

## aCSTV — antiX Community Entandikwa ya TV ennyangu

### **Empeereza:**

Pulogulaamu eno ekozesebwa okusembeza mu ngeri ennyangu emikutu gya ttivvi egy'omu kitundu ng'omukutu gwa data nga guyita ku yintaneeti. Okulonda siteegi n'okugaba ebifo bya pulogulaamu bisobola okutegekebwa mu ddembe. Siteegi ezisasulwa mu nsi yonna nazo zisobola okugattibwako, kasita tezizibiddwa kkampuni ekola ku mpeereza ng'ayita mu *GeoIP* eri eggwanga eryogerwako.

Omukutu gwa yintaneeti gwetaagibwa okufuna emikutu.

- **Tandika okusembeza:**

Okutandika okusembeza ttivvi, nyweza emu ku bbaatuuni za siteegi (nyiga bbaatuuni ya kkono).

Weetegereze: Kiyinza okutwala sekondi 12 ekifaananyi kya TV okulabika. Okwawukana ku ttivvi ya analog, ng'okukyusa okuva ku pulogulaamu emu okudda ku ndala kwaliwo mu butundutundu bwa sikonda, ne bwe wabaawo ebyafaayo bya tube sets, n'okusembeza kwa digito omukutu ku seva yennyini ey'omuwa empeereza y'okutambuza gulina okusooka okutekebawo nga guyita ku yintaneeti. Okugatta ku ekyo, data eyingidde erina okutekebwa mu buffer okumala sekondi ntono okusobola okusobozesa okuzannya okutaliimu buzibu, era ekivaako okulwawo mu kutandika okuzannya ekifaananyi kyennyini. Obuwavu bw'obudde businziira ku bintu bingi, omuli obudde bw'okuddamu bwa seva y'omugabi w'empeereza y'okutambuza n'obwangu bw'okukola kwa PC.

- **Kyusa siteegi:**

Okukyusa okudda ku pulogulaamu endala, nyweza bbaatuuni ya siteegi endala.

- **okusembeza TV:**

Okuggyako omukutu oguliwo kati, nyweza bbaatuuni ya »Stop« .

- **mu pulogulaamu:**

Okufuluma aCSTV, nyweza ekisumuluzo »Exit« (oba "b").

- **Okusooka okulaba pulogulaamu: Okusooka**

okulaba pulogulaamu okuliwo kati kuyinza okulagibwa mu bulawuzi n'akabonero ka »Program preview« . Omuwa empeereza ayagala asobola okutekebawatekebwa mu ddembe mu nteekateeka.

- **Ekifaananyi ky'ekifo:**

Ekiwandiiko kya »Ekifaananyi ky'ekifo« kikola ekifaananyi ky'ekifo eky'ekifaananyi kya TV ekiriwo kati. Ekifaananyi kiterekebwa mu folda eterekeddwa mu nsengeka wansi w'erinnya lya fayiro *Scene photo-<Sender>-<Date>-<Time>.png* . Okugeza: *Ekifaananyi ky'ekifo-Arte-03.10.2021-17:14:22.png*

- **Omulumu gw'okukwata:**

Tandika okukwata pulogulaamu eriwo kati n'akabonero ka »Okukwata vidiyo« . Akabonero akamyufu akafuga okukwata kalabika mu bbaala y'embeera. Okunyiga ku kabonero akakwata ku aCSTV kiggulawo akasengejja k'amawulire. Obutuufu bw'amawulire bweyongera ng'obudde bw'okudduka buyise. Okukwata kuterekebwa wansi w'erinnya lya fayiro *Broadcast Recording-<Sender>-<Date>-<Time>.ts* mu folda eragiddwa wansi wa Settings.


Enkola ya fayiro .ts esobola okuzannyibwa ne *mpv* , okugeza . Okugeza:

*Okukwata ku mpewo-Phoenix-03.10.2021-16:02:31.ts*

Komekkereza okukwata n'akabonero ka »Lekera awo okukwata«. Kino kikomya okukwata era pulogulaamu eriwo kati n'egenda mu maaso n'okufunibwa.

