the connection to STN is completed, the STN arrow prompt (=>) is displayed in the STN Online and Results window.

Refer to [Postprocessing Preferences](#) for information on how to change the default file type for capturing transcripts or to turn off Capture Session at login.

## Entering Online Commands

You may enter STN commands by:

- Typing them at an arrow prompt (=>) in the text area of the STN Online and Results window
- Using the Command Window
- Using scripts

### To enter commands in the Command Window:

1. Select **Command Window** from the Online menu or click the **Command Window** tool button from the STN Online and Results Toolbar.
2. Keep the **Lock** button from the right toolbar of the Command Window in the locked position. In the locked mode, you can type a series of commands and edit them.
3. To send the commands in the Command Window to STN, use the buttons from the right toolbar of the Command Window. You can send one command line, or multiple command lines, at a time.

### To insert a command file into the Command Window:

1. Click the **Open** button located on the left toolbar.
2. Open a command file name in the dialog to insert the contents of the command file into the Command Window.

Click the **Save** button located on the left toolbar in the Command Window to save the contents of the Command Window to a file.

To clear the contents of the Command Window, click the **Clear** button located on the left toolbar in the Command Window.

Click the **Command Window** tool button to disable the Command Window.

Note: The Command Window runs a list of STN commands and simple STN Express scripts (i.e., those that specify level 1 and level 2 prompts), but it does not understand the full STN Express script language described in [Using Scripts](#). Thus, the Command Window will not run a Command File created by the [Search Term Command File](#) feature available in Version 8.5.

## Creating Search Term Command Files

Search term command files can save you time and effort by automating the process of creating a complete search script from a text file of search terms. This script can then be used as often as needed for efficient searching.

### To create a search term command file:

1. Create a file (e.g., 17pn.tx) with your search terms (e.g., 17 patent numbers) using any common text editor program.
2. Select **Create Search Term Command File** from the **Query** menu. This may be done offline or during an online session.
3. In the Create Search Term Command File dialog box, enter or select the following:
  - Name of the file containing your search terms (e.g., 17pn.txt)
  - The field code (e.g., PN) for the field or fields in which you want your terms to be searched
  - The character(s) you used to separate search terms in your text file (Note: Carriage return is always treated as a separator)
  - Insert quotation marks around each term that you want to be searched as a bound phrase, if desired
  - Name for the command file (e.g., 17pnoutput)

Click **OK** to save the command file. A file will be created with the necessary commands and field codes appended to the supplied search terms.

Click **OK** in response the message that the command file was created.

Select **Check Command File** from the Query menu to check the command output file. If there are no errors in the script file, a message is displayed.

### To run the command file online:

1. Log on to STN, if you are not online, and enter the STN database(s) where you want to run the search.
2. Select **Run Command File** from the **Query** menu and **Open** the script file (e.g., 17pnout). The search is automatically run in the file(s).

## Viewing Images Online

Some STN files include technical drawings, chemical structures, trademarks, complete pages of publications, and other graphical images.

Downloaded images may be in one of these file formats:

Image Format	File Extension
TIFF	.tif
JPEG	.jpg
GIF	.gif
Structure Image	.gra

When you display records on STN using display formats that include images, STN Express<sup>®</sup> automatically downloads the images to your PC. The files are named according to the name of your transcript, a sequential number, and the appropriate extension for the image type.

For example, if your transcript is named silane.trn, the first TIFF image downloaded is named silane001.tif. If the next image is a GIF image, it is named silane002.gif. If you are not capturing a transcript, the image files are named IMAGE001.TIF, etc.

When you browse a transcript offline, you have the option of viewing the downloaded TIFF, JPEG, and GIF images in the context of your transcript. Structure images are automatically displayed in your transcript.

JPEG and GIF are common image file formats. Use your own image or graphics software to view individual JPEG and GIF images.

### To view a TIFF image while online:

1. Select **View TIFF image** from the File menu. A TIFF File dialog is displayed.
2. Select a file name and click **Open**. The image is displayed in the TIFF File Display window.

## Create Command File from SciFinder Answer Set

To use STN Express® to import a SciFinder® saved answer set into STN®, you would utilize the Create Command File from SciFinder Answer Keys wizard found in the Query menu in the STN Online and Results window. **NOTE:** Only SciFinder reference and substance answer sets can be imported into STN Express.

Follow these steps:

1. Log into SciFinder, conduct your search, and **click the Export hyperlink**. The Export dialog box appears. **Select Answer Keys (\*.txt)** under the Offline review options. Enter a desired File Name or use the system-supplied name. Accept the SciFinder system defaults of Delimiter (newline) and retain the checked box to include database names as shown in the example below. **Click Export** button.

**NOTE:** STN Express cannot use the SciFinder Answer Key eXchange format (.akx).

Export ⌵ \* Required

Export:

- All
- Selected

For:

Citation Manager

- Citation export format (\*.ris)
- Quoted Format (\*.txt)
- Tagged Format (\*.txt)

Offline review

- Portable Document Format (\*.pdf)
- Rich Text Format (\*.rtf)
- Answer Keys (\*.txt)

Saving locally

- Answer Key eXchange (\*.akx)

Details:

File Name: \*

Reference\_07\_13\_2011\_153423

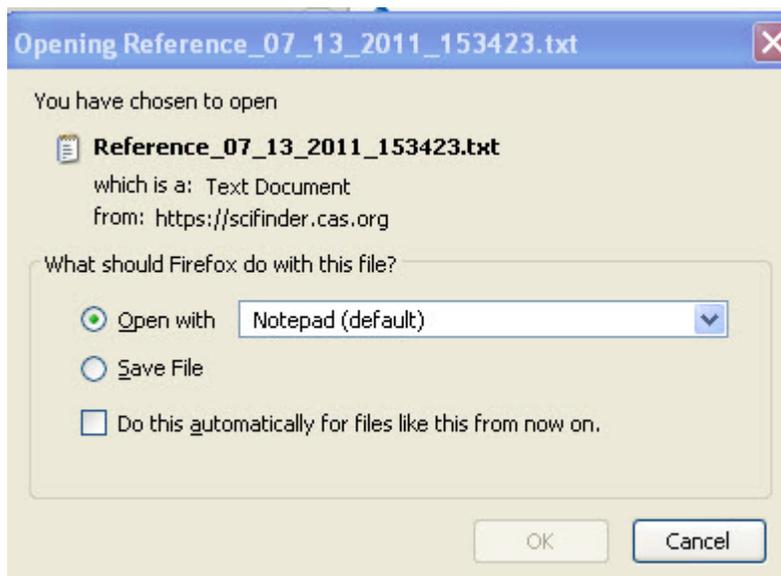
Delimiter:

(newline)

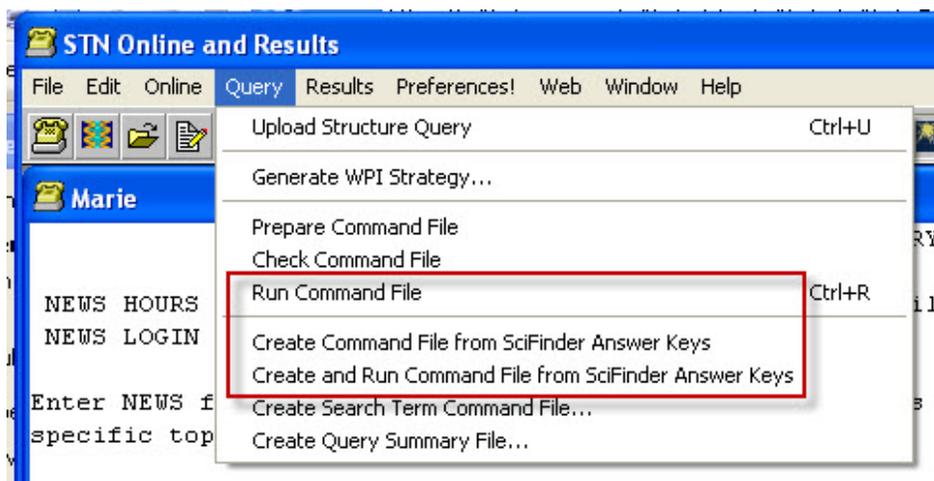
Include database names

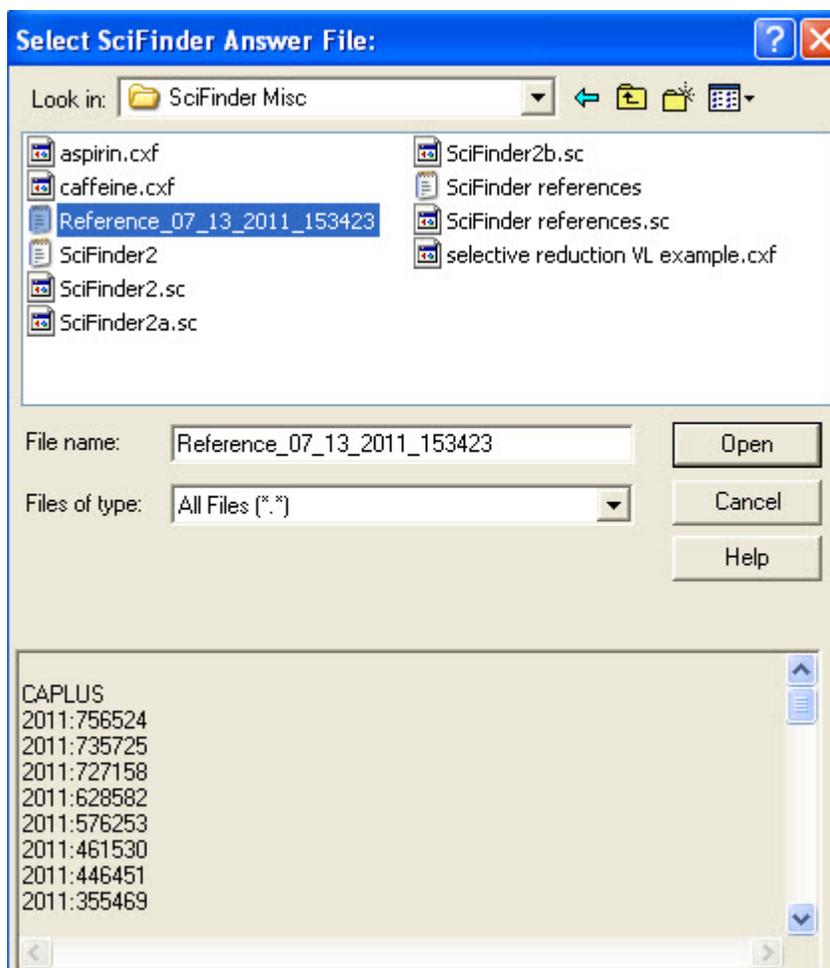
Export Cancel

2. A dialog box appears and you would select **Open with Notepad**. **Save the document** to your local computer using the system defaults, and retain/change the file name as desired.

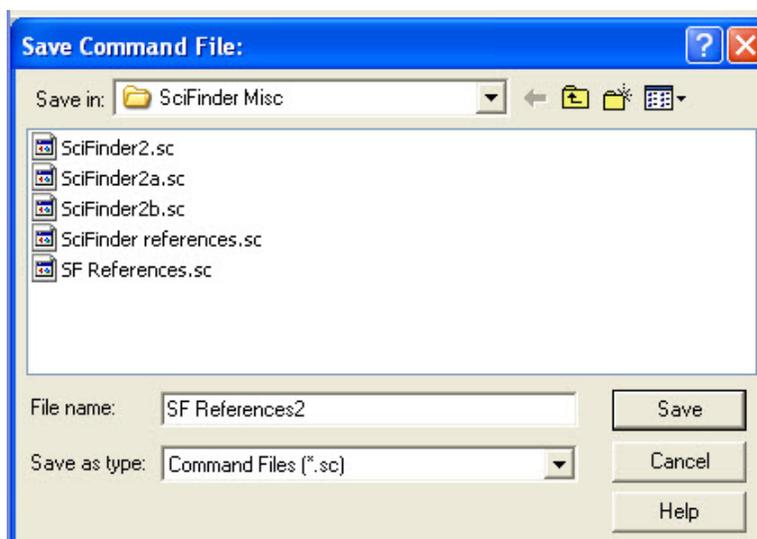


3. **Log into STN Express**, click **Query** menu in the STN Online and Results window, and **click the Create Command File from SciFinder Answer Keys** wizard. STN Express opens the Select SciFinder Answer File dialog box, locate and select the saved file on your computer, then **click the Open button**.



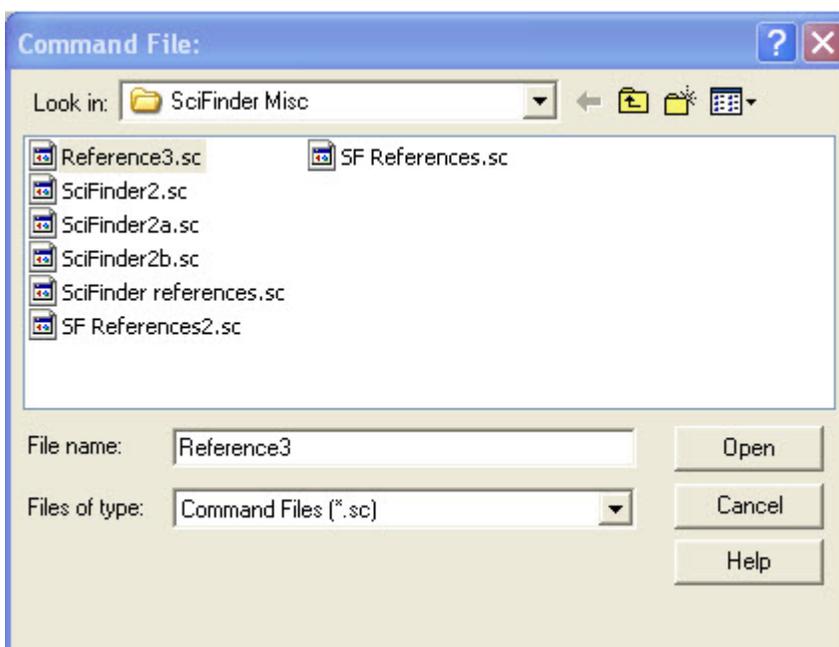
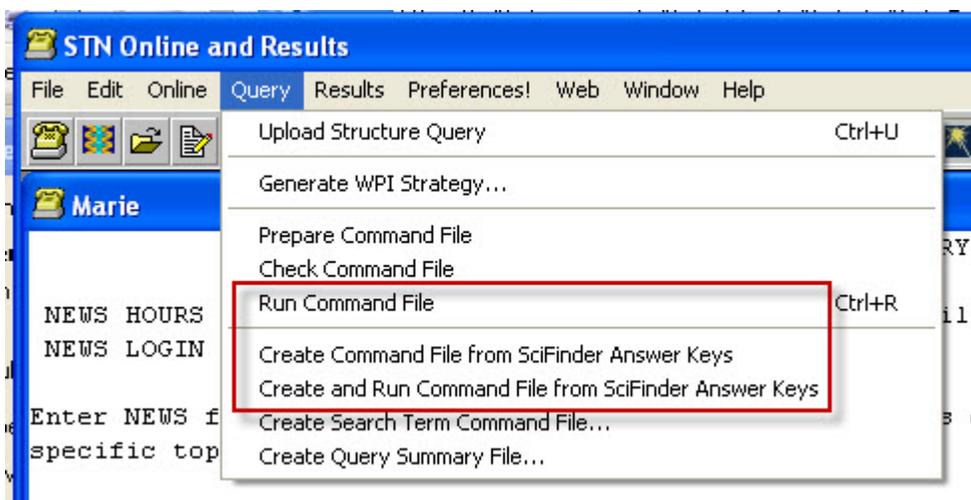


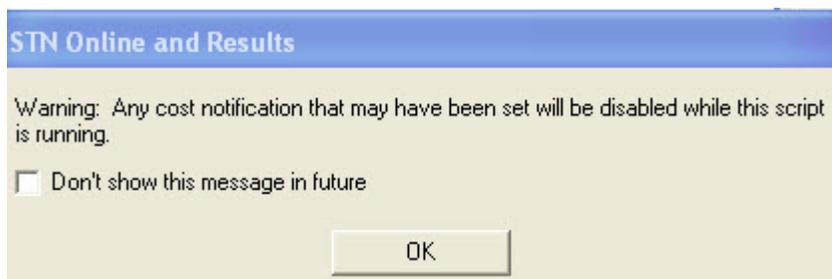
4. The Save Command File dialog box appears, **click the Save button** (retains existing file name or change if desired). A dialog box displays the number of search terms added to the command file, then **click OK**.





5. Click **Query** menu in the STN Online and Results window, **select Run Command File**, a Command File dialog box appears, **select the desired file**, click the **Open** button, and a STN Online and Results cost notification warning box appears, and then **click OK**. STN will then automatically run the search to retrieve the SciFinder references.





**Tip:** If you would like to simplify the process, use the [Create and Run Command File from SciFinder Answer Keys](#) wizard.

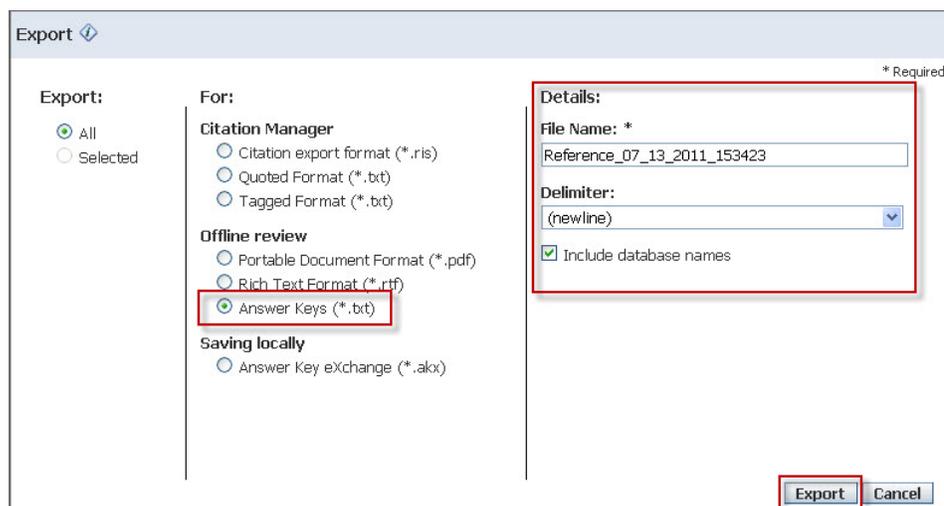
## Create and Run Command File from SciFinder Answer Set

To use STN Express<sup>®</sup> to import a SciFinder<sup>®</sup> saved answer set into STN<sup>®</sup>, you would utilize the Create and Run Command File from SciFinder Answer Keys wizard found in the Query menu in the STN Online and Results window. **NOTE:** Only SciFinder reference and substance answer sets can be imported into STN Express.

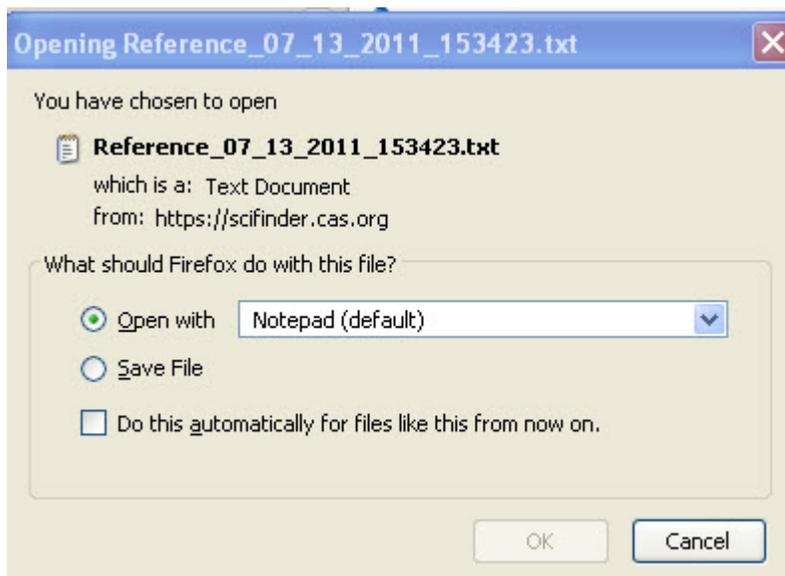
Follow these steps:

1. Log into SciFinder, conduct your search, and **Click the Export hyperlink.** The Export dialog box appears. **Select Answer Keys (\*.txt)** under the Offline review options. Enter a desired File Name or use the system-supplied name. Accept the SciFinder system defaults of Delimiter (newline) and retain the checked box to include database names as shown in the example below. **Click Export button.**

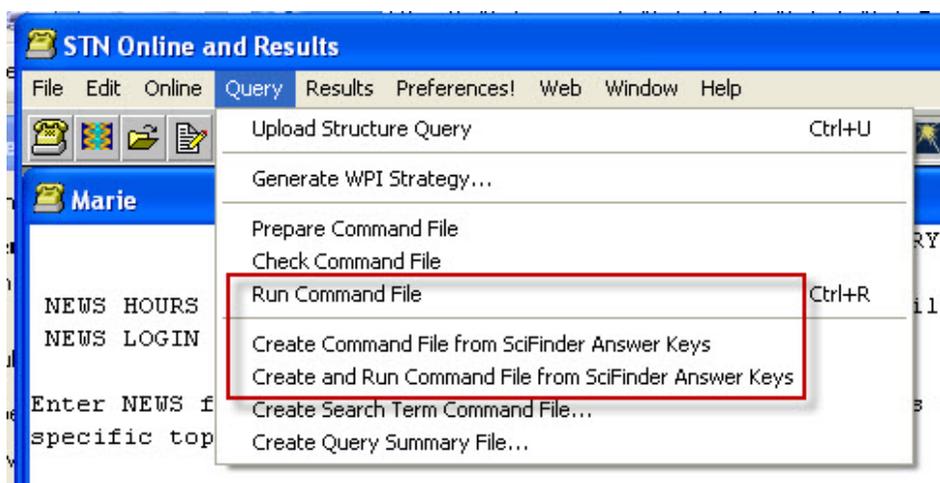
**NOTE:** STN Express cannot use the SciFinder Answer Key eXchange format (.akx).

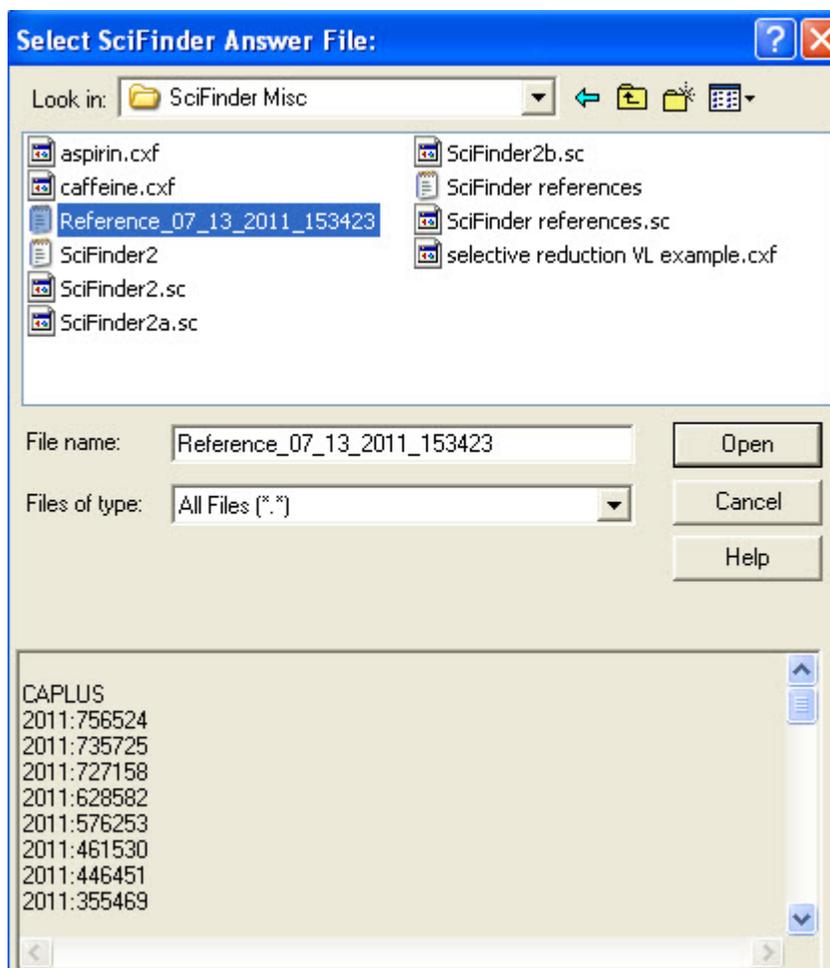


2. A dialog box appears and you would select **Open with Notepad**. **Save the document** to your local computer using the system defaults, and retain/change the file name as desired.

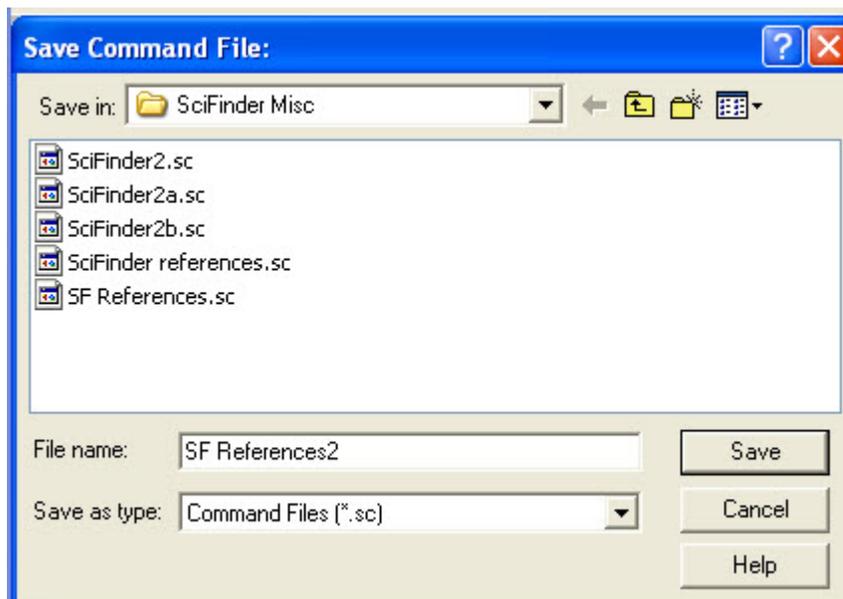


3. Log into STN Express, **click Query** menu in the STN Online and Results window, and **click the Create and Run Command File from SciFinder Answer Keys** wizard. STN Express opens the Select SciFinder Answer File dialog box, locate and select the saved file on your computer, then **click the Open button**.





4. The Save Command File dialog box appears, **click the Save button** (retains existing file name or change file name if desired). A dialog box displays the number of search terms added to the command file, then **click OK**. STN automatically runs the search to retrieve the SciFinder references.





