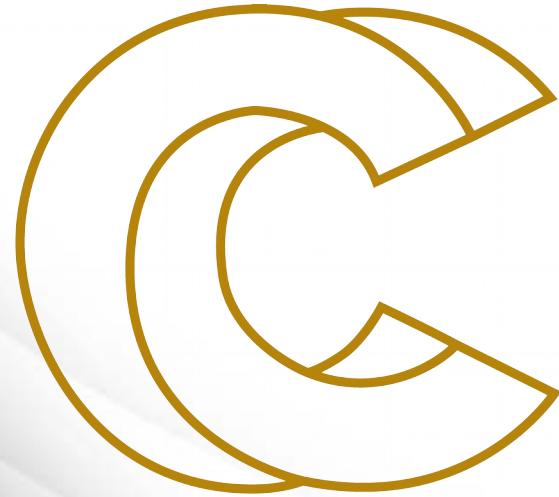


Using HPCFS

SLING



EURO

Leon Kos

University of Ljubljana, FME, LECAD lab

Setting up the NoMachine client

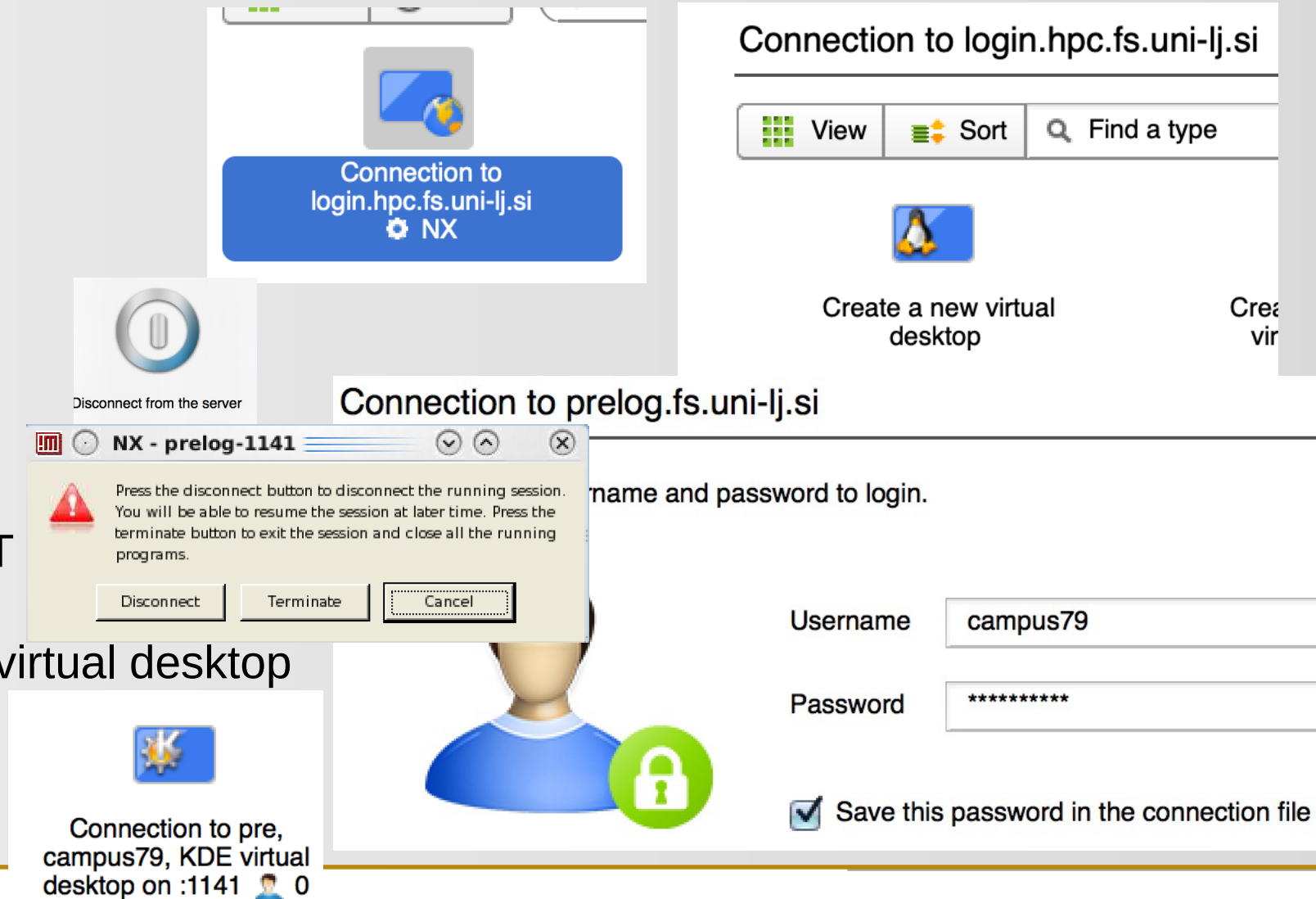
NoMachine client version 6 available for installation at page
<https://www.nomachine.com/download-enterprise#NoMachine-Enterprise-Client>
or <https://bit.ly/1fal6ac>

