

USER MANUAL
&
REFERENCE

Version 1.0

Public Domain
2023, 4am.org

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PAY FOR THIS GAME NO SUPPORT/WARRANTY IS
GIVEN**

USE AT YOUR OWN RISK

DO NOT EMAIL ASKING FOR HELP OR SUPPORT

License

xyWords and all of its utilities are distributed as freeware.

Freeware means you do not need to pay for the license to use xyWords.

Please see "Credits" section at the end of this document for important references and attribution regarding game assets.

Introduction

As a kid of the 90s I used to use QB and make all sorts of annoying and fun projects. I used to be a Visual Basic 1x-6x developer but hung up the keyboard around 2008. Today, I spend a lot of time mucking around with retro computers.

I thought it would be fun and challenging to try to write something in QB for my XT luggable.

xyWords is not meant to be a serious commercial game, it's just a project I spent some time working on and I decided to document and release it for free.

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What is xyWords?

xyWords is a cross-worded anagram puzzle where you use letters stored in a circle to find words in the puzzle and clear the level.

It is a loving tribute to "WordScapes" which you can find on modern Apple, Android & Windows devices.

I will host xyWords on my personal website: <https://4am.org/xywords>

System Requirements

xyWords is designed to run on DOS-based IBM-PC compatibles.

Although it may run on a variety of machines the following is the targeted minimum:

- Intel 8088 at 4.77mhz
- 384KB RAM
- CGA graphics
- 360KB Floppy (Pico) or 3MB Hard Disk (Full)
- MS-DOS 2.11 or higher

Emulating on DOSBOX should be fine on standard settings but for the real experience please set your display options to "cga". I recommend using more cycles (20K+) if you plan on using xyPE to create many puzzles as word searching can take a long time.

Distributions

xyWords will be available initially in the following release types:

- **Pico** – Special compressed player version for 360K floppy disk play
- **Full** – Standard installation with player, editor and documentation

I will make them available on <http://4am.org/xywords>

Detail	Pico	Full
Size	360KB	4MB
Game Executables	Packed	Standard
Puzzle Collections	All 3	All 3
Free Play Puzzles	All	All
Documentation	Pico only	All
Assets	Font / Symbols only	All inc. Puzzle End Images
Patterns	8 only	All 96
Table Images	2 only	All
Puzzle Editor	No	xyPE
Word Ref List	No	Yes
In game help	Basic	Quick help (graphical)
BMP to CGA utility	No	Yes

Documentation

Pico Distribution only:

- **Pico.txt** – a very small reference document for xyWords PICO distribution

Full Distribution only:

- **Readme.txt** – quick reference for those who can't be bothered with a manual
- **Manual.pdf** – this file
- **xyWords.txt** – text only version of this manual

Configuration

xyWords and xyPE keep both of their configurations in the same directory as the EXE files.

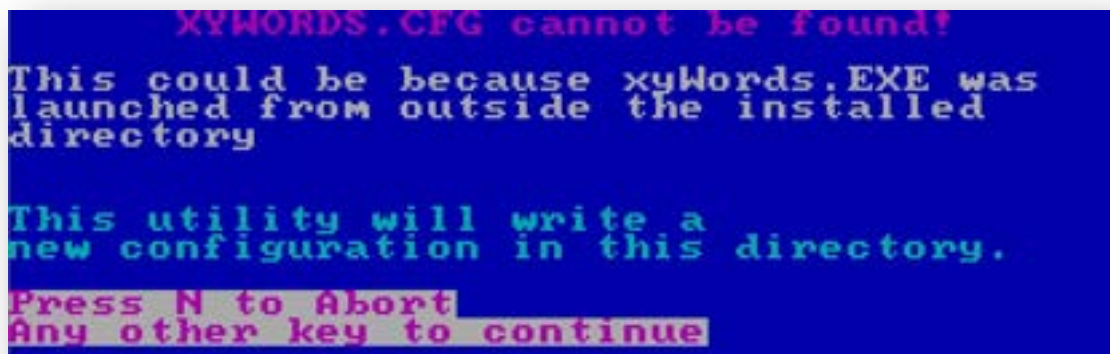
If you experience any crashes on starting it is suggested you delete the following files and retry:

- **XYWORDS.CFG**
- **XYPE.CFG**

Configuration for xyWords- XYWORDS.CFG

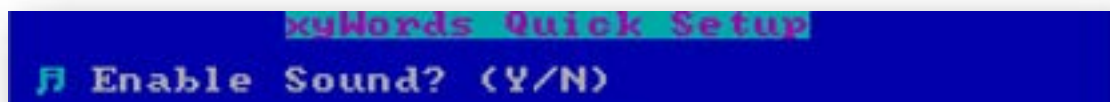
Rather than editing the configuration file manually, you have a small set of prompts that will create one for you.

You can access these settings once xyWords starts (detailed in “Game Settings” section of this document).



xyWords Quick Setup – Sound

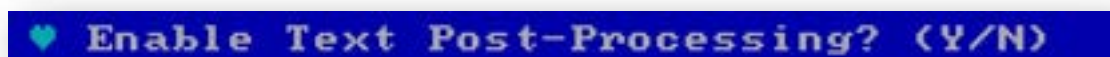
xyWords uses some very basic beeps and bloops out of the PC Speaker. If you wish to traumatise yourself with them (and really, for the full experience...) press **Y**



xyWords Quick Setup – Text Post-Processing

xyWords uses some tricks to jazz up the text, including applying some extra colours and formatting. This can make the user interface feel a little sluggish for some users of XT/286 PC's. If you're using something more modern you will not notice it.

Press **Y** for the best experience or press **N** for the quickest update.



xyWords Quick Setup – Pre-Puzzle Messages

xyWords can flash up a custom message before the puzzle starts.

This is only applicable during Collection play and is not available in Free Play.

If you want to see the messages press **Y** otherwise press **N** to be blissfully unaware

A screenshot of a blue command prompt window with white text that reads: "Enable pre-puzzle messages? (Y/N)".

xyWords Quick Setup – CGA Mode

xyWords has been designed around CGA mode (320x200x4 and 640x200x2).

If you are using real CGA based hardware or have this configured within your emulator (DOSBOX for example) then press **C** to use CGA mode.

If you've got a different set up with either EGA or VGA or better and you either don't want to adjust your emulator – or try to find and install a CGA card simply press **E** for EGA+ mode.

This doesn't make the game look better, it just tries to simulate the CGA color palette on the newer standards.

A screenshot of a blue command prompt window with pink and white text. The text reads: "Are you using a real CGA Card? Or configured an emulator for CGA? Press C for CGA Press E for VGA/EGA/OTHER Press T for a special test mode".

xyWords Quick Setup – Finalising

A screenshot of a black command prompt window with white text that reads: "Config was saved - you can start xyWords".

You can now run xyWords.exe again and the game should start.

If it doesn't – you probably need check your install directory and video standard.

xyPE – Configuration of XYPE.CFG

If the XYPE.CFG has been deleted you can write a new config to get it back up and running.