## Creating Query Summary File

You can create a separate file (.pdf or .rtf) summarizing your search history. This allows you to provide a definitive record of what was searched, including relevant structure and sequence queries and query attributes.

To create a query summary file:

1. Conduct your searches.
2. At the conclusion of the searching you wish to include in the summary, enter one of the following commands:
  - SET LTHIS ON
  - DISPLAY HISTORY FULL
  - DISPLAY HISTORY NOF

Alternatively, to ensure that complete history information is always included in your transcripts, enter SET LTHIS ON PERM. This command executes a DISPLAY HISTORY NOF each time you logoff from STN.

Note that other types of displays of session history, e.g., D HIS, do not create query summary files.

3. Select **Create Query Summary File** from the Query menu.
4. Choose the format for the file: .pdf or rtf.

You can create a Query Summary file while still online or after logoff from the captured .trn or .rtf file.

# STN ONLINE AND RESULTS WINDOW MENUS AND TOOLBARS

## STN Online and Results Window Content

The STN Online and Results window contains the following:

- [Menu](#)
- [Toolbar](#)
- Text area for entering commands
- [Status Bar](#)
- Select *Discover!* Wizard Window that displays [Discover!](#) Wizards

## STN Online and Results Toolbar

The Toolbar in STN Online and Results window contains the following buttons. Hover the cursor over the button to have its function displayed in the Status Bar.

Toolbar	Function
	Logon
	<a href="#">Launch BLAST</a>
	Open
	Edit transcript
	Turn off capture session
	Print
	Copy
	Paste
	<a href="#">Report tool</a>
	<a href="#">Table tool</a>

	<a href="#">Predefined Report and Table tool</a>
	<a href="#">R-group tool</a>
	Go backwards in a session or transcript
	Go forward in a session or transcript
	Upload structure query
	Open Discover! <a href="#">Wizard</a> Window
	Activate the Command Window
	Prepare the Command File
	Run the Command File
	Send break to online host
	Hyperlink all CAS Registry Numbers while connected to STN
	Send logoff command
	Force send - click, enter your command and press Enter
	Open structure drawing window
	Set various Terminal Emulation preferences
	Help

You may customize the Toolbar by adding or removing tool buttons.

**To add a tool button:**

1. Right-click in the space on the Toolbar where you want to add a button. The Toolbar Preferences dialog appears. The initial option is **Remove button or gap from toolbar**.
2. Click **Next** to view the buttons one at a time. Continue to click **Next** until you see the desired button.

3. Click **OK** to choose the displayed button for the Toolbar. The new button is displayed on the Toolbar in the slot you have selected.

**To remove a tool button or a gap:**

1. Right-click on the button or gap that you want to remove.
2. In the Toolbar Preferences dialog, click **OK**. The tool button or gap that you have selected is now removed from the Toolbar.

## Status Bar in STN Online and Results Window

The Status Bar in STN Online and Results window contains the following:

Status Bar Item	Function
Discover!	Displays a pop-up menu for the <a href="#">Discover! wizards</a> .
Transcript	Displays the directory path and the file name for your transcript. If you are not capturing a transcript, click <b>Transcript</b> to start capture.
File Name	Displays the current STN file. Click this box to display a pop-up menu with recently entered files or to select <b>From a List</b> of files.
INS/OVR	Click this box to change from the insert to overwrite mode for entering text.
Hold On/Hold Off	Toggle to <b>Hold On</b> to stop the screen from continuously scrolling. Toggle to <b>Hold Off</b> to resume scrolling.
Print Off/Print On	<b>Print On</b> activates slave printing of information on the terminal window. <b>Print Off</b> turns off printing.
Online	Indicates an active session; the green color indicates ready and red indicates busy. <b>Offline</b> indicates terminated communication.
Running Timer	Displays the total amount of time you have been connected in your online session.

Refer to [Layout Preferences](#) for information on how you can customize the Status Bar.

## Menus

### Menu Bar Content

The Menu Bar in STN Online and Results Window contains the following menus:

- [File](#)
- [Edit](#)
- [Online](#)
- [Query](#)
- [Results](#)
- [Preferences](#)
- [Web](#)
- [Window](#)
- [Help](#)

## File Menu

The File Menu in STN Online and Results Window contains the following:

- New (Logon)
- [CAS Registry BLAST](#)
- Open
- Close
- [Table Tool](#)
- [Report Tool](#)
- [BLAST Report with Alignment Data](#)
- [R-group Analysis Table Tool](#)
- [Create Analyze Plus Chart from saved data](#)
- [Edit Personal Dictionary](#)
- [Edit Data Group File](#)
- [Predefined Reports](#)
- Save
- Save As
- Save Selected
- Edit Text File
- Page Setup
- Print Selected
- Printer Setup
- [View TIFF image](#)
- Convert STN AnaVist .rkx file to .xta file (V.2.0+)
- Exit STN Online and Results

## Edit Menu

The Edit menu in STN Online and Results window contains the following:

- Undo
- Cut
- Copy
- Paste
- Clear
- Select All
- [Create Query File](#) - to create query structures from structures in transcripts
- Show Clipboard
- [Install Dictionary](#) - to create a list of terms to be highlighted in a transcript
- [Edit Dictionary](#) - to edit a list of terms to be highlighted in a transcript
- Find
- Replace
- Goto

## Online Menu

The Online menu in STN Online and Results window contains the following:

Online Menu Option	Function
Recall Command	Recall the last command you typed online. You may use this command repeatedly to recall prior commands from the same session, or to edit a line to create a new command. Use the Up Arrow/Down Arrow keys as shortcuts.
Use Pagination Mode/ Use Continuous Scroll	Toggle to control the scrolling of your online display data. Pagination Mode holds a screen temporarily. To continue displaying the next screen, click the <b>Hold On</b> box in the Status Bar.
Show Text Structures/ Show Graphics Structures	Toggle to display text or graphics structures.

## STN Online and Results Window Menus and Toolbars

Suppress Screen Display/ Restore Screen Display	Toggle to control the output display in a terminal window. Suppress Screen Display prevents STN Express from updating the window with new data; this increases the speed at which you may capture results.
Send Break	Send a break to interrupt a host system process.
Prompt Override	Moves your cursor to the line directly below the prompt and makes STN Express ready to accept a typed command.
Terminal Mode	Use to change terminal emulation if you want to access non-STN hosts.
Kermit Send	Upload text or binary files using the Kermit protocol.
Kermit Receive	Download a file from a host system.
Logoff	Disconnect from an online host.
Logoff Hold	Disconnect from STN temporarily.
<a href="#">Command Window</a>	Open a separate window for entering commands to your online host.
<a href="#">Wizard Window</a>	Display the Wizard Window.
<a href="#">Look up in personal dictionary</a>	Look up terms in personal dictionary search aid.
<a href="#">Look up in Lexicon dictionary</a>	Look up terms in CA Lexicon search aid.

## Query Menu

The Query menu in STN Online and Results window contains the following:

- [Upload Structure Query](#)
- [Generate WPI Strategy](#)
- Prepare Command File
- Check Command File
- Run Command File
- [Create Command File from SciFinder Answer Keys](#)
- [Create and Run Command File from SciFinder Answer Keys](#)
- [Create Search Term Command File](#)
- [Create Query Summary File](#)

## Results Menu

The Results menu in STN Online and Results window contains the following:

- [Capture Session](#)
- Print Session (Slave)
- Start New Page
- Edit Transcript

### Preferences Menu

Preferences menu in STN Online and Results window opens Preferences tabs for:

- [Function Keys](#)
- [Online](#)
- [Colors/Fonts/Scaling](#)
- [Links](#)
- [Layout](#)
- [Discover!](#)
- [Accounting](#)
- [Postprocessing](#)
- [Other](#)
- [User Data](#)
- [BLAST](#)

### Web Menu

The Web menu In STN Online and Results window contains connections to services from:

- STN Columbus
- STN Karlsruhe
- STN Tokyo

### Window Menu

The Window menu in STN Online and Results window contains the following options for managing the appearance of the STN Online and Results window:

- Cascade
- Tile Horizontal
- Tile Vertical
- Arrange Icons
- Close All

## Help Menu

The Help menu in STN Online and Results window contains the following:

- Help to view the help topics
- View STN Express User Guide
- Request Help
- Update Discover! Database List
- About STN Online and Results

# TRANSCRIPTS

## Transcripts Overview

The following topics are covered in this section:

- [Browsing transcripts](#)
- [Printing transcripts](#)
- [Viewing images in transcripts](#)
- [Exporting transcripts](#)
- [Modifying transcripts with transcript filters](#)
- [Customizing highlighting in transcripts](#)
- [Combining transcripts](#)
- [Saving transcripts](#)

## Browsing Transcripts

**To browse a captured transcript:**

1. Select **Browse Document** from the Results menu on the Main Menu bar, or click **Browse Document** on the Toolbar.
2. In the Transcript File dialog, select a file name from the list and click **Open**.
3. The **Show structure queries** option is selected. Deselect this option if you do not want to have structure queries included in the transcript.
4. If your transcript contains downloaded images, i.e., TIFF, GIF, or JPEG images, answer the prompt whether to view them in context.

The selected transcript file opens for browsing.

## Printing Transcripts

To print a transcript while browsing it, click the **Print** button on the toolbar or select **Print** from the File menu.

**To print a transcript from the Main Menu window:**

1. Select **Print Transcript** from the Results menu or from the Main Menu Toolbar.
2. In the Transcript File dialog, select the file for printing and click **Open**.
3. Select the specifications in the Page Layout dialog and enter any specifications for your printer.

## Viewing Images in Transcripts

While you are browsing or printing transcripts, TIFF, GIF, or JPEG downloaded images are displayed in context if you answer **Yes** to the prompt **Display image files in context?**

### To display TIFF images separately from the transcript text:

1. Select **View TIFF image** from the File menu.
2. A list of TIFF files is displayed in the TIFF File dialog. Select the TIFF file you want to display.

## Exporting Transcripts

### To export a transcript file to an RTF (Rich Text Format) file:

1. Select **Export Transcript** from Results on the Main Menu.
2. In the Transcript File dialog, select a transcript file and click **Open**.
3. In the RTF File dialog, the transcript name is displayed in the File name box with the .rtf extension. By default, the file is saved to the default transcripts folder, but you can direct it to any location on your PC. Click **Save**.

## Modifying Transcripts with Filters

You may easily modify an existing transcript using transcript filters. STN Express<sup>®</sup> offers five predefined filters. You may also define your own filters.

### To modify your transcript with transcript filters:

1. Click **Browse Document**.
2. In the Transcript File dialog, select the transcript you want to modify (e.g., express1.trn) and click **Open**.
3. In the STN Online and Results window, select **File > Transcript Filters....**
4. In the Transcript Filters dialog, type the name that your modified transcript will have (e.g., express2.trn). Click **Save**.
5. In the Specify Filter dialog, load a predefined filter from the Load Filter drop-down menu.

Predefined Filter	Result
stn-ans	Transcript with only answers
stn-cmd	Transcript with only STN commands
stn-cmdh	Transcript with only STN commands and their results, excluding reactions
stn-strs	Transcript with only structure graphics
stn-tifs	Transcript with only TIFF images

6. Alternatively, define a custom transcript filter. In the Specify Filter dialog, enter this information to define the filter:

Field	Description
Filter name	Name for the transcript filter.
Start string	String that starts the filter. For example, RL.NP. Click <b>Add</b> to add the string to the filter.
End string	String that ends the filter. For example, REFERENCE. Click <b>Add</b> to add the string to the filter.
Default <ul style="list-style-type: none"> <li>○ Include All Fields</li> <li>○ Exclude All Fields</li> </ul>	By default, include or exclude all fields between the start and end strings. Include All Fields is the system default.
Exceptions	One or more exceptions to the fields to be included or excluded between the start and end strings. Click <b>Add</b> to add the exception field(s) to the string.

7. Click **OK**.

If you defined a custom filter, the next time you access the Specify Filter dialog, the name of that filter should be selectable from the Load Filter drop-down menu.

## Customizing Highlighting in Transcripts with Dictionaries

### To create a list of terms to be highlighted in a transcript:

1. Select **Browse Document** and open a transcript.
2. To create a dictionary file with your list of terms, select **Edit Dictionary** from the Edit menu.
3. In the Dictionary File dialog, click **New** to create a new dictionary file.
4. In the Edit Dictionary dialog, type a term that you want highlighted in your transcript. Click **Add** to add it to the dictionary file. Continue adding up to 10 terms. Terms are listed in alphabetical order and are not case-sensitive. Click the color in which you want the terms highlighted. Click **OK**.
5. Save the dictionary file at the next prompt.
6. To apply the dictionary, select **Install Dictionary** from the Edit menu.
7. In the Dictionary File dialog, select the dictionary file to apply. Click **Open**.

The selected dictionary file is applied to the current transcript, i.e., the terms that you have added to the dictionary file are now highlighted by displaying them in the color that you have selected.

## Combining Transcripts

### To merge multiple transcript files into one file:

1. Select **Browse Document** and open any transcript file. While the transcript file is open, select **Combine Transcripts** from the File menu.
2. The Combine Transcripts dialog is displayed. Type a new file name in the File name box. Click **Save**.
3. The Select Transcripts to Combine dialog is displayed. Select a file that you want to combine and click **Copy**. The file is moved to the Selected Transcripts box. Select another transcript and click **Copy**. You may merge as many files as you like. Click **OK** to create the merged file.

## Saving Transcripts

While you are browsing a transcript, you may save it as an RTF (Rich Text Format) or PDF (Portable Document Format) file:

1. Select **Save As** from the File menu. The Enter Filename dialog opens with the transcript name as the default name in the File name box.
2. Select **RTF Files (\*.rtf)** or **PDF Files (\*.pdf)** in the Save as type: field.
3. Click **Save**.

For RTF files, the saved transcript automatically opens in the program associated with .rtf documents.

**Tip:** If a saved .rtf file is slow to open, change it to a .doc file so it will open faster.

# WIZARDS

## Using Discover! Wizards

STN Express provides access to wizards that support you in using unfamiliar or rarely used functions and provide increased efficiency for multistep processes.

You can access the *Discover!* Wizards from:

- The Select Discover! Wizard window
- The **Discover!** button at the bottom left of the STN Online and Results window

To use any of the Discover! Wizards, select the wizard and follow the directions on the screens step-by-step.

### Search and Results wizards in the Select Discover! Wizard window

Search wizard	Function
Select Database	Selects a database on STN
Author	Finds references by author (including inventor) name in the current file(s)
Chemical Name	Locates information about a substance by using its chemical name
Subject	Finds references by subject area
Edit Alert	Modifies an existing current-awareness alert (SDI)
Upload Query	Uploads sequence or structure to STN. The wizard will remove comments, line numbers, and spaces from sequence queries that are in FASTA or GCG format.
Corporate Source	Finds references by corporate source (author or inventor affiliation) in the current file(s)
Refine	Refines search results by parameters such as publication year or language
CAS Registry Number	Locates information about a substance by using its CAS Registry Number in the current file(s).
Get Related Polymers	Searches for related polymers
Get Related Sequences	Searches for related sequences
Create Single-file SDI	Creates current-awareness alerts (SDI) in a single file

<b>Results wizard</b>	<b>Function</b>
<a href="#">Analyze Plus</a>	Analyzes, groups, cross-tabulates, and creates an interactive worksheet of terms from one or two fields of an answer set
<a href="#">Analyze</a>	Analyzes and charts terms from one or two fields of an answer set (no grouping of data)
Display	Displays retrieved answers
Go to L-number	Displays the search statement for the L-number
Save	Saves answers, queries, or L-numbers on STN.
<a href="#">Save R-group data</a>	Saves R-group data for displaying in R-group Analysis Table
Review Saved Items	Displays, deletes, or assigns L-numbers to saved items
<a href="#">Save for SciFinder</a>	Saves the data from a search in CAplus, REGISTRY, or MEDLINE for use in SciFinder
<a href="#">Save for STN AnaVist</a>	Saves the data from a search in supported files for use in STN AnaVist
<a href="#">Create CAS Registry Number &amp; Role Report</a>	Creates an interactive spreadsheet of CAS Registry Numbers and their CAS Roles from a search of the CA/CAplus database or CAS REGISTRY <sup>SM</sup>
<a href="#">Create L# from STN AnaVist</a>	Uses a Saved for STN AnaVist .xta file to create a final L-number that has all the functionality of an L-number created by using the STN SEARCH command
<a href="#">Display from STN AnaVist</a>	Displays records saved in STN AnaVist 2.0
<a href="#">Patent Family Manager</a>	Creates a new L-number from the first member from each patent family, removes twin multiple basics from CA/CAplus answer sets, or allows for customized display of patent family results

**Wizards available from the *Discover!* button**

<b>Wizard</b>	<b>Function</b>
Set Loginid Parameters	Sets various parameters for your online session
Select a Database...	Selects a database on STN
Search by...	Search by AU, CAS RN, CS, and other terms
Upload Sequence or Structure to STN	Upload Sequence or Structure to STN
Display by	Display by Answer or Accession Number
Analyze	Analyze or Analyze Plus wizard
<a href="#">Create CAS RN and Role Report</a>	Creates an interactive spreadsheet of CAS Registry Numbers and their CAS Roles from a search of the CA/CPlus database or CAS REGISTRY
STN AnaVist	Lets you choose these wizards: <a href="#">Save for STN AnaVist</a> , <a href="#">Display from STN AnaVist</a> , or <a href="#">Create L# from STN AnaVist</a>
<a href="#">Patent Family Manager</a>	Creates a new L-number from the first member from each patent family, removes twin multiple basics from CA/CPlus answer sets, and allows for customized display of patent family results
Get Related	Searches for related polymers or sequences
SDI	Creates or edits an SDI alert
Save	Saves answers, queries, or L-numbers on STN
Display Session Costs	Display Session Costs
Logoff Your STN Session	Logoff Your STN Session

## Wizards for Hyperlinked Terms

To make it easy to retrieve additional information, L-numbers, CAS Registry Numbers, and Patent Numbers in STN search results are hyperlinked. Click on the hyperlinked item to display a list of associated wizards.

Hyperlinked item	Associated wizards and functions
L-number for answer sets	<ul style="list-style-type: none"> <li>• <a href="#">Analyze Plus</a></li> <li>• <a href="#">Analyze</a></li> <li>• Display</li> <li>• Refine</li> <li>• Save</li> <li>• <a href="#">Save for R-group Analysis</a></li> <li>• Save Answers for SciFinder</li> <li>• <a href="#">Save for STN AnaVist™</a></li> <li>• Single File SDI</li> <li>• Get Related Polymers</li> <li>• Get Related Sequences</li> <li>• <a href="#">Create CAS RN and Role Report</a></li> <li>• <a href="#">Patent Family Manager</a></li> </ul>
CAS Registry Number®	Retrieve additional information for CAS Registry Numbers: <ul style="list-style-type: none"> <li>• Get CAS REGISTRY<sup>SM</sup> data</li> <li>• Get Catalog data</li> <li>• Get Regulatory data</li> <li>• Get MSDS data</li> <li>• Get Spectra</li> <li>• Get Property data</li> <li>• Structure search</li> <li>• Get Related Polymers</li> <li>• Get Related Sequences</li> </ul>
Patent Number	Retrieve additional information for patents: <ul style="list-style-type: none"> <li>• Get Patent from CAS Full Text Options</li> <li>• Get Legal Status</li> <li>• Get English Language Equivalent</li> <li>• Get Extended Patent Family Information</li> </ul>

## Analyze Wizard

The Analyze Wizard is used for:

- Analyzing terms from one or two fields of an answer set
- Charting of analyzed terms

### To use the Analyze Wizard:

1. Conduct a search in one or more databases.
2. Select the answer set and click **Analyze**.
3. Select one or two fields to be analyzed. Click **Options** for additional customizing of results.
4. Use **Options** to customize the display of terms. Click **OK** to return to the Analyze wizard window. Click **Analyze**.

Noninteractive charts are created.

## Analyze Plus Wizard

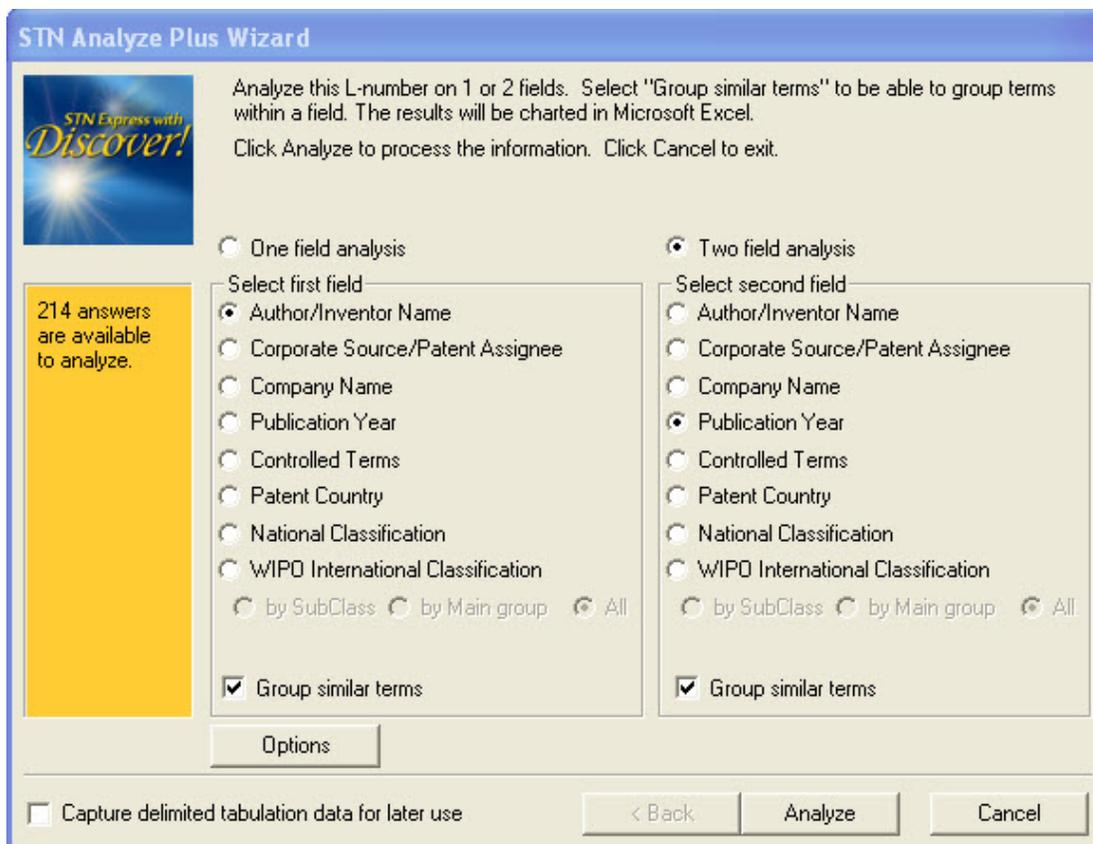
### Using Analyze Plus

The Analyze Plus wizard is used for:

- Analyzing terms from one or two fields of answer set
- Grouping data before charting
- Cross-tabulating and charting of analyzed terms
- Producing an interactive Microsoft Excel worksheet of analyzed terms
- Cross-tabulating and charting terms resulting from the ANALYZE command

### To use the Analyze Plus wizard:

1. Conduct a search in one or more databases.
2. Select the answer set and click **Analyze Plus**.



3. Select one or two fields to be analyzed (the default is two fields). **Group similar terms** is checked by default.

Analyze Plus will select the most appropriate database fields in the following cases:

- **Author/Inventor Name:** Analyze Plus will use the *Author Name (AU)* or *Inventor Name (IN)*, as appropriate for the selected database(s)
- **Corporate Source/Patent Assignee:** Analyze Plus will use either *Corporate Source (CS)* or *Patent Assignee (PA)*, as appropriate for the selected database(s)
- **Publication Year:** Analyze Plus will use *Publication Year, Patent Basic (PY.B)* instead of *Publication Year (PY)*, if the selected database(s) contain the *PY.B* field

**NOTE:** In STN Express 8.5, this automatic field selection may not work for some databases. If Analyze Plus returns a "NOT A VALID FIELD CODE" error, or uses PY where you would prefer PY.B, click on the **Option** button, choose **Custom**, and enter the specific **Field Code** and **Field Name** that you want Analyze Plus to use.

4. Click **Options** to customize the selection and display of terms.
5. Click **OK** to return to the Analyze Plus Wizard window. Click **Analyze**.

- The Data Group Tool is displayed. See [Data Grouping](#) for details. Click **Finish** when you are done.

STN Express cross-tabulates your data and displays it in a Microsoft Excel worksheet. Click the **3-D Column** tab near the bottom left of the window to view the analyzed terms as a chart. Click **Cross-tab** to return to the cross-tabulation view. A second Microsoft Excel worksheet is also created. To display it, select the other worksheet from the Window menu. This worksheet contains the raw data that can be manipulated by standard Microsoft Excel features.

*Related topics:*

- [Analyze Plus Wizard Options](#)
- [Charting Terms from the ANALYZE Command](#)
- [Creating Charts from Saved Tabulated Data](#)
- [Displaying Records from Analyze Plus Charts](#)
- [Data Grouping](#)
- [Editing Data Groupings](#)

### Analyze Plus Wizard Options

To use the Analyze Plus Wizard options, click the Options button.

**STN Analyze Plus Wizard**

Analyze this L-number on 1 or 2 fields. Select "Group similar terms" to be able to group terms within a field. The results will be charted in Microsoft Excel.  
Click Analyze to process the information. Click Cancel to exit.

One field analysis

Select first field

Author/Inventor Name

Corporate Source/Patent Assignee

Company Name

Publication Year

Controlled Terms

Patent Country

National Classification

WIPO International Classification

by SubClass  by Main group  All

Group similar terms

Two field analysis

Select second field

Author/Inventor Name

Corporate Source/Patent Assignee

Company Name

Publication Year

Controlled Terms

Patent Country

National Classification

WIPO International Classification

by SubClass  by Main group  All

Group similar terms

Options

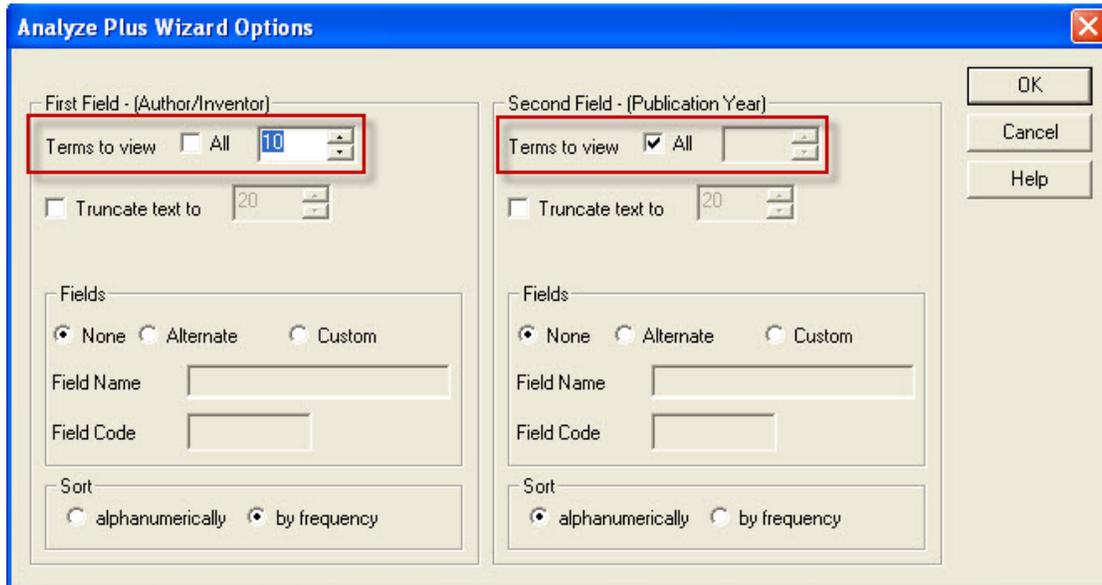
Capture delimited tabulation data for later use

< Back Analyze Cancel

You have four options to customize the Analyze Plus Wizard: Terms to View, Truncate Text, Fields, and Sort.

