Knapsack DATACASTING MANUAL

A visual guide to Installation, Recording, Unpacking,

and viewing Knapsack Channel's Daily Content Packages

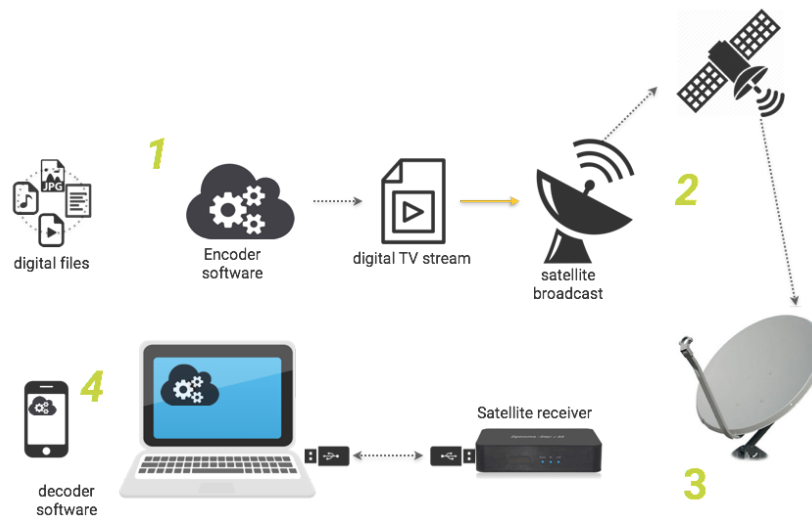**July 2018**

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Knapsack Datacasting Channel

What is datacasting?

Datacasting is a data transfer technology that requires no hardware other than the conventional FTA TV satellite receiver set-top box. Using this technology, we embed digital files such as e-books, offline websites, music, and softwares in a standard TV stream and send it over a satellite TV broadcast channel.

Users can receive the files by recording the satellite TV stream and using our free Extractor software to extract and view the embedded files on their Android mobile/tablet or PC device.

Fast and Reliable

Bandwidth: 1 Mbps

Data Transfer rate > 300 MB/hour

Knapsack Data Channel

Knapsack is our satellite data channel currently available on Galaxy satellite which beams signal to the North America. Instead of streaming regular audio-visual content to be watched on TV, Knapsack broadcasts a package of handpicked files.

Knapsack Broadcast info

Galaxy 19

Frequency: 12115

Polarization: Vertical

Symbol Rate: 22425

FEC: 3/4

Users can see instructions on how to record the channel's content, the files currently being sent, and Knapsack channel's weekly schedule on the TV screen.

Easy Content Distribution

Our technology allows publishers to instantly transmit content to all users in their targeted region. To contribute content, publishers can directly upload data on google drive or FTP to Knapsack server.

What do I need to receive Knapsack files?

1. Conventional FTA satellite receiver and access to Knapsack channel (Galaxy 19 Satellite)
2. A USB Flash memory or external Hard Disk
3. A personal computer/notebook with Windows 7 or a later version, or an OTG compatible smartphone or tablet with Android 4.4 or later

Recording Files from Knapsack Channel

1. Turn on your satellite TV and go to Knapsack channel

2. Connect your USB flash memory to the receiver

3. Press the record button

Knapsack video stream needs to be recorded in one of the following formats: REC MTS, TPO, TSV, TS, or M2TS. To confirm the video stream has been recorded in one of these formats, wait til the video stream from Knapsack channel is done recording. Then disconnect your USB flash memory from the receiver and connect to your PC. Open the flash drive and look for a file with the name "Knapsack" in one of the above formats. If the file is not recorded in one of the above formats, learn how to change the recording format in Knapsack's FAQ.

4. Look at the number on the top left corner of your TV screen. The recording time required to receive the entire content package, is shown as "Package Duration". For example, if the Package duration displays 2:35:23, you must leave the flash drive inserted in the receiver to continue recording for a minimum of 2 hours, 35 minutes, and 23 seconds to receive the complete daily package.

✓ The required time to receive all of the files varies day to day. You will need more time to record bigger packages.

✓ You can record the heavier Knapsack packages overnight.

✓ For most receivers, you may change the channel while recording and watch other channels with the same frequency.

✓ You may turn off your TV while recording.

✓ You may record longer than the package duration. Longer record time insures correction of possible data losses.

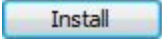**5.** Once recording is completed, remove your USB flash memory from the receiver.

