

Introdução ao OpenDSS-G

Universidade de São Paulo

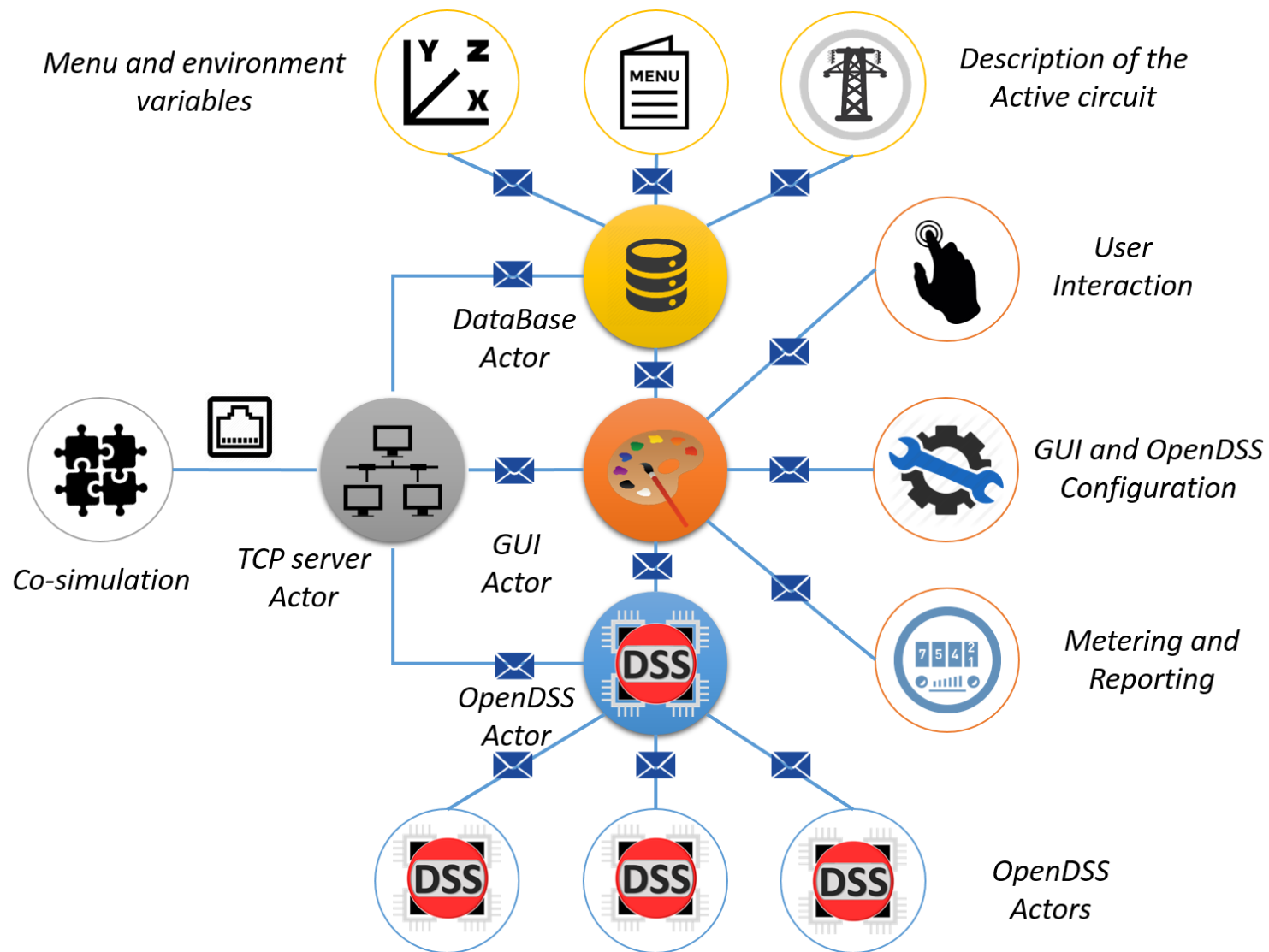
Paulo Radatz
Engineer/Scientist II – EPRI