### **Terms to View**

Use this option to specify the number of terms for each field to be included in the final analysis. The default is to use all terms.



NOTE: When doing a two-field analysis, dropping terms from the first field may cause terms from the second field to be dropped, if the term from the first field was the only hit on the term from the second field.

### **Truncate Text**

Use this option to specify the maximum number of characters to be used from each term, starting at the first character. The default is to use all characters. The characters are truncated before the analysis is done. Therefore, terms which are identical for the selected number of characters will be grouped together.

**Analyze Plus Wizard Options**

First Field - (Author/Inventor)  
 Terms to view  All 10  
 Truncate text to 10  
 Fields:  None  Alternate  Custom  
 Field Name:   
 Field Code:   
 Sort:  alphanumerically  by frequency

Second Field - (Publication Year)  
 Terms to view  All 20  
 Truncate text to 20  
 Fields:  None  Alternate  Custom  
 Field Name:   
 Field Code:   
 Sort:  alphanumerically  by frequency

Buttons: OK, Cancel, Help

## Fields

Use this option to change the analysis field.

- **None:** is the default option which means that the field you selected in the original Analyze Plus Wizard window will remain unchanged.
- **Alternate:** use this option to change your original field analysis. Chose one of the alternate *Field Names* from the drop-down list. The associated *Field Code* will be displayed and will be used in the analysis.
- **Custom:** use this option to fill in any *Field Name* and *Field Code* that are available for ANALYZE in STN database(s) that you used in your original search.

**Analyze Plus Wizard Options**

First Field - (Journal Title - Abbreviated)  
 Terms to view  All 10  
 Truncate text to 10  
 Fields:  None  Alternate  Custom  
 Field Name: Journal Title - Abbreviated  
 Field Code: JTA  
 Sort:  alphanumerically  by frequency

Second Field - (Publication Year)  
 Terms to view  All 20  
 Truncate text to 20  
 Fields:  None  Alternate  Custom  
 Field Name: Custom Field Name  
 Field Code: CFN  
 Sort:  alphanumerically  by frequency

Buttons: OK, Cancel, Help

## Sort

Use this option to specify the initial sort order for each field in the analysis.

The screenshot shows the 'Analyze Plus Wizard Options' dialog box. It is divided into two main sections for configuring fields. The left section is for the 'First Field - (Journal Title - Abbreviated)' and the right section is for the 'Second Field - (Publication Year)'. Each section includes a 'Terms to view' dropdown (set to 'All'), a 'Truncate text to' spinner (set to 10 for the first field and 20 for the second), and a 'Fields' section with radio buttons for 'None', 'Alternate', and 'Custom'. The 'First Field' section has 'Field Name' set to 'Journal Title - Abbreviated' and 'Field Code' set to 'JTA'. The 'Second Field' section has 'Field Name' set to 'Custom Field Name' and 'Field Code' set to 'CFN'. At the bottom of each section is a 'Sort' section with radio buttons for 'alphanumerically' and 'by frequency'. The 'by frequency' option is selected in both sections. On the right side of the dialog are three buttons: 'OK', 'Cancel', and 'Help'.

## Data Grouping in Analyze Plus

When using the [Analyze Plus Wizard](#), similar terms from the Author/Inventor Name, Corporate Source/Patent Assignee, and Company Name fields are automatically grouped by the wizard. To customize the groupings, select the terms in the window and click one of the options on the right. You may alternatively drag-and-drop terms for grouping. Check **Save changes to data groupings** if you want to save the groupings for editing or exporting. Click **Next**.

Data Grouping Option	Explanation
Show all included terms	Display all terms included in analysis.
Show included grouped terms	Display only grouped terms that will be included in analysis.
Show ignored terms	Display only terms that you selected to be ignored in analysis.
Rename	Assign a different name to the selected term or group of terms. This is the name that will be used for this group of terms in the Microsoft Excel worksheet.
Ignore	Ignore selected terms, i.e., do not include the ignored terms in analysis.
Group	Group selected terms. The first term will become the name of the group.

Ungroup	Ungroup selected terms. The selected terms will be removed from their groups and will become individual terms.
Ungroup All	Ungroup all terms. All terms will become individual terms.
Regroup All	Restore the grouping that existed when this window was first displayed.
Expand All	Display the members of all groups.
Collapse All	Show only the name of each group.
Undo	Undo the last action performed in the Data Group Tool window. Undo can be used multiple times to reverse a series of actions.
Redo	Re-apply the change that was most recently undone. Redo can be used multiple times to re-apply a series of actions that have been undone.

If terms are not grouped automatically, you may group them manually.

### Editing Data Groupings of the Analyze Plus Wizard

Editing of data groupings is possible only if the grouping is saved. To save data groupings, check **Save changes to data groupings** in the Data Group Tool window of the [Analyze Plus Wizard](#).

#### To edit data grouping after exiting the Analyze Plus Wizard:

1. Select **Edit Data Group File** from the File menu of STN Online and Results window.
2. In the Select Data Group File window, select the file to be edited and click **OK**.
3. Edit the selected grouping in the Data Group Tool Editor.

To edit data groupings after logoff, you have to get to the STN Online and Results window first. One way is to select **Open** from Results on the Main Menu of STN Express and click **Cancel** in the Choose File window.

## Creating Charts from Saved Tabulated Data

To create charts after exiting STN Express® or exiting the STN Analyze Plus Wizard:

1. Check **Capture delimited tabulation data for later use** in the Analyze Plus Wizard window.
2. Save the tabulated data as a .tbn file in the Uscripts (default) or another folder.

To create charts from saved tabulated data:

1. Exit the Analyze Plus Wizard or logoff from your online session.
2. From the **File** menu in the STN Online and Results window, select **Create Analyze Plus chart from saved data**.
3. In the Uscripts folder select the name of the saved .tbn file and click **Open**.
4. Follow the steps to create Microsoft Excel charts and sheets described in [Using Analyze Plus](#).

## Charting Terms from the ANALYZE Command

To use the Analyze Plus Wizard to chart terms that have already been analyzed with the ANALYZE command:

1. Select the L-number created by the ANALYZE command, and click **Analyze Plus**.
2. Select one or two fields for charting. Click the **Options** button to customize the display, or click **Analyze** if you are ready to proceed. The wizard guides you through the same steps shown for [Using Analyze Plus](#).

*Related topics:*

- [Analyze Plus Wizard Options](#)

## Displaying Records from Analyze Plus Charts

To display STN records associated with a specific cell, double-click the cell. To display records associated with multiple cells, select the cell(s) and click **Display Records** from the toolbar.

To display STN records from the 3-D column view, double-click a column.

Choose your display options. Click **Display**.

STN Express® displays the requested answers in a separate window.

## Creating a CAS Registry Number and Role Interactive Spreadsheet

Use the CAS Registry Number<sup>®</sup> and Role Report Wizard to obtain an overview of the relationship of the compounds in your answer set and the types of studies for those compounds. You can analyze CAS Roles for:

- All the CAS Registry Numbers in your answer set, or
- Only the hit CAS Registry Numbers in your answers set.

You may launch the CAS Registry Number and Role Report from the Results tab of the Select Discover! Wizard Window, from the **Discover** button, or from an L-number hyperlink.

### To create a spreadsheet from CAS Registry Numbers and CAS Roles:

1. Conduct a search in the CA/CAplus database or CAS REGISTRY<sup>SM</sup>.
2. Select the **Create CAS RN & Role Report** wizard and the L-number for the answer set.
3. Select **All RNs** and the answers to be used. Click **Chart**.

The CAS Registry Numbers from the selected documents and the associated roles are tabulated in a Microsoft Excel interactive spreadsheet. Click **3-D Column** on the bottom of the sheet to view the data as a 3-D column.

### To create a report from Hit CAS Registry Numbers and CAS Roles

1. Conduct a search in the CA/CAplus or CAS REGISTRY database.
2. Select the **CAS RN & Role Report** wizard and the L-number for the answer set.
3. Select **Hit RNs** and the answers to be used. Click **Chart**.

### To display answers from a CAS RN & Role Report:

1. To display STN records associated with a specific cell, double-click the cell. To display records associated with multiple cells, select the cell(s) and click **Display Records** from the toolbar. To display STN records from the 3-D column view, double-click a column.
2. Choose your display options. Click **Display**. Selected answers are displayed in both your online session and in a separate window.

### To change the default sort order for the CAS RN & Role Report:

There are three possible "Initial Sort Orders" which can be selected from the **CAS RN & Role Report** toolbar within Excel. The options are:

1. None (default value)
  - Rows are in ascending order by RN
  - Columns are random

## 2. Alphabetic

- Rows are sorted by RN as if the RN were a left-justified text field. For example:
  - 100-02-0
  - 10024-9702
  - 1004-41-4
- Columns are alphabetic

## 3. Frequency

- Rows are in descending order by the frequency of hits displayed in the cells
- Columns are alphabetic

If you change the "Initial Sort Order", the new value is remembered the next time you run the **CAS RN & Role Report**.

## Patent Family Manager Wizard

The Patent Family Manager wizard may be used to:

- Extract the first member from each patent family and create a new L-number
- Remove twin multiple basic patents from CA/CAplus answer sets

**NOTE:** Twin multiple basics are basic patents for the same invention for which the CAS Registry Number® indexing is exactly the same. Twin basics can be identified by the inclusion of the Chemical Indexing Equivalent tag in the SO (Source) field.

- Create a customized display of patent family results

The Patent Family Manager wizard works on L-number answer sets:

- From one or more databases in the PATENT cluster
- Containing up to 5,000 answers (Remove twin basics feature may contain up to 5,000 answers with the Chemical Indexing Equivalent tag)
- Containing patent documents as well as non-patent literature

You may launch the Patent Family Manager from the Results tab of the Select Discover! Wizard Window, from the **Discover!** button, or from an L-number hyperlink.

**Patent Family Manager Wizard**

STN Express with Discover!

300 answers have been retrieved.

Extract the first member from each patent family (limit of 5000 answers)

Include non-patent answers in result set.

Remove twin multiple basics from CA/CAplus answer sets

The selected L# may not contain > 5000 answers with the Chemical Indexing Equivalent tag.

Retain National Office equivalents       Retain oldest Application Date

Retain PCT (WO) equivalents       Retain oldest Publication Date

Customize display of patent family results (limit of 5000 answers)

Display format for first member of each patent family:

Examples: bib abs

Display format for additional members of each patent family:

Examples: ti an

Insert a page break between each patent family display

< Back      Extract      Finish

### To extract the first member from each patent family:

1. Select the appropriate L-number for your answer set by choosing it from the Search history in the Select Discover Wizard window or the answer selection window if you launched the wizard from the Discover button menu options.
2. In the Patent Family Wizard window select the option to extract the first member from each patent family. Check the box if you want to include non-patent answers as well. Click **Extract**.

STN Express automatically executes commands to create a new L-number that contains only the first member from each patent family. The commands that are executed are automatically displayed. A confirmation message is displayed in a box when the L-number has been created.

Click **OK**. Click **Finish** to exit the wizard.

### To remove twin multiple basics from CA/CAplus answer sets:

1. In the Patent Family Wizard window, you have the option to select one of the following:
  - Retain National Office equivalents
  - Retain oldest Application Date
  - Retain PCT (WO) equivalents
  - Retain oldest Publication Date
2. Click **Remove**
3. Click **Finish** to exit the wizard

**NOTE:** This feature works with CA/CAplus answer sets only; multifile answer sets are not allowed. Answer sets containing patents without the Chemical Indexing Equivalent tag or non-patent documents will be automatically retained in the answer set created after this wizard is executed.

### To create a display of patent family results:

1. In the Patent Family Wizard window select the option to customize display of patent family results. Enter a display format for first member of each patent family. Enter a display format for additional members of each patent family. You may also check the box for inserting a page break between each patent family. Click **Display** if you want answers to be displayed. Requested answers are displayed in your online session as well as in a separate window.
2. Click **Finish** to exit the wizard.

**NOTE:** If your answer set exceeds 5000 answers in the Patent Family Manager Wizard you will receive an error message similar to the following:



## Save for SciFinder Wizard

The Save Answers for SciFinder wizard is available to export an answer set from STN Express into SciFinder.

SciFinder utilizes two different answer set formats depending on which version of SciFinder you are using:

- .akx (Answer Key eXchange) file format is used for the web version of SciFinder
- .sfr (SciFinder) file format is used for SciFinder (client installed software)

To use the Save for SciFinder wizard:

1. Complete your STN search in either CAPLUS, REGISTRY, or MEDLINE databases.
2. In the Results wizard of the Select Discover! Wizard window, click **Save for SciFinder**.
3. The Save Answers for SciFinder Wizard opens. Select the file format (.akx is the default file format). Click the **Browse button** to select the location for the file to be saved. **Type a file name**.
4. Determine how many answers you want to save (Save all answers is the default).
5. If you need to share this answer set with a colleague within your organization, click **Send as an e-mail attachment**. This will open a 'send message' window using your default e-mail program on your computer and your newly created .sfr or .akx file is attached to the message. You are now able to fill in the subject line, any message, and the recipient's e-mail address.
6. Click the **Save button**.

## STN AnaVist Wizards

### Save for STN AnaVist

The Save for STN AnaVist wizard saves the data from a search in supported files for use in STN<sup>®</sup> AnaVist<sup>™</sup>.

#### To use the Save for STN AnaVist Wizard:

1. Conduct a search. One or more of the supported databases may be searched together or separately, before saving and importing documents into STN AnaVist:
  - CPlus family of databases
  - EPFULL
  - PCTFULL
  - USPATFULL and USPAT2
  - Derwent World Patents Index<sup>®</sup> (DWPI database (WPINDEX, WPIDS, and WPIX files on STN with access to WPIDS and WPIX for subscribers only)
  - 2ANAVIST cluster: includes CPlus, EPFULL, PCTFULL, USPATFULL, USPAT2, and WPINDEX/WPIDS/WPIX
  - 2HANAVIST cluster: includes HCAplus, EPFULL, PCTFULL, USPATFULL, USPAT2, and WPINDEX/WPIDS/WPIX
2. Select the **Save for STN AnaVist** wizard in one of the following ways:
  - Click on the L-number answer set that you want to transfer to STN AnaVist.
  - Click the **Discover!** button and highlight the L-number with the records.
  - Select from the Select Discover! Wizard window and select the L-number with the records.

The wizard guides you to save the answers in STN Express or to send them as an e-mail attachment.

### Display from STN AnaVist

In STN Express, you can view documents exported from STN AnaVist 2.0.

These documents need to be saved in STN AnaVist 2.0 in eXpress to AnaVist (.xta) format.

To use STN Express to display documents saved in STN AnaVist, select the **Display from STN AnaVist** wizard from the Results tab of the Select Discover! Wizard screen and follow the step-by-step directions.

## ONLINE SEARCH AIDS

### Personal Dictionary for Search Terms

STN Express® can automatically create a "personal dictionary" consisting of an alphabetical listing of any terms that you have used in your search statements. You may then use this personal dictionary to save time in query development by selecting hard-to-spell or other terms.

To create and use a personal dictionary, check the box **Create and update personal dictionary** in the **Online** tab of **Preferences**. Your personal dictionary will continue to be updated until you click **Clear Dictionary** in Online Preferences.

#### To use personal dictionary:

1. Start typing in SEARCH or EXPAND command.
2. Select **Lookup in personal dictionary** from the Online menu.
3. A separate window appears with an alphabetical listing of terms in your personal dictionary. Double-click on the desired term.
4. The selected term may be used in your SEARCH or EXPAND statement.

#### To edit personal dictionary:

1. Select **Edit Personal Dictionary** from the File menu in STN Online and Results.
2. The Personal Dictionary Editor window is displayed with editing options.

Option	Function
Add	Add a term from the single line text box to the dictionary
Replace	Replace the selected term in the dictionary by the term in the single line text box
Delete	Delete selected term(s) from the dictionary
Import	Import terms from an exported personal dictionary (.txt) file for adding to the current personal dictionary
Export	Export a copy of the personal dictionary as a plain text (.txt) file for sharing
Clear	Clear (remove) the content of personal dictionary

## CA Lexicon Search Aid

STN Express® makes it easy to use the CA Lexicon terminology in CAplus and CA files on STN.

In the CA or CAplus file, when you enter a search term that is in the CA Lexicon, STN Express automatically highlights the term in a yellow box. That default is set in the **Online** tab of **Preferences**. You may also select a wavy purple underline for identifying any of the CA Lexicon terms in your search statements.

### To add CA Lexicon terms to your search profile:

1. Enter a search term in CA or CAplus. If the term or phrase is in the CA Lexicon, it is highlighted in a yellow box. Right-click on the highlighted term to view the CA Lexicon entries.
2. CA Lexicon entries for the highlighted term are listed in a separate CA Lexicon display window. The CA Lexicon feature does not work in the command window. The CA Lexicon terms are the results of the following STN interaction: EXPAND term+ALL/CT. Select the terms to include in your search strategy. Select the Boolean operator (AND, OR). Uncheck the box **Use parentheses**, if you do not want parentheses to be automatically included. Click **Add Terms**. Close the CA Lexicon display window.
3. Press the **Return** key to execute the search with the CA Lexicon terms included. Note that the CA Lexicon terms are searched in the Basic Index. You may change the search field or add more terms to the search profile, before you press the **Return** key. Make sure that the CA Lexicon display window is closed when you are finished using the CA Lexicon. If you press **Return** while the CA Lexicon window is still active, the selected CA Lexicon terms will be added again.

### To use CA Lexicon to complete search terms:

1. Start typing a term in the SEARCH or EXPAND command.
2. Select **Look up in Lexicon dictionary** from the Online Menu.
3. Lexicon terms appear in a separate window. This feature does not work in the command window. Double-click the term that you want to use in your SEARCH or EXPAND statement. The term is automatically completed.

# STRUCTURE SEARCHING OVERVIEW

## Structure Searching Steps

1. Build the structure offline. Select **Prepare Structure Query** from the Query menu or click the **Prepare Query** button on your Toolbar. The [Structure Drawing window](#) opens. Use the structure tools and menus to build your structure. You may also create your [structure from a transcript](#).
2. Save the structure by selecting **Save** from the **File** menu.
3. Select **Exit** from the Structure Drawing **File** menu to return to the Main Menu.
4. Log on by selecting the **Logon** button or **Logon** from the Main Menu.
5. [Upload the structure](#) by selecting **Upload Structure Query** from the Query menu.
6. An L-number for the uploaded structure is created. Use that L-number for searching.

## Structure Drawing Window

The Structure Drawing Window contains:

- [Structure Drawing Menu Bar](#) - at the top of the Structure Drawing window
- [Standard Toolbar](#) - at the top of the Structure Drawing window
- [Vertical Tool Palette](#) - on the left side of the Structure Drawing window
- [Horizontal Tool Palette](#) - on the bottom of the Structure Drawing window

## Uploading Structures

Select **Upload Structure Query** from the Query menu or click the **Upload** button to select, preview, and upload a structure query for searching. To upload multiple structure files with one command, use the **Ctrl** or **Shift** key to select multiple files in the File Open dialog.

Check **Modifiable queries** if you want to be able to modify your query using STN commands.

**Use Filters** is automatically checked if you used filters (screens) to refine your structure query.

## Creating Structure Search Queries from Transcript

To create a searchable structure from a transcript structure:

1. Select **Browse Document** from the Main Menu Toolbar. Open the transcript containing the captured structures.
2. Highlight the structure diagram in the open transcript. Select **Create Query File** from the **Edit** menu.
3. Click **OK** when the Create Query File message is displayed.
4. In the Structure File dialog box, type the name that you want to assign to the structure. Click **Save**.
5. To recall the saved structure, select **Prepare Structure Query** from the **Query** menu, or click **Prepare Query** on the Main Menu Toolbar. Then select **Open** from the **File** menu to open the saved structure.

The structure diagram is displayed in the Structure Drawing window.

## Refine Structure Queries Using Filters (Screens)

You may refine a structure query by using filters (screens). Filters are useful:

- To make your query run more efficiently online
- To allow you to run some queries that would normally exceed the system limits
- To specify non-structural aspects of your query

To add filters:

1. Select **Save** from the File menu or click the **Save** tool when you are done with creating your structure in the Structure Drawing window.
2. Check **Refine Using Structure Filters** and click **Save** in the Saving dialog.

Refine Using Structure Filters window is displayed. Any filter automatically selected by STN Express is displayed preceded by >> in the selected filter list box. Other filters can be added by selecting the filter from the list, followed by the operator that you want to use. Any CAS REGISTRY file screen number can also be added to a Custom Screen list.

Click **Save** when you are done.

3. Logon to STN and [upload](#) the structure. **Use Filters** is automatically checked in the Structure File window. Click **Open** to upload the structure. A command file is automatically run. L-numbers are created for the screens as well as the structure, and a final L-number query consisting of the structure and screens is created. Conduct the search using the query L-number.

# STRUCTURE DRAWING TOOLS

## Vertical Tool Palette

### Vertical Tool Palette for Structure Drawing

The Vertical Tool Palette, containing structure drawing tools, displays on the left side of the Structure Drawing window.

**To use a tool:** Click an icon and the cursor changes accordingly.

General drawing tools on the Vertical Tool Palette include:

- [Pencil Tool](#) (default selection)
- [Ring Tool](#)
- [Chain Tool](#)
- [Eraser Tool](#)
- [Selection Tool](#)
- [Lasso Tool](#)
- [Text Tool](#)

The following tools are for reaction searching only:

- [Reaction Arrow Tool](#)
- [Reaction Role Tool](#)
- [Reaction Site Tool](#)
- [Atom Mapping Tool](#)
- [Functional Group Tool](#)
- [OR Tool for Functional Groups](#)

## Pencil Tool

This is the default drawing tool; it is used to draw or change atoms and bonds.

Point the pencil cursor and click once to draw a C atom. Carbon is the default Current Atom value. Click, hold, and drag the mouse to the point you want another C node to appear and release the mouse; a second atom is drawn connected to the first by a single bond (the default Current Bond Value).

Modify an existing atom or bond by selecting a new value and then pointing to the atom or bond and clicking. For example, click on the O and then on the double bond in the Horizontal Tool Palette at the bottom of the drawing screen. Point to an existing C and click to modify it to an O and then point to an existing single bond and click to modify it to a double bond.

Notice that the pencil cursor changes to display an "A" or "--" when pointing to an atom or bond.

## Ring Tool

The Ring Tool can be used to draw various ring systems:

### To draw isolated rings:

1. Type the ring size that you want in the Ring Description box, or use the scroll bar to display ring sizes available.
2. Place the ring cursor where you want the ring and click. The ring is drawn vertically upwards from the cross in the center of the cursor, using the current atom type but not the current bond type. Reset the current atom to C before using the Ring Tool. Additional rings of the same type will be drawn on subsequent clicks. The saturated and unsaturated rings displayed in the Ring Tool dialog can be selected directly by pointing to them and clicking.

### To draw fused rings:

Rings can be fused, with an appropriate ring size selected, by pointing to an existing ring atom for spiro fusion, or to the middle of an existing ring bond for fusion along that bond.

**Note:** The cross in the center of the cursor is the "active point" for ring fusion, and the cursor changes when positioned over an atom or bond (displaying an "A" or "--"). Fused ring systems, consisting of 6, 5, or 4 membered rings, can also be typed into the Ring Description box in the Ring Tool dialog. The direction of fusion is left to right, the direction can be changed from horizontal using "U" or "D" for up or down. For example, 66U6D5 draws a steroid skeleton.

## Shortcuts

Click right on the **Ring Tool** to select the default ring system. Also, click right in the drawing area to place alternating single and double bonds for the default ring system.

### Chain Tool

Use the Chain Tool to draw zigzag chains with the current atom and bond type. The default chain length is 1. Type the length you want into the Chain Length dialog or use the scroll bars to select the length. Chains are drawn from left to right (or in an otherwise chemically logical direction) from the arrowhead on the chain cursor.

### Shortcuts

Click right on the Chain Tool to select the default chain length.

### Eraser Tool

Use the Eraser Tool to delete an atom or bond.

To delete a node, click the Eraser Tool, place your cursor on the node that you want to delete, and click. The node and all bonds attached to it are removed.

To delete a bond, click the Eraser Tool, place your cursor on the bond that you want to delete and click.

If **Delete Atoms with Bonds** is checked in the [Drawing](#) tab of Structure Preferences, the atoms at either end of a bond will be deleted when a bond is deleted, assuming there are no other attachment to the atoms.

Use the **Selection Tool** and **Cut** from the **Edit** menu for multiple deletions.

### Selection Tool

The Selection Tool is used to select atoms or bonds for subsequent operations. Point to the atom or the middle of the bond and click.

To deselect an atom or bond, click on an empty space in the drawing window.

Hold the shift key down to make multiple selections; alternatively click, hold, and drag to draw a rectangle around a fragment to select all atoms and bonds within that rectangle.

## Lasso Tool

**Use the Lasso Tool to select and move part of a structure:**

1. Click, hold, and drag the lasso around the fragment that you want to move.
2. Move the lasso cursor into the lassoed area so that it changes to a hand cursor.
3. Click, hold, and drag the fragment to a new position.

**An individual atom or shortcut can also be moved:**

1. Position the lasso so that the bottom of the "knot" on the cursor is close to the atom you want to move. The lasso will change and display an "A" inside it.
2. Click and the lasso changes to a hand, and the node is enclosed by a box (if the hand does not appear move the lasso into the box).
3. Click, hold, and drag the atom to a new position.

## Text Tool

Use the Text Tool to add on-screen text and labels. Text is not searchable.

Text font can be changed via the **Colors/Fonts** tab of **Preferences**. The change is global and the setting for the text will be applied to all the text in the Structure Drawing window.

### Shortcuts

Click right to change the color and font.

## Reaction Arrow

Use the Reaction Arrow tool to draw a variety of reaction arrows. Click on the button alongside the arrow that you want to use followed by **OK**.