Now you have received Knapsack's daily package! In order to access embedded files on your computer, you need to unpack the package with Knapsack Extractor software.
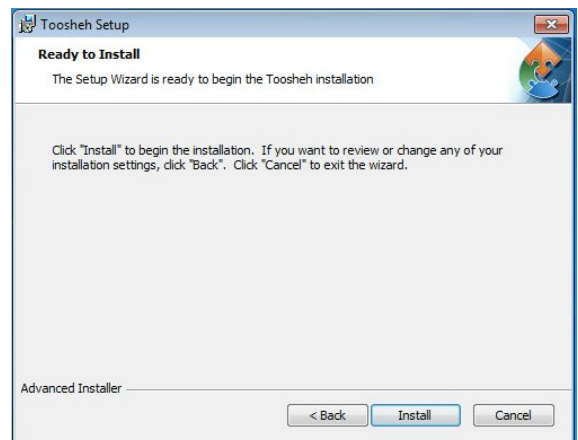
Knapsack (Toosheh) Extractor Software
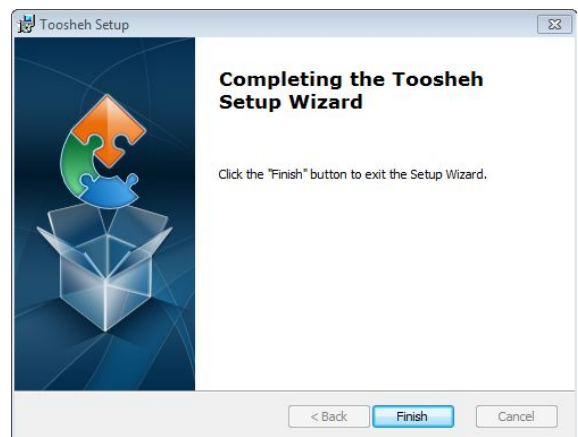
Installation for Windows

1. Download Knapsack (Toosheh) software from <u>this address</u>[1].

2. Double click on **TooshehSetup.msi** and then click on `Run` to start the installation process.

3. Click on `Next >` button.

4. Click on `Install` button.

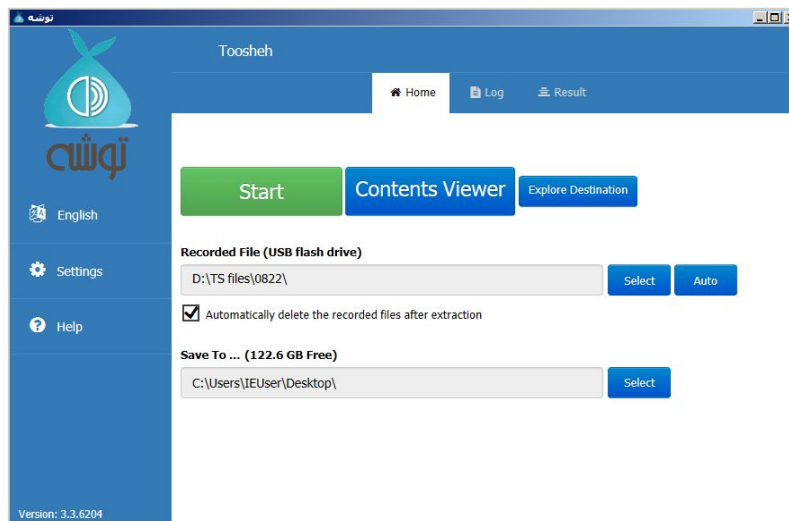5. To complete the installation process click on `Finish` button.

Knapsack Software is installed. You are now ready to unpack Knapsack daily packages. To do so, you need to record daily packages from the satellite receiver first.

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[1] https://s3-us-west-2.amazonaws.com/lisa-app/TooshehSetup.msi
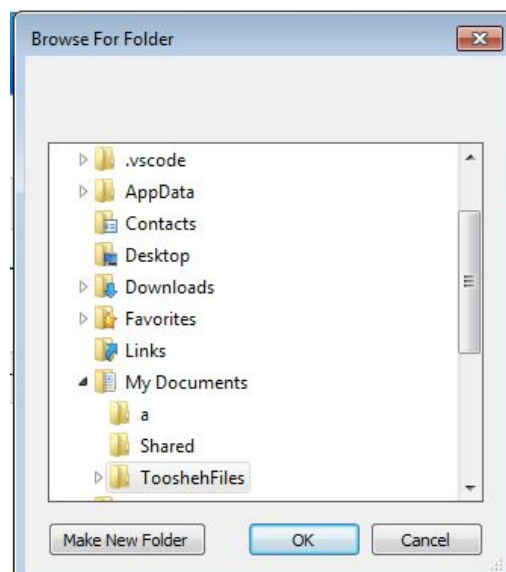
Unpacking Packages on Windows PC

1. Connect the USB flash memory to your PC.
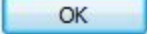2. Click on Knapsack (Toosheh) software icon on your desktop and open it.

