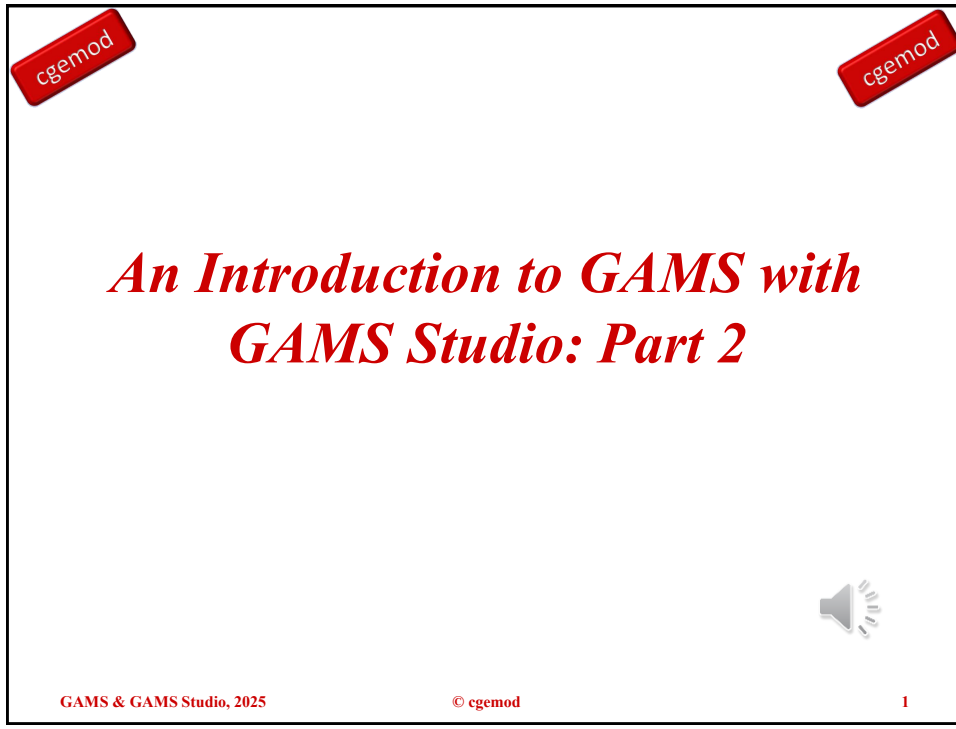
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An Introduction to GAMS with GAMS Studio: Part 2
GAMS & GAMS Studio, 2025
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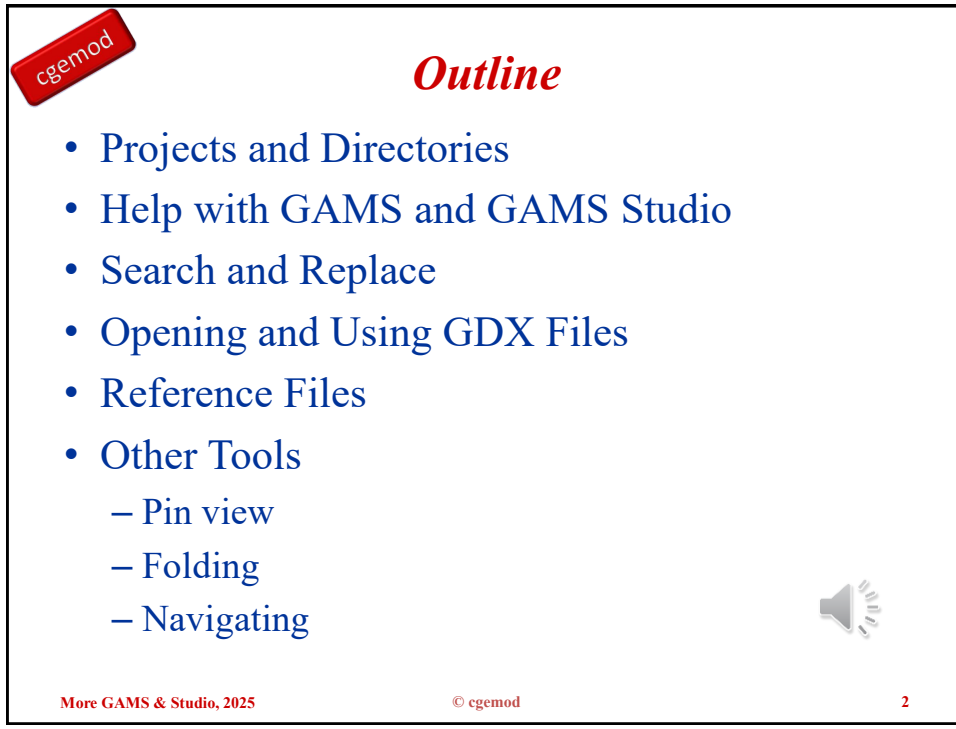
1