Arrows are drawn, from the tail to the arrowhead, by clicking, holding, and dragging the cursor. Reaction roles are automatically assigned to fragments when an arrow has been drawn. If reaction roles are not assigned, erase and redraw the arrow in closer proximity to the fragments.

### Shortcuts

Click right on the Reaction Arrow to select the default arrow.

Note: Reaction tools are disabled for normal drawing modes. Select the **Rxn** Tool from the toolbar or choose **Show Reactions** from the Display Menu.

### Reaction Role Tool

The Reaction Role tool can be used to modify reaction roles that are automatically assigned when in reaction drawing mode. Point to a atom in the fragment whose role you want to change, using the arrow cursor and click. Select the role you want to use from the Role Specification Selection dialog.

Note: Reaction tools are disabled for normal drawing modes. Select the **Rxn** Tool from the toolbar or choose **Show Reactions** from the Display Menu.

### Reaction Site Tool

Reaction Sites can be specified on bonds. Using the star cursor, point to each bond in turn that you want to assign a reaction site label to and click. The options are:

**CC** - this bond is completely changed, that is either formed or broken.

**PC** - this bond is partially changed, that is the bond value changes, for example an exact bond becomes normalized.

**XC** - the bond may be either completely or partially changed.

**NC** - the bond is unchanged.

**NON** - no reaction site specification is declared.

Note: Reaction tools are disabled for normal drawing modes. Select the **Rxn** Tool from the toolbar or choose **Show Reactions** from the Display Menu.

### Atom Mapping Tool

The Atom Mapping tool is used to specify a correspondence between atoms in the reactant and atoms in the product.

To use this tool:

1. Click the **Atom Mapping** tool from the Vertical Tool Palette.
2. In the dialog box, select either the **Manual Mapping** or the **Automatic Mapping** option to get a message telling you how to use the selected option.

**Manual Mapping** - Using the cross cursor, point to an atom in the reactant and click and then point to the corresponding atom in the product. The atoms will be assigned a mapping number 1. Repeat for subsequent pairs of reactant and product atoms.

**Automatic Mapping** - This option causes the fragments to be automatically mapped where possible.

To delete mappings, use the **Eraser Tool** or the **Delete Mappings** command from the **Edit** Menu.

Reactant atoms can only be mapped onto product atoms (and vice-versa), and two different atoms cannot be mapped.

## Functional Group Tool

This tool allows functional groups to be used to build a reaction search query.

A New window must be started when enabling the **FG** tool on the Toolbar. Functional Group queries cannot contain any other drawn structural fragments.

Note: Functional Group tools are disabled for normal drawing modes. Select the **FG** Tool from the toolbar. Reaction tools will also be enabled and disabled accordingly.

### Shortcuts

Click right on a Functional Group in the drawing area to obtain detailed information about the CAS definition of the group.

## OR Tool for Functional Groups

This tool allows functional groups to be linked with an OR operator for searching. Brackets are drawn from upper left to lower right by clicking, holding, and dragging the cursor.

Note: Functional Group tools are disabled for normal drawing modes. Select the **FG** Tool from the toolbar. Reaction tools will also be enabled and disabled accordingly.

## Horizontal Tool Palette

### Horizontal Tool Palette Content

The Horizontal Tool Palette of the Structure Drawing window contains:

- [The Current Atom Box](#)
- [The Common Atoms Palette](#)
- [The Current Bond Box](#)
- [The Common Bonds Palette](#)

### Current Atom Box

The Current Atom Box in the Horizontal Tool Palette of the Structure Drawing window displays the current atom.

The default atom is C. Click left on the Current Atom Box to select a different atom, shortcut, or variable via the Atom Selection preference setting defined in **Preferences/Drawing**. Click right on the **Current Atom Box** to get the List box selection method.

A click in this box resets the drawing tool to the Pencil tool.

### Common Atoms Palette

The Common Atoms Palette in the Horizontal Tool Palette of the Structure Drawing window displays some common atoms.

A single click on the symbol of an atom will select it for single use. A double click will select the atom for multiple use.

Atoms, shortcuts, and variables can be selected by clicking on the [Current Atom Box](#). See the [Drawing](#) tab of Structure Preferences to set the Atom Selection style. Atoms, Shortcuts, and Variables can also be selected from the appropriate dialogs in the **Draw** menu.

The default atom is Carbon for using the [Pencil](#) Tool for drawing structures.

Click the **Reset Atom/Bond** button to return to the atom and bond defaults: C for carbon atom and a single bond.

### Current Bond Box

The Current Bond Box displays the current bond. The default bond is single. A different bond can be selected by clicking on the Current Bond Box. Click on the button next to the bond you want to use followed by **Single Use** or **Multiple Use**. This bond now becomes the current bond.

A click in this box resets the drawing tool to the Pencil tool.

## Common Bonds Palette

The Common Bonds palette in the Horizontal Tool Palette of the Structure Drawing window displays some common bonds.

A single click on a bond will select it for single use. A double click will select the bond for multiple use.

Other different Bond types can be selected by clicking on the [Current Bond Box](#) or by selecting **Bond** from the [Draw](#) menu.

To join two atoms by a single bond, use the Pencil Tool and click on an existing atom and then hold, drag, and release the mouse button

Modify an existing bond by selecting the bond that you want to use from the bond selection dialog and then point to the existing bond and click. Notice that the Pencil Cursor changes to display a "--" when pointing to an existing bond. You can modify several bonds by selecting the bond(s) you want to change (using the Selection Tool) before picking the new bond type.

Bonds of fixed length can be drawn by checking **Snap Bonds** in the [Drawing](#) tab of Structure Preferences and setting a value for Bond Length (e.g., 10 mm). Bonds are then automatically drawn to the nearest compass position so that "almost horizontal" bonds are drawn horizontally. This makes it easier to produce regular diagrams. Fixed bond length can be overridden by holding the shift key down when drawing a bond. It is also overridden when a bond is drawn between two existing atoms.

Click right on a common bond position to change the value to your own preference.

A click in this box resets the drawing tool to the Pencil tool.

Click the **Reset Atom/Bond** button to return to the atom and bond defaults: C for carbon atom and a single bond.

## Standard Toolbar in Structure Drawing

The standard toolbar displays at the top of the Structure Drawing window. The standard toolbar provides quick and easy access to common functions.

Toolbar Button	Function
	Open a new Standard STN structure drawing window
	Open existing structure drawing queries
	Save the current structure
	Print the current structure
	Undo the last action
	Cut the selected structure or structure fragment and places it on the clipboard
	Copy the selected structure or structure fragment and place it on the clipboard
	Paste the clipboard contents into the current structure query
	Display the Shortcut menu which contains shortcuts to insert in your query
	Display the Variable Selection menu, which contains variables to insert in your query
	Verify the query's attributes
	Fuse two structures or structure fragments together
	Center the structure in the Structure Drawing window
	Display the carbon atoms as C, dots, or angles
	Toggle the use of the reaction drawing mode
	Toggle the use of the Functional Group drawing mode
	Set structure drawing preferences
	Logon to an online vendor
	Show STN Express help topics

## Additional toolbar buttons

Button	Function
	Open a new SpecInfo structure drawing window
	Open a new WPI structure drawing window
	Save the current structure with a new name
	Analyze the structure query and suggest filters
	View existing filters
	View the existing Functional Group command file

# STRUCTURE DRAWING MENUS

## Structure Drawing Menu Bar Content

The Structure Drawing menu bar displays at the top of the Structure Drawing window.

The menu bar contains the following menus:

- [File](#) menu
- [Edit](#) menu
- [Draw](#) menu
- [Template](#) menu
- [QueryDef](#) menu
- [Display](#) menu
- [Structure Preferences](#) menu
- [Window](#) menu
- Help menu

## File Menu for Structure Drawing

Menu Item	Function
New	Opens a new Structure Drawing window
Open	Opens an existing structure query
Close	Closes the current Structure Drawing window
Browse	Browses through the saved structures
Save	Saves and name the current structure
Save As	Allows you to save a structure in an alternate format or with a different file name
Page Setup	Allows you to set the page for printing the structure
Print Preferences	Allows you to set options for printing the query, such as including query attributes or enclosing the query in a box
Print	Prints the current structure
Exit	Exits the structure drawing application

## Edit Menu for Structure Drawing

<b>Menu Item</b>	<b>Function</b>
Undo	Erases the last function and restores the item to its previous condition
Cut	Removes a selected structure or fragment and places it on the clipboard
Copy	Copies a selected structure or fragment to the clipboard
Paste	Places the contents of the clipboard at the location of your cursor
Select All	Selects everything in the Structure Drawing window
Clear	Removes a selected structure or fragment
Clear All	Clears everything from the Structure Drawing window
Copy SMILES	Copies the selected object to the clipboard in SMILES format
Show Clipboard	Displays the contents of the clipboard
Repaint	Forces the screen to re-paint
Delete Mappings	Delete mappings applied with the Atom Mapping tool

## Draw Menu

### Draw Menu for Structure Drawing

Menu Item	Function
Bond	Allows you to change the current bond
Atom	Allows you to change the current atom
Shortcut	Allows you to change the current atom to a shortcut, i.e., a predefined group of atoms
Variables	Allows you to change the current atom to a variable, i.e., a generic atom such as M for metals
<a href="#">Variable Points of Attachment</a>	Allows you to indicate variable points of attachment of a structure fragment to a core ring structure
<a href="#">G-groups</a>	Defines and inserts generic groups
<a href="#">Repeating Groups</a>	Defines and inserts repeating groups
Delete Repeating Group	Removes a repeating group
Chain Superatoms	Inserts a chain superatom into a WPI structure
<a href="#">Ring Superatoms</a>	Inserts a ring superatom into a WPI structure
<a href="#">Other Superatoms</a>	Inserts a superatom other than a chain or a ring superatom into a WPI structure
Square Brackets	Inserts brackets around a structure or a structure fragment for referencing in another application
<a href="#">Fuse Fragment</a>	Joins two fragments

### Variable Points of Attachment in Structure Drawing

A Variable Point of Attachment (VPA) lets you draw a query with a substituent on a ring where the attachment point on the ring is one variable. For example, if you are interested in pyridine with chlorine attached at the 1, 2, or 3 positions, draw a VPA.

Select two or more (maximum 20) nodes in a single ring system, along with a node in a substituent fragment. Then click **Draw > Variable Points of Attachment**. A bond is drawn from the fragment to the center of the ring system. To see the specific attachment points on the ring, click **Display > Show VPA**.

## Using Repeating Groups

You can insert a repeating group into your structure query.

To create and use a repeating group:

1. Draw a structure that will contain the repeating group.
2. With the **Selection** tool, select the nodes that are to become members of a repeating group. Hold the **Shift** key to select more than one node. There must be two attachments to the repeating group that are not part of the repeating group.
3. Select **Repeating Groups** from the **Draw** menu. In the Repeating Group Range dialog box, type the numerical range for the group to repeat (0-20 times). Click **OK**.

The group is bracketed and subscripted with the repeating range entered.

To delete a repeating group from a structure:

1. Click the **Selection** tool. Select an atom in the repeating group to be deleted.
2. Select Delete from the Draw menu to delete the repeating group definition.

The atoms in the repeating groups are not deleted. Only the brackets and repeating range are deleted.

## Fuse Fragment in Structure Drawing

Use the Fuse Fragment option to fuse two fragments together either at a node or at a bond.

**To use Fuse Fragment:**

1. With the **Selection Tool** pre-select either a node or a bond in one fragment. The **Fuse Fragment** option in **Draw** menu becomes active.
2. Select **Fuse Fragment** from **Draw** menu and the cursor will change to two facing arrows.
3. Place the cursor over a suitable object for fusing. If a node in fragment 1 is selected, then the cursor needs to be over a node in fragment 2 to be valid for fusion. Similarly if a bond is selected in fragment 1, then the cursor becomes active only when it is positioned over a bond in fragment 2. The second fragment selected is fused onto the first. That means that the orientation of the first fragment selected is preserved, the second fragment selected may be rotated to allow fusion. Also, the atom and bond types in the first fragment are preserved; they override those in the second fragment selected.

Use the **Undo Fuse** command in the **Edit** menu to undo the fuse if you do not like the results.

## Using G-Groups Overview

G-groups are a type of variable fragment that you can define. A single G-group may have between 1 and 20 definitions that can be atoms, shortcuts, variables, structure fragments, or other G-groups. Up to 20 G-groups may be defined. G-groups are numbered consecutively, i.e., G1, G2, G3 etc.

This topic includes:

- [Using G-groups with atoms, shortcuts, or variables](#)
- [Using G-groups with structure fragments](#)

## Using G-groups with Atoms, Shortcuts, or Variables

1. Draw a structure.
2. Select **G-groups** from the Draw menu to display a G-group Definitions dialog box.
3. Click **New**. The Define New G-group dialog box is displayed.
4. Click **Atoms**, **Shortcuts**, or **Variables**. An appropriate dialog box, e.g., **Atom Selection** is displayed. Make selections for the definition of your G-group. Click **OK** when you are done.
5. Click **Save** in the Define New G-group dialog box.
6. Select **Single Use** or **Multiple Use** in the G-group Definitions dialog box.
7. In the Structure Drawing window position the G-group at the desired location.

## Using G-groups with Structure Fragments

You may use a G-group defined by one or more structure fragments. You may have multiple (1-20) points of attachment for each G-group.

1. Draw your core structure and the structure fragment(s) that you wish to include in the G-group definition.
2. On each fragment, identify points of attachment to the core structure.
  - Select **G-groups** from the Draw menu.
  - In the G-group Definitions box, highlight **@ point of attachment** and click **Single Use** or **Multiple Use**.
  - Click on each node of the structure fragment(s) where you want the fragment attached to the core structure. The points of attachment are marked with "@".
3. Define a G-group with your structure fragment(s).
  - Select **G-groups** from the Draw menu.
  - Click **New** in G-group Definitions box.

- Click **Fragments** in the Define New G-group dialog box.
- In the G-group Fragments dialog box you have the following options:
  - If only one fragment is present in the structure, this fragment will be highlighted. Click **Include This Fragment** to select the fragment. Click **OK**. Continue to define the G-group in the Define New G-group box by selecting Atoms, Shortcuts, or Variables.
  - If multiple fragments are present in the structure and they all belong to a single G-group, click **Include All Fragments**. Click **OK**. Then you may add any other Atoms, Shortcuts, or Variables to further define the G-group in the Define New G-group box.
  - If multiple fragments are present in the structure and they belong to different G-groups, select and include one fragment at a time. To select the highlighted fragment in the G group definition, click **Include This Fragment**. To highlight another fragment, click **Next Fragment/Previous Fragment**. Click **Include This Fragment** when all the fragments are selected. Click **OK**.
- 4. Click **Save** in the Define New G-group box to save the G-group containing the structure fragment(s).
- 5. Place the G-group containing the structure fragment(s) onto the core structure.

## Template Menu in Structure Drawing

The Template menu contains a collection of predefined structures you can use. You may also draw your own structure and save it as a template.

To insert a template into your Structure Drawing window:

1. Select **Template** from the Structure Drawing Menu bar.
2. In the Open Template dialog box, select a template file name in the File name box. The structure is shown. Click **Open**.
3. The structure for the template you selected is displayed in the Template dialog box. Select the entire structure or a structure fragment and click **OK**.
4. The Template dialog box disappears. In the Structure Drawing window, click to insert the selected structure.

## QueryDef Menu

### QueryDef (Query Definition) Menu for Structure Drawing

The QueryDef menu is used to define attributes of your structure.

#### To define an attribute:

1. Click the **Selection** or **Lasso** tool.
2. Select one or more nodes in the fragment for which an attribute is defined.
3. Select the option from the **QueryDef** menu.
4. Select the attributes from the dialog box. Click **OK**.

To set attributes for a single atom or bond, right-click on that object and select the desired attribute from the pull-down menu.

You can define the following attributes:

- [Ring Isolation](#)
- [Bond Characteristics](#)
- [Node Characteristics](#)
- [Hydrogen Attachments](#)
- [Non-hydrogen Attachments](#)
- [Other Attributes](#)
- [Generic Definition](#)
- [Markush Attributes](#)
- [Element Count](#)
- [Delocalized Charge](#)
- [Stereochemistry](#)
- [Free Sites](#)
- [Review Functional Group STN Commands](#)
- [Query Verification](#)

## Ring Isolation

You can use the Ring Isolation on the [QueryDef menu](#) to define ring isolation as:

- **Isolated/Embedded:** search for structures with the selected ring system either isolated or embedded in a ring system
- **Isolated:** search for structures that have no additional ring fusion to the selected ring system. Additional substitution is allowed at nodes in the ring
- **Mixture:** This is selected when multiple rings are selected with different ring isolation settings. Changing the ring isolation value changes all selected rings, regardless of previous settings.

## Bond Characteristics

Bond Characteristics on the [QueryDef menu](#) is used to define the following bond characteristics.

### Bond types

- **Chain:** search results include only structures containing chain bonds at the specified location.
- **Ring/Chain:** search results include structures containing bonds in either rings or chains at the specified location. When you change a chain bond to a ring/chain bond, the atoms on either side of the bond are also set to ring/chain.
- **Ring:** search results have a ring containing the bond at the specified location. This is the default type for ring bonds. When you change a chain bond to a ring bond, the atoms on either side of the bond are also set to ring. You cannot alter the bond type in a drawn ring.

### Bond values

- **Exact/Normalized:** search results match answers with either the exact bond value drawn or with normalized bonds
- **Exact:** search results exactly match the bond value that is drawn.
- **Normalized:** search results match only normalized bonds. This is the default for even membered rings with alternating single and double bonds and for tautomeric bonds.
- **Unspecified:** search results will match with any bond value.
- **Mixture:** the bond value when more than one bond is selected with different bond values. It is selected in the dialog but is still grayed, as it is not a user-selectable choice. Changing the bond value changes all selected bonds, regardless of previous settings.

### Node Characteristics

Node Characteristics on the [QueryDef menu](#) is used to specify node characteristics on your structure.

- **Chain:** Search results include only structures containing chain nodes at the specified location. This is the default for drawn nodes in a chain. Chain nodes can be changed to ring or ring/chain nodes. Changing node characteristics at either end of a bond does **not** change the bond value.
- **Ring:** Search results include only structures containing ring nodes at the specified location. This is the default for nodes in rings and cannot be changed.
- **Ring/Chain:** Search results include structures containing chain nodes or ring nodes at the specified location.
- **Mixture:** The node characteristic when more than one node is selected with different node characteristics. It is selected in the dialog but is still grayed as it is not a user-selectable choice. Changing the node value changes all selected nodes, regardless of previous settings.

### Hydrogen Attachments

Hydrogen Attachments on the [QueryDef menu](#) are used to specify either an exact or minimum number of H attachments on a node.

**Note:** This value should not contradict (and therefore must include) any H's drawn in the structure query.

### Non-Hydrogen Attachments

Non-Hydrogen Attachments on the [QueryDef menu](#) are used to specify non-Hydrogen attachments on your structure.

You may specify an exact, minimum, or maximum number of attachments on a node other than hydrogen and the nature of those attachments.

**Note:** This value should not contradict (and therefore must include) the number and type of connections drawn in the structure query.

### Other Attributes

Other Attributes on the [QueryDef menu](#) is used to specify the following attributes:

- **Charge:** default is ANY, which retrieves both charged and uncharged substances.
- **Valency:** default is ANY. Valency is equal to the total number of bonds to a node, plus the absolute value of the charge.
- **Isotope:** default is ANY, which retrieves any isotope value, including none.

This option is **not** active if more than one node is selected.

### Generic Definition

Generic Definition on the [QueryDef menu](#) is used to specify attributes of generic nodes. Select generic nodes (Ak, Cb, Cy, or Hy) of the same type to enable this option.

The following options are available:

Attribute	Options
Saturation	<ul style="list-style-type: none"><li>• Saturated - all bonds are single exact</li><li>• Unsaturated - at least one double exact, triple, or normalized bond</li></ul>
Type of Chain	<ul style="list-style-type: none"><li>• Linear - all atoms have one or two attachments</li><li>• Branched - at least one atom has more than two attachments</li></ul>
Number of Hetero Atoms	Specify number of non-carbon atoms
Type of Ring System	<ul style="list-style-type: none"><li>• Monocyclic - one bond must be broken to change the system into a chain</li><li>• Polycyclic - two or more bonds must be broken to change the system to a chain</li></ul>
Number of Carbon Atoms	Default is ANY, can be set to >7 or <7.

### Markush Attributes

Markush Attributes on the [QueryDef menu](#) is used to specify the following attributes that affect searching in MARPAT:

- **Match Level:**

**Class:** matches at either class or atom level; the initial default for chain nodes.

**Atom:** limits the search to structures matching at the atom level; the initial default for ring nodes.

**Any:** matches at any level, including generic R-groups.

- **Element Count Level:**

Can be set to Limited or Unlimited for a selected node.

### Element Count

Element Count on the [QueryDef](#) menu is used to limit the types and numbers of elements in generic groups or to limit the types of Markush retrievals for your query.

#### To use Element Count:

1. Select one or more generic nodes in your structure.
2. Select **Element Count** from the QueryDef menu.
3. In the Element Count dialog box choose the elements that you wish to limit in your query. Select **Exact**, **Range**, **Minimum**, or **Maximum**. Click **Add** to apply the Element Count to selected nodes. The elements available for selection depend upon the generic group selected. Click **Remove** to remove the Element Count from selected nodes. Click **OK** to return to structure building.
4. Check the **Limited** box to match generic groups that explicitly meet your Element Count specification. If the Limited box is not checked, generic groups that merely imply your Element Count specification will be matched.

### Delocalized Charge

Delocalized Charge in the [QueryDef](#) menu is used to change the default setting for selected nodes.

#### To use Delocalized Charge:

1. Select adjacent nodes.
2. Select **Delocalized Charge** from the QueryDef menu.
3. In the Delocalized Charge dialog box select a delocalized charge from the scrollable list. **Any**: retrieves substances with or without a delocalized charge. This is the default. You may also select a **specific number** between 5+ and 5- or **Any+** and **Any-**.
4. Click **OK**.

## Stereochemistry

You can use Stereochemistry on the [QueryDef menu](#) to specify stereochemical attributes of a structure.

Stereochemical searches can be **Relative** or **Absolute**. Relative is the default, it allows retrieval of both possible enantiomers. An Absolute search only retrieves the enantiomer drawn in the query.

To search for structures with **double bond geometry**, select the double bonds and then choose the **Stereo** option under **Geometric Bonds**.

**Stereo Set** options are used to define different stereo groups within a single structure. Select the desired nodes and then choose the appropriate options under **Stereo Set**.

**Node Attribute** options are used to alter stereo structures, e.g., flatten, invert.

**Note:** If an invalid pattern of stereo bonds has been drawn, an error message is displayed in the **Stereochemistry** dialog. Use **Query Verification** for more information on drawing stereo centers.

## Stereo Display Label

A stereo label for display only can be added to any node that has one or more stereo bonds. Select the node and then the stereo command that will be enabled. Click on **Specific**, followed by the label that you want to use. Stereo labels can be deleted using the **Eraser Tool**, or moved using the **Lasso Tool**

## Free Sites

You can use Free Site on the [QueryDef menu](#) to specify Free Sites when creating WPI structures.

This option allows you to change the default setting for the selected nodes. The default setting, **None**, retrieves search results containing the normal valency of the atom with hydrogen attachments only. You may also specify a maximum, between 1 and 9, for non-hydrogen attachments.

## Review Functional Group STN Commands

You can use Review Functional Group STN Commands on the [QueryDef menu](#) to display the STN command file that is created when a Functional Group query is saved. Unsaved changes to the FG query will not be reflected in the command file.

## Structure Query Verification

Query Verification on the [QueryDef menu](#) is used to verify your structure query.

Select **All** to review all the current structure's attributes. Select **Select** to deselect options. Then check the options you wish to review for:

- Bonds
- Rings
- Stereo
- Nodes
- G-groups

The attributes selected from the Query Verification dialog are displayed in turn with the attribute highlighted. Click **OK** to continue and display the next attribute. Click **Cancel** to leave Query Verification.

## Display Menu in Structure Drawing

The Display menu options affect only the appearance or orientation of your current structure, not search results.

Menu option	What it does
Carbons	Changes the display of some carbon atoms in the current structure. Select any carbons that you wish to display differently and Click this item. A secondary pop-up appears allowing you to choose between <b>Dots</b> , <b>Angle</b> , or <b>C symbols</b> for any selected carbon atoms. <b>Note</b> that the display of all carbons can be changed using the <b>Carbons</b> option under <b>Drawing Preferences</b> .
Stereo	Adds a stereo label for display to any node that has one or more stereo bonds. Select the node and then <b>Stereo</b> . Click on <b>Specific</b> , followed by the label that you want to use. Stereo labels can be deleted using the <b>Eraser Tool</b> , or moved using the <b>Lasso Tool</b> .
Show VPA	Displays the potential connection sites of a variable positioned group on a ring system.
Show Node Numbers	Replaces all nodes with a node number. Node numbers are assigned in the order nodes are placed on the screen. Select <b>Show Node Symbols</b> a second time to turn this display off.
Ring Circles	Displays alternating single and double bonds in six membered rings as a circle inside the ring.
Show Reactions	Displays Reaction information: Reaction Roles, Reaction Sites, Reaction Mapping, and Atom Mapping.

Show Query Attributes	Displays activated viewer for the Query Attributes, which displays the attributes for a node or bond at the current cursor position. The display changes as the cursor is moved over different nodes or bonds.
Smooth	Allows you to improve the appearance of rings or chains drawn freehand. If you do not like the appearance of the smoothed structure use the <b>Undo</b> command.
Expand	Enlarges and centers the drawing on the screen. If the structure expands out of the current viewing port, use the scroll bars to view it. One or more discrete fragments can be selectively expanded. Use the <b>Selection</b> tool to select the fragment(s) before using the <b>Expand</b> option.
Contract	Reduces the size of the drawing on your screen and centers it. One or more discrete fragments can be selectively contracted. Use the <b>Selection</b> tool to select the fragment(s) before using the <b>Contract</b> option.
Reverse Shortcut	Displays a shortcut in its reverse form. For example, an "OH" group with a horizontal bond extending to the right is usually drawn as "HO". Select the shortcut to be reversed then select <b>Reverse Shortcut</b> from the Display menu. Where possible, the bond is drawn to the relevant node in the shortcut.
Rotate	Rotates a structure about an atom or bond on the screen. Select the structure or fragment that you want to rotate. Then choose <b>Rotate</b> command. The cursor changes displaying a curved arrow around a dot which shows the direction of rotation. Click and move the cursor in a clockwise or counter clockwise direction. The fragment will be rotated in that direction about a central axis.
Flip Fragment Horizontal	Makes a left-right rotation of a structural fragment through 180 degrees. The structure is rotated about a vertical axis creating a mirror image.
Flip Fragment Vertical	Makes an up-down rotation of a structural fragment through 180 degrees. The structure is rotated about a horizontal axis creating a mirror image.
Show Grid	Show a grid in the structure drawing window.
Snap to Grid	Select a set of nodes or a fragment, then use this command to snap the nodes to the nearest grid position.
Snap to Compass	Select a set of bonds or a fragment and use this command to snap the bonds to the nearest compass position.