3. To locate the recorded Knapsack file, Click on [Auto] button. By clicking this button the software will automatically detect your USB flash drive and choose the recorded file on flash memory.

> ✓ If you already transferred the recorded package from flash memory to your
>
> computer, click on [Select] button and choose the folder containing the
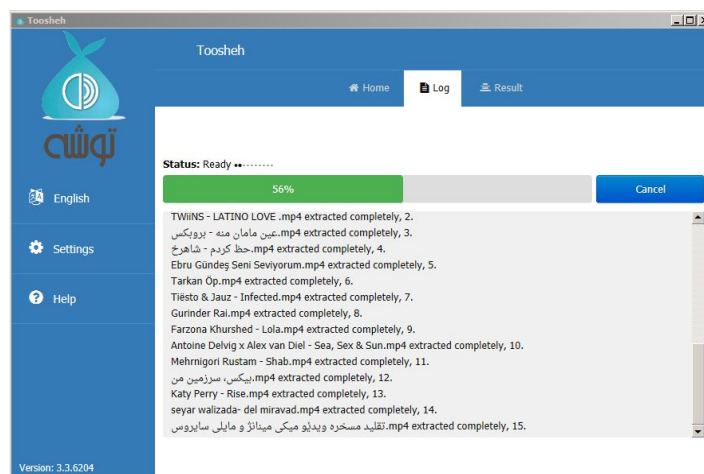>
> recorded Knapsack file.

4. You can store extracted files and packages in your desired folder. To choose the storage location, click on the second [Select] button. You will see the following window.
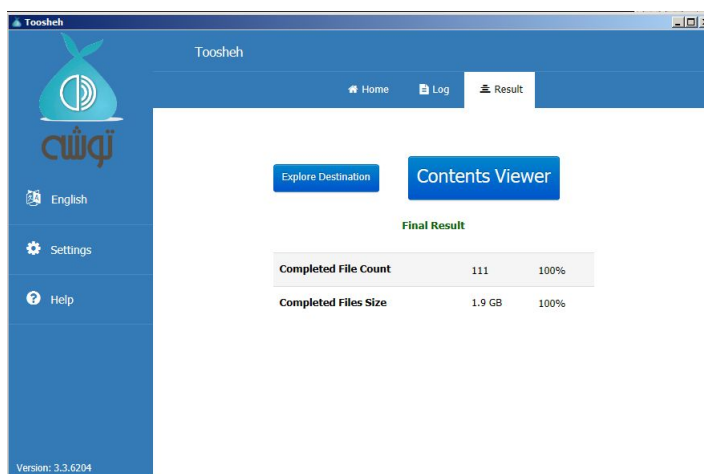
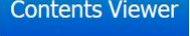**5.** Select the folder in which you'd like to store your files and then press the OK button

> ✓ Please note that the software will remember your selection for file storage location. You do not need to choose the location every time you run the application.
>
> ✓ You can freely move and delete the files after they are extracted and stored on your selected location.
>
> ✓ If you would like to delete the recorded video stream from your USB flash memory after unpacking and extracting the files, click on the proper check mark ☑.

6. Press the Start button to begin the application's extraction process.
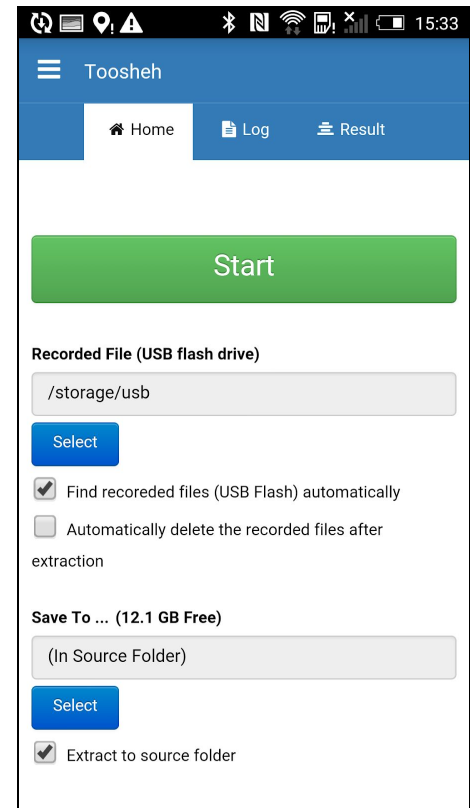

You may click Cancel at any point to stop the extraction process. When unpacking is completed, you will see the following *results* page.
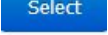