2º Encontro do Grupo de Usuários do
OpenDSS Brasil
20/01/2020





Arquitetura do OpenDSS-G



Instalando o OpenDSS-G

1. Download no link:

<https://sourceforge.net/projects/dssimpc/>

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OpenDSS-G

A graphical view of OpenDSS
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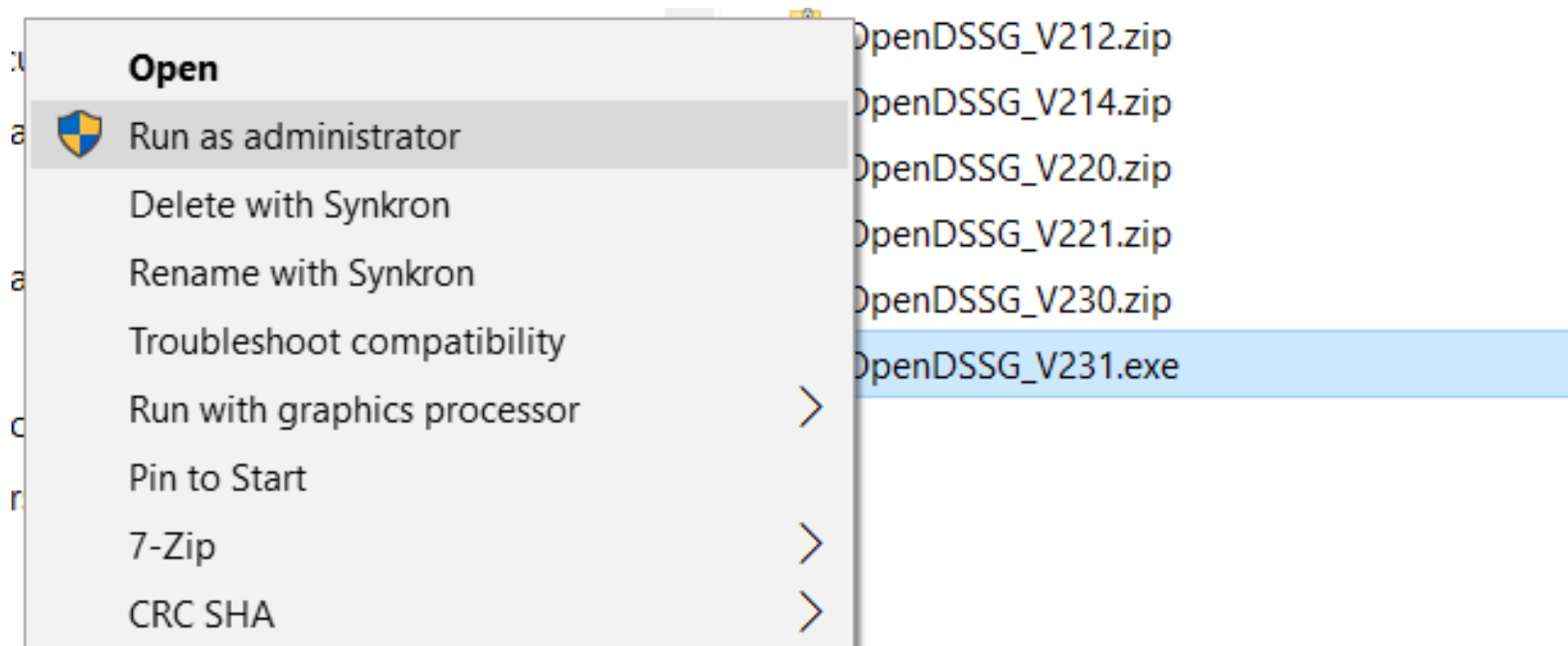
Summary	Files	Reviews	Support	Wiki	Tickets	Discussion	Code
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OpenDSS-G (fomer DSSim-PC) is a new step in the evolution of simulation tools for planning and operations based in OpenDSS. This interface has adopted the functionalities of OpenDSS for making easier to the user to use the advance features of the platform.

This version includes the parallel processing features included in OpenDSS. The interface is faster and by using graphical objects and forms the user can describe the power system, configure the processor utilization and many more advance features.

