Jworks (v0.509) and KWorks:

Tools that Automatically Organize Multiple Tests into One Chromosome Browser

(May 14, 2014)

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DNAGEDCOM wishes to offer special thanks to the volunteer programmers of these two valuable tools, Jay Pizarro (JWorks) and Kitty Munson Cooper (KWorks). Their hard work will save you hours of data analysis! If you find these tools valuable in your research, please consider making a donation. All donations are used to support the development and hosting of new tools.

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What do these tools do?

[JWorks](#) and [KWorks](#) are two automated tools that do the same thing: They organize your matches from any DNA testing site into one chromosome browser. They will do the sorting, grouping and matrix-building necessary for you to quickly identify your most promising matches.

The difference is that one is designed for Microsoft Excel users, and the other creates a text file that you can download to your PC.

Why do I need a chromosome browser?

A chromosome browser contains more detailed data about your matches. As long as your data is formatted correctly, these tools will list all of your matches by chromosome, show the amount of DNA you share and group overlapping matches into sets.

Most importantly, an organized chromosome browser contains a matrix showing your "In Common With" (ICW) matches. ICW matches are two or more of your matches who are also related to each other.

After identifying your ICW matches, you'll next check to see which ones also have [GEDCOM](#)s (family trees in a generic file format). If two or more of your ICW matches have the same ancestor, that ancestor is also one of yours. This process is known as "triangulation."

[Automated tools](#) are also available to compare the trees of ICW matches and list the common ancestors they share.

Which tool should I use?

The difference between the two tools is that JWorks is specifically for users of Microsoft Excel, and KWorks creates a CSV (comma delimited file) that downloads to your PC.

JWorks v0509: JWorks is a macro-enabled Excel spreadsheet. If you have Microsoft Excel, JWorks will automatically run and generate a new chromosome browser spreadsheet on your PC. To use JWorks, see Step A, below.

KWorks: KWorks will generate an organized chromosome browser on a server and create a *.csv file for you to download. This type of file is in a text-based format that can be opened by Excel, as well as many free apps such as Google Spreadsheets, Open Office or a CSV reader so that you can easily view the data. To use KWorks, see Step B, below.

How do I combine the data from all of my DNA tests to create one organized chromosome browser?

Basically, you'll use the same format as two of the FTDNA files you downloaded from DNAGEDCOM.com.

These two files, *yourkitnumber*_chromsomebrowser.csv and *yourkitnumber*_ICW.csv, will serve as templates for the matches you want to organize from 23andme and Ancestry.com (via Gedmatch.com).

First, you'll download the data, clean it up and place it in the required format. See Combining Results from All Tests for detailed instructions on how to format your data correctly so these utilities can organize them.

We'll start with the Family Tree DNA (FTDNA) files since these are in the primary format that is used to generate an organized chromosome browser.

A. Download your FTDNA Data Files from DNAGEDCOM.com

1. Log on to DNAgedcom.com. If you do not have an account, register for a free account to access these utilities.
2. Hover over "Family Tree DNA" from the top menu. Select "Download Family Tree DNA Data" from the drop-down menu.
3. Enter your FTDNA kit number and password (the same kit number and password you enter at FTDNA) as shown in Figure 1.

   Note: Your FTDNA password is never stored or shared.

Figure 1 DNAGedcom.com Family Tree DNA Page

4. Click "Get Data."

5. FTDNA will automatically download a compressed file to your browser's default download directory once the files are generated. This "zipped" file actually contains three files: your Chromosome Browser, your Family Finder matches and your ICW file.

> **Tip:** A *.zip file temporarily shrinks large files so that they can be transmitted faster. These compressed files have to be "unzipped" to use them.

6. Unzip this file to the directory of your choice (right-click on the file and select "Extract All").

7. All three files will have the *.csv extension and begin with the FTDNA kit number you entered. (Figure 2) The filenames must be named as shown in Figure 2 in order for JWorks to run.