cgemod
Outline
• Projects and Directories
• Help with GAMS and GAMS Studio
• Search and Replace
• Opening and Using GDX Files
• Reference Files
• Other Tools
– Pin view
– Folding
– Navigating
More GAMS & Studio, 2025
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Projects and Directories
GAMS & GAMS Studio, 2025
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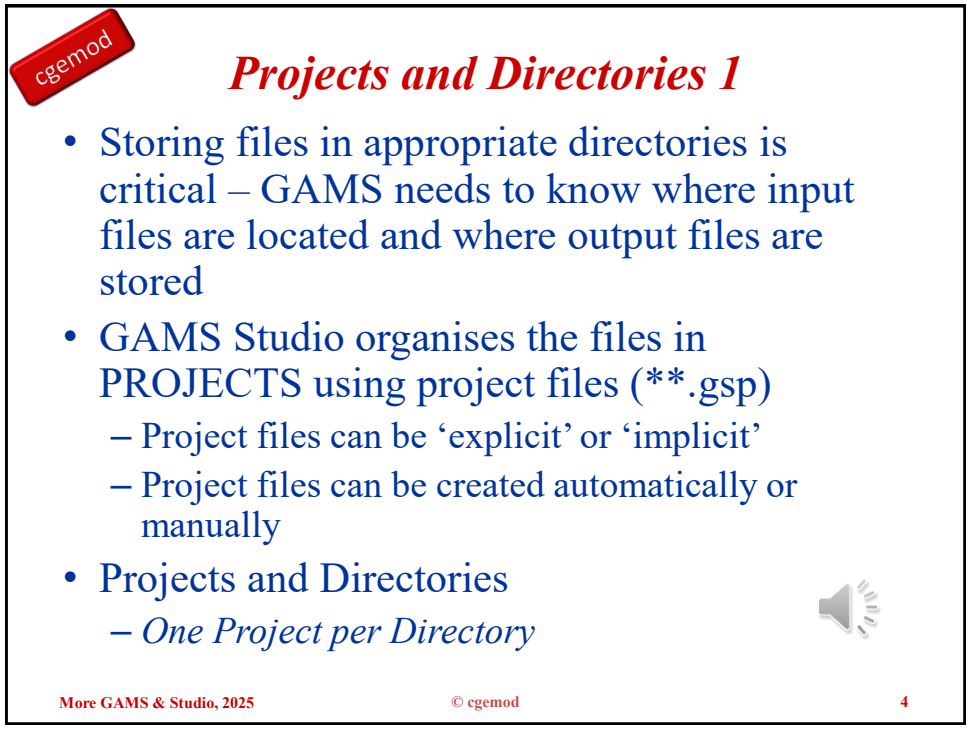
3


cgemod
Projects and Directories 1
• Storing files in appropriate directories is critical – GAMS needs to know where input files are located and where output files are stored
• GAMS Studio organises the files in PROJECTS using project files (**.gsp)
– Project files can be 'explicit' or 'implicit'
– Project files can be created automatically or manually
• Projects and Directories
– One Project per Directory
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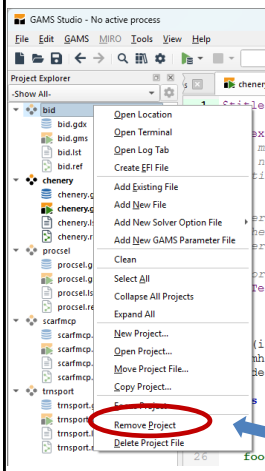
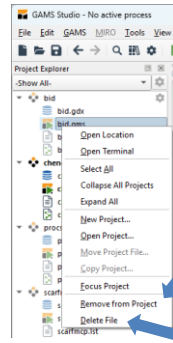
Projects and Directories 2





Remove from Project – closes files but does **not** delete a stored file

Delete File – deletes a stored file

Remove Project from Project Explorer – does **not** delete any stored files

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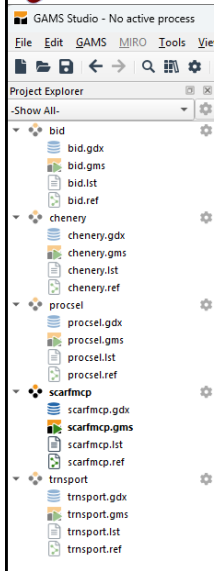
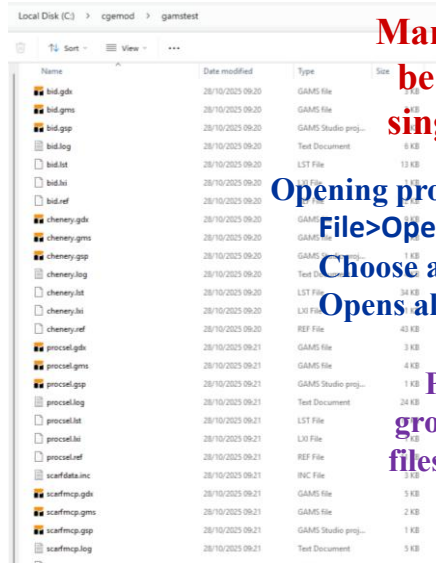
Projects and Directories





Many projects can be included in a single directory!!