Olw'ensonga ez'ekikugu, okulaga pulogulaamu eriwo kati ku ssirini mu kiseera kino kutaataaganyizibwa okumala sekondi ntono *ng'otandika* n'okuyimiriza *okukwata* . Okukyusa okudda mu nkola za fayiro endala, laba »Eby'enjawulo«.

- Okukyusa olukalala lwa siteegi

Okugabanya kwa bbaatuuni za bbaatuuni za siteegi mu kasanduuko akakulu kuyinza okukyusibwa nga okozesa bbaatuuni , nga osoma mu lukalala lwa siteegi olulala olutegekeddwa . Dayirekita esookerwako ey'enkalala za siteegi ye *~/.config/aCSTV* , naye fayiro esobola okusomebwa okuva mu dayirekita yonna erimu olukusa okuwandiika. Fayiro ez'ekyokulabirako ez'amawanga amangi zisobola okusangibwa mu dayirekita / *usr /local/lib/aCSTV/Stationslisten* era era zisobola okukoppololwa mu ngalo okuva awo mu dayirekita y'okusengeka aCSTV. Ezimu ku siteegi eziri ku lukalala luno zisobola okufunibwa mu nsi yonna, endala zirina geo-blocked era zisobola okufunibwa mu nsi eyo yokka. Olukalala lw'emikutu olusomeddwa mu kiseera kino lusobola okulongoosebwa mu ngeri ey'otoma mu menu ya Settings.

- Enkola ennyangu n'okufuga mouse:

Emirimu gino wammanga giweebwa mu kiseera ky'okuzannya nga tukozesa ekisumuluzo kya MPV n'okufuga mouse:

*Ebiragiro eby'awamu*

- Laga era okweke keypad -

- Kyusa wakati wa full-screen mode ne window mode: koonna emirundi ebiri ku

kifaananyi kya vidiyo ekidduka. (era: f)

Sayizi ya fuleemu ya vidiyo entuufu (ensalosalo enjeru): Alt + Alt - .

Okukyusakyusa amaloboozi/vidiyo mu ngeri entuufu: Ctrl + Ctrl - .

Teekateeka eddoboozi ly'okuzannya: 9 0

- Okusirisa/obutasirise: m

Ekifaananyi kya vidiyo eky'okutereeza gamma: 6 5

Ekifaananyi kya vidiyo y'okumasamasa: 4 3

Ekifaananyi kya vidiyo eky'enjawulo: 2 1

Ekifaananyi kya vidiyo eky'okujjula langi: 8 7

- Yimirirako era oddemu okuzannya: koonna ku ddyo ku

kifaananyi kya vidiyo. (era: p ne space bar) (okusinziira ku data rate okutuuka ku

ddakiika 30, okusinziira ku ngeri buffer y'ekitundu gy'ejjudde)

- Okugenda mu maaso amangu / okudda emabega (sec 1): Shift ← Shift →

- Okugenda mu maaso amangu / okudda emabega (sec 5): ← →

Okugenda mu maaso amangu / okudda emabega (eddakiika 1): ↑ ↓

(Okugenda mu maaso amangu n'okudda emabega kisoboka munda mu buffer,

naddala oluvannyuma lw'okukozesa omulimu gw'okuyimirira)

- Ekifaananyi ky'ekifo: bbaatuuni mu kipande ekifuga aCSTV oba s

(Ekifaananyi ekikyaliwo kiteekebwa mu folda eragiddwa mu nteekateeka za aCSTV

)

· Okukwata vidiyo ya pulogulaamu eriwo kati: button mu aCSTV control panel

Yanguwa/okukendeeza ku kuzannya (10%): [ ]

(obusobozi obutono, obw'omugaso mu kutereezza

firimu eziriko sipiidi enkyamu, eziwandikiddwa mu ngeri enkyamu

ezireetera cache okuggwaawo nga zizannyiddwa amangu ennyo, oba nga ebitundu byazo

biggwaako nga tebinnaggyibwawo nga bizannyiddwa mpola nnyo )

· Sipiidi y'okuzannya eya bulijjo: backspace

· Teeka era osazeemu loopu etakoma (AB): l

Kyusa ku mugga gwa vidiyo omulala (bwe gubaawo): Shift - .