> **Note:** Windows will automatically add a (1), (2), etc., to indicate that a new file has the same name as one already in the directory.
>
> For instance, the files you just extracted might be named *yourkitnumber*_ChromosomeBrowser (1).csv, *yourkitnumber*_Family_Finder_Matches (1).csv and *yourkitnumber*_ICW(1).csv.
>
> To fix the filenames, delete or move the older files to another directory. Rename the newer files (right-click on the

file and select "Rename") following the format in Figure 2. Be sure no additional characters have been added to the filename.
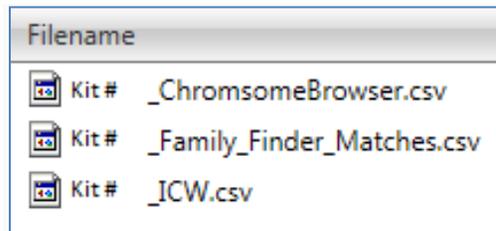

Figure 2 DNAGedcom Files of FTDNA Data

8. If you have additional kits, repeat steps 1-7.

9. Backups

    Your FTDNA data files are automatically stored on DNAGEDCOM.com for you. Just log in, place your cursor over the "Members" tab and click "View Files" from the drop-down menu.

    A file browser (much like the one on your PC) contains copies of the FTDNA files generated by DNAGEDCOM.com. Right-click on any folder on the left or any file on the right to download, delete, open, etc. You can also find your FTDNA GEDCOMs stored in the GEDCOMs directory if you have generated them.

    Tip: It is recommended that you regularly run the FTDNA tools to add new matches.

B. Instructions for Using JWorks

1. Log in to DNAGEDCOM.com. You can register for a free account if you don't already have one.

2. Hover over the Autosomal Tools menu and select "JWorks – Autosomal Grouping Tool (Excel)" from the drop-down menu.

3. Scroll down the page to Download the Excel program (or click the link if you're already logged in to DNAGEDCOM).

4. Save JWorks to the same directory as the three files you downloaded from FTDNA and unzipped in Step A.

5. If you want JWorks to create one master file for all of your DNA matches, you first have to gather and format the data. See Combining Results from All Tests for detailed instructions on how to format your data to create one organized chromosome browser.

6. Double-check the following to ensure JWorks will run:

A. The FTDNA files have been extracted and are in the same directory as JWorks.

B. The filenames are in the same format as Figure 2. For instance, a file name with (1) in it will cause JWorks to abort.
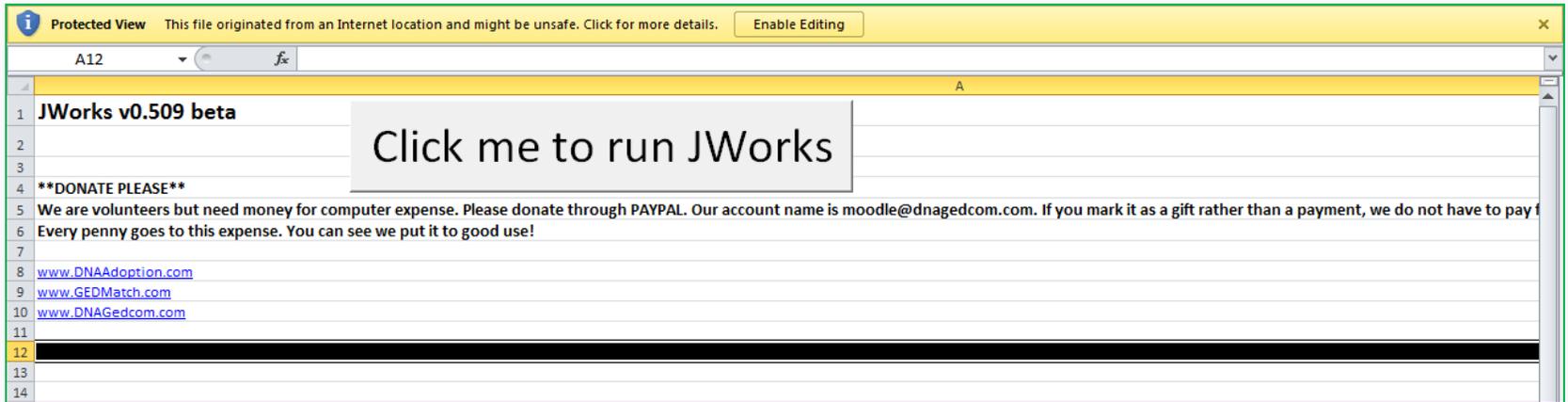
7. Open the file JWorks_v0509.xls.