Opening projects
File>Open..
Choose any **gms or **.gsp
Opens all related files

Projects and groups of related files linked by gsp files

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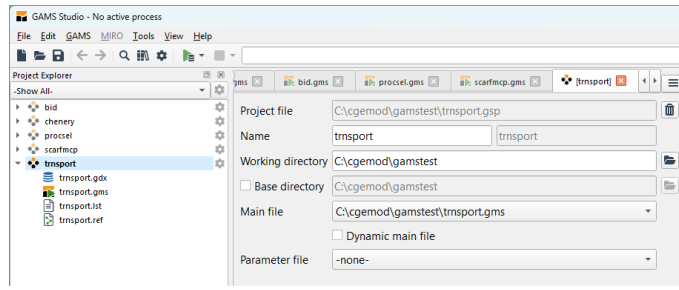
Project Options



Active Project: project name in **BOLD**

Main File: file with **GREEN** arrowhead

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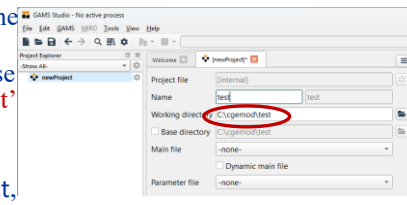
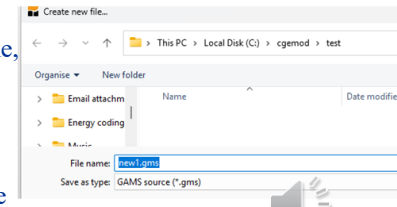
New Project 1

- in Windows Explorer create a directory for the new project, C:\cgemod\test,
- open the Settings (F7) - on General tab choose option 'Open file in current project by default' is selected,
- choose File>New Project,
- the default name for the project is newProject,
- rename the project name as test in the editor window
- set the Working directory to C:\cgemod\test, using the BROWSE button,
- Base and Working directories have same name,
- choose File>Save – DO NOT USE SAVE AS
- choose File>New that will open a Windows Explorer window with default File name of new***.gms,
- click SAVE and new**.gms will appear in the 'test' project.





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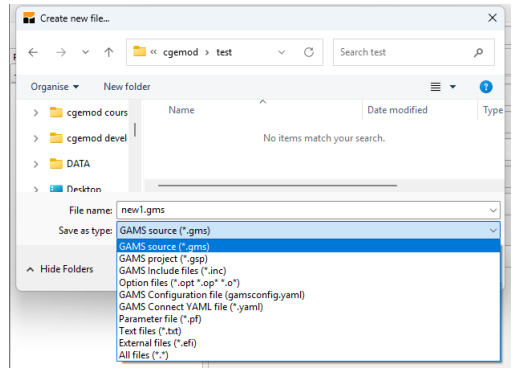
New Project 2

Set 'Save as type' to *.gms



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GAMS Help

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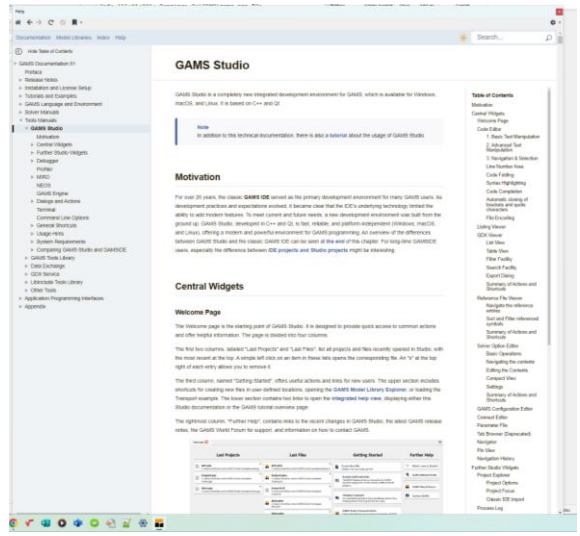
Help with GAMS and GAMS Studio

Select: `Help > GAMS Documentation`, or `F1`, or `View > Help`



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Help with GAMS Studio: Short Cuts

Keyboard Shortcuts

2. Advanced Text Manipulation

Action	Shortcut	macOS	Description
Remove Line	**Shift - Del**		Removes the current line
Duplicate Line	**Ctrl - D**	**Command - D**	Duplicates the current line
Lowercase	**Alt - Shift - L**	**Option - Shift - L**	Toggle selection to lower case
Uppercase	**Alt - Shift - U**	**Option - Shift - U**	Toggle selection to upper case
Tab	**Tab**	**Tab**	Add spaces till next tab size
Untab	**Shift - Tab**	**Shift - Tab**	Remove spaces till previous tab size
Indent	**Ctrl - I**	**Command - I**	Indent complete line
Outdent	**Ctrl - Shift - I**	**Command - Shift - I**	Outdent complete line
Find	**Ctrl - F**	**Command - F**	Open Search & Replace window, filling search field with selected text if there is any.
Find Next	**F3**	**F3**	Jump to next search result if
Find Previous	**Shift - F3**	**Shift - F3**	Jump to previous search result

3. Navigation & Selection

Action	Shortcut	macOS	Description
Zoom In	**Ctrl - +** or **Ctrl - =** or **Ctrl - Wheel Up**	**Command - +** or **Command - =** or **Command - Wheel Up**	Zoom in
Zoom Out	**Ctrl - -** or **Ctrl - Wheel Down**	**Command - -** or **Command - Wheel Down**	Zoom out
Reset Zoom	**Ctrl - 0**	**Command - 0**	Reset zoom
Match Parentheses	**Ctrl - B**	**Command - B**	Jump to matching parenthesis