## Window Menu in Structure Drawing

Several query structures can be open at the same time. Each open file is displayed in a separate window; the open windows can be tiled, cascaded, or displayed as icons. All open windows are listed in the Window Menu. The current window is checked. The Window Menu provides options for the appearance of structure windows.

Menu option	How it works
Cascade	Causes all open windows to be cascaded, with the current window on top. Clicking on any window in the cascade makes it the active window and brings it to the top of the cascade.
Tile Horizontal	Causes all open windows to be tiled horizontally so that several queries can be displayed and modified simultaneously, e.g., fragments can be copied and pasted between windows.
Tile Vertical	Causes all open windows to be tiled horizontally or vertically
Arrange Icons	This option becomes active when an open window has been minimized. Each open window can be minimized (displayed as an icon) by clicking on the down arrow on the header bar of that window. The down arrow is displayed only when windows have been cascaded or tiled. Arrange Icons displays all open window icons at the bottom left of the drawing screen. Click, hold and drag on an icon to move it. Click once on an icon and then on the Restore option to redisplay the window in either its tiled or cascaded form. The Maximize option maximizes that window so that it fills the structure drawing screen.
Close All	Closes all open drawing windows.



# REACTION QUERIES

## Drawing a Reaction Query

To draw a reaction query:

1. Open the Structure Drawing window by clicking on the **Prepare Query** button on the Main Menu Toolbar or selecting **Prepare Structure Query** from the Query menu.
2. Click the **Reaction (Rxn)** button on the Structure Drawing Toolbar or select **Show Reactions** from the Display menu. The Structure Drawing window is displayed in Reaction mode, and the Reaction Drawing tools are activated on the Tool Palette:
  - [Reaction Arrow tool](#) - to set up a chemical reaction between structures
  - [Reaction Role tool](#) - to specify the roles of the participants in a reaction
  - [Reaction Site Tool](#) - to specify a reaction site label for a specific bond
  - [Atom Mapping Tool](#) - to specify a correspondence between atoms in the reactant and atoms in the product

## Using Functional Groups in a Reaction Query

To use Functional Groups in a Reaction Query:

1. Open a new window by selecting **New/Standard** from the Structure Drawing File menu or clicking the **New/Standard** button located on the Toolbar.
2. Click the [Functional Group](#) button on the Toolbar in the new Structure Drawing window. The following reaction drawing tools and the functional group drawing tools on the bottom of the Tool Palette are activated:
  - [Reaction Arrow](#)
  - [Reaction Role](#)
  - [Reaction Site](#)
  - [Atom Mapping](#)
  - [OR tool for Functional Groups](#)



## WPI STRUCTURES

### Creating WPI structures

To create a structure for searching in the WPI databases:

1. Create a structure in the Structure Drawing window and save it as a standard structure. The .str extension is automatically applied, e.g., pyraz.str.
2. Open the standard structure in the Structure Drawing window. In the Open Query dialog box click **WPI** under **Convert to** and click **Open**. The structure is displayed in the Structure Drawing window and is identified as a WPI structure, e.g., pyraz.str \*WPI.\*
3. To insert superatoms into a WPI structure, select [Ring Superatoms](#), **Chain Superatoms**, or [Other Superatoms](#) from the **Draw** menu and make your selections.

To include non-structural codes and sugar codes for your WPI Fragmentation code strategy:

1. Select **Include WPI Other Code Concepts** from the **Query** menu.
2. Select the codes you want by clicking **Select Codes**, then on the appropriate descriptor(s) from the menus. Selected codes appear in the lower window, with the definitions in the upper window. To combine codes using Boolean AND or OR, click on the menu heading to toggle between them. Use **Delete Last** or **Delete All** to erase your selection.
3. Select **Leave OCC** or minimize the OCC window to return to the main STN Express menu. If you have not yet drawn your structure, you can do it now; the selected non-structural codes will remain active. When you have drawn and saved your structure, leave structure drawing and return to the main STN Express menus.

To [generate WPI fragmentation code strategy](#) from your structure, select **Generate WPI Strategy** from the **Query** main menu.

## Ring Superatoms for WPI Queries

### To use Ring Superatoms:

1. Select **Ring Superatoms** from the Draw menu in order to insert a ring superatom into a WPI structure query only.
2. In the Ring Superatoms dialog box, click the button next to one of the ring superatoms.
3. Click **Single Use** or **Multiple Use**.
4. Insert the ring superatom at the desired location in your structure.

### Options for Ring Superatoms are:

- **CYC:** Cycloaliphatic - Carbocyclic, optionally fused
- **ARY:** Aryl-Carbocyclic, optionally fused, containing at least one benzene ring
- **HEA:** Heterocyclic - Aromatic, Monocyclic (5 or 6 ring atoms)
- **HET:** Heterocyclic - Non-aromatic, Monocyclic
- **HEF:** Heterocyclic - Fused, optionally aromatic
- **HEO:** Heterocyclic - containing metal, halogen, or B, Si, P, or As

## Other Superatoms for WPI Queries

### To use Other Superatoms:

1. Select Other Superatoms to insert a superatom other than a chain or a ring superatom into a WPI structure query.
2. Click the radio button next to one of the "other" superatoms in the Other Superatoms dialog box.
3. Click **Single Use** or **Multiple Use**.

Options for Other Superatoms are:

- **AMX:** Alkali (ne Earth) Metal
- **A35:** Group IIIVa Metal - Al, Ga, In, Tl, Ge, Sn, Pb, Sb, Bi
- **TRM:** Transition Metals excluding Lanthanum
- **LAN:** Lanthanide (including Lanthanum)
- **ACT:** Actinide (including Actinium)
- **MX:** Metal, any
- **HAL:** Halogen
- **TX:** O, S, Se, Te
- **UX:** O, S, Se, Te, N
- **ZX:** B, Si, P, As
- **TM1:** First series transition metals
- **TM2:** Second series transition metals
- **TM3:** Third series transition metals

## Other Code Concepts for WPI Queries

The **Other Code Concepts** in the STN Express **Query** menu is used to include non-structural codes and sugar codes in your Fragmentation code strategy. These codes can be selected before or after drawing your structure, by choosing the **Include WPI Other Code Concepts** from the STN Express **Query** menu.

### To use Other Code Concepts:

1. Select the codes you want by clicking **Select Codes**. On the appropriate descriptor(s) from the menus selected codes appear in the lower window, with the definitions in the upper window.
2. Codes can be combined using Boolean AND or OR. Click on the menu heading to toggle between them. Use **Delete Last** or **Delete All** to erase your selection. It is not possible to select truncated codes directly, but you can include them by selecting a specific code, generating the strategy, and then editing the strategy.
3. When you have finished selecting codes, select **Leave OCC** or minimize the OCC window. This returns you to the main STN Express menu. (If you have not yet drawn your structure, do so now - the selected non-structural codes will remain active. When you have drawn and saved your structure, leave structure drawing and return to the main STN Express menus.)
4. Select **Generate WPI Codes** from the **Query** menu, and select the name of the saved structure. Click in the checkbox labeled **Include**, to mark it with an x, and click on **Generate**. The selected non-structural codes will be included in your strategy.

## Generating WPI Fragmentation Code Strategy

You can generate a WPI fragmentation code strategy from a structure for searching in the WPIDS or WPINDEX databases on STN as follows:

1. [Create a WPI structure](#). You may also choose to include non-structural codes and sugar codes for your WPI Fragmentation code strategy. You may add these codes before or after drawing your structure by selecting **Include WPI Other Code Concepts** from the **Query** menu.
2. Select **Generate WPI Strategy** from the **Query** main menu.
3. Open a WPI structure. The structure is displayed in the preview box.
4. Select the **SUBS** you want to search.
5. Select **Include OCC** if you had included Other Code Concepts in your strategy. This option is not available if codes have not been pre-selected.
6. Check **Generate RIN codes only** to generate only RINs for your WPI structure.
7. After the WPI Fragmentation code strategy has been generated, STN Express displays the strategy in the File Editor window. The strategy is in the form of an STN Express command file with the .sc extension applied to the name of the structure. The definition of any code can be displayed on the screen, to help with checking and editing of the strategy. Position the cursor anywhere within the code, and choose the **Code definition** command from the **Utilities** menu.
8. Save the strategy using the **Save** or **Save As** command from the **File** menu. In addition to the actual command file, the program also creates a file with the extension .stg which contains information about any linked structure.
9. To run the WPI Fragmentation Code Strategy, enter the file, e.g., WPIDS, select **Run Command File** from the **Query** menu and open the .sc file with your fragmentation strategy.



# STRUCTURE PREFERENCES MENU

## Structure Preferences Menu Options

Menu Item	Function
<a href="#">Chemistry</a>	Allows various chemical preferences to be set, for example, Markush Match Level Defaults, Show VPA, or the Me/CH <sub>3</sub> display option for Methyl.
<a href="#">Layout</a>	Changes the Structure Drawing desktop layout.
<a href="#">Save Time</a>	Allows preferences to be set for saving structure queries.
<b>Warnings</b>	Allows the display of warning messages to be switched off. Select the warning that you do not want displayed, click on the <b>Disable</b> button to switch off the display of that message. An 'x' will appear before the warning message that has been disabled. If you want to display a disabled warning message, click the <b>Enable</b> button.
<a href="#">Colors/Fonts</a>	Changes the colors and fonts of atom symbols, bonds, selections, etc.
<a href="#">Drawing</a>	Sets the default drawing preferences. There are various options that can be selected to change the display of the structure diagram.

## Structure Preferences: Chemistry

Option	What it does...
Show VPA	Shows the variable substituent's connections to its ring nodes in a Variable Point of Attachment (VPA) as dotted bonds. These can subsequently be hidden by deselecting <b>Show VPA</b> .
Limited	Sets the default for Markush attributes. This may be changed for any given atom with the <b>Markush Attributes</b> or the <b>Element</b> selection from the <b>QueryDef</b> menu.
Use Bond Algorithm	This default is used when drawing queries for searching. All bonds are set to exact/normalized if this option is unchecked; otherwise, the bond algorithms are applied.
Show Reactions	When this option is checked, reaction information is displayed, and reaction drawing tools on the drawing palette are activated. This option is available via the <b>RXN</b> button on the toolbar.
Markush Match Level Defaults	Markush Attributes affect search results only in the MARPAT database. The defaults for Ring Nodes or Chain Nodes can be changed.
Methyl Display	Display CH <sub>3</sub> or Me.

## Structure Preferences: Layout

Content	How the Layout changes
Palette	The Palette display is optional and when displayed can be displayed horizontally or vertically and as a single or double line. The display format can be changed through the Layout option, or by clicking left on the open gap at the bottom of the palette to make changes from the Structure Drawing Window.
Toolbar	The Toolbar display is optional and when displayed can be displayed horizontally or vertically and as a single or double line. Additional tools can be added to the toolbar or tools can be repositioned to meet your preference. Existing tools can also be removed from the toolbar by replacing with a toolbar gap or closing a toolbar gap. Click right on the toolbar at the position you wish to modify and select the appropriate button from the list.
Status Bar	The Status Bar, if displayed, can show Menu Help on the left and the Molecular Formula and the Clock on the right.
Tool Tips	Tool Tips are displayed if this box is checked.

## Structure Preferences: Save Time

Option	What the effect is
Autosave	Automatically saves any query being drawn after the number of seconds specified. For Untitled queries, you will be prompted for a name, followed by the standard Save options. If you choose to cancel this option, you will be prompted again (after the specified number of seconds) once another change is made to the query.
Initial Save Dialog Checkbox states	Specify your preference for the initial value of the following save time options: <b>Query Verify:</b> the Query Verification dialog is displayed at save time. <b>G-group Orientation:</b> G-groups containing fragments must have their fragment orientation specified when a G-group contains two fragments and has two points of attachment to the core structure. <a href="#">Refine Using Structure Filters</a> : Structure filters and screens interface will be invoked at save time.
Advanced	<b>Save all Chain Atoms as Ring/Chain:</b> all chain atoms are set to Ring/Chain when saved. <b>Save all Chain Bonds as Ring/Chain:</b> all bonds are set to Ring/Chain when saved. <b>Save all Terminal Atoms as Ring/Chain:</b> all terminal chain atoms are set to Ring/Chain when saved. <b>Select chain atoms/nodes to save as Ring/Chain:</b> manually select atoms and/or bonds to be saved as Ring/Chain.

## Structure Preferences: Colors/Fonts

Option	How it works...
Colors	Click on one of the items and then select a color from the color palette. Changes will be displayed in the sample window.
Fonts: Text Font = Atom Font	When this option is checked, the font that has been selected for Atom symbols will also be used for Text characters. Uncheck this option to change the font used for Text. Click the appropriate font button to select the font, size, and style.

## Structure Preferences: Drawing

Option	How it works...
Double Bond Width (Pixels)	Allows you to specify the distance between double bonds. It only takes effect on printing.
Pen Width (Pixels)	Allows you to set the thickness of bonds. It only takes effect on printing.
Grid Spacing (mm)	Allows you to specify the default distance between grid lines. The Grid box must be checked for the Grid to be displayed. The grid is most useful for drawing when grid spacing either corresponds to a fraction of bond length or is equal to bond length.
Compass Interval (deg)	Allows you to specify the default compass interval. Bonds drawn from an atom automatically snap to these compass intervals when the <b>Snap Bonds</b> option is checked.  Note that compass intervals used should be factors of 90 degrees (e.g., 15, 30, etc.); otherwise bonds cannot be drawn horizontally and vertically.
Bond Length (mm)	Allows you to set a default bond length which is used for the ring and chain commands and for freehand drawing when the <b>Snap Bonds</b> option is checked. <b>Snap Bonds</b> must be checked to set values for Bond Length. When a value has been set for <b>Bond Length</b> all freehand bonds are drawn to that fixed length. Bonds are also then drawn to the nearest specified compass position.
Browse Delay (secs)	Allows you set the time between displays when browsing structure queries.
Atom Selection	This changes the display for the selection of atoms in the Draw menu and the Current Atom box (activated by a left click).

Dialog Box	The default dialog for atom selection is displayed on the left and all other elements are displayed in alphabetical order.
Periodic Table	Elements are displayed in a periodic table.
List	<p>Elements, shortcuts and other variables are listed in a scroll box. Values can also be entered using the keyboard.</p> <p>Note - A right click on the Current Atom box will open with the <b>List</b> option.</p>
Carbons	<p><b>Dots</b> - Causes carbons to be displayed and printed as a fat dot.</p> <p><b>Angles</b> - Causes carbons to be displayed and printed as an angle.</p> <p><b>C's</b> - Causes carbons to be displayed and printed as C.</p> <p>Note - Carbon display for individual nodes can be changed by pre-selecting the nodes and clicking on the appropriate command in the <b>Display</b> menu. The <b>Display</b> menu feature is not related to Carbon display button on the toolbar or the <b>Carbons</b> preference.</p>
Reaction Help	When this option is checked, help dialogs are provided when the Reaction Role and Reaction Site Tools are initially selected. This option is recommended when drawing reaction queries.
Grid	Turns a grid on which may act as a guide when drawing a structure. The grid line spacing can be changed using the <b>Grid Spacing</b> option.
Ring Circles	<p>Draws circles inside normalized rings (replacing the alternating single and double bonds).</p> <p>Note that refreshing the screen display is slower when ring circles are displayed, so it is faster to draw structures with this option unchecked and then check it before printing.</p>
Snap Bonds	Allows you to specify the bond length that will be used for drawing rings and chains. Bonds drawn freehand will automatically snap to the nearest compass interval at the bond length that you specify. If this option is unchecked the standard bond length built into the program will be used for drawing rings; chains and bonds drawn freehand will be drawn using the length and orientation indicated by the cursor position.
Delete Atoms with Bond	Allows you to specify that the atoms at either end of a bond will be deleted when a bond is deleted, assuming there are no other attachment to the atoms.

# CREATING REPORTS AND TABLES

## Reports and Tables Overview

STN Express® can create reports or tables from transcripts in TRN or RTF format, and from SDI results in RTF format.

STN Express provides the following tools for creating reports or tables:

- [Custom Report Tool](#) for creating a report containing only desired transcript data with customized formatting.
- [Custom Table Tool](#) for creating a table of selected data from a transcript with customized formatting.
- [Predefined Report or Table Tool](#) for creating a report or table with predefined content and formatting.
- BLAST® Report with Alignment Data for merging alignment data from the CAS Registry BLAST client with a transcript file containing related REGISTRY and CAplus file records.

**Caution:** STN Express cannot reliably process an RTF transcript or SDI result that has been modified after it was created. Opening and saving an RTF file in an editor, such as Microsoft Word, will change the internal structure of the file, even if no changes are made to the text. Using a modified RTF file to create a table or report may cause unpredictable results. It is strongly recommended that you either:

- Make an immediate back-up copy of the original RTF transcript or SDI result.
- Save your transcripts in TRN format and then convert to RTF for viewing or editing.

If you have a problem using a modified RTF transcript or SDI result file, you may be able to restore the file to a usable state by opening the RTF file in Microsoft WordPad and then immediately resaving the file.

## Creating Custom Reports and Custom Tables

### Creating Custom Reports

Create a custom report when you want to specify the content and the formatting for a report.

#### To create a custom report:

1. Click the **Custom Report** button on the toolbar of the STN Express Main Menu or the STN Online and Results window. You may also access the tool from Results on the STN Express Main Menu or from the File Menu of the STN Online and Results window.
2. The Report Tool window opens. Select from the buttons on the left side of the Report Tool window. Alternatively, use the **Next** and **Back** buttons to move sequentially among screens. When selected, each button displays a screen with options for you to choose. Once the transcript(s) are chosen, you can click the buttons for different screens in any order.

Button	Function
<a href="#">Transcript(s)</a>	Select one or more transcripts for the report
<a href="#">Template</a>	Select a template for the report from those previously saved
<a href="#">Content</a>	Select which answers and transcript components to include in the report
<a href="#">Fields</a>	Select and format the fields to include in answers
<a href="#">Highlighting</a>	Customize highlighting of terms in the report
<a href="#">Cover Page</a>	Define the content and format for the optional cover page
<a href="#">Header/Footer</a>	Define the content and format for the optional header or footer
<a href="#">Statistics</a>	Create charts for the report based on data from fields in the transcript(s)

The Report Tool window also includes the following buttons on the bottom of the window:

Button	Function
Save Template	Save current configuration as a custom template for future reports
Preview	Open preview page for the report
Finish	Produce the report once all content and style selections have been made
Back	Go back to a previous screen
Next	Go to the next screen
Cancel	Cancel the report creation process

## Creating Custom Tables

To create customized tables of selected data from answers in your transcripts, use the **Table Tool**.

For example, you may create tables with:

- Substance names, molecular formulas, and structures from the REGISTRY database
- Titles, patent assignees, and IPCs from patent records
- Patent information, titles, and graphics

You may access the **Table Tool** from:

- The toolbar of the STN Express Main Menu or the STN Online and Results window
- The Results Menu of the STN Express Main Menu
- The File Menu of the STN Online and Results window.

The Table Tool window is displayed. To create a table from answers in your transcript, select from the buttons on the left side panel of the Table Tool window. When selected, each button displays a window with options for you to choose.

The Table Tool window contains the following buttons:

Button	Function
<a href="#">Transcript(s)</a>	To select transcripts for the table
<a href="#">Template</a>	To select a template for the table
<a href="#">Content</a>	To define the content of the table
<a href="#">Fields</a>	To select the fields (from answers displayed) to include in the table
<a href="#">Highlighting</a>	To define highlighting in the table
<a href="#">Cover Page</a>	To define the content and format of a cover page
<a href="#">Header/Footer</a>	To define a header and/or footer for the table
<a href="#">Statistics</a>	To define charts from data in the transcript(s)

The Table Tool window also includes the following buttons on the bottom of the window

Button	Function
Save Template	To save a template for tables
Finish	To produce the table after all content and style selections have been made
Back	To go back to the previous screen
Next	To select the next screen
Cancel	To cancel the selections on a screen

### Selecting Transcripts for Reports or Tables

When you select transcripts for the **Report Tool**, **Table Tool**, or **Predefined Report** tool, or **BLAST® Report for Alignment Data**, a window listing the path for the most recently used transcript is displayed by default.

Highlight the path and then click the **Remove** button on the right if you do not want to select this transcript for your report.

Click the **Browse to Add** button on the right to locate other transcripts.

You may select only one transcript for each BLAST Report with Alignment Data. You may select multiple transcripts for each report created with the other tools.

### Selecting a Template for a Custom Report or Table

Click the **Template** button of the Report Tool or Table Tool to see a list of names for any report templates that you have defined and saved.

Report and Table templates display separately. To view both Report and Table templates, choose the **All** radio button.

To locate templates that are not in the default folder, click the **Change Folder** button and navigate to that location. Click **Delete** to delete the highlighted template.

Click **Choose Template** to select the highlighted template for this report.

If no template is chosen, STN Express® sends a prompt for verification. Click **Ignore** to continue to define a custom report.

### Defining the Content of Custom Reports or Tables

In the Content tab of the Report Tool or Table Tool, you may select parts of the following information from your transcript:

- Session Information
- Command Information
- Data Information

Click in the appropriate boxes to include this content.

Select [Summary page](#) and **Summary Options** if you want to include a hyperlinked summary of answers at the beginning of your report.

If **Answers** is checked in the Data Information section, the window on the right displays the L-number(s) and the number of answers to be included for each L-number. Click the box with a plus sign to expand answer detail for each L-number. Uncheck the box for an answer if you do not want to include it in your report.

Click **Check All** under a section to include all content. Click **Uncheck All** to reset all boxes to empty.

You also have options to:

- Place each TIFF image on its own page
- Include checkboxes in display
- Include checkboxes in print

Click **Format Report Comments** to set formatting for any [comments](#) that you will add to the report.

When the Report Tool or Table Tool is used again, the previous content selections are recalled.

### Creating a Summary Page for a Report

You can create a summary page containing up to six fields for each answer in your custom report. The first field selected is hyperlinked in your report, making it easy to find the complete record in the report.

To create a summary page, check **Summary page** and click **Summary Options** in the [Content](#) window of the Report Tool.

Select up to six fields from a list or pull-down options on the Summary Fields screen. Click one of the radio buttons: **Bibliographic**, **Substance**, or **Other** to view options for the type of answers in your report.

## Selecting Fields for Reports or Tables

Select the **Fields** tab of the Report or Table Tool.

Except for the **Cleaned CS** field (described below), only the fields in the transcript are listed in the Field Name pane; they are listed in the same order as the order of their display in the transcript. A blank Selected Fields pane is displayed on the right.

If the **CS (Corporate Source)** field is listed in the Field Name pane, or if **PA (Patent Assignee)** is listed in the Field Name pane and the User Preference **Combine Patent Assignee and Corporate Source** is selected, STN Express will insert a field called **Cleaned CS (Cleaned Corporate Source)** in the Field Name pane. **Cleaned CS** is created by algorithmically selecting the most significant information in the **Corporate Source** field.

If the User Preference **Use Groupings** is selected, the data grouping techniques defined for the [Analyze Plus Wizard](#) will be used to standardize the organization names.

Use the buttons in the middle of the screen for selecting the fields:

Button	Function
Insert	Insert any highlighted fields from the Field Name list into the Selected Fields list
Insert All	Insert all the fields from the Field Name list into the Selected Fields list
Move	Move the highlighted fields up or down in the Selected Fields list
Remove	Remove any highlighted fields from the Selected Fields list
Remove All	Remove all the fields from the Selected Fields list

Check the box for **Remove duplicate fields within an answer** to remove duplicate fields.

You may select the order of the fields in the Field Name pane as:

- Alphabetical
- Transcript - the order in which they appear in your transcript

To change the format of any of the selected fields, highlight the field(s) in the Selected Fields pane. Multiple fields may be chosen by using the Shift or Ctrl keys. Select from the formatting options that are displayed.

Six patent-related fields display additional tabs for formatting. The fields are:

- Application Information
- Patent Information
- Priority Application Information
- Individual AI

- Individual PI
- Individual PRAI

The tabs are:

- Subfields - include/exclude subfields of the field in the report
- Other - control the maximum number of rows per answer, the countries to be included, handling of blank cell, handling of family members.

### Defining Highlighting in Reports or Tables

The Highlighting window of the Custom Report or Table Tool wizards shows the following options:

Highlighting option selected	Result
Highlight Hit Terms	Hit terms are highlighted in red by default. Click the <b>Don't Highlight the Following Hit Terms</b> check box and enter the applicable terms in the box below if you do not want all hit terms highlighted.
Highlight the Following Terms	Type the terms to be highlighted, separated by commas.
Highlight Terms in this Text File	Highlight a list of terms saved in a text file. Browse for a saved file. Click <b>Format</b> to change the font and/or the color for highlighting.

Click **Format** to view the options for changing the font and/or the color of highlighting.

Truncation may be applied to terms in the Hit Terms and Additional Terms input boxes. The truncation rules are:

- "?" represents any number of characters
- "#" represents zero or one character

## Creating Cover Page for Reports or Tables

### To create a cover page:

1. Check **STN Express Cover Page** on the Cover Page screen if you want to create a cover page for your report. Select **Attach File** if you want a file with an existing cover page to print with your report.
2. Choose the content of your cover page by selecting from the options on the left, e.g., Title.
3. Click the **Order** tab to change the order of appearance of the selected items on the cover page. Highlight the item and move it with the up and down buttons.
4. Click the tab for each desired selection, e.g., **Title**, to enter or modify the existing information and default format for the selection. For example, when you click the **Title** tab, the default title, consisting of the names of the transcripts, is displayed in the default font and size. You may modify or replace the text and select the **Format** button to change the font.

## Adding Headers and Footers to Reports or Tables

The Header/Footer screen allows you to add headers or footers to your report.

Click on the **Header** or **Footer** tab and then define the content for the left, center, and/or right areas of the header and/or footer.

For example, you may define the footer as a centered, attached image. Select **Image File Attachment** from the options under Center. Click **Select** to select the file with an image. The image is displayed in the Preview box. The header or footer is visible in Print Preview. To shift the location of the header or footer on the page, change the margins for the page.

## Statistics for Creating Charts for Reports or Tables

You may create up to three histograms or pie charts from the transcript as part of your report or table.

Choose one field for each histogram or pie chart. You may also choose to display the graphs at the beginning or at the end of your report.

Choose **Include Other** if you want to include all instances of the field, including the least frequently occurring terms that will be grouped together and labeled Other in the histogram or pie chart.

### Previewing Reports and Tables

You can preview your report or table any time. Simply click the **Preview** button.

A preview of ten answers is displayed in another pane. Click the radio button **Portrait** or **Landscape** to change the view.

Click **Update Preview** when a parameter is changed to get an updated view. Click **Hide Preview** to hide the preview pane.

### Editing Custom Reports or Tables

After a custom report or a table is generated, you can edit any of the parameters. Select **Edit report** or **Edit table** from the Edit menu of the STN Online and Results window. Make the necessary changes and click **Finish** to regenerate the report or table.