Simply press **V** to start writing the config


```
Please wait..  
xyPE cannot find XYPE.CFG  
xyPE.exe might have been started from a directory other than the one where it re  
sides  
  
Use DOS CD command to change to the correct directory and then re-launch xyPE.ex  
e  
  
If you're absolutely sure you are in the correct directory  
you can write a new 'default' configuration based on hard coded values  
  
Press U to write a new config and attempt to start  
Any other key will abort
```

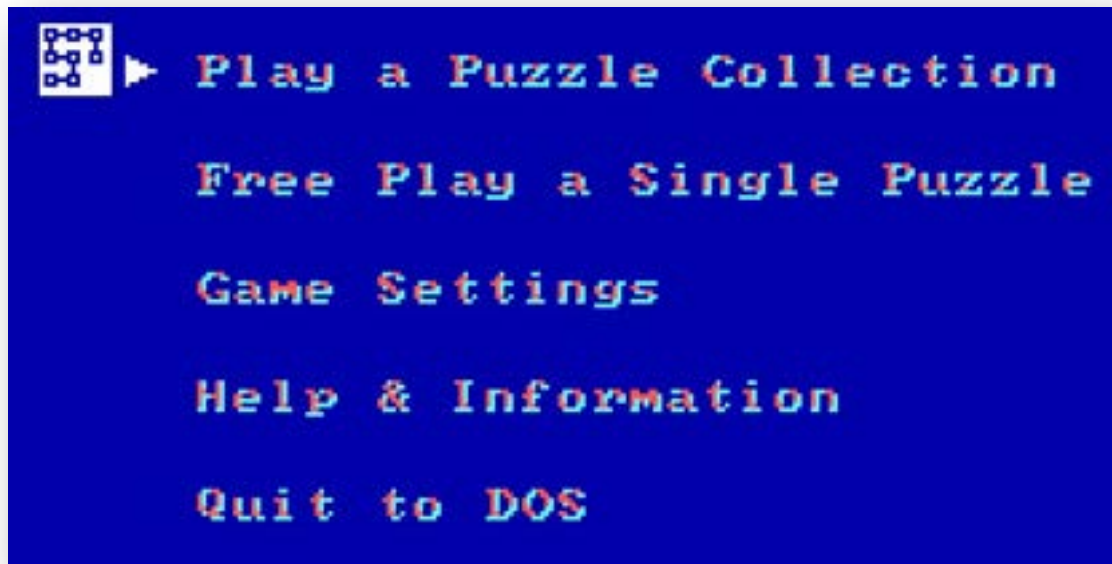
```
Please enter the directory of your xyWords install  
?
```

Enter the installed location of xype.exe

xyPe should now start.

xyWords – Main Menu

When xyWords starts you will be presented with the main menu



Use the **UP** and **DOWN** keys to choose and select with **ENTER**.

[Play a Puzzle Collection](#) – This will allow you to select a collection of puzzles and play through them. If enabled, your progress will be saved upon puzzle completion.

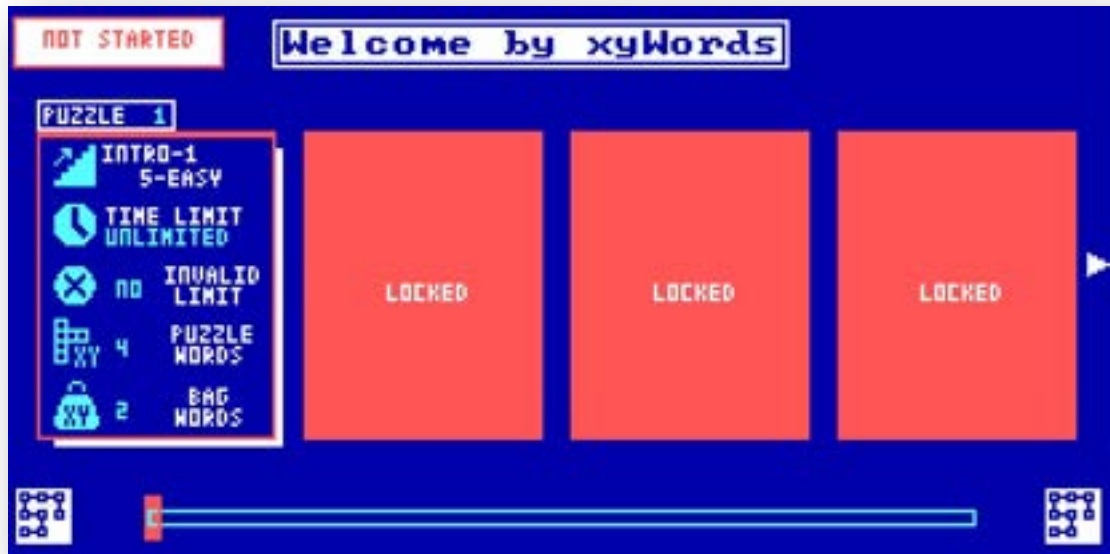


Each collection will contain:

- Collection Icon

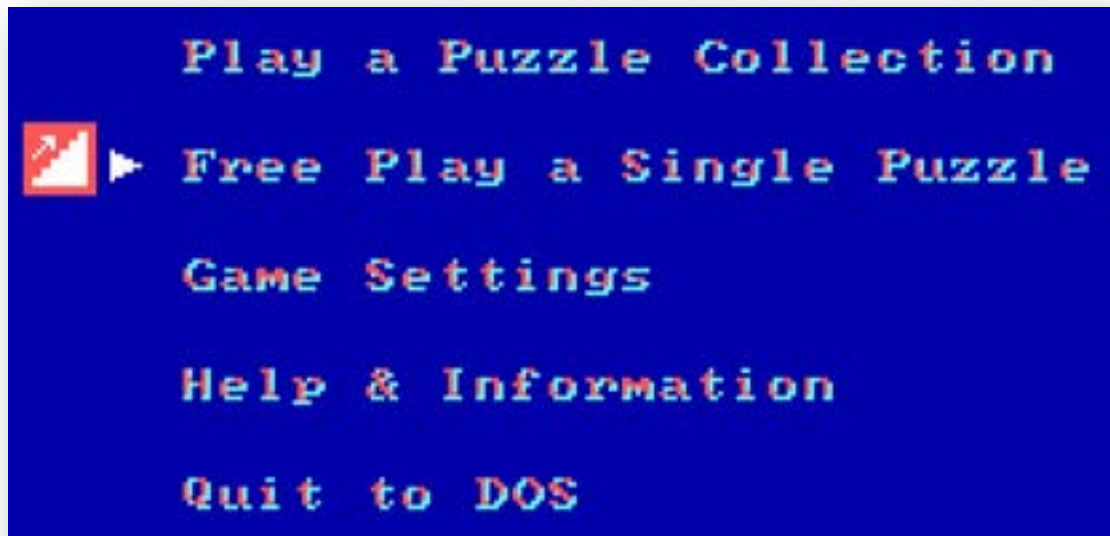
- Progress bar & status
- Collection Name
- Author Name
- # of Puzzles contained

Use the **ARROW** keys to choose and **ENTER** to select.



When you select a collection to play the list of available puzzles will appear.
By default, puzzles are unlocked as soon as you complete a previous puzzle.

[Free Play a Single Puzzle](#) – You can pick and choose an individual puzzle to play. These may or may not be in a collection.



When you enter Free Play you will see a list of available puzzles.