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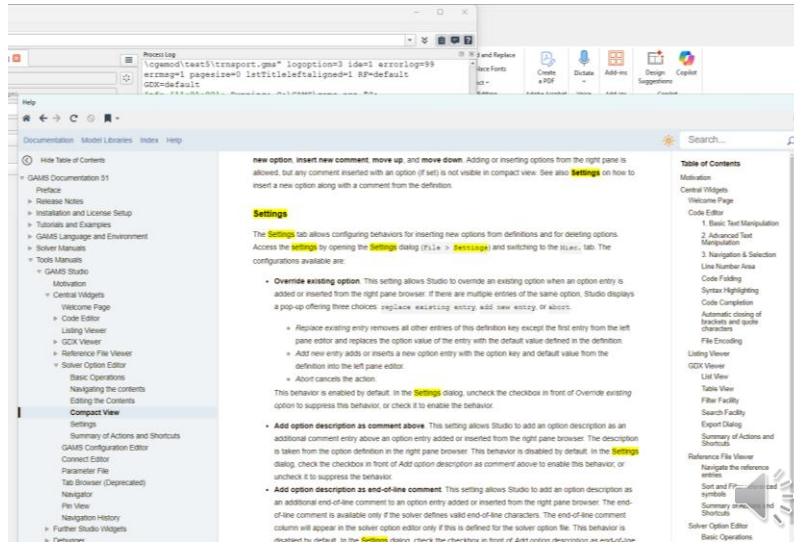
Help with GAMS Studio: Settings



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Search & Replace

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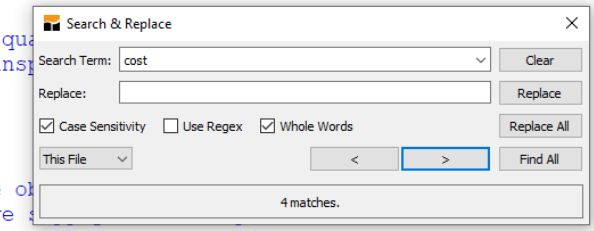
Search and Replace

```
41
42  Parameter c(i,j) 'transport cost in thousands of dollars per case';
43  c(i,j) = f*d(i,j)/1000;
44
45  Variable
46     x(i,j)  'shipment qua
47     z       'total transp
48
49  Positive Variable x;
50
51  Equation
52     cost       'define ob
53     supply(i)  'observe s
54     demand(j)  'satisfy demand at market j';
55
56  cost..       z =e= sum((i,j), c(i,j)*x(i,j));
57
58  supply(i).. sum(j, x(i,j)) =l= a(i);
```



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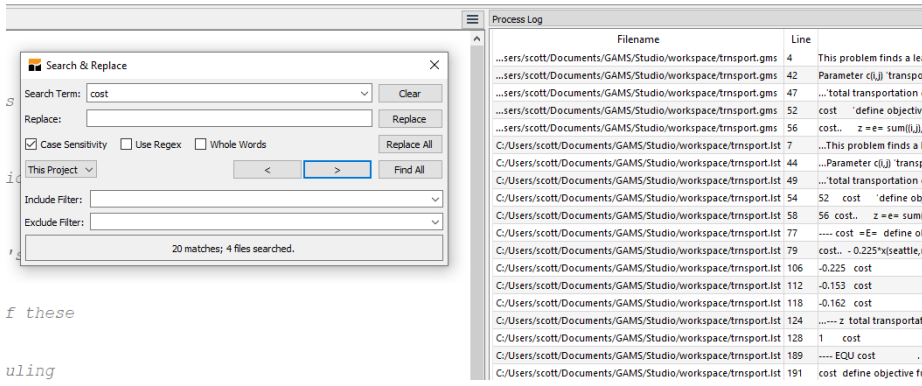
Search and Replace



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GDX Files

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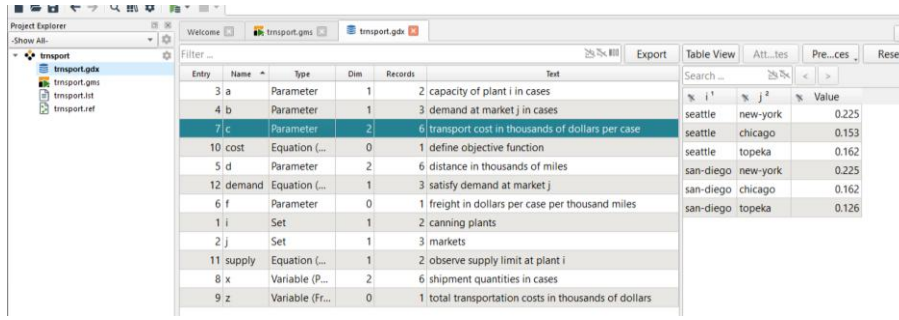
GDX Files in Studio



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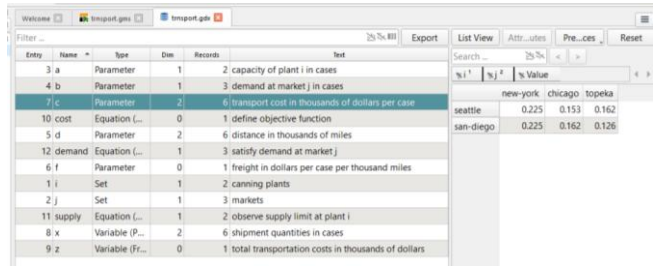
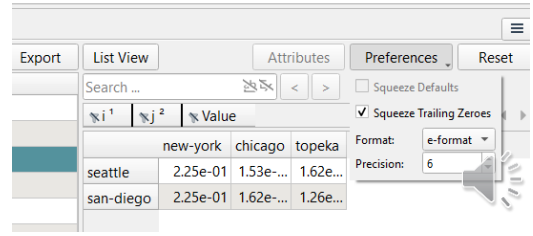
Parameters in GDX View