7. Now that all the Knapsack files are extracted from the package, click on Contents Viewer button to see the daily package in Viewer Software. You can also see the files in File Explorer by clicking on the Explore Destination button
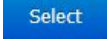
Unpacking Packages on Android Mobile or Tablet

1. Connect the USB flash memory to your OTG compatible mobile or tablet. You need an OTG flash memory or a adaptor cable.
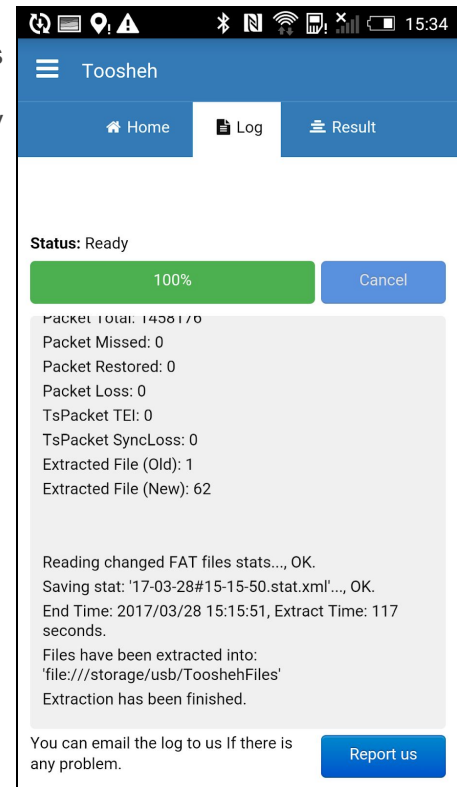
2. Open Knapsack (Toosheh) App

3. Touch [Select] button below the "Recorded File" and locate the folder containing the recorded Knapsack file. By choosing "Find recorded files (USB Flash) automatically", the App will automatically detect your USB flash drive and choose the recorded file.

> ✓ If you would like to delete the recorded video stream from your USB flash memory after unpacking and extracting the files, click on the proper check mark ☑. We recommend choosing this option to open space for storing the extracted files.

4. By touching [Select] below "Save to …" box you can choose your desired folder for storing the extracted files and packages. By activating "extract to source folder," the app will save the extracted files in the same folder as your recorded Knapsack TS file.

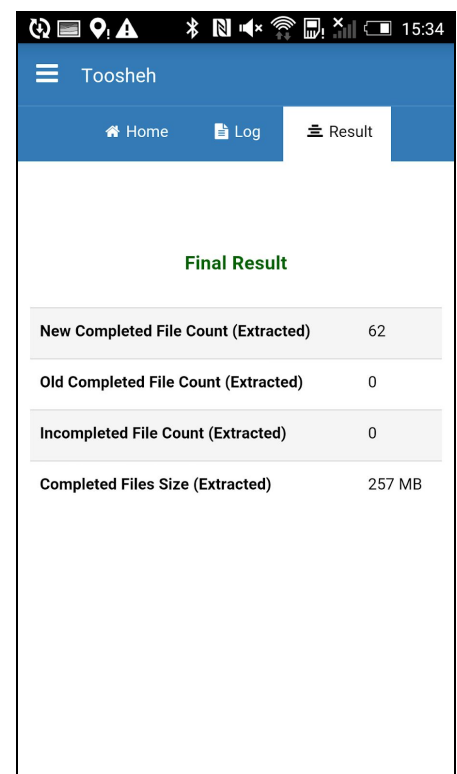> ✓ Please note that the software will remember your selection for file storage location. You do not need to choose the location every time you run the application.
>
> ✓ Due to limited storage space in Mobile/Tablet devices, we recommend extracting the files in the flash drive or SD card.
>
> ✓ You can freely move and delete the files after they are extracted and stored on your selected location.

5. Press the [Start] to begin the application's extraction process. You may click [Cancel] at any point to stop the extraction process.