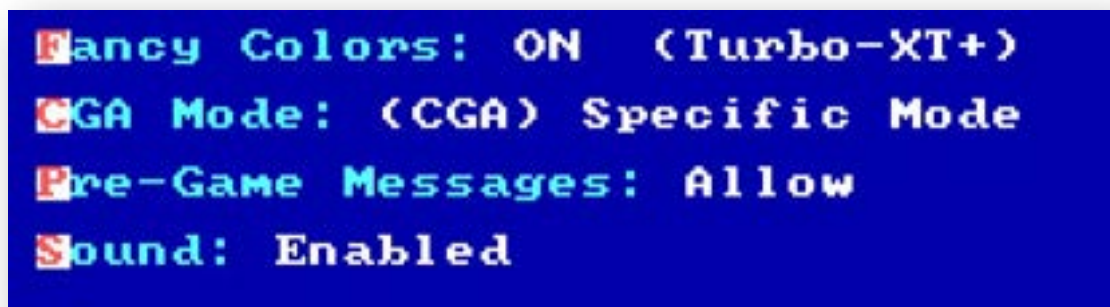
Unlike collection mode you do not need to unlock these – they are free to play!

Each box contains:

- Name of the puzzle
- Difficulty rating # and summary
- Time limit
- Invalid word limit
- Count of the words on the board (to complete)
- Count of the words in the bag (bonus)

Use the **ARROW** keys to choose and **ENTER** to select.

Game Settings



Fancy colors: ON|OFF

Enable Text Post-Processing effects

Recommended: ON unless the user interface feels sluggish on your PC.

Press **F** to change the setting.

CGA Mode: CGA|EGA/VGA

Change the colour palette mode based on the video card you're using

Recommended: CGA if you're using actual CGA hardware (or emulating it).

Press **C** to change the setting.

Pre-Game Messages: Allow|Hide

In collection mode, if configured, a message can be shown before the puzzle starts.
Useful for hints.

Press **P** to change the setting.

Sound: Enabled|Disabled

Enable the PC speaker beeps and boops for those who like to be tortured with those sounds.

Press **S** to change the setting.

xyWords – Game Basics

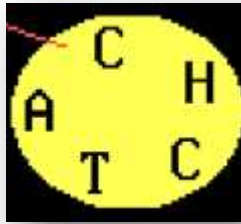


This is the quick-help screen you see when pressing **F1** during the game.



Level Detail

- Contains the collection/free play indicator and name
- The icon and difficulty
- Time, Invalid word limits (if any)
- Puzzle word progress
- Bag word progress (if any)

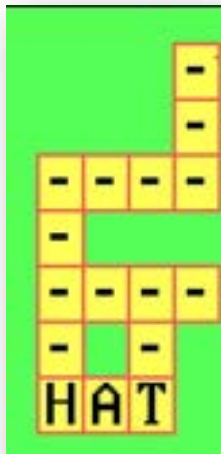


Circle

- Key word is jumbled into this circle
- Press **UP** to re-jumble



Rack & Status icon - As you type, letters will appear here. The icon will indicate the outcome from the try.

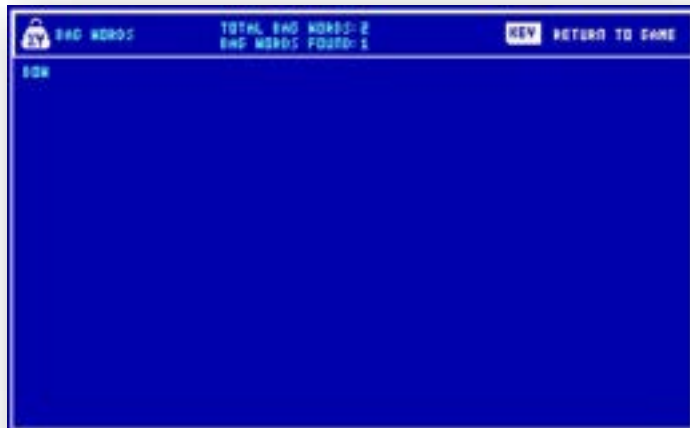


The board

- Completed words will appear here, in place.
 - Puzzle words will be detached from the main grid.
 - Bag words will appear off the board, in the bag.
- Press **LEFT** during gameplay to show the bag contents.



In this example – you will see the puzzle word is off to the left and is not connected to the other words on the board. These are a bit more challenging as you don't get any hints other than the length of the word.



The bag

As you collect the hidden words they appear within the bag.

These are just bonus words and you don't need to find them all to complete a puzzle.

Pause Screen

- Shows current puzzle statistics
- Collection Name/Author (if in this mode)
- Allow you to quit, view bag or switch puzzle.
- **Note: Switching a puzzle immediately cancels the current puzzle.**



xyPE – Puzzle Editor & Management

System Requirements

xyPE requires a few mega-bytes of storage space for the dictionary and assets.

Unlike xyWords there is no Pico release of xyPE and it is designed to run from a hard disk.

Other than that, xyPE shares the same system requirements as xyWords.

One note – when creating a new puzzle, it will take a **long** time on something like an original XT at 4.77mhz.

I'd recommend using something like a 386 or above to generate the puzzles.



xyPE Main Menu

-Key the corresponding number to select the menu item.



Generating a new puzzle

- Enter a valid word between 4 and 7 letters.
- Wait patiently

Puzzle Editor



Separated into areas.

- **Top:** Toolbar
- **Left/Top:** Puzzle Settings
- **Left/Centre:** The board
- **Left/Bottom:** Info / data entry
- **Right:** Word List

Placing Words

The first thing you will need to do is make the puzzle valid.



This is done by placing the Kword (Keyword) in this case it's 'TICKET'.

Use the **ARROW** keys to move and use **O** to change from a vertical to horizontal orientation.

ENTER to place word on the board.

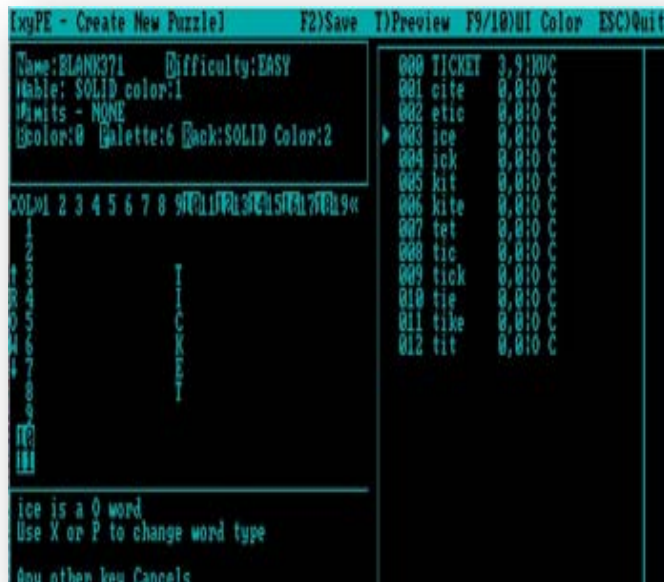
You will note on the *Word List*, the top value will change to the **X&Y** position and will have **KHC** which stands for Keyword **H**orizontal Orientation and

Common Word.

From this point you have a valid (but very simple) puzzle as it contains a keyword.

By default all other words in the list will be O for off-board/bag.

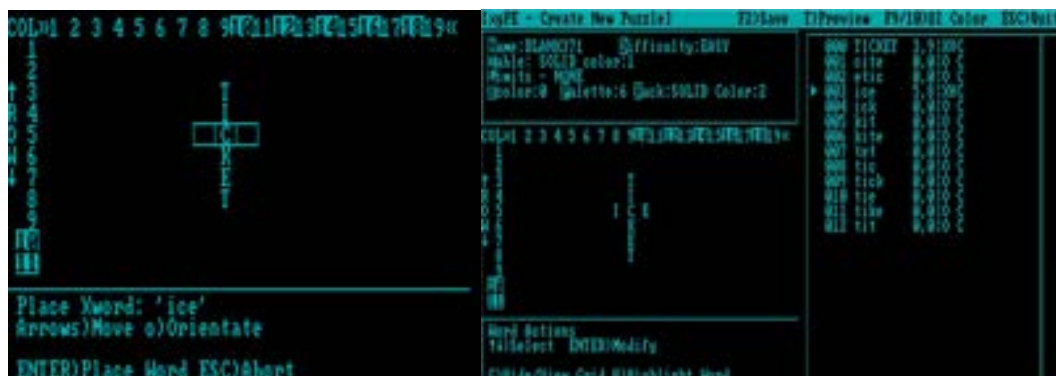
Select a word and change its status **from O to X,P to add it** or **from X,P to O to remove it**.