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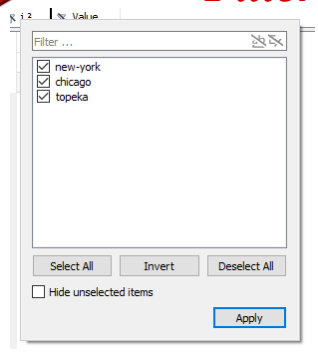
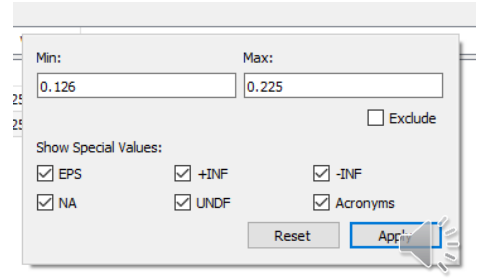
Filtering in GDX View





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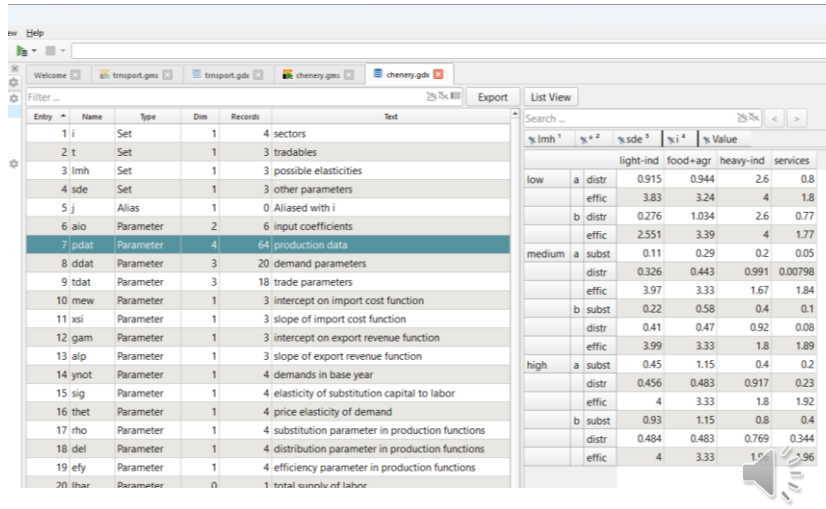
Filtering in GDX View: n-dimensions



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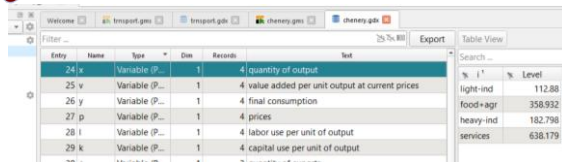
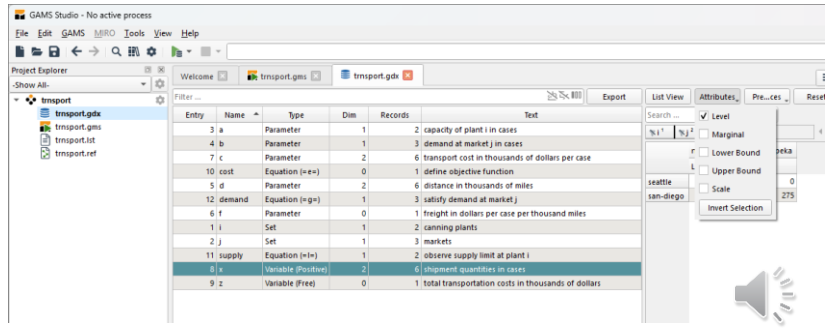
Variables in GDX View





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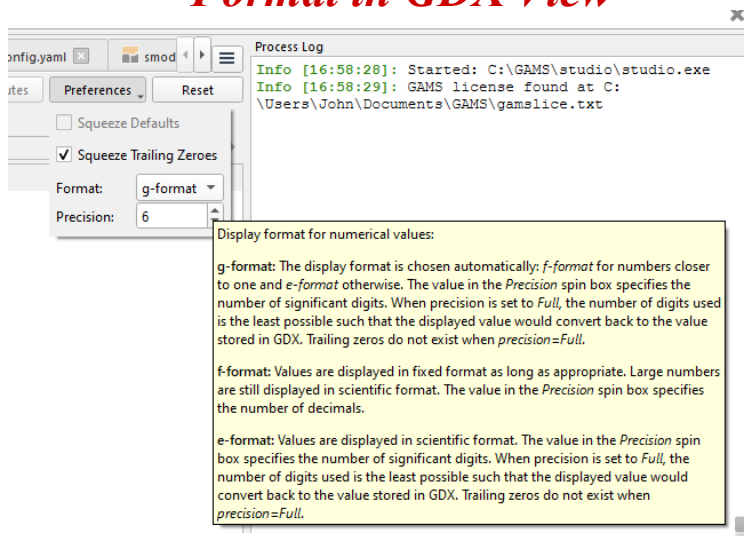
Format in GDX View