1. Select New
2. Protocol NX
3. Host: login.hpc.fs.uni-lj.si Port: 4000
4. Use Password authentication
5. Don't use proxy
6. Done with Connection to login.hpc.fs.uni-lj.si



Connecting to HPCFS

1. Select and Connect
2. Use **your** account credentials
3. Create **New** desktop **once**
4. Use the Trinity (KDE) desktop
5. To **Disconnect** press Ctrl+Alt+T
6. To **Reconnect** select previous virtual desktop



The screenshot displays the SLING EURO interface for connecting to HPCFS. It shows a list of virtual desktops with a blue button labeled "Connection to login.hpc.fs.uni-lj.si" and "NX". A warning dialog box is overlaid, titled "NX - prelog-1141", with a red warning icon and text: "Press the disconnect button to disconnect the running session. You will be able to resume the session at later time. Press the terminate button to exit the session and close all the running programs." The dialog has three buttons: "Disconnect", "Terminate", and "Cancel". Below the dialog, a user profile is shown with a blue shirt and a green padlock icon. To the right, a login form is visible with the title "Connection to login.hpc.fs.uni-lj.si". It includes a "View" button, a "Sort" button, and a "Find a type" search bar. Below these is a penguin icon and the text "Create a new virtual desktop". The login form also has fields for "Username" (containing "campus79") and "Password" (containing "*****"), and a checkbox labeled "Save this password in the connection file" which is checked. At the bottom, a status bar shows "Connection to pre, campus79, KDE virtual desktop on :1141" and a user icon.

Tuning desktop with Kpersonalizer for remote speed (use less effects=slower processor)



SLING EURO

Korak 1: Uvod

Trinity TDE

Welcome to Trinity R14.0.5

This Personalizer will help you configure Trinity desktop in five quick, easy steps. You will be able to change all the settings of the Trinity desktop in five quick, easy steps. You may choose to postpone personalization until later by clicking on the "Skip Wizard" button. If you already like your Trinity configuration, click **Skip Wizard**, then **Quit**.

Izberite vašo državo:

Slovenija

Izberite vaš jezik:

slovensko

Korak 2: Želim vse po svoje ...

Trinity TDE

System Behavior

Graphical User Interfaces behave differently in different Operating Systems. Trinity allows you to choose the behavior according to your needs.

Izberite željeno obnašanje vašega sistema:

☒ TDE (TM) ☐ M... ☐ A...

☒ UNIX (R) ☐ O...

Opis:

Window activation: Focus on click
Titlebar double-click: Shade window
Mouse selection: Double click
Application startup notification:
Keyboard scheme: Trinity default

For motion impaired users, Trinity provides a way to activate special keyboard settings.

☐ Omogoči kretanje s tipkovnico, pov...