By default ICE is an **O** word meaning it is not on the board.

Use **X** if you want to intersect it with TICKET

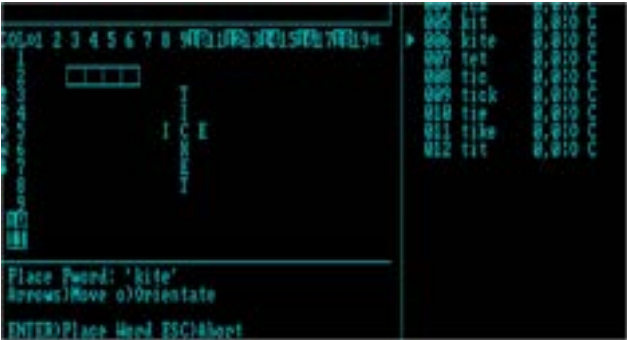
Use **P** if you want to keep it isolated as a puzzle word



You now have an intersecting word and a valid puzzle.

Note – xyPE does not check or validate where you put words. If you make a mistake you can always re-select the word, move it and change it so that it's valid.

- Do not border words (ie. Put them next to each other in sequence)
- Careful when intersecting not to have a situation where a word can be uncovered without typing it (ie. Don't make a 3 letter word that solves itself, have one letter free that the player has to type to find it).
- Do not join words to puzzle words – they are meant to be isolated and like their own space.



Placing a puzzle word is done a similar way and when you've place it – the word will reverse its text to signify it's a puzzle word.



Adjusting Puzzle Settings

The following settings are available to change within a puzzle:

- **Name** – Friendly name given to the puzzle (identifier)
- **Difficulty** – Author rating of 1-99 for how difficult the puzzle is
- **Table** – Choose to have a image, pattern, or solid color as your table
- **Limits** – Set Invalid Word, Time Limits for a challenge
- Change **Background Color**, **CGA Palette** and **Rack Setup**.



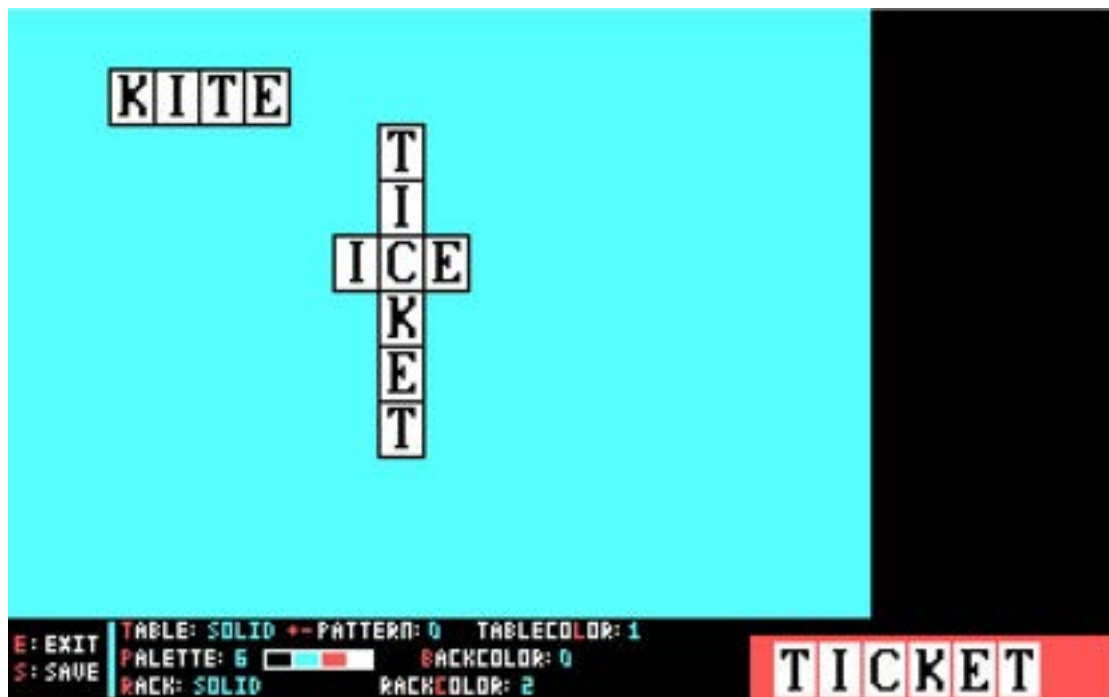
Once you've finished adjusting the settings it's a good idea to preview the board press **T** to see what the puzzle looks like.

Table Editor / Preview

This shows a view similar to what you're going to see when playing the puzzle.

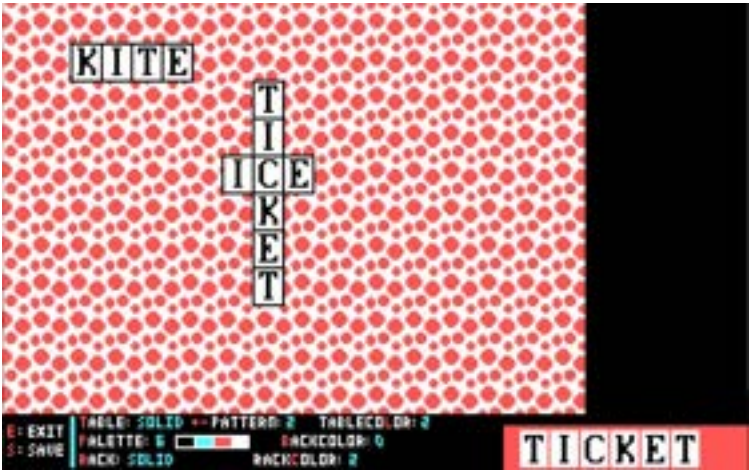
Use the following keys to operate the Table Editor

- **E** – Exit without saving
- **S** – Save and return to editor
- **T** – Change Table type between SOLID and TRANSPARENT
- **+/-** - Change Table Pattern
- **P** – Choose an alternative palette of colors
- **I** – Choose another image for TRANSPARENT board
- **B** – Change the background color
- **R** – Change Rack type between SOLID and TRANSPARENT
- **C** – Change the solid Rack back color.