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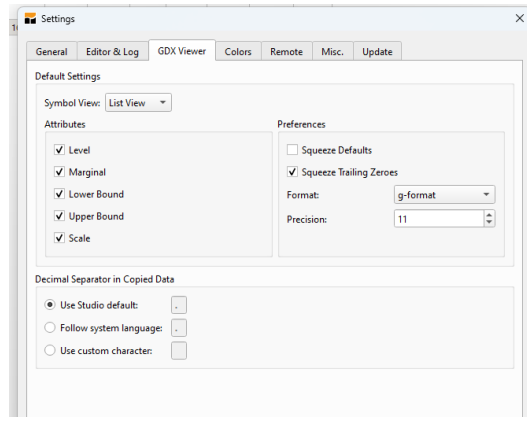
Format Preferences for GDX View



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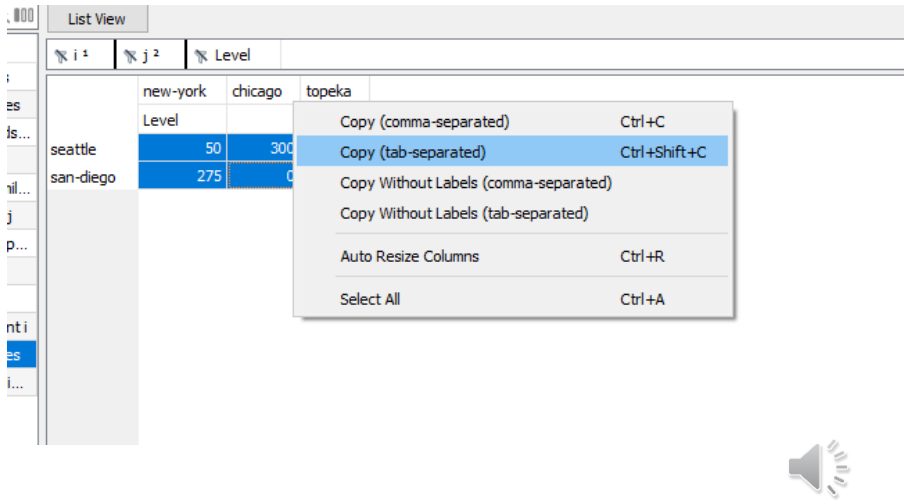
Outputs from GDX View



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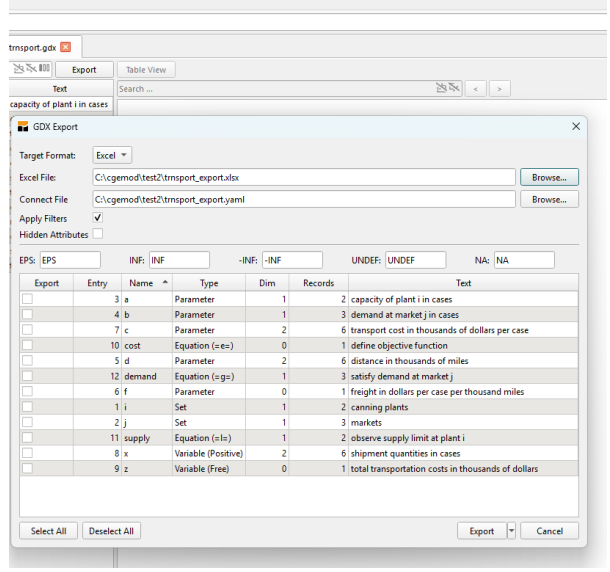
Exporting from GDX View



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Reference Files

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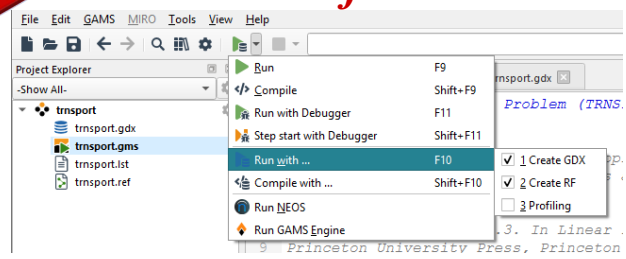
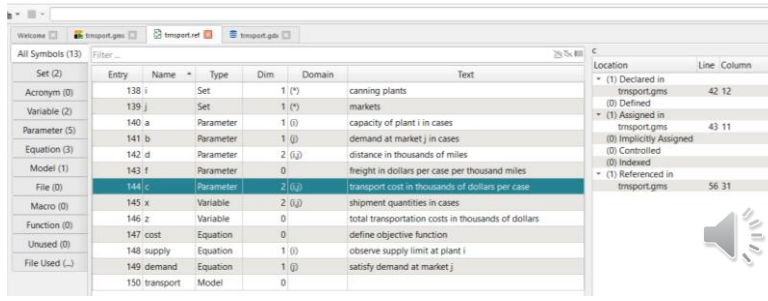
Reference Files