Kyusa ku mugga omulala ogw'amaloboozi (bwe gubaawo): #

*Emirimu gy'amawulire:*

· Ebikwata ku kutambuza n'okuzannya Shift i

· Buffer fill level n'ekifo ky'okuzannya mu buffer memory: Shift oba ekifaananako bwe kityo

· Laba URL y'omugga F8

· Laga amawulire agakwata ku mugga ku maloboozi, vidiyo n'ebigambo ebitonotono F9

*Ebintu ebikwata ku subtitle (bwe bibaawo) .*

Ssoboza/lemesa ebigambo ebitonotono: v

Kyusa wakati w'ebigambo ebitonotono eby'enjawulo: j J

Okukwataganya ebigambo ebitonotono n'ekifaananyi kya vidiyo: z Z

## **Enteekateeka:**

Ensengeka zonna eza aCSTV zisobola okutereezebwa oluvannyuma lw'okunyiga bbaatuuni ya »Ensengeka«.

- **Okukoma ku muwendo gwa data ya vidiyo:**

Nga oteekawo omuwendo ogusinga obunene ogw'okuzannya mu kbps, omugga gwa data ogusabibwa seva gusobola okukyusibwa okusinziira ku busobozi bw'okukola ku kompyuta ekozezebwa ne layini ya yintaneeti.

1. Okukoma okusinziira ku nkola ya PC. Obumanyirivu bulaga nti Pentium-M eya single-core 32-bit nga erina 1.7 GHz esobola okuddamu okukola ekisinga obunene nga 3000 kbps awatali kutaataaganyizibwa. N'olwekyo kirungi okugiteeka ku okwetoloola omuwendo guno ku PC ng'eyo. aCSTV elonda omugga gwa data ogusinga obulungi ogusangibwa okuva mu muwa empeereza ali wansi w'omuwendo ogusinga obunene ogwateekebwawo. Omuwendo ogw'oku ntikko gusobola okuyingizibwa ku kompyuta ez'amaanyi ennyo, ate ogwa wansi ku zinafu.

2. Okukoma okusinziira ku busobozi bw'okutambuza obuliwo obw'omukutu gwa yintaneeti. Okusinziira ku mutindo gw'omukutu gwa yintaneeti (oba nga kiyinzika okuba nga WLAN), kiynza okwetaagisa okussa ekkomo ku miwendo wansi w'omulimu gwa PC, e.g. okutuuka ku 1800 ) .okusoboza . Emiwendo emitono givaamu okusalawo kw'ekifaananyi okutono, ate emiwendo egy'amaanyi givaamu okuva mu

masomero buli kiseera.

Ebisinga okulagibwa abaweereza ba ttivvi z'olukale aba Germany mu kiseera kino biweebwa ku miwendo gya

325k , 581k, 635k, 969k, 1020k, 1130k, 1790k, 1807k,  
2120k, 3256k, 3544k, 3990k, 7290k,

naye si miwendo gyonna ku miwendo gyonna. Okusinziira ku muwa empeereza, abamu ku baweereza ab'obwannannyini bafuna okutaataaganyizibwa okusinga

mu biseera eby'okutambuza, ne bwe kiba nti omuwendo gwa data guteekeddwa bulungi. Mu biseera ebirala eby'olunaku, okusembeza siteegi zino kuddamu okukola obulungi.