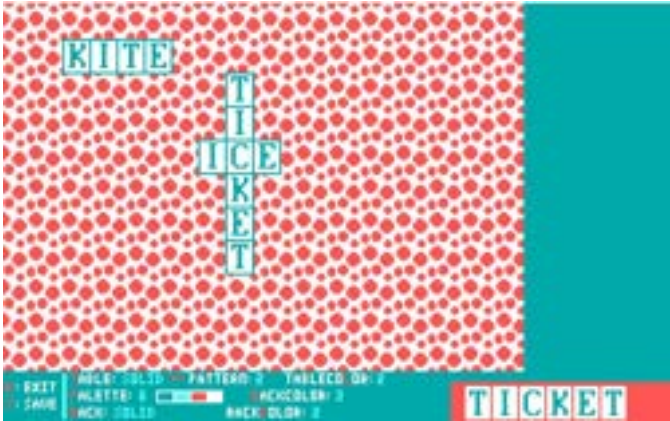




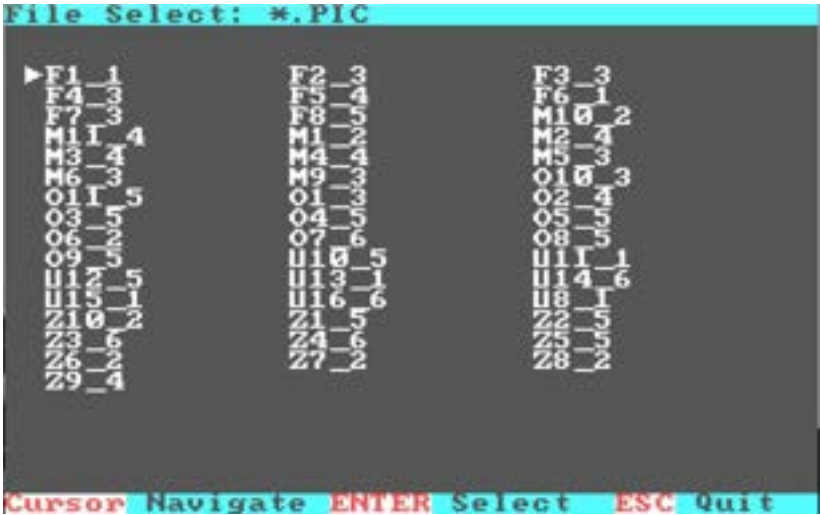
Example of changing a pattern on a SOLID table



Example of changing the TABLECOLOR when using a SOLID table and pattern



Example of changing the BACKCOLOR when using a SOLID table, pattern and changed TABLECOLOR.

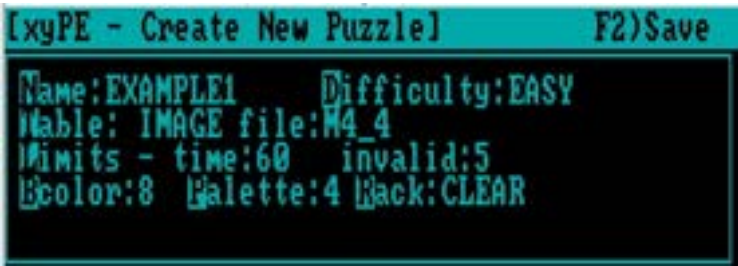


Changing to TRANSPARENT table or changing IMAGE will present the file select dialog. You may need to refer to the “Art” section of this document to understand the naming conventions. These are pictures, targeted for a CGA palette.



Example – selecting M4_4 picture and setting Palette to 4 will give the desired look.

Pressing S will save the settings and apply them to the puzzle



Note the updates



Saving the new puzzle

Press **F2** to save the puzzle

Give it a name

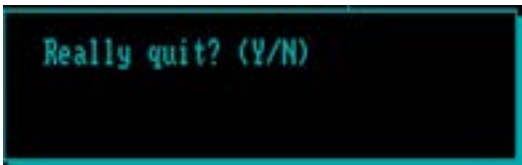


If you want this available in free play press **Y**



You will now note the EDIT: CUSTOM1 showing you're now in EDIT mode not CREATE NEW.

When ready, press **ESC** to quit

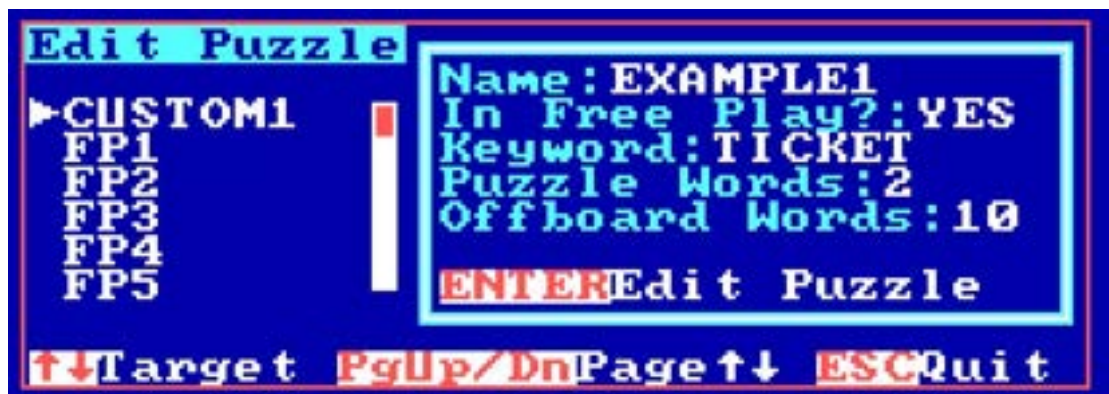


Puzzle Management

There is a master list of puzzles – these are stored in \PUZZLES*.XYP

Not all of them can be played in Free Play mode. Only those referenced in the ALLPUZ.DAT database can be played in Free Play.

Using (2) Puzzle Management you will be able to select any of the puzzle FILE NAMES and see the detail on the right.



Editing an Existing Puzzle

Simply target the puzzle and press ENTER to go to the Puzzle Editor.

Make your changes and save.

Add/Removing a Puzzle to Free Play



Do the same as Editing Existing Puzzle and ensure you choose Y for Free Play or N to remove it.

Create and Edit Collections



Pressing (3) takes you to the Collection Management tool.



When you first start xyPE you will see the 3 enabled default collections.

Do not modify or kill/delete these – it will break the game.

It is recommended you start out by creating a new collection by pressing **F1**.

The editor contains:

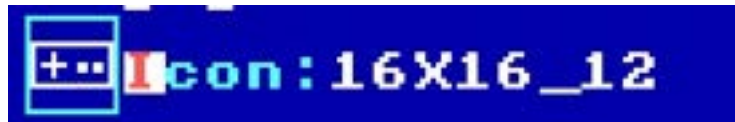
- Details about the collection
- List of available puzzles you can insert
- Detail about the selected puzzle



Press **N** to edit the collection name



Press **B** to edit the author name



Press **I** to change the Icon



Press **INS** to add the puzzle to the collection.

Note – you will not be able to add any XY* puzzles to your collections.



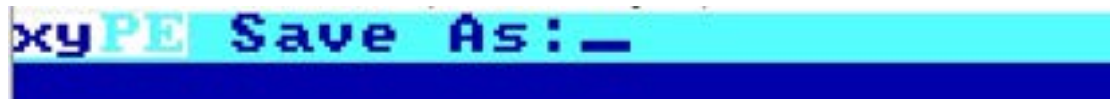
Pressing **LEFT** and **RIGHT** will toggle between Puzzle and Collection lists.

When you select the puzzle within your collection it will show details underneath.

These are changeable:

- **T** – To change the Time Limit Override
- **V** – To change the Invalid Words Override
- **K** – To change the Record Progress Override
- **1,2,3&4** – Change the pre-game puzzle message lines.

When you've added all of the puzzles you want to your collection press **S** to save.



Important – you may not start the name of any collection file name with XY*



When complete, you will see your new collection name (not the file name) appear in the list. When you select it the file name will appear.