Protected View	This file originated from an Internet location and might be unsafe. Click for more details.	Enable Editing

A12   fx

A	
1	JWorks v0.509 beta

Click me to run JWorks

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6 Every penny goes to this expense. You can see we put it to good use!
7
8 www.DNAAdoption.com
9 www.GEDMatch.com
10 www.DNAGedcom.com

Figure 3 JWorks

8. **For Excel 2007 users:** If you are using Excel 2007, you'll first need to change the file format before you can use the tool. Otherwise, skip this step and go to Step 7.

Click "Cancel" on the pop-up window that asks for your kit number. Then click on the orb at the upper left side of the window. Select Excel options, click on the tab that says "Save" and change from "Save files in this format" to "Excel workbook (.xlsx)."

9. Enter your kit number in pop-up window and click "OK".

A. The file may open in Protected View. Click "Enable Editing" at the top of the screen.

B. If you get a Security Warning, click "Enable Content" at the top of the screen.

10. Enter the minimum amount of cMs to include. The default is 6.

Note: It is generally not recommended to go below 5 cM.

11. This process may take a few minutes to run because it generates data in several phases. You can see the progress indicator on the bottom left-hand corner of the Excel window. Once completed, a window pops up with the message "Process complete. Have fun!"

12. A prompt will ask you if you want to run another kit. Enter the kit number of the next kit or click "Cancel."

   Note: These files must also be located in the same directory as JWorks and be named as shown in Figure 2. For instance, a file name with (1) in it will cause JWorks to abort.

13. The organized chromosome browser opens in a new spreadsheet window and is automatically saved in the same directory as JWorks and the FTDNA files. The file name is *yourkitnumber_*results.xls.

14. Your ICW matches will appear in a matrix for each group of overlapping segments.

C. Instructions for Using KWorks

8. Log in to DNAGEDCOM.com. You can register for a free account if you don't already have one.

9. Hover over the Autosomal Tools menu and select "KWorks – Autosomal Grouping Tool (Web)" from the drop-down menu.

10. If you want KWorks to create one master file for all of your DNA matches, you first have to gather and format the data. See Combining Results from All Tests for detailed instructions on how to format your data correctly to create one organized chromosome browser.

11. Locate the directory on your PC where you downloaded and unzipped the three FTDNA files from DNAGEDCOM.com (Figure 2).

Figure 4 KWorks

12. **Select the ICW File:** Click "Choose File." Browse to ICW file in the appropriate directory on your PC and double-click (Figure 4, outlined in red).

13. **Select the Segment CSV File:** Click "Choose File." Browse to the FTDNA Chromosome Browser file and double-click. (Figure 3, outlined in orange).

    Note: Both files must be entered to generate the data

14. Click "Create Grouped File."

15. Once the server has generated the file, a link will appear at the bottom of the screen. (Figure 5).

```
>>> There are 44 names for chr 1 ... Chromosome 1 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 24 names for chr 2 ... Chromosome 2 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 14 names for chr 3 ... Chromosome 3 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 27 names for chr 4 ... Chromosome 4 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 39 names for chr 5 ... Chromosome 5 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 27 names for chr 6 ... Chromosome 6 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 22 names for chr 7 ... Chromosome 7 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 29 names for chr 8 ... Chromosome 8 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 24 names for chr 9 ... Chromosome 9 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 31 names for chr 10 ... Chromosome 10 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 8 names for chr 11 ... Chromosome 11 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 28 names for chr 12 ... Chromosome 12 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 11 names for chr 13 ... Chromosome 13 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 7 names for chr 14 ... Chromosome 14 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 18 names for chr 15 ... Chromosome 15 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 7 names for chr 16 ... Chromosome 16 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 10 names for chr 17 ... Chromosome 17 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 30 names for chr 18 ... Chromosome 18 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 13 names for chr 19 ... Chromosome 19 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 21 names for chr 20 ... Chromosome 20 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 11 names for chr 21 ... Chromosome 21 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 22 names for chr 22 ... Chromosome 22 is completed ... at May 4, 2014 - 12:11 PM CDT
>>> There are 8 names for chr X ... Chromosome X is completed ... at May 4, 2014 - 12:11 PM CDT
Click here to download the CSV file
```

Figure 5 KWorks Download Link

16. Click the link. The file will automatically download to your internet browser's default download directory and will be named *yourkitname* _ChromsomeBrowser_GRP.csv.