Status: Ready

| 100% | Cancel |

Packet Total: 1458176
Packet Missed: 0
Packet Restored: 0
Packet Loss: 0
TsPacket TEI: 0
TsPacket SyncLoss: 0
Extracted File (Old): 1
Extracted File (New): 62

Reading changed FAT files stats..., OK.
Saving stat: '17-03-28#15-15-50.stat.xml'..., OK.
End Time: 2017/03/28 15:15:51, Extract Time: 117 seconds.
Files have been extracted into: 'file:///storage/usb/TooshehFiles'
Extraction has been finished.

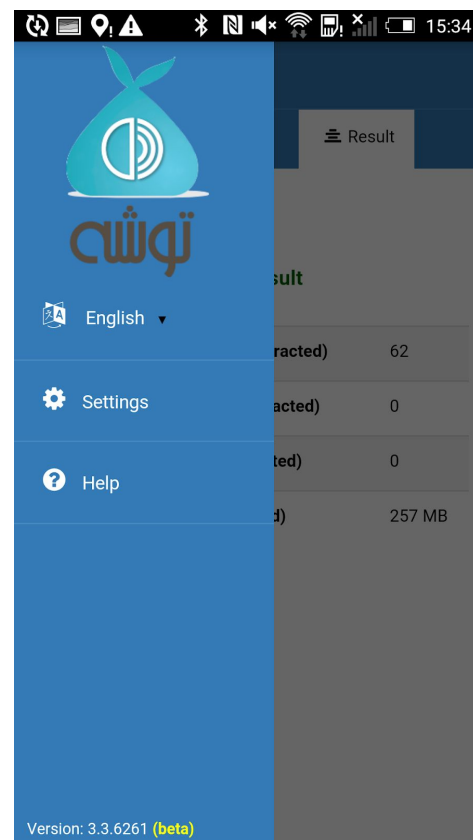You can email the log to us If there is any problem. [Report us]

6. Once unpacking is completed, you will see the results page:

- **New Completed File Count:** The number of extracted files

- **Old Completed File Count:** The number of Knapsack files from previous extractions

- **Incomplete Files:** The number of files that are not received from receiver. This might be due to not recording long enough to receive all files. You must leave the flash for the required "package duration" in order to receive all files.

- **Completed Files Size:** Total volume of the extracted files

Final Result

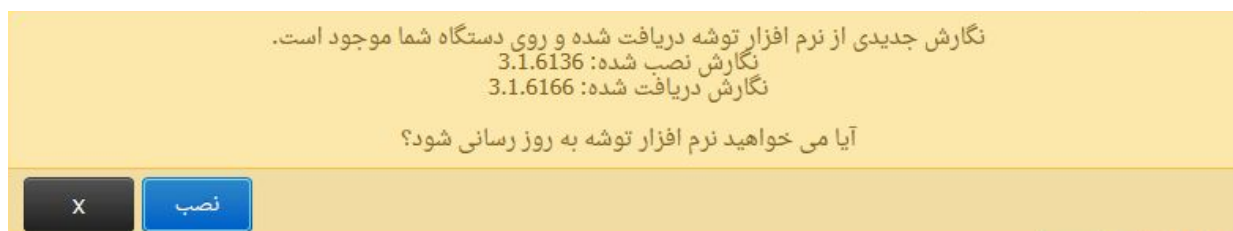|	
New Completed File Count (Extracted)	62
Old Completed File Count (Extracted)	0
Incompleted File Count (Extracted)	0
Completed Files Size (Extracted)	257 MB

The Menu Options

1. **Language:** You may change the language of the app and choose one of the 4 available languages of Persian, English, Arabic, and Spanish.

2. **Setting:** Go to setting to change default error message display options or activate your special access keys.

3. **Help:** Access the app manual, FAQ, app version information, and information for contacting us for technical support, advertising, and other inquiries

Updating Knapsack Extractor Software

Updating Knapsack software is very easy. The update files will be sent along with your daily package. If a new version of the Knapsack (Toosheh) Extractor is available, the application will prompt you with this message:

نگارش جدیدی از نرم افزار توشه دریافت شده و روی دستگاه شما موجود است.
نگارش نصب شده: 3.1.6136
نگارش دریافت شده: 3.1.6166

آیا می خواهید نرم افزار توشه به روز رسانی شود؟

By clicking on نصب INSTALL button, you can install the new version of Knapsack Extractor.

To close this window, click on the X button.