- You can modify the collection by pressing **F2** to edit.
- You can enable/disable the collection from xyWords by using **E** and **D**.
- You can delete the collection (not the puzzles) by pressing **F9**.

Utilities & Settings

You can access this by pressing **4** in the main menu.



Press **S** to adjust game settings

Press **T** to see a list of table Images

Press **P** to browse the Patterns for solid tables



In settings there are only a few things to tweak:

Press **G** to toggle between grid on and off, this is for use with the puzzle editor.

Press **V** to change the CGA Mode between CGA or EGA/VGA modes.

Press **R** to disable reverse font on the keys – speeds up older machines a bit.

Create a custom Table Image

xyWords looks for **.PIC** files within the \picdata folder.

.PIC files are simple binary files containing CGA BSAVE format (320x200x4).

These can be viewed within xyWords **Utilities -> (T)able Image Browser** and within xyPE **Table Preview (T)** while in puzzle editing / create mode by changing the Table Style to “Transparent”.

Preparing a BMP file – Method 1

This method explains how to create a BMP file using MS Paintbrush.

1. Choose the CGA palette you want to use (refer to CGA Palette Detail in this document)
2. Ensure the colours are set as custom colors within Paintbrush and only use these (unless you intend to dither using Method 2 later)
3. Save the image as a 256Color bitmap.

Recommended but optional

4. Use something like Irfanview, open the BMP
5. Apply the JASC palette (see misc\palettes) - this will reduce colors to 4
6. Increase colors back to 256
7. Save the BMP

Preparing a BMP file – Method 2

This method explains how to take an existing image and prepare it for use within xyWords.

1. Use an appropriate program (recommended: Irfanview) to adjust and resize the image to fit 320x200, Save.
2. Use a dithering method – I recommend the mighty Dithertron
<https://8bitworkshop.com/dithertron/#sys=x86.cga.04h.2B&image=seurat.jpg>
You can simply cycle through CGA palettes, adjust and download PNG output.
It's an amazing bit of code.
3. Open the output file
4. Apply the JASC palette (see misc\palettes) - this will reduce colors to 4
5. Increase image colors back to 256
6. Save as BMP

Converting the BMP to PIC – BMP2CGAX.EXE

The full release of xyWords comes with **BMP2CGAX.EXE**.

This is a small utility that will load the BMP and save it as PIC file

It will also try to figure out the Palette your using.

It is a DOS program and if you run it without any parameters it will display basic help

Example: BMP2CGAX.EXE example.bmp example.pic 0 0 319 199

This will grab an entire image and save it. This is the supported function.

You can tell it to grab smaller portions of the image, this can be used for things like icons, assets or fonts. I'm not providing documented support for that right now – but feel free to experiment.

Important – after you've converted the file to .PIC be sure to move to \picdata folder

Using the Sample Images

I've included a few m*.bmp files which are my own work, released as public domain.

You can convert these or use them as a template. See the \misc\sampic

I have kept a file name convention of Mx_p.bmp

X = Image Number

P = Palette Number applied when saving

You don't need to do this – but I've built in some support for xyWords and xyPE to read the last digit and match a palette.

If you see a distorted or double-image

You've not saved the BMP as 8-bit 256 color with only 4 unique colors.

If the picture colours are wrong, or palette cannot be found

You've probably not loaded the appropriate JASC palette during BMP edit

Manual Method – Create a Puzzle (*.XYP)

This is unsupported – do this at your own risk

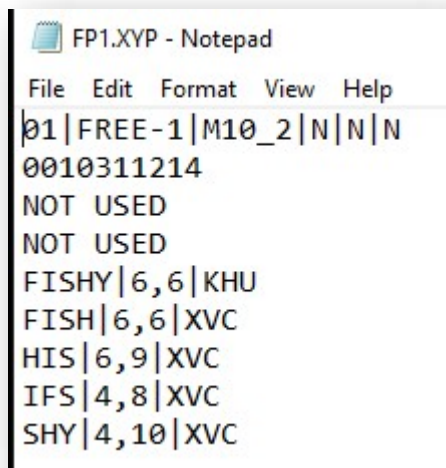
It's recommended to use the xyPE utility to manage puzzles.

I am documenting the file format for reference only.

Important notes

- You will need to create your own word list, xyWords doesn't validate or check (yet) but I strongly suggest you use a website like <https://wordfinder.wordgamegiant.com> and select TWL as the dictionary.
- xyWords can only accept words of a 3 to 7 character in size
- Do not modify the puzzles shipped with xyWords (XY*) this will break the game.

Example XYP file – FP1.XYP



```

File Edit Format View Help
01|FREE-1|M10_2|N|N|N
0010311214
NOT USED
NOT USED
FISHY|6,6|KHU
FISH|6,6|XVC
HIS|6,9|XVC
IFS|4,8|XVC
SHY|4,10|XVC
    
```

Line-by-Line format

- Line 1 - Puzzle Settings
- Line 2 - CGA Settings
- Line 3 - EGA Settings (NOT USED for now)
- Line 4 - VGA Settings (NOT USED for now)
- Line 5 - K word
- Line 6+ - O|X|P words

Line #1- Puzzle Settings

All settings are separated by pipe “|” and must reside on the same line

pComplexityRating|pIdentifier|pImageFile|pTimeTarget|pMissingAllowance|pTablePattern

Example for FP1.XYP

```

01 |FREE-1|M10_2    |N|N|N
| |    |          | | |pTablePattern
| |    |          | |pMissingAllowance
| |    |          |pTimeTarget

| |    |pImageFile
| |pIdentifier
|pComplexityRating
    
```

- **pComplexityRating** - 2bytes - Author rating of 0-99 for difficulty
See the section on Puzzle Complexity for guidance on the ratings.

Easy, simple puzzles should generally be under 25

Normal, to challenging puzzles should be around 26-65

Complex, or very complex puzzles should be around 66-99

This is mainly used for freeplay selection as collections may choose add or remove rules which will impact score.

- **pIdentifier** – 12bytes - Free Text Identifier (ie. 'Gwiz 0-1' for use in collection)
- **pImageFile** - 8bytes - File name.
 - This can be a **\picdata** image or a **\patdata** pattern
 - Leave blank for no image(s) – Solid Table.
- **pTimeTarget** - 3bytes - timer for the 3 modes (up to 999) - N for no time limit
- **pMissingAllowance** – 3 bytes - # allowance for invalid words - N for no counting of missing words.
- **pTablePattern** - 1 byte – leave this as N for now
-

Line #2 – CGA Settings

All settings appear as one single 10-byte string (Pipe for illustration only)

pCGAMainColor|pCGATableColor|pCGATileTColor|pCGATileBColor|pCGARackColor|pCGARackOption|pCGATableOption|pCGAPalFlag|pCGATileBorder

Important this value

Example for FP1.XYP

0010311214

| | | | | | | |

| | | | | | | |pCGATileBorder

| | | | |pCGAPalFlag

| | | | |pCGATableOption

| | | |pCGARackOption

| | |pCGARackColor

| |pCGATileBColor

| |pCGATileTColor

| pCGATableColor

pCGAMainColor

- **pCGAMainColor** - 2bytes - BACKCOLOR Color (00-15) main color to 'use
- **pCGATableColor** - 1byte - TABLECOLOR (0,1,2,3)
- **pCGATileTColor** - 1byte - TILE TEXT COLOR (BGColor likely)
- **pCGATileBColor** - 1byte - TILECOLOR (0,1,2,3)
- **pCGARackColor** - 1byte - OTHERCOLOR (0,1,2,3)
- **pCGARackOption** - 1byte - Default RackOption (1=Solid, 2=Transparent)
- **pCGATableOption** - 1byte - TableType (1 = Solid, 2=Transparent)
- **pCGAPalFlag** - 1byte - Palette chooser
 - 1 - 04h-P0-Low [Black, DGreen, DRed, Orange],
 - 2 - 04h-P0-High [Black, LGreen, LRed, Yellow],
 - 3 - 04h-P1-Low [Black, DCyan, DMagenta, Grey],
 - 4 - 04h-P1-High [Black, LCyan, LMagenta, White] ,

- 5 - 05h-Low [Black, DCyan, DRed, Grey],
- 6 - 05h-High [Black, LCyan, LRed, White]
- **pCGATileBorder** - 1byte - 1=None, 2=Use Othercolor, 3=Use TableColor, 4=BGCOLOR 5= TileColor

Line 3 and Line 4

Just leave the text “NOT USED” on these lines.