### Adding Comments

To add comments about a specific record in a custom report or table, click **Add Comments** on the right side of the record. Enter your comments in a box and click **OK**. Your comments appear in a box under the answer number line. Click **Edit Comments** to change them. Click **OK** when you are done.

To change the default format for comments, select **Format Report Comments** in the [Content](#) tab for Custom Reports or Tables.

## Predefined Reports and Tables

### Creating Predefined Reports and Tables

Use the **Predefined Report** tool to quickly create a formatted report or table from a transcript (.trn or .rtf) file using predefined content and formatting.

#### To create a predefined report or table:

1. Click the **Predefined Report** button on the toolbar of the STN Express Main Menu or the STN Online and Results window. The report and table tools can be used when you are not in an active online session.
2. Select from the following options for types of predefined reports or tables: **Patents, Journals, Patents and Journals, Substance Report, Substance Report with Properties, Substance Table, or Substance Table with Properties.**
3. The Transcript File dialog is displayed. Select the transcript file for your report. Click **Open**. A predefined report is automatically displayed with all the applicable records from your transcript.

If any records are unable to be processed for the predefined report or table due to lack of needed content, a pop-up warning box is displayed.

## Requirements and Output for Predefined Reports and Tables

### Predefined Patent Report

For an answer to be recognized in a transcript and appear in a predefined patent report, it must:

- Be from a file containing patents
- Have a PI (Patent Information) field

Data items included in a patent report (if present in the transcript) are:

- Accession Number, Title, Patent Assignee, Source
- Language, Abstract, Technology Focus, Graphics, Inventor(s), Assignee(s), International Patent Classification, Application Information, Priority Information, Patent Information, Indexing Terms, Hit Structure (These items may be removed when you [customize the content](#) of reports).

### Predefined Journal Report

For an answer to be recognized in a transcript and appear in a predefined journal report, it must:

- Have a TI (Title) field and an AU (Author) field

Data items included in a journal report (if present in the transcript) are:

- Title, Author, Accession Number, Corporate Source, Journal Name
- Language, Abstract, Graphics, Indexing Terms, Hit Structure (These items may be removed when you [customize the content](#) of reports).

### Predefined Patent and Journal Report

For an answer to be recognized in a transcript and appear in a predefined patent and journal report, it must meet the requirements for either a predefined journal report or a predefined patent report.

### Predefined Substance Report

For an answer to be recognized in a transcript and appear in a predefined substance report, it must:

- Include data from substance-based files, e.g., REGISTRY, CHEMCATS, CHEMLIST, GENBANK, REAXYSFILE.
- Have a CN (Chemical Name) field

Data items included in a Predefined Substance Report (if present in the transcript) are:

- Chemical Name, CAS Registry Number
- Structure Diagram, Molecular Formula (These items may be removed when you [customize the content](#) of reports).

### Predefined Substance Table

For an answer to be recognized in a transcript and appear in a Predefined Substance Table, it must:

- Include data from substance-based files, e.g., REGISTRY, CHEMCATS, CHEMLIST, GENBANK, REAXYSFILE.

Data items included in a Predefined Substance Table (if present in the transcript) are:

- Structure Diagram, CAS Registry Number, CAS Index Name, Molecular Formula. (These items may be removed when you [customize the content](#) of reports)

### Predefined Substance Report or Table with Properties

A Predefined Substance Report or Table with Properties includes substance and property data. Use the CALC, EPROP, or PROP display formats in REGISTRY.

For an answer to be recognized in a transcript and appear in a Predefined Substance Report or Table with Properties, it must:

- Include data from substance-based files, e.g., REGISTRY, CHEMCATS, CHEMLIST, GENBANK, REAXYSFILE.
- Have a CN (Chemical Name) field

Data items included in a Predefined Substance Report or Table with Properties (if present in the transcript) are:

- Structure Diagram, CAS Registry Number, CAS Index Name, Molecular Formula, Predicted (Calculated) Properties, Experimental Properties. (These items may be removed when you [customize the content](#) of reports)

### Customizing Content of Predefined Reports and Tables

You may customize some features, for example, Selected Fields, of a predefined report or table while retaining the predefined formatting.

#### To customize a predefined report or table:

1. Select **Predefined Reports** and select type of report or table, e.g., **Patents**. Select **Edit Default Format** from the submenu.
2. Select the transcript file.
3. The Table (or Report Tool) opens.
4. Click the **Fields** tab. The Selected Fields pane displays all the fields preselected by the Predefined Reports Tool.

You may customize the report by using all the [Fields](#) tab options to insert, move, or remove fields, as well as to format any highlighted fields.

## Selecting or Deleting Answers in Reports

After a predefined or custom report is generated, you may select individual answers to be included in or deleted from the report.

Follow these steps:

1. Each record in a report is preceded by a selection box. Click on the selection box to mark this record.
2. From the File menu select **Delete Marked Answers** or **Save Marked Answers**.
3. Another Report window opens, showing only the saved answers or excluding the deleted answers depending on which option you chose.

## Saving Reports or Tables

**To save a report or a table:**

1. Select **Save As** from the File menu.
2. The Enter Filename dialog is displayed. Type the name of the file in the File name box. In the **Save as type** box, choose the type of file for saving.
3. Click **Save**.

Custom reports may be saved in the STN Express® .rep format, and custom tables may be saved in the STN Express .tbl format.

In addition, you may save reports and tables as the following types of files:

- Excel Files (\*.xls)
- RTF Files (\*.rtf)
- ASCII Text (\*.txt)
- HTML Files (\*.htm)
- PDF Files (\*.pdf)

Please note that headers and/or footers are not preserved when a file in the STN Express .tbl format is converted to an Excel \*.xls file.

# VARIABLE GROUP ANALYSIS

## Overview of Analyzing Variable Groups

With STN Express<sup>®</sup> you can create a Variable Group (R-group) Analysis Table that identifies the common structure for an answer set of structurally related substances from CAS REGISTRY<sup>SM</sup> with variable R-group locations identified using the R-group Analysis Table Tool.

The process of analyzing variable groups consists of two parts:

- [Saving answers for R-group analysis](#)
- [Creating R-group analysis table](#)

## Saving Answers for Variable Group Analysis

### To save answers for R-group Analysis:

1. Conduct a search in CAS REGISTRY<sup>SM</sup>, ZREGISTRY, or LREGISTRY to obtain an L-number answer set.
2. Left-click the L-number for the answer set to display a list of available wizards. Select **Save for R-group Analysis**. You may also select this option from the Select Discover! Wizard window or from the options under **Discover!** button.
3. Select the substance types to be included or excluded from the R-group file. Click **Next**.
4. Select the substance information to include in the Variable Group Analysis table. For each answer, the CAS Registry Number<sup>®</sup> is automatically included. Only the fields listed may be included in the final table.
5. Click **Next** to continue.

## Creating an R-group Analysis Table

### To create an R-group Analysis Table from saved answers:

1. Select [R-group Analysis Table Tool](#) from the File or Results menu, or from the Toolbar.
2. Use the [File](#) tab of the R-group Analysis Table Tool to preview the R-group file structures and select structures of multicomponent substances.
3. Use the [Structure](#) tab to define the common structure and select R-groups to be included.
4. Use the [Fields](#) tab to select additional fields to be included.

The interaction and features for the [Template](#), [Cover Page](#), and [Header/Footer](#) tabs of the R-group Analysis Table are the same as those for the Report Tool and Table Tool.

## Structure Tab of R-group Analysis Table Tool

The Structure tab of the R-group Analysis Table Tool provides the following options:

- [Defining the common structure](#)
- [Selecting R-groups and deleting attachments for R-groups](#)

### Selecting R-groups in Structure Tab

#### To preview and select R-groups:

Check **Preview R-group** to view the structures for the selected R-group in a pane on the right. By default, this radio button is checked. Check or uncheck the box for each R-group to select or deselect it for inclusion in the R-group analysis table. By default, all the boxes are checked.

#### To delete attachments for R-groups:

Check **Include only answers in which the R-group is attached by the following atom(s)**: A list of attachments for the highlighted R-group is displayed in the box. To exclude answers in which the R-group is attached to a particular atom, remove that atom from the list.

#### To rename R-groups:

Click **Rename** in the Structure window of the R-group Analysis Table. Select an R-group and type a new name. Click **OK**.

## File Tab of R-group Analysis Table Tool

The File tab of the R-group Analysis Table Tool includes a box to **Preview R-group file**. When this box is checked, a structure preview pane is displayed on the right. This pane contains the structures for the answers included in the saved R-group file. Each answer is labeled, numbered, and automatically checked to be used for R-group analysis. You may select or deselect each answer. In addition, the following options are available:

Option	Result
Select All	Checks and selects all answers.
Invert Selection	Selects unchecked answers and deselects checked answers.
Save Selected	Displays a window for saving the selected answers as an R-group file (.rgp).

If an answer contains more than one component, each component is labeled and displayed separately. Single-atom components are labeled as Other components. Other components are not included in R-group analysis. Click the **View** hyperlink to view the structure of each component in a separate window. By default, the first

component is selected for R-group analysis. Click the radio button for another component to select it for R-group analysis. Preview all the structures to make sure that the desired component structures are selected.

## Fields Tab of the R-group Analysis Table Tool

The Fields tab of the R-group Analysis Table Tool provides a list of additional fields, e.g., CAS Registry Numbers, that you may include in the R-group Analysis Table.

Highlight the desired content and click **Insert** to include the field in the Analysis Table.

By default, the list of Selected Fields for the R-group Analysis Table include:

- **R-group** - the R-groups defined for the common structure
- **Structure** - the complete structure for each answer
- **Base Structure** - the structural skeleton showing the bonding for each answer
- **Other Components** - when other components are present, the R-group Analysis Table includes not only the structure component whose R-groups were analyzed, but also all the other components, including single-atom fragments.

To remove an item from the Selected Fields, select the item to be removed and click **Remove**.

## Defining Common Structure for R-group Analysis

You can define the common structure by:

- Using the largest common structure
- Using a saved structure query file

Click the **Use the largest common structure** radio button and **Define Structure** to use the largest common structure.

Click **Use a saved structure query file** and **Define Structure** to define the common structure from a saved query structure. A window with your saved query structures is displayed. Select the query structure for defining the common structure in your answer set.

In addition, check **Use structure skeleton, ignore bonds** if you want the bonds to be ignored when the common structure is defined with either method.

## Problems with Defining Common Structure for R-group Analysis

The R-group Analysis Table Tool may not be able to define a common structure if your R-group analysis includes:

- Substance types that cannot be processed
- Disparate or dissimilar structures
- Multi-components in which the selected component is not a match

Answers that may cause the tool to fail include some polycyclic compounds, large substances, and substances that do not include a structure in CAS REGISTRY<sup>SM</sup>.

### To minimize problems with defining common structure:

- It may be helpful to check the box **Use structure skeleton, ignore bonds** to define a common structure when the answer set contains structures with bond variations. This checkbox may be used with either radio button: **Use the largest common structure** or **Use a saved structure query file**.
- Exclude alloys, coordination compounds, incompletely defined substances, manually registered substances, polymers, and tabular inorganic substances. The **Save for R-group Analysis** Wizard provides the option to exclude these types of substances. If you have not excluded them, you can go back online, redo your search, and **Save for R-group Analysis**. Alternatively, you can make use of the structure preview on the File tab of the R-group Analysis Table Tool to deselect the undesirable answers. Additionally, if you have chosen to display these answers online in the IDE format, you can review your transcript to identify these substances.
- You may try to define your own structure by choosing **Use a saved structure query file** on the Structure tab within the R-group Analysis Table Tool. To create a saved structure, use the structure drawing tool available via Query/Prepare Structure Query. Isolated rings are handled better by the R-group tool than non-isolated rings.

**Note:** The R-group tool may alter the structure you provide in order to define the R-groups.

- If your answer set includes multi-component substances, the first component is selected by default. Within the File tab ensure that **Preview R-group file** is selected. Scroll through the list of structures and choose the radio button for the appropriate component in each answer.
- If your answer set contains two or more subsets of different substructure types (for example if the search was created via a text search), you will need to process your answer set prior to creating an R-group table. To accomplish this, ensure **Preview R-group file** is selected, check only those answers that have the same substructure and use the **Save Selected** button to create a new .rgp file. (If you have changed your component selection in multi-component answers, that selection will not be maintained in the .rgp file you create). Repeat this process as necessary to create additional .rgp files from this answer set.

**Note:** If you are only creating two .rgp files, it may be useful to use the "Invert Selection" button to generate these two files. Run the R-group Analysis Table Tool on the newly created .rgp file to create a table from that subset of structures.

# MAIN PREFERENCES

## Preferences Overview

There are three types of Preferences:

- [General](#)
- [STN Online and Results](#)
- [Structure Drawing Preferences](#)

To access all preferences, click the **Preferences** tool from the Main Menu Toolbar or from the **Setup** menu of the Main Menu.

## General Preferences

General Preferences are used to:

- Change default folders for use in STN Express
- Customize the display of the toolbar
- Select the language that STN Express and related programs use for the display of menus and buttons
- Specify your own text editor

### Changing folders

To change folders where files, such as transcripts or queries are placed, type the path name in the text box for the folder or browse for folder location and select it.

### Customizing the display of the Toolbar

Select from the following options:

Option Selected	Result
Toolbar	Display the toolbar buttons in STN Express (default)
Always on top	Force the toolbar to remain visible at all times
Minimize toolbar on use of editor	Minimize the toolbar after using editor
Tooltips	Control whether the toolbar has tool tips in addition to the text on the buttons

### Selecting Language

You may also select the language that STN Express and related programs use for the display of menus and buttons. To use Japanese you must have a Japanese version of Windows. The language setting takes effect as soon as you click **OK**. Other STN Express programs that are already running must be restarted before the language is changed.

### Specifying Text Editor

To specify your own text editor, type or paste the complete path to the editor program in the Editor box. If this box is blank, the STN Express built-in editor is used.

## STN Online and Results Preferences

### STN Online and Results Preferences

To access the STN Online and Results Preferences, click **Preferences** on the Toolbar of the STN Online and Results window or the Main Menu and choose **STN Online and Results**.

Click one of these tabs to change the preferences:

- [Function keys](#)
- [Online](#)
- [Colors/Fonts/Scaling](#)
- [Links](#)
- [Layout](#)
- [Discover!](#)
- [Account](#)
- [Postprocessing](#)
- [Other](#)
- [User data](#)
- [BLAST<sup>®</sup>](#)

### Function Key Preferences

Use the **Function Keys** tab to define keyboard shortcuts for frequently used text strings.

Up to 18 key combinations may be defined, using **Shift F1-F9** and **Control-Alt F1-F9**.

To define a **Shift Function** key, click the radio button next to **Shift**. Type a text string in any of the function key boxes.

To define a **Control-Alt Function** key, click the radio button next to **Control-Alt**. A new list is displayed. Type a text string in any of the function key boxes. Type *[cr]* at the end of a line to insert a carriage return after each string.

### Online Preferences

Use the **Online** tab to customize your online searching environment. Click the box adjacent to the preferences you want to activate. Then click **OK**.

Option Selected	Result
Continuous scrolling	Text and graphics scroll without interruption (recommended).
Modifiable queries	Uploaded structure queries may be modified in the STRUCTURE command.

Use filters	Automatically upload structure filters when they are available.
Enable idle time warning	Warning message is displayed after no commands are sent to STN for 15 minutes.
File Transfer: Log Packets	A log of upload and download (Kermit) activity is created. Select only on request by STN support staff for problem resolution.
File Transfer: Long packets 4000	Allows faster downloads of TIFF images and other files when Kermit is used (recommended).
Reduce CPU usage when Online	Puts STN Terminal Emulation into a passive mode that uses less CPU resources when waiting for you to enter data. If this option is not selected, STN Terminal Emulation uses all the idle CPU time on your local system, without degrading performance of your machine.
Display international characters	Allows proper display of international characters when you are connected to an online host that supports those characters. This option cannot be used if the connection route to the host computer requires the use of parity. If the data display from your online host appears to be corrupt, turn this option off. If the problem is resolved, then your connection is using parity.
Autoload command history into Command Window	Command history for the current session is automatically loaded at the time you open the command window.
Do not make uploaded structure queries "Read only"	If an uploaded structure query is displayed in a transcript and the query was modified after it was uploaded, the transcript will display the query as it appears now and not as it appeared at the time of upload and search.
Do not create a file with structure query attributes	Text files with structure query attributes are not created.
Highlight CA Lexicon terms on command line	CA Lexicon terms are highlighted on the command line by either yellow boxes or wavy underlines.
Create and update personal dictionary	Personal dictionary, consisting of an alphabetical listing of your search terms, is created. These terms may be selected for use in SEARCH or EXPAND.
Clear Dictionary	Remove all terms from your personal dictionary.
Options	Opens a Personal Dictionary Options window with checkboxes for types of terms to exclude from being added to your personal dictionary.
Use KERMIT to DISPLAY images	Use KERMIT to display images if the preferred method (Web Image Server, available in Version 8.4 or higher) is not available to you

## Colors/Fonts/Scaling Preferences

Click the **Colors/Fonts/Scaling** tab to define colors and fonts in your online window or Browse Transcript window or for prints; to scale structure graphics; and to modify TIFF viewer scale settings.

To change...	Do this...
Color of highlighted text or the color of the text you type at a prompt	Click the radio button adjacent to <b>Highlight text</b> or <b>Prompt text</b> , respectively. Then click the color that you want.
Style of hit terms (your search terms) in transcripts, online, or in reports	Select the style under <b>Highlight style</b> .
Font of text in the online window or browser window or when printing a transcript	Click the <b>Change</b> button in the <b>Display Font</b> box or the <b>Printer Font</b> box, respectively. A Font dialog is displayed. You may modify the font and point size. For display fonts, only fixed-width fonts are available. For print fonts, only fixed width printer and True Type fonts are available. Proportional fonts are not available because text does not line up properly when they are used.
Structure graphic scaling factors	Enter a new scaling factor. The defaults are 1.0 for both scaling factors. If the two factors are not changed proportionately, vertical or horizontal distortion will occur.
Initial scale used by the TIFF Viewer	Click the appropriate radio button next to the <b>Full</b> , <b>Half</b> , or <b>Quarter</b> option.
Default post processing font	Click <b>Change</b> under Default postprocessing font.
Japanese font	Pick the desired font next to <b>Japanese font</b> .

## Links Preferences

The Links tab offers the following options:

Option Selected	Result
Use a single browser for all WWW links	Existing browser window is reused, if it is already running. If the browser window is not running, STN Express® will launch the browser (default).
Launch a new browser window for each WWW link	A new browser window is opened for each WWW link, resulting in multiple open windows.
Override Windows default browser	If you have several Internet browsers installed, this option allows you to specify the path to the one that you prefer.
Change to STNGUIDE when launching BLAST or Web browser	Your online session is moved to the STNGUIDE file any time you request a web function. To continue your STN session in another file, enter that file.
Full-text links	Select the STN service center where you have your account. Secure may be checked for extra security only for access to CAS Full Text Options from STN-Columbus.
STN Login ID embedded in Full-text links in transcripts, reports, and tables	<p>These options specify when your STN Login ID may be included in transcripts, reports, and tables to authenticate and customize the CAS Full Text Option links:</p> <ul style="list-style-type: none"> <li>• <b>Never include:</b> the CAS Full Text Options page is never customized for the STN login ID.</li> <li>• <b>Always include:</b> the CAS Full Text Options page is always customized for the STN login ID.</li> <li>• <b>Prompt when Creating Report or Exporting a Transcript:</b> you will be prompted whether your STN Login ID should be included.</li> <li>• <b>Prompt at capture session:</b> you will be prompted at capture session whether your STN Login ID should be included.</li> </ul>
Enable STN Links	Selected items are hyperlinked when you are logged on to STN.
Return to original file after executing links	Return to original file after links are executed.

## Layout Preferences

Use the **Layout** tab to customize the layout of your STN Online and Results window.

Option	Action
Status bar	Select the items to display in the Status Bar located at the bottom of the STN Online and Results window.
Show Toolbar	Select to show the Toolbar
Open Command Window in locked mode	If locked mode is selected, you can enter multiple commands in the Command Window before sending them to the host. If locked mode is not selected, the Command Window opens in Send mode, which sends a command directly to the host when a carriage return is pressed.
Show Select Discover! Wizard Window	Deselect if you do not want the window to be displayed.

## Discover! Preferences

Option Selected	Result
Suppress background display of Discover! commands	STN commands generated by Discover! wizards are not displayed in the session window until the wizard function is completed.
Edit Alert L-number deletion warning	Warning is displayed when a deletion of an L-number used in an SDI alert is requested.
Return to original file after closing a wizard	Online session returns to the original file after a wizard function is completed.
Reset all Wizard introductions windows to default (display)	Click <b>RESET</b> to reset all wizard introduction windows to default (display).
Activate uploaded structure queries in	Uploaded structure queries are activated in LREGISTRY by default. You may select another structure-searchable file in which to activate uploaded structure queries.

## Account Preferences

In the STN Account Type box, select the type of account you have and its features:

- **Commercial (Full access)** - default setting
- **Full Academic (Full access w/o discount)** - if you have access to STN files under your academic program
- **CAS Academic (CAS files only)** - if you have access to CAS discounted files only
- **FIZ Academic (FIZ files only)** - if you have access to FIZ discounted files only
- **CAS & FIZ Academic (CAS and FIZ files)** - if you have access only to CAS and FIZ files under your academic program
- **REAXYSFILE subscriber** - if you have a REAXYSFILE subscription
- **DERWENT subscriber** - if you have a DERWENT subscription

Under **Display AnaVist WPI family answers in**, enter another database if you do not want these answers to be displayed in WPINDEX by default.

Under **Property Data Databases**, select the property databases that the *Discover!* Wizards are authorized to access.

Under **Spectra Data Databases**, select the spectra data databases that the *Discover!* Wizards are authorized to access.

## Postprocessing Preferences

Option Selected	Result
Capture at logon	Transcript is automatically captured at logon (default).
Capture as RTF	Transcript is captured in Rich Text Format.
Confirm Transcript Capture Stop	Confirmation message is displayed if you stop capture of transcript (default).
Wrap Abstracts in Export	Text of abstracts is automatically wrapped in RTF transcripts (default).
Use fixed-width fonts on non-wrapping fields in reports and tables	Tabular STN data, e.g., patent family information, line up in reports and tables (default).
Enable Full-text links in reports and exported transcripts	Full-text links are preserved in reports and RTF transcripts (default).
Combine Author and Inventor in reports and tables	Combine author and inventor data in reports and tables (default).
Combine Patent Assignee and Corporate Source	Combine patent assignees and corporate source in reports and tables (default).
Autosave Transcript	Transcript is periodically saved for a specified number of minutes, while you are online.

Uninvert chemical names in predefined substance reports and tables	Keep inverted names in predefined substance reports and tables.
Split Hit Structures from graphics in reports and tables	Separate Hit Structures from graphics in custom reports and tables.
Export answer checkboxes to RTF or PDF	Checkboxes are saved in reports that are saved as RTF or PDF.
Symbol characters	Symbols and special characters, e.g., Greek letters, display as symbols or special characters in reports, tables, and transcripts (default).
Expand abbreviations	CAS standard abbreviations are automatically expanded in transcripts, e.g., "oxidn." is expanded to "oxidation" (default).
Launch Excel when saving as Excel	Microsoft Excel (the application associated with .xls files) is launched when a file is saved in Excel format (default).
Launch Word when saving as RTF	Microsoft Word (the application associated with .rtf files) is launched when a file is saved in RTF (default).
Export one report answer per page	Export one report answer per page.
Export reports and tables direct to file	Useful when you want to create RTF without creating a .rep file for example.
Include L# in Table Answer Field	L-numbers are included in Table answers.
Autofit tables	Optimal fit of data in tables is achieved.
Combine Table PN and Kind	Patent number and kind code are included within a single cell in patent-related tabular display of patent information.
Export Graphics to single Excel cell	If this option is checked, all the graphics for an answer are placed within a single cell. If this option is not checked, each graphic for an answer is placed in a separate cell.
Cover Page title from template	The title on the STN Express report cover page is saved in a template.
Use Groupings	Use the groupings, e.g., standardized Company names generated within Analyze Plus, in the report.

## Other Preferences

Option Selected	Result
Issue warning when requesting all answers using '1-'	Warning is displayed when a Discover! script contains the TOTAL display option requesting a display of all answers from an answer set.
Issue cost notification before display commands exceeding	A cost notification is displayed before a Discover! script or a wizard would exceed the cost limit you have set for answer display.
Issue cost notification before search commands exceeding	A cost notification is displayed before a Discover! script or a wizard executes a search command that would exceed the cost limit you have set.
Search SciFinder CPlus answers in	Choose an STN file in which imported SciFinder CPlus answers should be searched.
Shut off automatic updating of support files	Check the box if you do not want automatic updating of support files

## User Data Preferences

Under this tab, you can enter information that appears on the cover page of reports and tables. This information is also used to identify you when you click **Request Help** on the Help menu in order to send a message to your [STN Service Center](#).

## BLAST Preferences

Preference	Description
Select type of firewall	If you have a firewall or proxy server, it must permit a secure HTTP connection. Select HTTP or Socks, and enter the proxy server name or address and communications port.
Maximum number of alert result sets to keep per profile	You may keep a maximum of 20 sets of CAS Registry BLAST <sup>®</sup> alert results per profile. If you run an alert and you reach your maximum number of alert results, the oldest alerts results are deleted automatically.
Favorite Locations	Specify your favorite directory to read sequences into BLAST and your favorite directory to save results from BLAST.
Maximum No. of concurrent Reports	The maximum number of BLAST reports that you may view at the same time. The range is 1-4 and depends on the amount of memory and processor speed on your PC.
Use id/pw from existing STN setup	If this option is selected, log on to BLAST uses the STN login ID and password from an existing STN logon setup that you select. If this option is not selected, you receive a prompt for this information every time you log on to BLAST.
Use wizard when getting STN Sequence or Reference records (not both) from BLAST <sup>®</sup>	When this option is selected, and you use the Get STN Data function in BLAST, the Discover! refine and display wizard is invoked for either Sequence records (i.e., REGISTRY) or Reference records (i.e., CPlus).
E-mail address for CAS Registry BLAST <sup>®</sup> Alerts	Enter the e-mail address to be used for e-mail notification of availability of CAS Registry BLAST Alert results. Enter the e-mail address before setting up a CAS Registry BLAST Alert. There is no option for entering an e-mail address within the CAS Registry BLAST Alert interaction. Note that, for a single STN login ID, you may use only a single e-mail address for notification of alerts. A change in e-mail address for BLAST Alerts affects all Alerts for that login ID, i.e., both existing Alerts and newly created ones.

## UPDATING SUPPORT FILES

### What are STN Express Support Files?

The STN databases may be updated several times between STN Express software releases. The fields in existing databases may change, the STN thesaurus may be improved, and databases may be added, removed, or combined. All of those types of changes and others are communicated to STN Express 8.3 and later releases via **Support File Updates**.