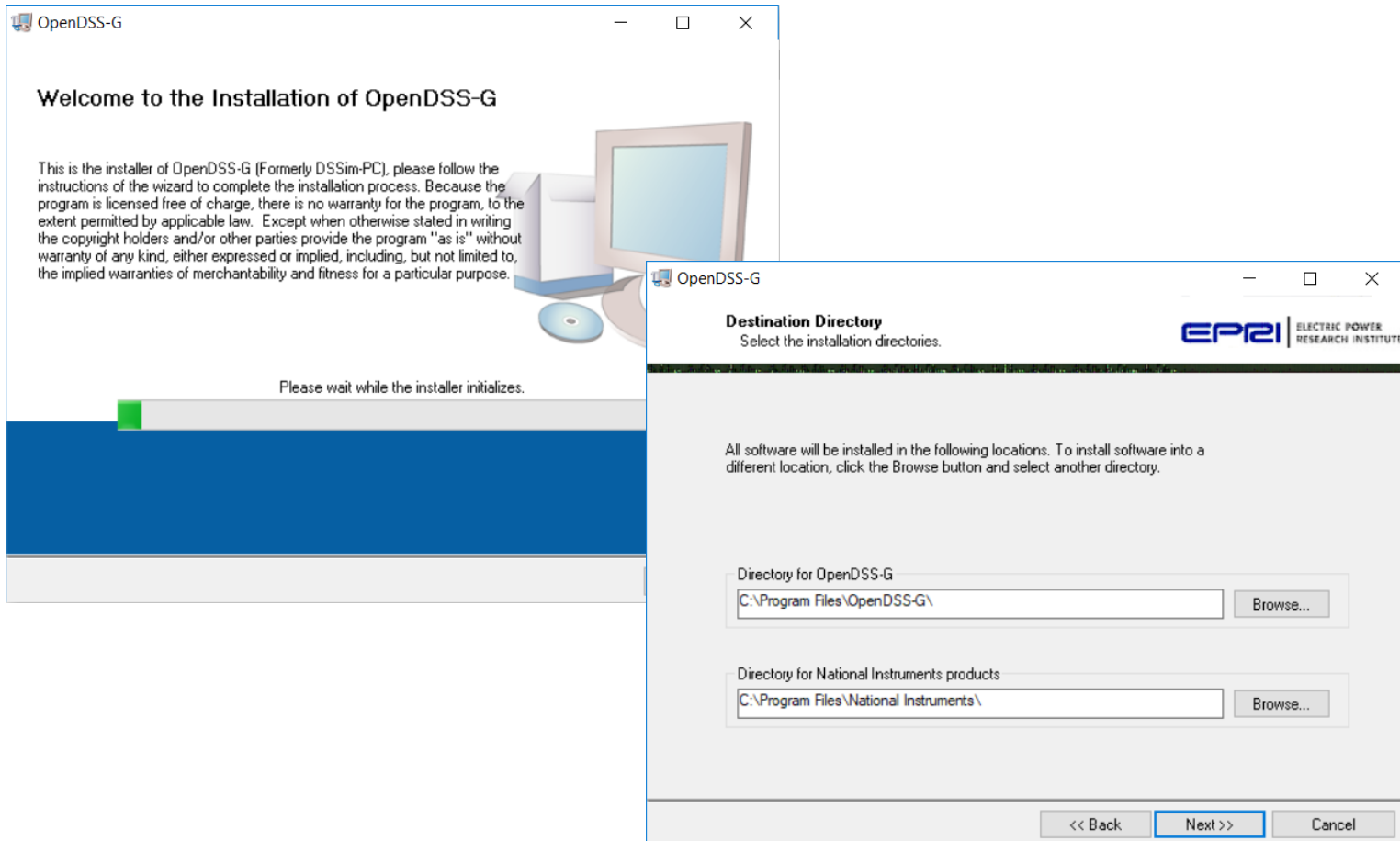
Instalando o OpenDSS-G

2. Instalar no modo administrador:



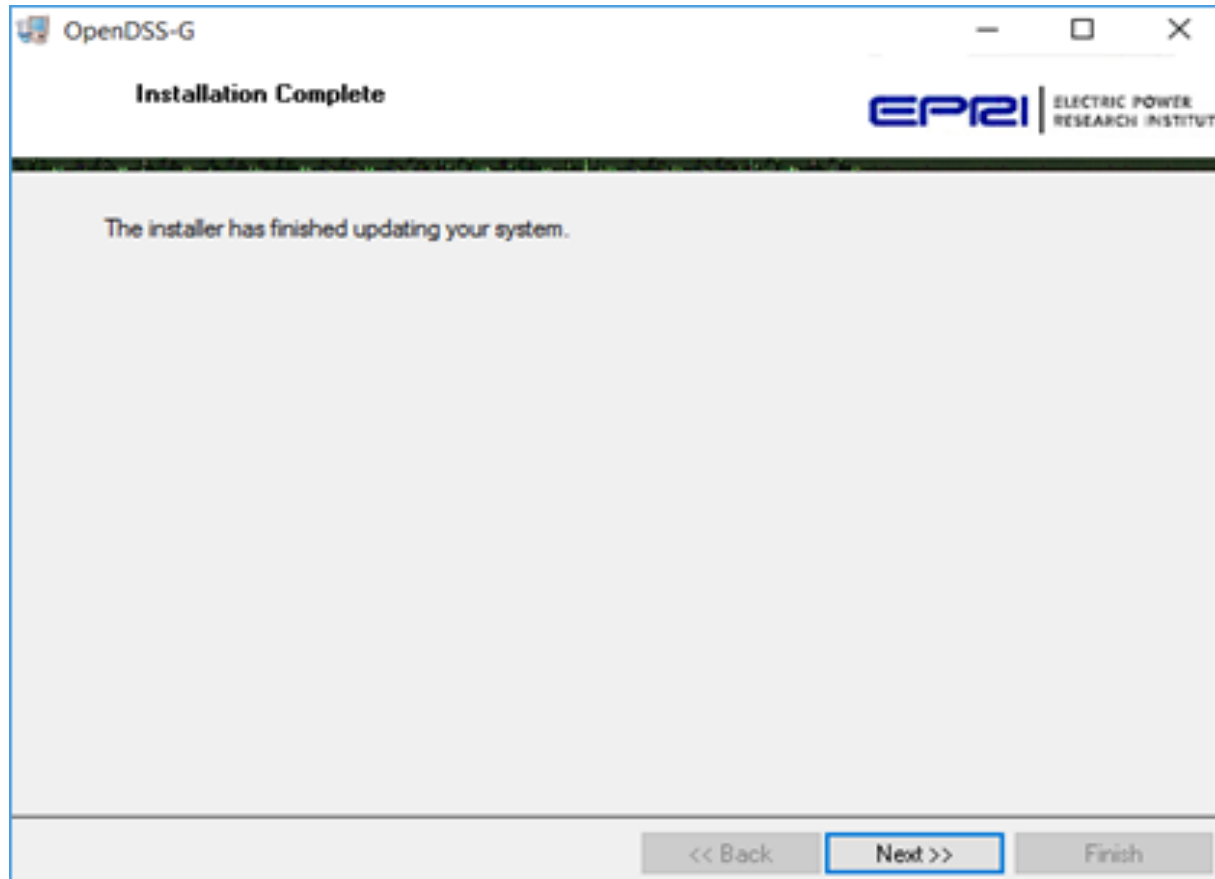
Instalando o OpenDSS-G

3. Siga as instruções:



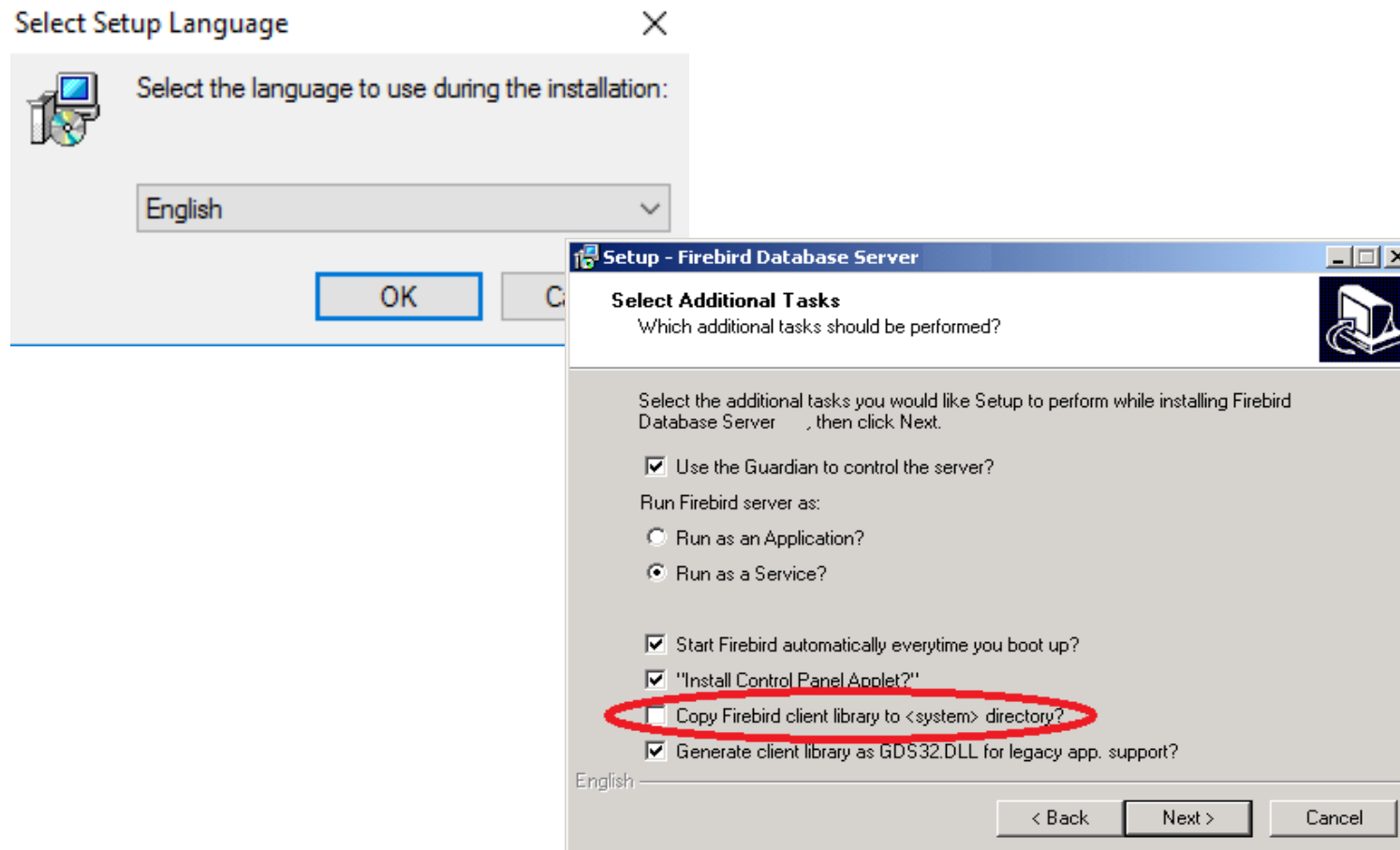
Instalando o OpenDSS-G

4. Primeira parte completa