This is for later use. xyWords only supports CGA at this time.

Line 5 – Keyword

This is the word that will always appear on the board and its letters will be jumbled in the circle.

Usage: **WORD|X,Y|K#\$**

- WORD = the valid word to use for the keyword
- X = Column to use on the board
- Y = Row to use on the board
- # = Orientation; can be **H** for Horizontal or **V** for Vertical
- \$ = Word Rarity; can be **C** for Common word or **U** for Uncommon word

Line 6+ Remainder of XYP Puzzle

Usage: **WORD|X,Y|!#\$**

O words are optional as these don't appear within the board and are not required to complete the puzzle. It's good practise

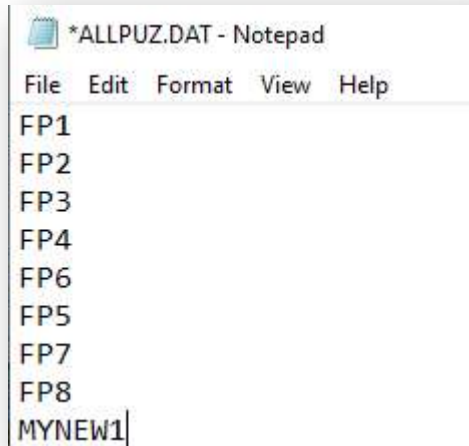
P words must not border or intersect any other words – they're supposed to be isolated and challenging

X words must intersect with other X words or the K word

- WORD = The valid word to use in the puzzle
- X = Column to use on the board
- Y = Row to use on the board
- ! = Word Type; **O** for offboard (bag word), **P** for puzzle word or **X** for intersecting word
- # = Orientation; can be **H** for Horizontal or **V** for Vertical
- \$ = Word Rarity; can be **C** for Common word or **U** for Uncommon word

Saving / Make available in Free Play

1. Save your XYP file into the **puzzles** folder
2. Edit **\puzzles\allpuz.dat**
3. Append a new line at the end with your new puzzle **file name**



4. Save
5. Start up xyWords and your puzzle (whatever you named it before as **pIdentifier**) will appear in the Free play list. Do not use the file name, unless of course the pIdentifier is the same..

Manual Method – Create A Collection (*.XYC)

This is unsupported – do this at your own risk

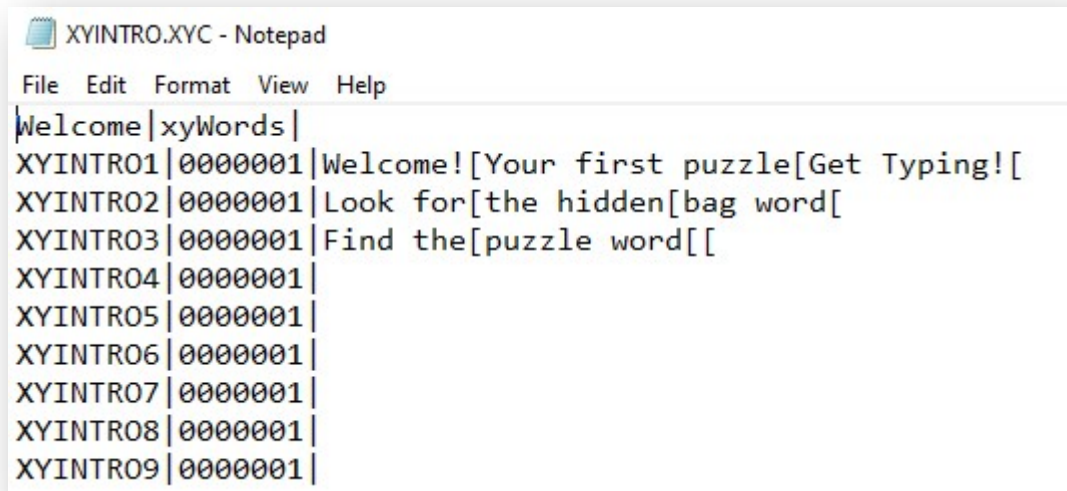
It's recommended to use the xyPE utility to manage collections.

I am documenting the file format for reference only.

Important notes

- Do not modify the collections shipped with xyWords (XY*) this will break the game.
- You can add any .XYP file into your collection
- You can override each .XYP setting using the .XYC file. This can give an alternate challenge (or take it away).

Example Collection File (XYINTRO.XYC)



```
XYINTRO.XYC - Notepad
File Edit Format View Help
Welcome|xyWords|
XYINTRO1|0000001|Welcome![Your first puzzle[Get Typing![
XYINTRO2|0000001|Look for[the hidden[bag word[
XYINTRO3|0000001|Find the[puzzle word[[
XYINTRO4|0000001|
XYINTRO5|0000001|
XYINTRO6|0000001|
XYINTRO7|0000001|
XYINTRO8|0000001|
XYINTRO9|0000001|
```

Line by Line format

Values are separated by “|” pipe.

1. pCollectionName|pAuthorName|pCollectionIconFile
2. pPuzFileName|pPuzzleParms|pPrePuzString

Line 1 – Collection Detail

This line defines the Collection

- **pCollectionName** - 11bytes friendly name
- **pAuthorName** - 11bytes or blank for none
- **pCollectionIconFile** - 16x16 image file name (ignores extension and path [will be \icons*.cgf] or leave blank for none.

Line 2+- Puzzle Names, Overrides and Messages

These lines are for each of the XYP files references by the collection.

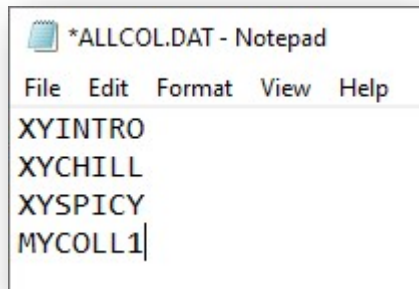
You can provide an override for each limit and enable/disable progress records.

- **pPuzFileName** – 8bytes file name as stored in \puzzles
- **pPuzzleParms** – 7bytes fixed (**AAABBBC**)
 - o **AAA** – Overwrite puzzle word missing penalty. 000 – No, 999 – Disable Penalty, 001-998 specify new value.
 - o **BBB** - Overwrite puzzle time limit. 000 - No, 999 - Disable Penalty, 001-998 specify new value.
 - o **C** - Progress Flag. 0 = Do not keep records (unlock) 1 = Keep records (lock, except if first puzzle in list)
- **pPrePuzString** – 4x18 byte messages separated by “[”. If enabled within xyWords settings this message will show before the puzzle starts. Good for putting hints or information.