The Support Files are used by STN Express functions such as Search, Display, Tables and Reports, Analyze Plus, and other wizards. Updating to the current Support Files ensures that you have the best STN Express experience.

The support files and their major functions are:

Support File Name	Content or Function
ABBREVE.INI	Controls expanding of abbreviations in the Online Window and transcripts in the following fields: Abstract, Title, Supplementary Terms, Controlled or Index Terms.
cn.bt cn.ff	Updates to Company Name Thesaurus.
discover.fil	List of STN Files and their features for the STN Database Selection Wizard. List of valid STN AnaVist Files and their DISPLAY cost estimates.
FIELD.COD	Field details for Tables and Reports. Contains one entry for every DISPLAY field name and field heading, e.g., TITLE, TI.
Filters.flc	Default Custom Screen filters for use in Structure Drawing.
Journals.txt	List of Journals for the SDI TOC Wizard.
lexicon.bt lexicon.mp lexicon.st	Updates to CA Lexicon.
Links.txt	Parsing rules for all hyperlinked DISPLAY fields such as patent information fields.
SGML.INI	For display of Tables and Reports.
STN-ANS.TFL STN-CMD.TFL STN-CMDH.TFL STN-STRS.TFL STN-TIFS.TFL	Control files for the Transcript Filter feature.

SUFFIXES	Used for company name groupings.
Tables.txt	Formatting information for Tables, Reports, control information for the wizards.
URL.INI	URLs used by STN Express.

*Related topics:*

- [Automatic Updating of Support Files](#)
- [Manual Updating of Support Files](#)

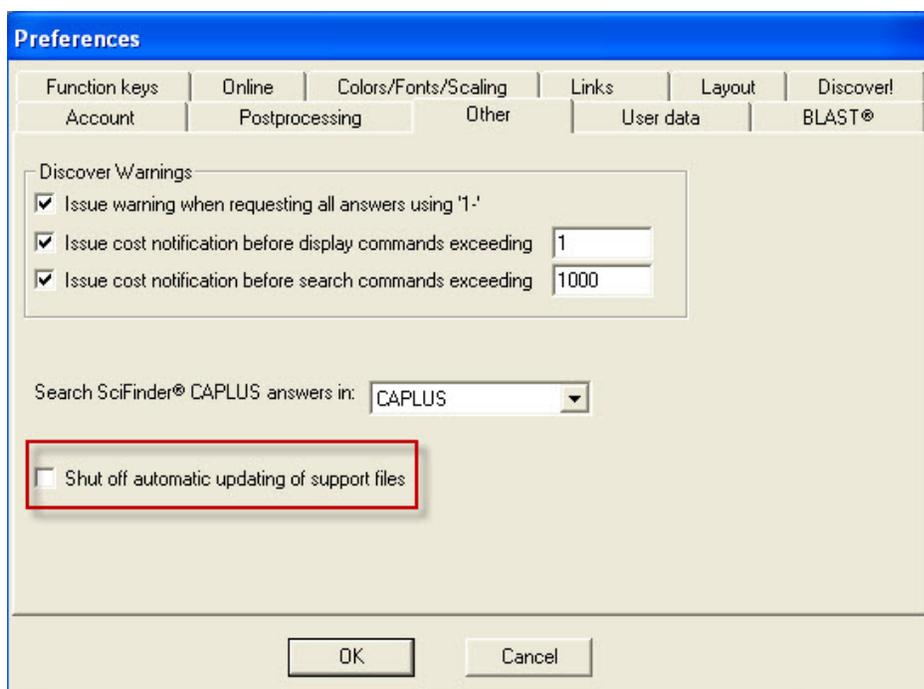
## Automatic Updating of Support Files

Automatic File Updating of Support Files is enabled by default.

When STN Express starts, STN Express sends a query to a server at CAS using HTTP via Internet Port 80 to check for Support File updates. If new Support Files are available, the automatic update process starts. Depending on the speed of your computer and Internet connection, and the size of the files to be updated, the process may take from 15 seconds to several minutes. Typical update time is 15 to 30 seconds.

Automatic update might be blocked by your company firewall or proxy servers. If that is the case, STN Express will display an error message. If you encounter problems with auto-update, you may wish to turn off automatic updating in User Preferences.

- Go to Setup > Preferences > STN Online and Results
- Other tab
- Check Shut off automatic updating of support files



If you turn off Automatic Updating, you will have to watch for announcements of new Support File releases and install the updates manually.

*Related topics:*

- [What are STN Express Support Files?](#)
- [Manual Updating of Support Files](#)

## Manual Updating of Support Files

CAS provides two methods of manually updating those files for customers who cannot use Automatic Updating. Both manual methods provide the same files as Automatic Updating; the difference is in how the files are installed. The installers for both methods plus documentation can be obtained from the License and Download site.

### Using the ZIP file method:

This method can be used for STN Express 8.3 and later releases. It does not require administrator privileges. It will update the Support Files in a single user's My Documents\STN Express 8.x\Data folder.

Finding the path to your \Data folder:

- You can find the location of your Data folder by looking in the STN Express General Preferences.
- Start STN Express, then click on Setup>Preferences>General.
- To find the \Data folder, take the path in the User Scripts: field and replace \Uscripts with \Data.

To update the Support Files using the ZIP file:

1. Download the file **SupportFiles.zip** from the STN Express License and Download site.
2. Open the ZIP file with WinZip or any comparable file extraction tool.
3. Extract the files to the My Documents\STN Express 8.x\Data folder, overwriting the files of the same names in that folder.
4. Exit the file extraction program.
5. Delete the file **SupportFiles.zip**.

The updated Support Files are now ready for use and will be in effect when you next run STN Express.

### Using the EXE file method:

This method can be used for STN Express 8.4 or later releases. (It will not work with STN Express 8.3.) It requires administrator privileges to run the installer; however, once the installer has finished, then a normal user level login will complete the update process for individual users of STN Express.

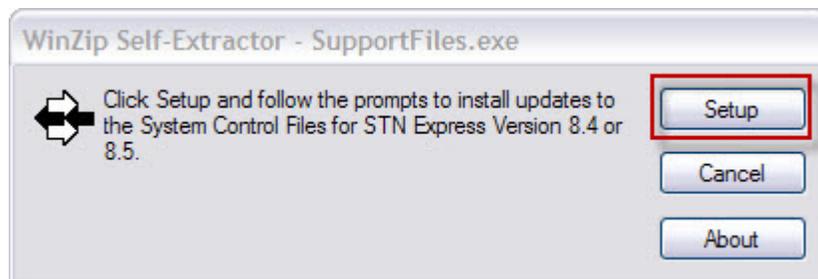
This program updates the Support Files in the shared template file location created by the STN Express installer

- C:\Documents and Settings\All Users\Application Data\STN Express 8.x\Data in Windows XP
- C:\Program Data\STN Express 8.x\Data in Vista and Windows 7

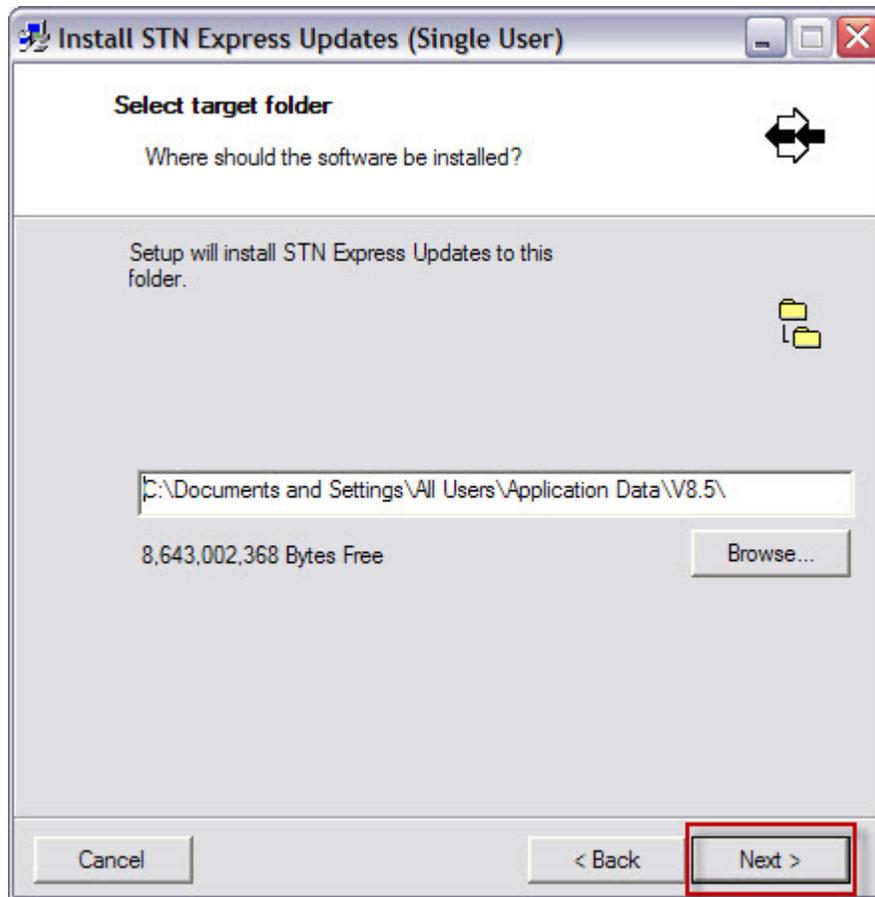
The next time any user on this computer runs STN Express, STN Express will copy the updated Support Files to that user's personal folders in My Documents\STN Express 8.x\Data, completing the automatic support file update process (you will see a brief advisory message box that files are being updated).

To update the Support Files using the EXE file:

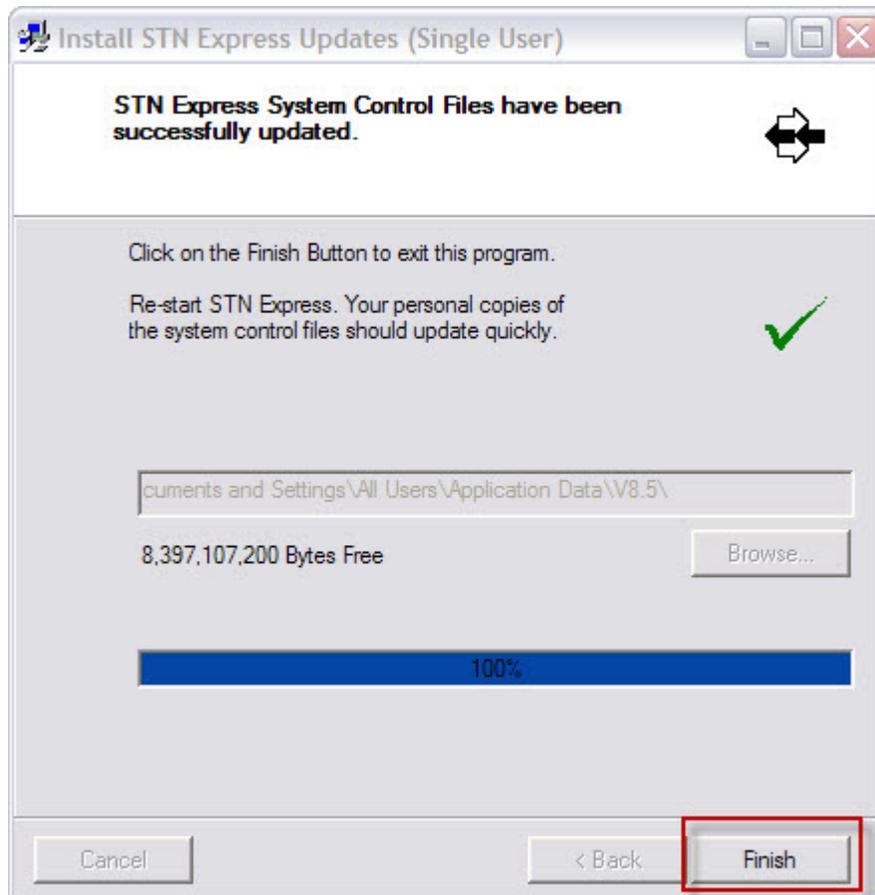
1. Exit STN Express.
2. Download the file **SupportFiles.exe** from the STN Express License and Download site.
3. Run the executable file with administrator privileges (use Run as if your login ID does not have administrator privileges), then click **Setup**.



4. The Welcome screen will display. Click **Next**.
5. The target location for the updates is displayed. This will be the shared location. Do not change this. Click **Next**.



6. When the installation process completes, a window will display announcing successful installation. Click **Finish**.



7. Start STN Express.

The support files will be updated in your My Documents\STN Express 8.x\Data folder.

8. Delete the file **SupportFiles.exe**.

*Related topics:*

- [What are STN Express Support Files?](#)
- [Automatic Updating of Support Files](#)

## USING SCRIPTS

### What is a Script?

A script is a text file that contains a set of statements in the STN Express® Script Language that are executed by STN Express. The STN Express Script Language can be used to create:

- Custom logon procedures
- Custom search strategies
- Procedures to automate repetitive search or display tasks.

For example, you may routinely perform a certain subject or author search on STN. Rather than logging on to STN and opening a transcript file to capture search results, searching multiple files, and then logging off and reviewing the transcript, you can use scripts to streamline the process. One script can log you on to STN, another can initiate the searches, and another script can display your answers. Alternatively, one script can perform all three tasks. Because the script runs automatically, without waiting for you to type, you may reduce your online time and costs.

### Steps in Writing a Script

Define what you want to accomplish and the steps required to accomplish the task. For example, suppose you have a list of CAS Registry Numbers (RN) and want to display their records on STN. What steps would you follow?

#### A. Define the task

1. Log on to STN.
2. Enter the Registry file.
3. Display the record for the first RN.
4. Repeat step 3 until finished.
5. Log off STN.

#### B. Translate the steps into Script Language statements that will accomplish the task.

1. Log on to STN.

The script could log on to STN, but it is often better to separate the logon task from the job the script performs. In this example, log on to STN as usual and then run the script.

2. Enter the Registry file.

The STN command to enter the Registry file is FILE REGISTRY. To use an STN command in a script, use the => (arrow prompt) statement:

```
=> FILE REGISTRY
```

3. Display the record for the first Registry Number.

To display a record on STN, use the DISPLAY command. Again we use the => statement:

```
=> DIS 50-00-0
```

4. Repeat step 3 until finished.

Add more DIS commands.

5. Log off STN.

End your STN session with the LOGOFF command, again using the => statement:

```
=> LOG Y
```

### Creating a Script

To create a script, select **Prepare Command File** from the **Query** menu on the STN Express Main Menu. Click **New** in the Open Script dialog. This opens the STN Edit window with an **Untitled** text window inside it. Type the following script statements:

```
\* Display CAS RNs in the Registry file on STN.  
=> FILE REGISTRY  
=> DIS 50-00-0  
=> DIS 7777-77-7  
=> LOG Y
```

### Saving the Script

To save the script file, select **Save** from the **File** menu. Type a name in the **File name** box and click **Save**. By default, the script file is saved to the User Scripts folder defined in General Preferences in the **Setup** menu (on the Main Menu Toolbar).

Do not use any name that exists in the Predefined Scripts folder unless you are replacing the functions of that script.

### Checking the Script for Errors

To check the script for syntax errors, go to the **Utilities** menu in STN Edit and select **Check Command File**. If errors are found, STN Edit highlights appropriate script lines and displays a message at the bottom of the STN Edit window. To learn the nature of the error, move the mouse pointer over the highlighted part of a line. Correct the error, save the script, and check the script again until no errors are found.

**Check Command File** does not find all errors because some errors cannot be found until the script actually runs. It is not necessary to be logged on to an online host to use **Check Command File**.

## Script Language Components

The STN Express Script Language is a miniature computer programming language. As such, it has many of the same components as other programming languages. The components of the Script Language include:

Component	Content
Variables	Temporary storage places for data, or places to store data that can change
Character Strings and Numbers	Constant, literal text and numeric data
File Names	Names of transcript or data files on your PC
Labels	Identifiers for statements
Statements	Instructions to STN Express that perform an action. For example, the SEND statement instructs STN Express to send a string of characters to an online host or communications device.
Operators and Conditions	Elements that manipulate and compare pieces of data.
Syntax Requirements	Rules for organizing scripts and typing statements.

## Script Variables

A variable is a name for a place to store information. Specifically, a variable can store a number, a string of characters, a file name, or the L-number result of a search. Use a variable when a specific value is unknown or will change within a script. For example, if you write a script that performs an author search, make the script flexible by using a variable for the author's name instead of typing the author's name in the script.

Variables are named with an underscore followed by one to twelve alphanumeric characters. They are considered "declared" after their first use. Once a variable is declared, the same name may not be used to refer to another variable.

Variable names are not case-sensitive. For example, the variable named `_var` is the same as the variable named `_VAR`.

Variables are always considered to be of type string (text), except for variables that represent search results (L-numbers). Variables are automatically converted to numbers (integers) when necessary for arithmetic operations or conditions. Attempts to perform arithmetic operations on non-numeric text result in errors when the script is run.

To give a variable a value, use an assignment statement or the \> operator, described at the => statement. See also the # operator, explained under the => statement.

Up to 200 variables are permitted within a script. If there are more variables, this is noted when you run the script online rather than when you use Check Command File.

Variable values may not exceed 255 characters in length.

There are [predefined logon setup variables](#) and [predefined STN variables](#).

## Script Character Strings

Textual data is enclosed in double quotes and can be a string up to 140 characters long.

You may continue a string on a new line by typing a backslash, \, at the end of the line.

To use the value of a string variable, type the variable along with the text. Place double quotes around the entire string.

For example:

```
_s = "how to use"
```

```
ECHO "This is _s a variable in a string."
```

displays:

**This is how to use a variable in a string.**

Variables within strings are replaced by their values, converting integers to text. The # operator, along with a variable, is replaced by the number of answers in the answer set and is converted to text.

If you want a variable within a string to be immediately followed by non-blank text, separate the variable name and text with a period.

For example:

```
_variable = "con"
```

```
ECHO "This example string includes
```

```
_variable.catenated text"
```

displays:

**This example string includes concatenated text**

Special characters and escape characters within strings are:

[CR]	Carriage return
[TAB]	Move to next tab position
[BS]	Backspace
[ESC]	Escape
[BELL]	Sound bell (beep)
[CTRL-A]...[CTRL-Z]	Unprintable control characters
[FF]	Formfeed

Note that many networks and STN Express use control characters in normal operations. As a result, indiscriminate use of control characters may result in lost data, locked sessions, or terminated processes.

The characters `_`, `\`, `"`, `[`, and `#` have special use within the script language and must be doubled if they are to be used within a string. In other words, to include a `[` in a string, use two in a row:

```
ECHO "Here is a string with a left bracket (i.e., [[] in it."
```

displays:

**Here is a string with a left bracket (i.e., [[] in it.**

A distinction between upper- and lowercase is made when the characters are within a string, and the number of spaces between words and letters is not ignored.

## Script Numbers

The Script Language supports integers; there are no decimals or fractions. Type whole numbers in an ordinary way. For example:

```
_var = 42
```

```
IF _var < 100 THEN
```

To use a negative number, subtract a positive number from zero:

```
_neg = -1\* not allowed
```

```
_neg = 0 - 1
```

```
IF _neg < 0 THEN
```

## Script File Names

Enclose file names within angle brackets, < >. All characters within the brackets are taken literally, but underscore characters are not allowed. File names may be stored in variables. For example:

```
CAPTURE ON <transcript> \* a literal file name
```

```
_var = <new script> \* assign a file name
```

```
\* to a variable
```

```
EXEC _var \* execute a script
```

```
\* whose name is in _var
```

```
CAPTURE OFF <>
```

## Script Labels

A "label" or "statement label" identifies a line in a script so that other statements can refer to that line. Labels are named similarly to variables except that they begin with the @ character. The following are examples of valid labels:

```
@start
```

```
@error
```

Refer to the [CONTINUE](#), [GOTO](#), and [GOSUB](#) statements for examples of how to use labels.

## Script Operators and Conditions

Operators and conditions are components of statements. *Arithmetic operators* manipulate the values of numbers. "String operators" work on text strings. *Conditional operators* compare the values of strings and numbers in IF statements. *Compound conditions* are built with *logical operators*. *Special operators* are used in specific situations.

### Arithmetic Operators

Use the arithmetic operators in assignment statements to perform arithmetic on numbers. The arithmetic operators do not function inside strings or conditions.

+	addition	add two numbers
-	subtraction	subtract one number from another
*	multiplication	multiply two number
/	division	divide one number by another

### String Operators

+	concatenation	join two strings (not inside double quotation marks)
.	concatenation	denote the end of a variable name inside double quotes

## Conditional Operators

To control execution of a statement or a set of statements based on the value of a variable, use an IF statement with a condition. A condition compares the values of two variables or a variable and a literal number or literal string.

All operators are binary, and the general syntax is *A operator B*.

If both operand A and operand B are integers, comparison is based on their numerical values. Otherwise, an alphabetic comparison is made.

All string comparisons are case-sensitive. That means "salt" is not equal to "SALT".

### Numbers and Strings

=	equality	numbers or strings are equal
<>	inequality	numbers or strings are not equal

### Numbers

>	greater than	A is greater than B
<	less than	A is less than B
>=	greater than or equal	A is greater than or equal to B
<=	less than or equal	A is less than or equal to B

### Strings

INCL	includes	string A includes string B
NOTINCL	does not include	nstring A does not include string B

### Example 1

```
_s = "string"
IF _s = "string"      \* True
IF _s = "string "    \* False
IF _s = "STRING"     \* False
IF _s INCL "ring"    \* True
IF _s INCL "Ring"    \* False
```

```
IF !_s NOTINCL "cow"    \* True
```

### Example 2

```
_var1 = 10
_var2 = 5 + 5
IF _var2 = _var1    \* True
IF _var2 <> _var1    \* False
IF _var1 > 0        \* True
IF _var2 < 4        \* False
IF _var1 >= 10      \* True
IF _var1 <= 10      \* True
```

## Compound Conditions

Compound conditions may be formed from multiple conditions using logical operators. Use parentheses to group and nest conditions up to eight levels deep.

AND	logical and	both A and B
OR	logical or	either A or B or both
XOR	exclusive or	either A or B, but not both

Example:

```
_answers = 42
_dformat = "bib"
IF ((_answers < 100) AND (_dformat = "bib")) /* True
IF ((_answers < 100) AND (_dformat = "all")) /* False
IF ((_answers < 100) OR (_dformat = "ide")) /* True
IF ((_answers < 15) OR (_dformat = "ide")) /* False
IF ((_answers < 100) XOR (_dformat = "bib")) /* FALSE
IF ((_answers < 100) XOR (_dformat = "ide")) /* True
```

## Special Operators

!\	Edit	Edit a command before sending it to an online host (=> statement).
\>	L-number	Assign the L-number result of a command to a variable (=> statement).
#	answer count	Retrieve the number of answers from an L-number variable.
EXISTS	file	Determine whether a given file exists.

	existence	EXISTS first checks the User Scripts folder and then Scripts folder. It sets <code>_\$_filerror</code> to zero if the file exists and to a nonzero value if the file does not exist.
--	-----------	--

## Script Syntax Requirements

The STN Express Script Language has few general syntax requirements. However, each statement has its own syntax.

- More than one statement may appear on the same line, or each statement may be typed on its own line.
- The keywords in the Script Language are not case-sensitive. For example, the EXIT statement may be written EXIT or exit.
- Upper- and lowercase are significant in character strings. For example, "Yes" is different from "yes".
- Blank lines may appear anywhere.
- Blanks and space characters may appear anywhere. However, they are significant in strings (inside double quotes). For example, "STNExpress" is different from "STN Express".
- A line in a script is limited to 80 characters, but a single script statement can be 140 characters long. To continue a statement on the next line, put a backslash, \, at the end of each line that is continued on the next line.
- Enclose strings in double quotes.
- Comments are notes that describe or explain the script, and they are ignored by the script processor. Comments begin with \\* and continue until the end of the line. Comments may appear on lines of their own, or they may appear at the end of any statement except the Prompt Statement.
- STN commands can be up to 256 characters in length.

## Script Statements

The Script Language is composed of "keywords" and "values." Keywords are words that have special meaning in the Script Language. Values are pieces of data in the form of variables, strings, numbers, or file names. A "statement" has at least one keyword, and some statements have parameters. A "parameter" is the object of the statement and may be a keyword, a value, or a combination of keywords and values. You can sometimes think of statements as having verbs and objects. For example, in the statement `GET _author`, `GET` is the verb and `_author` is the object (parameter).

The conventions used to describe the STN Express Script Language are:

1. **Keywords** are shown in uppercase letters, e.g., EXIT.

2. **Strings** are shown in lowercase letters inside double quotation marks. For example, in the statement SEND "string", *SEND* is a keyword, and *string* is a string value. You may use a variable wherever you can use a string.
3. **Variables** are shown in lowercase letters with a preceding underscore. For example, in GET \_var1, *GET* is a keyword and *\_var1* represents the name of a variable.
4. **Numbers** are denoted by lowercase letters. For example, in the statement PAUSE n, *n* represents a number.
5. **Optional** parameters are shown inside square brackets. For example, PAUSE n [SECONDS] means the *PAUSE* statement has a required parameter, *n*, and an optional keyword, *SECONDS*. Do not type the brackets when you type the parameter or keyword.
6. When there is a **choice** of parameters or values, the choices are enclosed in braces, and a vertical bar separates the choices. For example, in the statement CAPTURE {ON | OFF}, the keyword *ON* or the keyword *OFF* follows the *CAPTURE* keyword.
7. **File names** are shown within angle brackets. For example, DELETE <file name>. You may use a variable whose value is a file name wherever you can use a file name.
8. **Comments** are preceded by \\* and continue through the ends of their lines. The script processor ignores comments.
9. Example scripts and statements are shown in a fixed-width font.
10. Script output and results are shown in a **bold font**.

Note that a **block** is either a single statement or a group of statements enclosed by BEGIN and END.

The statements in the STN Express Script Language are listed in alphabetical order.

Make sure you review the common statements [SEND](#), [WAIT](#), [=>](#), [:](#), [ECHO](#), [IF](#), [GOTO](#), and [EXIT](#).

## Script Prompt Statement

=&gt;

:

**=>** [host-command] [!] [!> \_var] (primary prompt statement)

**:** [STN-reply] [!] [!> \_var] (STN secondary prompt statement)

The => and : statements, also known as *prompt statements*, are shortcuts for a WAIT/SEND combination. The => command waits for a primary or level 1 prompt, "=>" on STN. The : command waits for a secondary or level 2 prompt, ":" on STN. After the prompt is received, **host-command** or **STN-reply** is sent to the online host. For example:

```
=> del history
: y
```

is equivalent to:

```
SEND ""          \* Cause an arrow prompt.
```

```
WAIT
FOR "=>"        \* Wait for the arrow prompt
SEND "del history" \* and send a delete command.
WAIT
FOR ":"         \* Wait for the confirmation question
SEND "y"       \* and reply.
```

In each case in the example, STN Express waits to receive a command prompt from STN. After receiving the arrow prompt, STN Express sends a delete history command and then waits for a secondary prompt from STN. STN responds with "DELETE ALL L# ITEMS? (Y)/N:", which STN Express recognizes as a level 2 prompt

The => statement works for STN and online hosts. The : statement is for STN only.