- Okulonda screen ya TV Screen

y'okufulumya ekifaananyi kya TV esobola okuteekebwateekebwa mu settings. Singa, okugeza, ttivvi eyungibwa ku PC nga screen eyokubiri era n'etekebwateekebwa okusinziira ku ekyo, ekifaananyi kya TV kisobola okulagibwa ku TV nga kiraga ennamba ya screen ekwatagana. Okwegendereza: Okubala kutandikira ku ziro, kwe kugamba »0« ye screen esooka, »1« eyookubiri etc. Screens ezitassukka 32 zisobola okukolebwako.

- Full screen mode/window mode

Akabokisi kano kasobola okukozesebwa okulaga oba ekifaananyi kya TV kitandikiddwa nga full screen oba nga window. Osobola okukyusa okudda n'okudda wakati wa full-screen ne window mode ekiseera kyonna ( *nyweza emirundi* ebiri ku kifaananyi kya TV ekiriwo oba nyweza *ekisumuluzo "F"* ).

- Okuzannya mu maaso

Nga olina akabokisi kano osobola okuzuula oba ekifaananyi kya TV bulijjo kisaana okulagibwa mu maaso oba kiyinza okubikkibwako amadirisa amalala. Okwolesebwa kuyinza okukyusibwa ekiseera kyonna okuyita mu menyu y'embeera y'ebbaala y'emirimu → Layer , awamu n'okugatta ebisumuluzo "*Shift T*" .

- Folda ekigendererwamu ebifaananyi by'ekifo n'ebikwata vidiyo

Yingiza ebitabo ebikwatibwa n'ebifaananyi by'ekifo mwe birina okuterekebwa mu bifo ebituufu eby'okuyingiza. Ebitabo ebikwatagana ebya mutindo eby'enkola y'emirimu gya antiX biteekeddawo, ebijuliziddwa \$XDG\_PICTURES\_DIR/ ne \$XDG\_VIDEOS\_DIR/. Omukozesa ayingidde alina okuba n'obuyinza bw'okuwandiika mu folda eziragiddwa.

- Edit station list manually Olukalala lwa siteegi oluyingiziddwa mu

kiseera kino lusobola okulongoosebwa mu ngalo. Ebipya ebiyingiziddwa bisobola okugattibwako, ebiyingiziddwa ebiriwo bisobola okusazibwamu oba okukyusibwa. Amannya ga siteegi gombi n'endagiriro za seva ezikwatagana nazo bisobola okulongoosebwa. Ennyiriri ezitandika ne hash (#) zilemesebwa era tezirabika ku keypad.

- Okulongoosa olukalala lwa siteegi mu ngeri ey'otoma Olukalala lwa

siteegi olusomeddwa mu kiseera kino lusobola okulongoosebwa mu ngeri ey'otoma n'akabonero ka "*Okulongoosa*" . Omukutu gwa yintaneeti oguliwo gwetaagibwa ku kino. Ebiwandiiko by'emikutu egy'enjawulo mu ggwanga biterezebwa buli kiseera bannakyewa okuva mu pulojekiti ya *IPTV.org* . Bw'oba otereza olukalala lwa siteegi mu ngeri ey'otoma, osobola


okukozesa ensengeka ya “Kebera okuyungibwa ku siteegi” okuggyako siteegi ezo ezitasobola kufunibwa mu kifo kyo. Enkola eno eyinza okutwala obudde bungi (naddala mu mbeera y'enkalala ennene ez'emikutu), okuva okuddamu okuva ku seva bwe kulina okulindibwa ku buli mukutu. Bwe kiba nga kibula oba nga kikyamu, mu kifo ky'okubeera n'okugaana okutuufu, omukago gulina okukkirizibwa okuggwaako ng'omusindika asobya tannasuulibwa.

## **Ebintu by'enjawulo:**

### **Ebikozesebwa**

Ebikozesebwa socat , feh, buffer, mpv, yd-dlp, sed, xdotool, wmcctl birina okuteekebwawo. Kino kikakasibwa mu ngeri ey'otoma nga oteeka ng'oyita mu nkola y'okussaako eya Debian. Singa ebitundu bino bibula, okugeza mu kiseera ky'okussaako mu ngalo, aCSTV teja kukola.