17. You can open the file in a spreadsheet application or CSV reader to see your ICW matches in a matrix for each group of overlapping segments. The "F" indicates that the match is from Family Tree DNA.

D. Troubleshooting

1. **Family Tree File Downloads from DNAGEDCOM.com**

   A. If your FTDNA *.zip file doesn't download to your PC after an hour, go through each step below to troubleshoot.

   B. First, check your internet connection.

   C. Next, see if the files have been created and are stored on DNAGEDCOM.com.

      1) Hover over the "Members" button and select "View Files" from the drop-down menu.

      2) Click the folder on the left-side of the screen that contains your FTDNA kit number. If files are listed on the right-side of the screen, ensure the files are the most recent. If they are old, see Step C, below.

      3) To manually download your FTDNA files, hold down the CTRL key and click on each file with your left mouse button. Then, right-click on the highlighted files and select download.

   D. If you do not see any files, please click "Log Out" on the top right of the page. Wait at least two hours to log back in and retry the process.

   E. If you are still having trouble after trying the above remedies, email DNAGEDCOM.com for support. Please note that support is provided by volunteers using their own time and resources which may cause a delay in response.

2. **JWorks**

   If you have problems running the JWorks app, please check the following:

   A. Did you download the latest version of JWorks from DNAGEDCOM.com?

   B. Did you save the JWorks file to the same directory as the FTDNA Chromosome Browser, ICW and Matches files ending in *.csv?

   All of these files automatically download to the default directory used by your internet browser. To locate the default download directory for your browser, check under your browser's settings.

   You can also open Windows Explorer (hold down the key with the Windows logo on it and tap E) and check the Download directory under your Library or Favorites folders.

   If you still cannot locate the files you downloaded, do a search in Windows Explorer by clicking the box at the upper-right side of the window and typing "jworks*" (without the quotes).

If you still cannot find your files, please redo Steps A and B above.

C. Did you unzip (extract) the FTDNA *.zip? There should be three separate files as shown in Figure 2.

D. If you are using **Excel 2007**, did you resave JWorks with the correct format? Open JWorks. Click "Cancel" on the pop-up window that asks for your kit number. Then click on the orb at the upper left side of the window. Select Excel options, click on the tab that says "Save" and change from "Save files in this format" to "Excel workbook (.xlsx)." Rerun JWorks.

E. Make sure all of the FTDNA files have the names as shown in Figure 2 (beginning with the appropriate FTDNA kit number). For instance, a file name with (1) in it will cause JWorks to abort.

   a. If JWorks still won't run, move or delete older files in the directory with the same kit number in their names and download the FTDNA files again (Step A); or,

   b. Move JWorks and the FTDNA files to an empty directory. Rename the FTDNA files in the correct format as shown in Figure 2 and try again.

F. Is JWorks open in Protected View? Close the file and reopen it. Click "Enable Editing" at the top of the screen.

G. If you get a Security Warning, click "Enable Content" at the top of the screen.

H. If you are trying to combine results from multiple tests, carefully read the instructions on how to format your data correctly. Repeat each step in the instructions and then run JWorks again.

I. If you are still having trouble after trying the above remedies, email DNAGEDCOM.com for support. Please note that support is provided by volunteers using their own time and resources which may cause a delay in response.

3. KWorks

A. Did you unzip (extract) the FTDNA *.zip files from DNAGEDCOM.com?

B. Did you select TWO files before clicking "Create Grouped File?" The correct filenames are shown in Figure 5. The first file is the ICW file, and the second is the Chromosome Browser. Both files must be selected for KWorks to run.

C. Do the filenames end in *.csv?

D. If you cannot find the correct files, check your browser's default download directory.

   To locate the default download directory for your browser, check under your browser's settings.

You can also open Windows Explorer (hold down the key with the Windows logo on it and tap E) and check the Download directory under your Library or Favorites folders.

If you still cannot locate the files, do a search in Windows Explorer by clicking the box at the upper-right side of the window and typing the file name, beginning with the correct kit number.

Download the FTDNA files and try Step C above again.

E. If you are trying to combine results from multiple tests, carefully read the instructions on how to format your data correctly. Repeat each step in the instructions and try your upload again.

F. If you still have difficulty, please contact the developer at http://kittymunson.com/index.php?page=contact-us. Please note that support is provided by volunteers using their own time and resources which may cause a delay in response.