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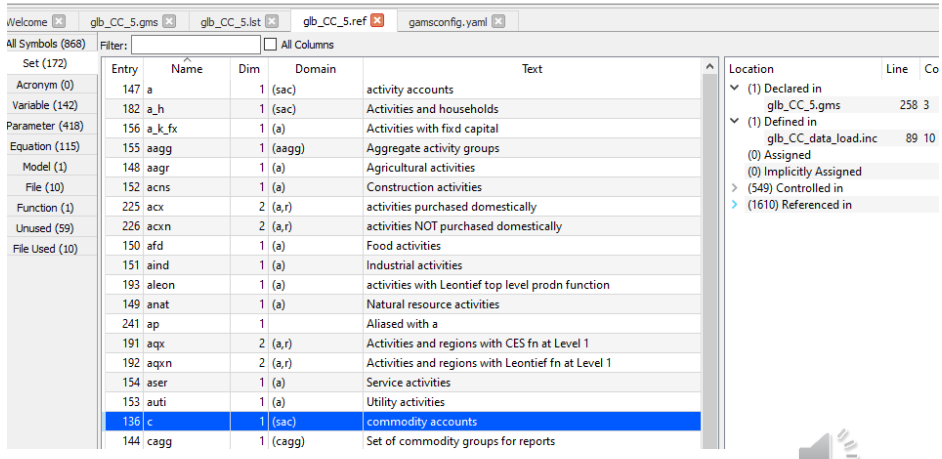
Reference Files



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Other Tools

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PIN View

"Studio provides a Pin View to carry a clone of a selected tab. This allows user to have two file contents visible at the same time"
GAMS Studio documentation

- Uses include viewing
  - programme file (*.gms) & reference file (*.ref)
  - programme file (*.gms) & related file
  - alternative files, e.g., 2 INCLUDE files

Using PIN View

1. Select the file to PIN
2. Menu: View>PIN Right or PIN Below
3. Select the file to be viewing in the 'main' window

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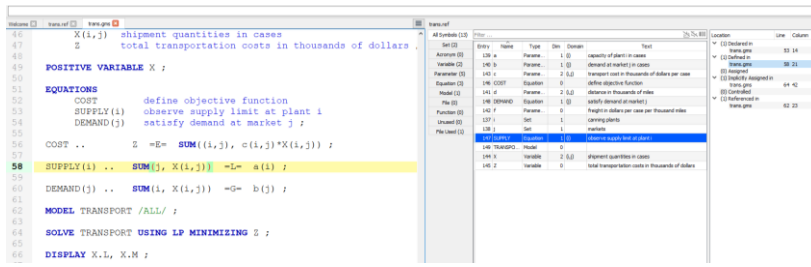
PIN View (Right)

programme file (trans.gms) & reference file (trans.ref)



Using the reference file to find symbol in the programme file

In the reference file

1. Select the symbol type in the left panel for the *.ref file
2. Select the symbol in the middle panel for the *.ref file
3. Select the attribute for the symbol in the right panel for the *.ref file

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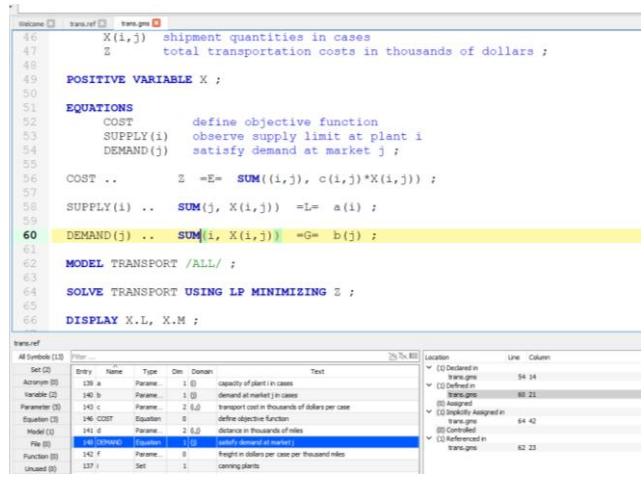
Pin View (Below)



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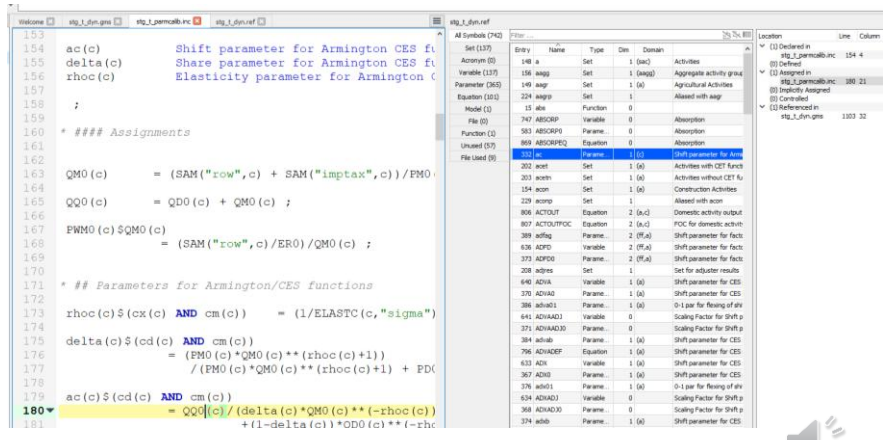
Pin View (Right) – Large Model