Updating the Collection database

xyWords relies on a file `\puzzle\allcol.dat` to define the collections it will load once the game starts. Be careful when updating this file or you may break the game.

1. Save your XYC file into the **puzzles** folder
2. Edit **\puzzles\allcol.dat**
3. Append a new line at the end with your new puzzle **file name**



Credits

xyWords was heavily inspired by the mobile game - WordScapes.

WordScapes is a free-to-play game (not a pay to win).

WordScapes is owned by PeopleFun and you can check out the game on your favourite mobile app store.

Inspiration to target CGA - <https://www.youtube.com/PCRetroTech>

Your passion and excitement towards a 40+ year old graphics standard encouraged me to give this project a go. Thanks!

Idea for CGA 6-Palette code - <https://www.youtube.com/watch?v=tI7LqShM9WQ&t=142s>

Routine for viewing text files: TEXTVIEW.BAS - <https://thedubber.altervista.org/qbsrc.htm>

Routine for reading directory contents using assembly: GETDIR\$ - Alt255 on <https://www.tek-tips.com/viewthread.cfm?qid=198826>

Routine for reading BMP files: BMP2CGA -
http://petesqbsite.com/sections/tutorials/tuts/loading_bmps.html

I heavily relied on the awesome dithertron <https://8bitworkshop.com/dithertron/>

This lets you put in a full colour picture and it will smartly adapt and dither the picture to suit your target system and palette.

Artwork & Game Assets

Table Patterns are from talented artist Poloviiinkin

The itch page is here: <https://poloviiinkin.itch.io/>

These are stored in the **\patdata** folder

These are licenced under Attribution-ShareAlike 4.0 International

Details here: <https://creativecommons.org/licenses/by-sa/4.0/deed.en>

I have used the pack of tiles and patterns from this pack:

<https://poloviiinkin.itch.io/1-bit-patterns-and-tiles>

If you find these patterns and tiles interesting - please consider giving them a donation.

Table Image Backgrounds are stored in **\picdata** folder

Not all images listed below will be included with this package but may be in later versions.

m* - These are my own photos, you are free to use them under public domain.

z* - Collected from various websites

z1_5 - <https://www.autosport.com/f1/news/the-f1-moments-that-defined-the-1980s-4982738/4982738/>

z2_5 - https://commons.wikimedia.org/wiki/Category:IBM_Model_F_Keyboard#/media/File:IBM_Model_F_AT.png - Raymangold22

z3_6 - <https://personal.garrettfuller.org/blog/wp-content/uploads/2018/10/macintosh.jpg>

z4_6 - https://www.raspberrypi.com/app/uploads/2021/08/PC5150_color-1536x1099.jpg

z5_5 - https://en.wikipedia.org/wiki/Atari_2600#/media/File:Atari-2600-Wood-4Sw-Set.png
- Evan-Amos

z6_2 - <https://commons.wikimedia.org/wiki/File:ZXspectrum48k.jpg> - Bill Bertram

z7_2 - <https://commons.wikimedia.org/wiki/File:Commodore-64-Computer-FL.jpg> - Evan-Amos

z8_2 - https://commons.wikimedia.org/wiki/File:Adlib_sound_card_version_1.5.jpg - Bratgoul

z9_4 - <https://www.discover1770.com.au/tours/amphibious-larc/>

z10_2 - <https://www.guidovanhelten.com/projects/brim-victoria>

o* - Collected from freesvg.org

o1_3 - <https://freesvg.org/gameboy-tetris>

o2_4 - <https://freesvg.org/comic-robot>

o3_5 - <https://freesvg.org/tv-computer-system>

o4_5 - <https://freesvg.org/old-style-game-controller-vector-clip-art>

o5_5 - <https://freesvg.org/orange-fish>

o6_2 - <https://freesvg.org/lego-man>

o7_6 - <https://freessvg.org/bad-girl-retro-image>
o8_5 - <https://freessvg.org/grey-disk>
o9_5 - <https://freessvg.org/notepad-with-pencil>
o10_3 - <https://freessvg.org/tapeplayer>
o11_5 - <https://freessvg.org/game-system-in-japan>

these files are stored in **\assets** folder and are used in game

colfin - https://unsplash.com/photos/_XTY6lD8jgM	Giorgio Trovato
lev - https://unsplash.com/photos/dChZrZx6mf8	Daniel Olah
stop - https://unsplash.com/photos/nPPyYii1olg	Aleksandr Kadykov
timer1 - https://unsplash.com/photos/x8He9JltX2o	AB

these files are stored in **\picdata**

u* files are collected from unsplash.com

u16_6 - https://unsplash.com/photos/hBzrr6m6-pc	Jamie Street
u15_1 - https://unsplash.com/photos/2W-QWAC0mzl	nasa
u14_6 - https://unsplash.com/photos/mwWZTLr9Tcg	Ingo Schulz
u13_1 - https://unsplash.com/photos/VYFEByzg7qw	Steve DiMatteo
u12_5 - https://unsplash.com/photos/Fi47SbeEg2k	Steve Sewell
u11_1 - https://unsplash.com/photos/U8OYfPBceWE	MIO ITO
u10_5 - https://unsplash.com/photos/ZOSkWIDVCsE	Yu Kato
u6_6 - https://unsplash.com/photos/up8ooQ1Pm2s	vackground.com
u7_5 - https://unsplash.com/photos/p0j-mE6mGo4	Lorenzo Herrera
u3_4 - https://unsplash.com/photos/qvI3wvjSoHE	Dieter Pelz
u4_4 - https://unsplash.com/photos/YerVHy1nXq8	Christine Ellsay
u2_3 - https://unsplash.com/photos/Y1vNJCM7nyw	David Clode
u1_5 - https://unsplash.com/photos/Sy95bMYqrP0	Do Photography
u5_4 - https://unsplash.com/photos/Es4vklk90LI	Phillip Flores
u8_1 - https://unsplash.com/photos/4cGR8wgtxR8	BoliviaInteligente

f* files are collected from freepik.com

f1_1 - by catalyststuff https://www.freepik.com/free-vector/book-paper-with-feather-pen-ink-cartoon-icon-illustration-education-object-icon-concept-isolated-flat-cartoon-style_10848243.htm#&position=18&from_view=collections

f2_3 - by catalyststuff https://www.freepik.com/free-vector/vintage-television-cartoon-icon-illustration_10340616.htm#page=2&query=retro%20tv&position=10&from_view=search&track=ais

f3_3 - by catalyststuff https://www.freepik.com/free-vector/toaster-bread-food-technology_10549649.htm#&position=26&from_view=collections

f4_3 - by freepik https://www.freepik.com/free-photo/beautiful-planets-space_22896237.htm#&position=13&from_view=collections

f5_4 - by kjpgarter https://www.freepik.com/free-photo/3d-abstract-background-with-extruding-hexagons-design_33921625.htm#&position=1&from_view=collections

f6_1 - by freepik https://www.freepik.com/free-photo/80s-trainer-doing-exercises_34089297.htm#&position=33&from_view=collections

f7_3 - by freepik https://www.freepik.com/free-photo/retro-computer-technology-with-monitor-hardware_34134928.htm#&position=38&from_view=collections

f8_5 - by catalyststuff https://www.freepik.com/free-vector/cute-koi-fish-cartoon-vector-icon-illustration-animal-nature-icon-concept-isolated-premium-vector-flat-cartoon-style_22961535.htm#&position=22&from_view=collections