Korak 3: Cukrček-meter

Trinity TDE

Trinity offers many visually appealing effects, such as smoothed fonts, previews in the file manager, and so on. All this beauty, however, comes at a cost. If you have a fast, new processor, you can have all on, but for those of us with slower processors, less eye candy helps to keep your desktop responsive. Počasen procesor (manj učinkov)

Prilagodilnik

Korak 4: Vsi imajo radi teme

Trinity TDE Style

Z izbiro ene od spodnjih postavk izberete stil vašega računalnika.

Slog	Opis
KDE Classic	Classic KDE style
Keramik	Prejšnji privzeti slog
Plastik	Privzeti slog TDE
Platina	Slog platine
Redmond	Slog s severozahoda Z...
Sončni vzhod	Zelo pogosto namizje

Ogled

Zavihek 1 Zavihek 2

Skupina gumbov

☒ Radijski gumb ☐ Radijski gumb

☒ Izbirno polje

Spustni gumb

Barve [spremenjena] - Nadzorno središče

Datoteka Videti Nastavitve Pomoč

Iskanje:

Internet in omrežje
Komponente TDE
Namizje
Regionalnost in dostopnost
Sistemsko upravljanje
Strojni dodatki
Varnost in zasebnost
Videz in teme

Barve

Barvna shema

TDE privzeta

Aqua Blue

Aqua Graphite

BeOS

Bleda sivina

Buča

CDE

Digitalni CDE

Domino

Shrani shemo ...

Odstrani shemo

Uvozi shemo ...

Barve gradnikov

Navadno ozadje

Osenči razvrščen stolpec v seznamih

Kontrast

Šibek Močan

Uveljavljaj Barve pri ne-TDE programih.

Pomoč Privzeto Uveljavljaj Ponastavi

Use Trinity Control Center to setup colors for Non TDE programs:
Uncheck "Enforce colors for Non-TDE programs"

- Setting GNOME or KDE desktop locale preferences for keyboard, LANG environment
- Using NX client (Disconnect, Terminate, Logout)
- Console commands in Linux
- Editors for programming (emacs, gedit, kate, eclipse, vi, pico, ...) on login only!

Modules (LUA)

- module avail
- module help/info
- module show
- module load/unload
- module list
- module purge

SLURM batch scheduler

Compiled-in OpenMPI support

- `srun --nodes=N --ntasks=n cmd`
- `sbatch script.sh`
- `sinfo`
- `squeue`

• Alias for interactive usage of nodes:

```
alias node='srun -N1 --time=1:00:00 --pty bash -i'
```


Using **SLURM** (interactively) and Message Passing Interface (MPI)

```
[leon@viz mpi]$ module purge && module load foss/2019a
[leon@viz mpi]$ cat hello.f90
program hello
  use mpi
  integer rank, size, ierror, strlen, status(MPI_STATUS_SIZE)
  character(len=MPI_MAX_PROCESSOR_NAME) :: hostname
  call MPI_INIT(ierror)
  call MPI_COMM_SIZE(MPI_COMM_WORLD, size, ierror)
  call MPI_COMM_RANK(MPI_COMM_WORLD, rank, ierror)
  call MPI_GET_PROCESSOR_NAME(hostname, strlen, ierror)
  print*, trim(hostname), rank, size
  call MPI_FINALIZE(ierror)
end
[leon@viz mpi]$ mpif90 hello.f90
[leon@viz mpi]$ LD_PRELOAD= srun -n 4 --tasks-per-node=2 --kill-on-bad-exit --
partition=haswell ./a.out
cn80      2      4
cn79      0      4
cn80      3      4
cn79      1      4
```

```
#include <stdio.h>
#include <math.h>
#define N 1000000
int main()
{
    double area = 0.0;
    #pragma omp parallel for reduction(+:area)
    for(int i = 0; i < N; i++)
    {
        double x = (i+0.5)/N;
        area += sqrt(1.0 - x*x);
    }
    printf("Pi : %14lf\n", 4.0*area/N);
    return 0;
}

[leon@cn36 pi]$ module purge && module load foss/2019a
[leon@cn36 pi]$ gcc -fopenmp pi-openmp.c -lm -o pi-openmp
[leon@cn36 pi]$ OMP_NUM_THREADS=4 ./pi-openmp
```

Thanks!



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