### **Obunene bw'enkalala z'emikutu**

Nga waliwo enkalala z'emikutu ennene ennyo ezirina emikutu egisukka mu 40-50, okukola emirimu gya aCSTV kweyongera okukaluba. Okusobola okukola amangu era okukekkereza eby'obugagga, olini okukakasa nti olukalala lw'emikutu lukoma ku biyingizibwa ebyetaagisa ddala, era nti oziyiza (comment out) oba oggyawo byonna ebisukkiridde mu nteekateeka za “Edit channel list” . Omuwendo ogusinga obunene ogw'ebisumuluzo ebiyinda okuweebwa guli nga 264, okusinzira ku muwendo gw'ennukuta buli linnya. Kisoboka okuba nti keypad eya sayizi eno tekyasobola kulagibwa mu ngeri ya magezi ku monitor entono. Ebiwandiiko ebirala byonna ebikola eby'enkalala ng'ezo ezisukkiridde bisiwuuka empisa. Enkalala z'emikutu eminene zisobola okwawulwamu fayiro eziwerako ssekinnoomu nga tukozesa ekikyusa ebiwandiiko nga Geany oba Leafpad , ekiyinda okulondebwa nga tukozesa bbaatuuni ya “Change channel list” (akabonero: ) ku kipande.

### **Enkola ya fayiro n'okukyusa**

Fayiro eziterekeddwa mu nkola ya .ts zisobola okuzannyibwa butereevu ne MPV mu antiX . Bw'oba oyagala, osobola okukozesa ffmpeg okukyusa ebikwata ku pulogulaamu ebiterekeddwa okuva mu nkola ya .ts okudda mu nkola ya fayiro endala . Okukyusa mu kiseera ky'okukwata kisoboka ku nkola ez'amaanyi ennyo zokka n'olwekyo tekigendereddwa aCSTV. Okuva bwe kiri nti era tekisoboka kuteebereza nkola ki siteegi gy'egenda okutambuza, kyetaagisa okugezesa okutono ng'okyusa oluvannyuma. Singa ensengeka efunibwa tekwatagana na nkola egenderere, oba omugga gwa data ogwa vidiyo oba ogw'amaloboozi ogulimu, oba byombi, gulina okuddamu okuteekebwamu enkodi, bwe kitaba ekyo kimala okuddamu okubipakira nga tebikyusiddwa mu nkola egenderere eyagala.

Eby'okulabirako:

- okutuuka ku Matroska , awatali kuddamu  
kukooda ffmpeg -i './erinnya lya fayiro.ts' -map 0 -c koppa './erinnya lya fayiro.mkv'.
- ku mp4 , awatali kuddamu  
kukooda ffmpeg -i './erinnya lya fayiro.ts' -map 0 -c koppa './erinnya lya fayiro.mp4'.
- Singa omugga gwa data oguweerezeddwa omuweereza w'amawulire era ne guterekebwa mu fayiro .ts tegukwatagana na nkola ya target

erongooseddwa (okugeza *mp4* ), okukyusa kuno tekujja kukola era kuleeta bubaka bwa nsobi bwokka. Mu mbeera eno vidiyo esobola okuddamu okuteekebwa mu koodi:

- `ffmpeg -i './filename.ts' -c:v libx264 -c:a copy './filename.mp4'`  
Oba okuddamu okukozesa enkodi ya vidiyo n'amaloboozi:  
`ffmpeg -i './erinnya lya fayiro.ts' -c:v libx264 -c:a aac './erinnya lya fayiro.mp4'`.

Okusinziira ku maanyi ga kompyuta aga PC, obunene bwa fayiro n'ekika ky'okuddamu okukozesa enkodi, okukola kuyinza okutwala ekiseera.