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Folding Text

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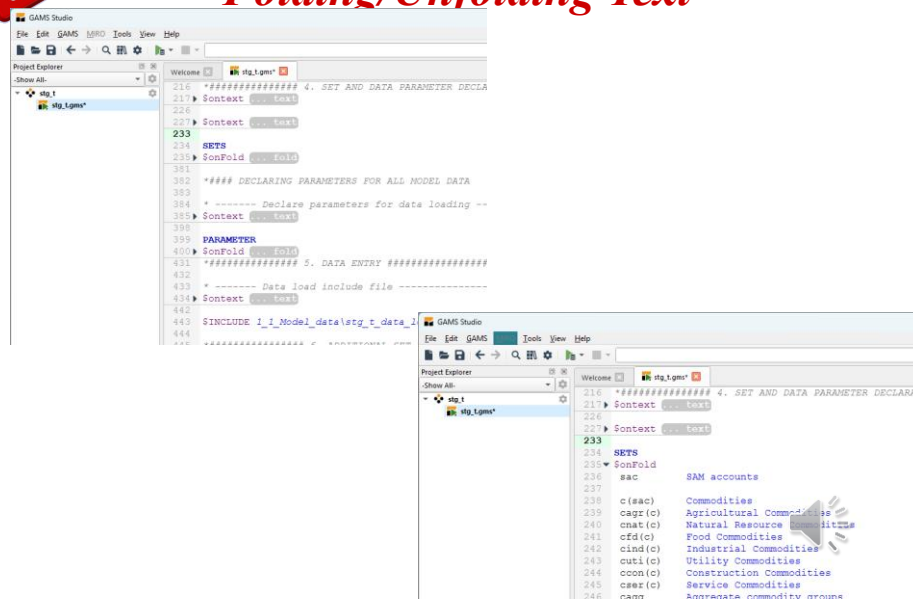
Folding/Unfolding Text



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Navigating Files

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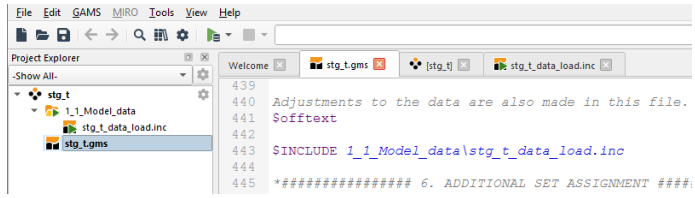
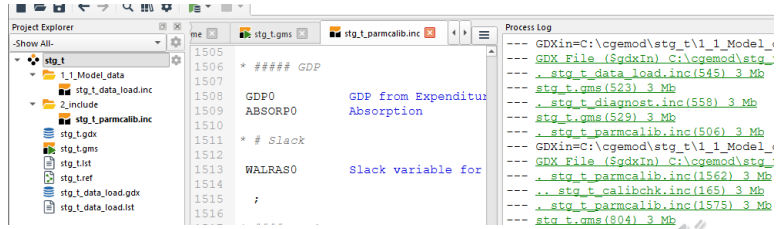
Assessing Files



Ctrl+Click



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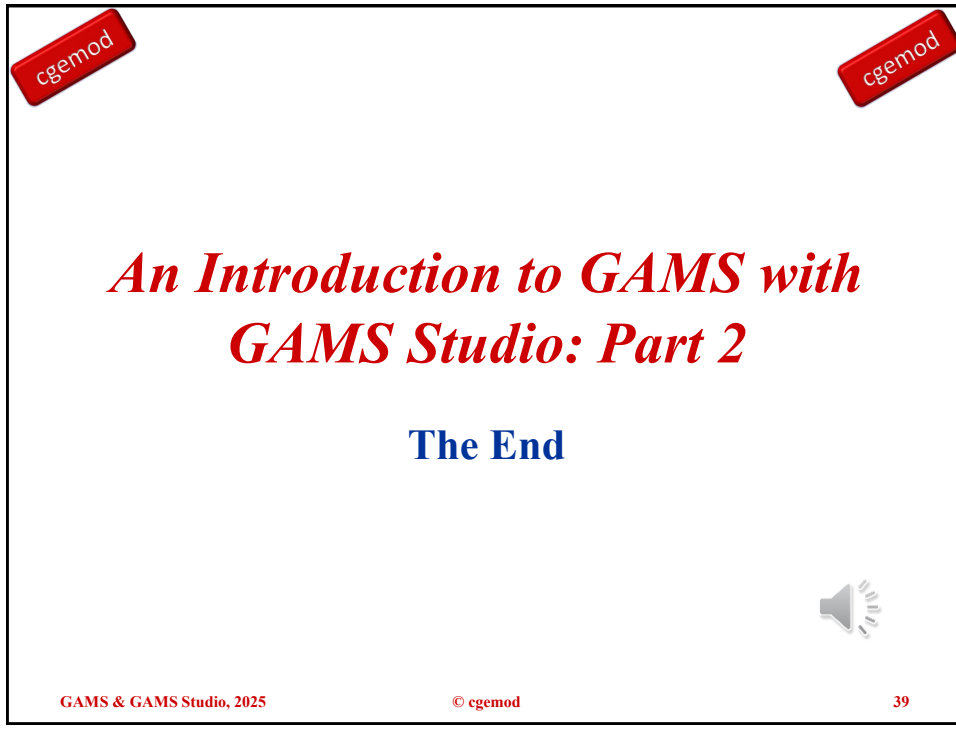
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