Use the ! operator if you want to edit the host command before it is sent (see also the EDIT statement).

Use the !> operator to assign the L-number result of the command to a variable. For example, suppose the search command in the following statement produces L2 and 1492 answers:

```
=> s acid cow !> _Inum
```

The value of \_Inum will be "L2". Furthermore, the # operator can be used with \_Inum to retrieve the number of answers in an L-number. The statement:

```
ECHO "_Inum contains #_Inum answers."
```

displays:

**L2 contains 1492 answers.**

## Script Assignment Statement

**`_var = expression`**

Use an assignment statement to "assign" a value to a variable. First type the name of the variable, then an equal sign (assignment operator), and an expression. An expression can be a variable, a string, a number, a file name, an arithmetic expression, or a function. For example:

```
_count = 0
_count = _count + 1
_author = "dittmar, p"
_filename = <rn.txt>
```

## Script BEGIN/END Statement

**BEGIN/END**

BEGIN/END forms a block of statements that are treated as a group. BEGIN may appear on the same line as an IF statement.

A BEGIN/END block usually follows an IF or ONEXIT statement.

To use this statement, type BEGIN before the statements you want grouped together. Type END after the statement group. For example:

```
IF (_status = "NOT CONNECTED") BEGIN
  ECHO "DIALING..."
  SEND "ATDT 555-5555"
END
```

This example executes every line between BEGIN and END only if the value of `_status` is "NOT CONNECTED". Otherwise, the script continues after the END statement.

## Script BREAK Statement

**BREAK [n [MILSEC[S]]]**

The BREAK statement sends a break to the host system. Enter the number, `n`, as either a variable or an integer. If `n` is not entered, 750 is the assumed value. For example:

```
BREAK 500
```

sends a break 500 milliseconds in duration.

## Script CAPTURE Statement

### **CAPTURE {ON | OFF} <[file name [/A]]>**

The CAPTURE statement turns on or off transcript capture for your online session

If the CAPTURE ON file already exists, it is overwritten. /A opens the transcript in append mode.

Entering a file name is optional. If you do not enter a file name, you must still type <>. CAPTURE ON <> prompts you to enter the transcript file name using the standard Capture Session dialog. The Capture Session dialog allows you to overwrite or append to an existing transcript.

Capture may be to a standard STN Express transcript or to an RTF file. To capture to an RTF file, include a ".rtf" file name extension. The use of any other file name extension, including ".RTF," or no extension at all, results in a standard .trn-format transcript.

CAPTURE OFF <> stops capture.

For example:

```
CAPTURE ON <tranfile>
ECHO "THIS LINE OF TEXT"
=> e smith/au
CAPTURE OFF <>
```

results in the line "THIS LINE OF TEXT" and the result of the expand command being placed in a file named tranfile in the Transcripts folder defined in your General Preferences.

Capture is turned off when STN Express receives the CAPTURE OFF <> statement or when the online session ends.

If an error occurs, the `$_filerror` system variable is non-zero.

## Script CLOSE Statement

### **CLOSE**

The CLOSE statement closes the currently open file. For example:

```
CLOSE
```

closes the data file that was opened by the OPEN statement.

If an error occurs at the end of the file, the `$_filerror` system variable is non-zero.

## Script CONTINUE Statement

### CONTINUE

The CONTINUE statement is used to continue processing a script beyond the current SEND, WAIT FOR, and TRYAGAIN statements. For example:

```
SEND "X"  
WAIT  
  FOR "LOGINID" CONTINUE  
  FOR 20 SECONDS GOTO @ERR  
SEND _loginid
```

If "LOGINID" is received from the host within 20 seconds, the script continues at the SEND statement.

## Script DELETE Statement

### DELETE <file name>

The DELETE statement deletes a specific file. For example:

```
_filename = <oldfile.txt>  
DELETE _filename
```

deletes the file named *oldfile.txt* from the Uscripts folder. To delete a file from a different folder, give the full path.

If an error occurs, the `$_filerror` system variable is non-zero.

## Script DROP DTR Statement

### DROP DTR

The DROP DTR statement is used to set the DTR (Data Terminal Ready) circuit to an "off" state. In some rare situations, you may need to control the DTR setting on your modem. See also RAISE DTR.

## Script ECHO Statement

### ECHO "string" [NOCR]

The ECHO statement is used to display a character string or variable on the screen. The string can be zero or more characters, variables, or both. A carriage return is included after the string. To suppress it, use the NOCR keyword. For example:

```
_var = "example"  
_item = "ECHO statement."  
ECHO "This is an _var of the " NOCR  
ECHO _item
```

displays

**This is an example of the ECHO statement.**

on your screen.

The ECHO statement is not used to send commands to an online host (use the SEND statement). The results of ECHO statements and host commands are mixed in the session window and transcript. As a result, it can appear that commands are being sent to the host when they are not. For example,

```
ECHO "Enter your search term:"
```

appears as

```
=> Enter your search term:
```

on STN. You may wish to use an extra ECHO to avoid this. For example,

```
ECHO "" \* outputs a blank line to the screen
ECHO "Enter your search term:"
```

appears as

```
=>
```

```
Enter your search term:
```

in the STN session and transcript.

## Script EDIT Statement

### EDIT {ON | OFF}

The EDIT statement is used to interact with the script processor by pausing the script before sending a command to the online host. An "Enter user data" box with the next command in it appears, allowing the command to be edited before it is sent. The changes made in the text editing box are not saved in the script file. The default is EDIT OFF. For example:

```
=> FILE CAPLUS
EDIT ON
=> S ASPIRIN
```

```
EDIT OFF
=> D 1-3 ALL
```

You may use \! as a shortcut for the EDIT statement. Use \! on the => and : statement lines for STN scripts. The \! operator must occur at the end of the statement.

## Script EXEC Statement

### EXEC <file name>

The EXEC statement is used to execute another script from within a script. The script file name is required.

Scripts may be nested eight levels deep. Variables defined in the calling script are available in the called script. When the called script completes, processing continues on the line immediately after the EXEC statement in the calling script. For example:

```
_filevar = <SECONDSRIPT.sc>
EXEC _filevar
ECHO "_filevar has completed processing."
```

executes the script SECONDSRIPT.sc. Then it returns to the calling script and prints:

**SECONDSRIPT.sc has completed processing.**

All scripts that are executed must reside in the User Scripts or Predefined Scripts folder as defined in General Preferences (located in the **Setup** menu on the Main Menu). The User Scripts folder is checked first for the script. If it is not found, the Predefined Scripts folder is checked. If the script is not found in either folder, an error message is displayed.

If an error occurs, the `_$filerror` system variable is non-zero.

## Script EXIT Statement

### EXIT

The EXIT statement defines a point to leave the script. EXIT has no parameters.

An exit is assumed after the last statement in a script. Thus, an EXIT statement is not required in any script. More than one EXIT statement may be used in a script.

If an ONEXIT statement exists in a script, the ONEXIT block is executed before exiting. If the ONEXIT statement includes an EXIT statement, an exit occurs immediately when that EXIT is executed.

## Script GET Statement

### GET \_varname [HIDDEN] [LABEL="string"]

The GET statement is used to accept input from the keyboard.

When a GET statement is reached in the script, text entry box is displayed in which the user may type. Typed characters, up to but not including the first carriage return, are placed in `_varname`.

All typed input is scanned for a colon character (:). If found, GET returns

only the characters that follow the colon.

If the HIDDEN keyword is present, the typed characters are not displayed in the input box.

If both the HIDDEN and LABEL keywords are present, HIDDEN must be first.

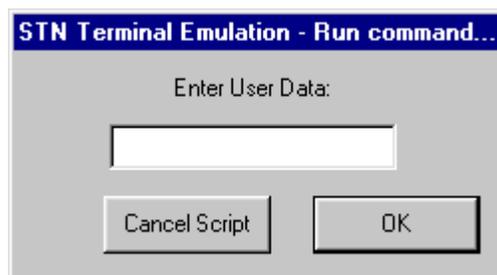
For example, the statements

```
ECHO "Please enter your password:"  
GET _passwd HIDDEN
```

display

**Please enter your password:**

in the session window and prompts you for your password with an Enter User Data pop-up box:

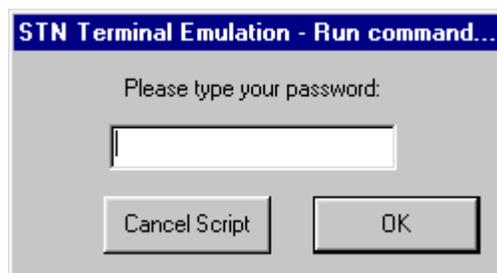


When your password is entered, it is stored in the `_passwd` variable but not displayed.

Use the LABEL keyword to specify your own message in the pop-up box. For example:

```
GET _passwd HIDDEN LABEL="Please type your password:"
```

causes the following dialog to be displayed:



## Script GOSUB Statement

### GOSUB @label

The GOSUB statement is used to branch to a different location (a subroutine) in the script with the option of returning to the statement that follows GOSUB. Subroutines are useful when an identical set of statements is executed from various points in the script.

GOSUB has only one parameter, a label. When GOSUB is reached, script processing moves to the indicated label and continues processing until a [RETURN](#) statement is reached. The RETURN statement causes the script to continue with the statement following the GOSUB statement.

GOSUBs may be nested up to eight levels.

For example:

```
ECHO "Right before the GOSUB."  
GOSUB @SUBROUTINE  
ECHO "Right after the GOSUB."  
EXIT
```

```
@SUBROUTINE  
ECHO "Within the GOSUB."  
RETURN
```

displays:

```
Right before the GOSUB.  
Within the GOSUB.  
Right after the GOSUB.
```

## Script GOTO Statement

### GOTO @label

The GOTO statement is used to direct script processing to a line that is not directly after the current line of a script.

GOTO is similar to GOSUB except that there is no option to RETURN.

For example:

```
IF (_var1 = "FIRST") GOTO @LABEL1  
ECHO "Value of var1 is not FIRST."  
EXIT
```

```
@LABEL1  
ECHO "Value of var1 is FIRST"  
EXIT
```

outputs only one of the above ECHOed lines, depending on the value of `_var1`.

## Script IF Statement

### IF (condition) block [ELSE block]

The IF statement is used to execute one or more statements based on a condition or criteria.

The IF/ELSE statement forms a construct that decides which statement to execute next. If the condition is true, the statement or block directly following the IF is executed. If the condition is false, the statement or block directly following the ELSE keyword is executed. If the condition is false and there is no ELSE keyword, the statement following the end of the IF block is executed.

Use a BEGIN/END block when you want to execute more than one statement after IF or ELSE.

For example:

```
\* If no phone number was given, ask for it. Otherwise,
\* display the number. In either case, dial the number.
IF (_phoneno = "") BEGIN \* multi-statement block
    ECHO "Enter phone number:"
    GET _phoneno
    END
ELSE
    ECHO "Dialing _phoneno" \* single-statement block
SEND "ATDT _phoneno"
```

Note that the SEND statement is outside the IF/ELSE construct. It is executed regardless of the condition.

## Script ONEXIT Statement

### ONEXIT block

ONEXIT is used to specify a set of statements to always execute before leaving a script.

The ONEXIT statement may be placed anywhere within a script. An ONEXIT block cannot contain a GOTO or RETURN statement.

When the script processor reaches an EXIT statement and an ONEXIT block has been defined, processing jumps to the ONEXIT block. After the ONEXIT block has been completed, the script ends. An EXIT statement within an ONEXIT block causes an immediate exit (the ONEXIT block is not executed again).

The block portion of the statement may be entered as one line, or as a set of statements between BEGIN and END.

For example, the statements:

```
ONEXIT BEGIN
    ECHO "These two lines will always be"
    ECHO "executed upon exiting the script."
END
```

cause the two lines to be displayed to the screen when you leave the script.

## Script OPEN Statement

### OPEN [<file name>] [ {/R | /W} ]

The OPEN statement is used to open a new or existing file from within a script.

The file name is optional. If no file name is supplied, you are prompted to enter one.

The file name can be a full path, such as *C:\Docs\Project2\data.txt*, or a simple name, such as *data.txt*. If it is a simple file name, the file is opened in the Uscripts folder.

The /R option opens the file to read only. The /W option allows both reading and writing in the file. The default option is /W.

All data written to the file is appended to the end of the file. To rewrite a file completely, delete it before opening it.

For example:

```
_error = "Command timed out. Error ##36."  
DELETE <errors.txt> \* Delete errors.txt from Uscripts  
OPEN <errors.txt> \* Open (and create) file in Uscripts  
WRITE _error  
CLOSE
```

places the following message in a file named *errors.txt*:

**Command timed out. Error #36.**

If an error occurs, the `_$filerror` system variable is non-zero.

## Script PAGE Statement

### PAGE

The PAGE statement forces the captured transcript to begin a new page.

Page breaks appear when Browsing a standard transcript as

**<-----Page Break----->**

and are preserved when saved as RTF.

## Script PAUSE Statement

### PAUSE {n [SECOND[S]] | [UNTIL time]}

Use the PAUSE statement to halt script processing for a period of time or until a specific time of day.

Enter the number of seconds, *n*, as an integer or a variable. If *n* equals zero, the pause is forever.

The UNTIL time option allows you to specify a certain time of the day, using a 24-hour clock.

For example:

```
PAUSE 1 SECOND \* pause for 1 second  
PAUSE UNTIL 14:45 \* pause until 2:45 pm
```

## Script PRINT Statement

### PRINT {ON | OFF}

Use the PRINT statement to turn "slave" printing on or off. Slave printing causes the transcript to be printed as the online session progresses. Slave printing is not recommended.

## Script RAISE DTR Statement

### RAISE DTR

Use the RAISE DTR statement to set the modem's DTR (Data Terminal Ready) circuit to an "on" state. See also DROP DTR.

## Script READ Statement

### READ \_varname

The READ statement reads a single line from the OPEN file and stores the value, without a carriage return character, in \_varname. For example

:

```
ECHO "reading first line of INPUT FILE"
OPEN <input.txt>
READ _line
CLOSE
```

The file input.txt is opened and the first line is read into the variable \_line.

If an end-of-file condition is reached or an error occurs, the \_\$filerror system variable will be non-zero.

## Script RETURN Statement

### RETURN

The RETURN statement is used to return to the point from which a subroutine was invoked by a GOSUB statement. For example:

```
GOSUB @SUBROUTINE
ECHO "processing will return to this point."
EXIT
```

```
@SUBROUTINE
ECHO "After printing this line..."
RETURN
```

displays the following:

**After printing this line...**  
**processing will return to this point.**

## Script SEND Statement

### SEND "string" [EDIT] [HIDDEN] [NOCR]

The SEND statement is used to send a character string to the online host. (Technically, the string is sent to the communication port specified in the logon setup. Therefore, for example, a string can be sent to a modem before STN Express is connected to the host.)

The string and other parameters may occur in any order after the SEND statement. The "=>" and ":" statements are specific forms of SEND.

**EDIT** is an option that allows the string to be edited before it is sent. EDIT works as \! does in the => and : statements.

**HIDDEN** does not display the string as it is sent. This is useful when sending passwords.

A carriage return is automatically included after the string. To suppress it, use the **NOCR** keyword.

For example:

```
SEND "+++" NOCR  
SEND "ATDT 555-1212"
```

sends:

```
+++ATDT 555-1212
```

to the modem.

## Script STNLOGON Statement

### STNLOGON

The STNLOGON statement is used to execute the STNLOGON script that logs you on to STN International. STNLOGON assumes that there is already a connection to STN. Specifically, STNLOGON sends a carriage return and expects the reply to be "Welcome to STN International! Enter x:".

## Script SUBSTR Function

### SUBSTR (*\_var*, *begin*, *length*)

SUBSTR is a function that takes a string of characters in a variable and returns a "substring" or portion of the string. The returned substring begins with character number **begin** and continues for **length** characters. **Begin** and **length** may be literal numbers or variables. For example, the statements:

```
_var1 = "xxx remove this portion xxx"
_var2 = SUBSTR(_var1, 5, 19)
ECHO _var2
```

display the following contents of *\_var2*:

#### remove this portion

SUBSTR may be used in conditions. For example:

```
_len = 3
IF (SUBSTR(_var1,1,_len) = "xxx") GOTO @label
```

When the script runs, if **begin** is beyond the end of the string, a variable substitution error is given.

## Script TRYAGAIN Statement

### TRYAGAIN *n* [TIMES] [ [THEN] block]

The TRYAGAIN statement is part of a [WAIT](#) block and is used to repeat the previous [SEND](#) statement a specified number of times.

This statement works only in the context of the SEND-WAIT statement pair. It repeats the previous SEND up to *n* times. After the *n*th attempt, processing either performs the THEN block or EXITS.

For example:

```
SEND "ATDT 555-1212"
WAIT
  FOR "CONNECT" CONTINUE
  FOR "NO CARRIER" EXIT
  FOR 5 SECONDS
  TRYAGAIN 5 TIMES THEN GOTO @failed
```

This script sends the phone number and waits five seconds for either CONNECT or NO CARRIER. If the response is not received, the phone number is sent up to five more times. If the expected response is still not received, the process jumps to the @failed label.

## Script UPLOAD Statement

**UPLOAD [LNUM \_var1,\_var2,\_var3...] <file name>**

The UPLOAD statement is used to upload a structure query to STN. The result of the UPLOAD is one or more L-numbered queries.

The **LNUM** keyword indicates the beginning of a list of variables. The variables are assigned the L-number or L-numbers of the uploaded structure. Usually, only one variable is needed. Multiple variables are needed when a reaction query with multiple participants is uploaded in an STN file that does not support reaction searching. In that situation, each of the participants is uploaded into its own L-numbered query. Commas must separate variables in the list.

**<file name>** is a full path to a .str query file created in Structure Drawing.

For example:

```
UPLOAD LNUM _line1 <C:\STNEXP\Queries\STR1.STR>
```

This statement uploads the structure query file STR1.STR to STN and stores the resulting L-number value in the \_line1 variable.

If an error occurs, the \_\$filerror system variable is non-zero.

## Script USER Statement

**USER**

The USER statement is used to temporarily halt script processing and give control of the online session to the user. Control is returned to the script when you press the END key.

## Script VT320 Statement

**VT320 {ON | OFF}**

The VT320 statement is used to turn **ON** or **OFF** VT320 terminal emulation and is useful when you connect to STN via a VAX with a menu system and when you connect to an online host that offers a menu system.

## Script WAIT Statement

### WAIT [ *\_var1* ] [LNUM *\_var2*] for-list

The WAIT statement is used to pause script processing until a specific response is received from the online host. This statement results in data being read from the incoming communication port one line at a time. A line includes everything up to a carriage return.

After WAIT is executed, *\_var1* contains the last line received from the host.

LNUM *\_var2* puts an L-number into the variable *\_var2*.

**for-list** is one or more:

### FOR for-condition [THEN] block

This is defined as: "If for-condition is met, then execute these statements."

The block is optional, except for the last for-condition. Often the block contains a CONTINUE statement.

**For-condition** is either:

**"string" (substring received from host)**

or:

**n [SECOND[S]] (passing of time, n, can be an integer or a variable)**

If n is zero, the WAIT is forever.

See the example at the [TRYAGAIN](#) statement.

## Script WRITE Statement

### WRITE "string" [NOCR]

The WRITE statement writes a line of text into the currently-open file.

WRITE places **string** in the open file, followed by a carriage return. If the **NOCR** keyword is present, the carriage return is suppressed.

Lines are always appended to the end of the file. To erase the contents of the file before writing to it, use the [DELETE](#) statement.

If an error occurs, the *\_\$filerror* system variable is non-zero.

## Script Tips

- Scripts do not require a specific format or style as you type the statements, and more than one statement may appear on the same line. However, for ease of understanding the scripts you have written, use a style similar to what you see here.
- To ensure that all STN Express® features are available while you are online, use the STNLOGON script instead of writing your own commands to log on to STN.
- Open a new script file by selecting **New** from the **File** menu within the STN Edit window. A new, Untitled window is displayed
- **Check Command File** checks your script for some errors. Getting an error-free script from the command file checker does not guarantee that the script will do what it was intended to do. A clean bill of health from the command file checker also does not guarantee there are no errors in the script because some errors cannot be found until the script is run.
- Add comments to a script by placing a \\* anywhere on the line. To display a comment on the screen, use the ECHO statement.
- Use comments to help you and others understandable your scripts.
- Use blank lines to make your scripts more readable.
- Use a standard spacing and indentation scheme to make your scripts more readable.
- When running a script, press the Escape or Clear key to stop the script.
- All STN Express scripts must be in either the User Scripts folder or the Predefined Scripts folder. When looking for a script to execute, STN Express first checks the User Scripts folder, then the Predefined Scripts folder.
- Enter only the unique portion of the prompt when using the WAIT FOR statement.
- Use the SEND, WAIT FOR, and TRYAGAIN statements together because TRYAGAIN will resend the last item that was sent using a SEND statement. Many times, TRYAGAIN is an optional part of the statement trio because you would not want to resend some items, e.g., login ID or password.
- You may use your own word processor to write a script as long as you save the file in a text-only format.

## Running a Script

While you are logged on to STN, Select **Run Command File** from the **Query** menu. A Command File dialog is displayed. Select a script file to run and then click **Open**. The script runs until it finishes or until an error is found in the script.

## Script Examples

Use this Help as your guide to writing STN Express scripts. The [parts of the script language](#) are described with important details. The descriptions of most statements include at least one example. [Facts and tips](#) are collected for your convenience.

Use the following scripts as models for scripts that meet your needs. Other scripts are available in the Scripts and PSSfiles folders in your STN Express installation.

- [Registry number search example script](#)
- [Author search example script](#)

## Registry Number Script Example

Recall the script shown at the beginning of this section:

```
\* Display CAS RNs in the Registry file on STN.
```

```
=> FILE REGISTRY
```

```
=> DIS 50-00-0
```

```
=> DIS 7777-77-7
```

```
=> LOG Y
```

It does its job but is not very flexible. For example, what if you have long list of CAS Registry Numbers instead of just a few? Use the OPEN, READ, IF, and CLOSE statements to process a file of Registry Numbers.

```
\* STN Express script to read list of RNs from a file
```

```
\* and display information for each Registry Number.
```

```
\* Open the data file for reading. There is one RN on
```

```
\* each line.
```

```
OPEN <rnlist.txt>/R
```

```
=> file registry
```

```
\* Process all the RNs in the file
```

```
@readloop
```

```
\* Read an RN from the data file.
```

```
READ _rn
```

```
\* If an RN was read, send a DISPLAY command to STN.
```

```
IF (_$filerror = 0) BEGIN
```

```
\* Display the requested substance
```

## Author Search Script Example

```
=> dis _rn
GOTO @readloop
END
\* Close the input file
CLOSE
=>
EXIT

ECHO ""
ECHO "This is a script for running author searches."
ECHO "Press [Esc] at any time if you would like to\ stop."
ECHO ""
ECHO "In the pop-up box, enter the last or family\ name of the
author:"
GET _lastname label="Last/family name:"
ECHO "In the pop-up box, enter first or given name\ or initial:"
GET _firstname LABEL="First/given name:"
\* Use the STN expand command to provide choices of
\* names.
=>
=> expand _lastname _firstname/au
ECHO "Enter the e-numbers to search, e.g., e3-e5 or\ e3,e7) or end"
GET _enums LABEL="Enter e-numbers:"
IF (_enums = "end") BEGIN
ECHO "Ending author search at your request."
=>
EXIT
END
=>
=> search _enums \> _results
```

```

\* If the search yielded zero answers, there is
\* nothing to display. Inform the user and exit.
IF (#_results = 0) BEGIN
    ECHO "There are no answers for your query."
    =>
    EXIT
END

\* The search found hits, so ask how many should be
\* displayed.
ECHO "How many answers would you like to display? (e.g.,\
#_results or 0):"
GET _display
IF (_display > 0) BEGIN
    ECHO "Please provide a transcript name to use to\
save your answers."
    CAPTURE ON <>
    \* Don't try to display more answers than are
    \* available.
    IF (_display > #_results) THEN _display = #_results
    =>
    => dis 1-_display bib
    CAPTURE OFF <>
END
ECHO "Your author search is now complete."
=>
EXIT

```

## Predefined Logon Setup Variables

If you intend to write your own scripts that connect through a network or log on to an online host, be sure you understand the details of a logon setup. Many of the values defined in a logon setup are available to STN Express scripts as variables. Below is a list of these variables and the fields in the setup dialogs to which they correspond.

**Setup  
Definition  
Dialog**

**Host Information**

_\$LOGID	Login ID
_\$PASSWORD	Password
_\$SERVICE	Host Name; set to "STN" for all STN hosts
_\$STNCENTER	name of STN Node (Columbus, Karlsruhe, or Tokyo)

**Path**

_\$CONNVIA	Connect via
_\$NETWORK	Value selected from network list when the Logon Method is Standard
_\$NUA	NUA (Network User Address)
_\$NUI	NUA (Network User Address)
_\$NUP	NUP (Network User Password)

**Communication Settings**

_\$BAUD	Speed
_\$DIALTYPE	Dial
_\$PHONENO	Primary Phone #
_\$PHONENO2	Secondary Phone #

**Host Settings**

_\$QSERVNAME	Choice of Service (Questel only )
_\$GRAPHICS	Graphics (STN only)
_\$STNPORT	STN Port (STN only)



## Advanced Dialog

### Prompt Character strings

#### Optional

_\$GWID	Gateway Login ID
_\$GWPW	Gateway Password

#### Execute at command prompt

_\$GWCOMM1	Value of first (top) "Execute" box
...	
_\$GWCOMM5	Value of fifth (bottom) "Execute" box

#### Modem Configuration

_\$MODINIT	Initialization String
------------	-----------------------

## Predefined STN Variables

In addition to predefined logon setup variables, other variables related to your STN session are available to you.

_\$CENV	the current STN file environment (a list of STN files in capital letters)
_\$ENUM	the current E-number
_\$LANS	number of answers in the most recent L-number
_\$LNUM	the most recent L-number
_\$LENV	the STN file environment on entry to the script

## CUSTOMER SUPPORT

Contact customer support when you have questions or need additional information about STN® or other CAS products and services.

### CAS Customer Center

Hours	8 a.m. - 8 p.m. Eastern Time (Monday-Friday)
Phone	1-800-753-4227 (North America) <b>Option 2:</b> General information or account-related questions <b>Option 3:</b> Assistance with search strategies, database content, or using a product <b>Option 4:</b> Technical assistance with software setup, installation, and configuration +1 614-447-3700 (outside North America)
Fax	1-614-447-3751
E-mail:	help@cas.org
Internet	<a href="http://www.cas.org">www.cas.org</a>

### FIZ-Karlsruhe (Europe)

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