Instalando o OpenDSS-G

5. Instalando a base de dados



Instalando o OpenDSS-G

6. Instalando o ODBC



Instalando o OpenDSS-G

7. Instalação Completa

Se houver algum problema, vá para a seção de solução de problemas (*troubleshooting section*) no manual do OpenDSS-G

Ambiente Gráfico do OpenDSS-G

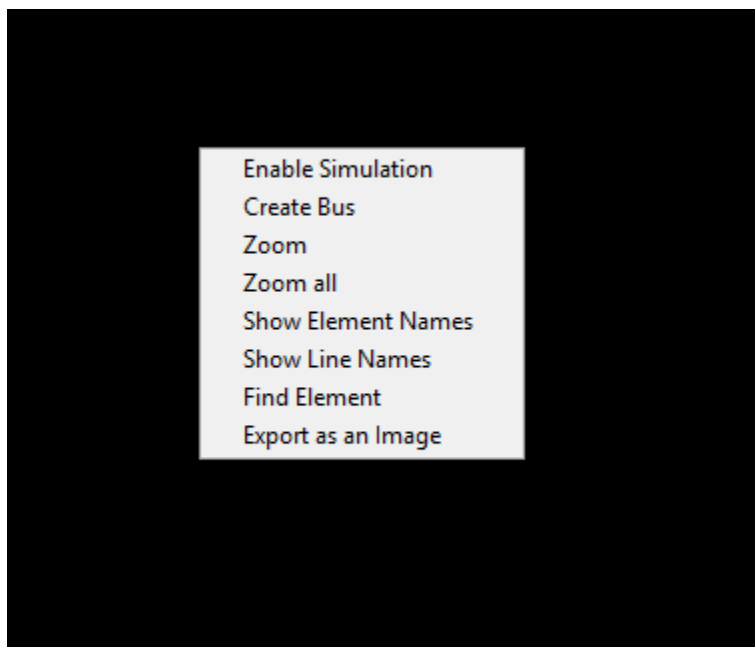
1. Painel Gráfico
2. Painel de Controle
 - Modo de construção
 - Modo de simulação
3. Mini Painel



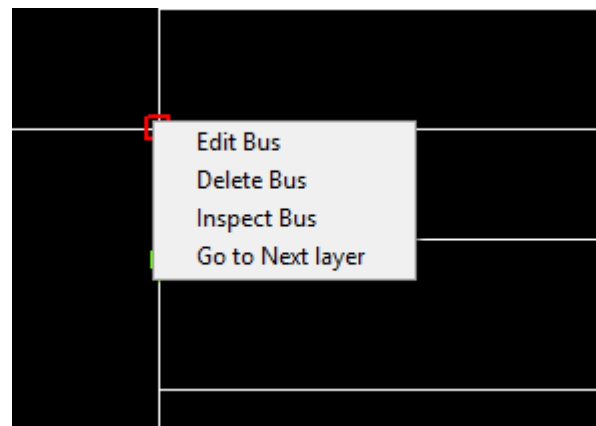
Ambiente Gráfico do OpenDSS-G

Painel Gráfico

Botão direito do mouse

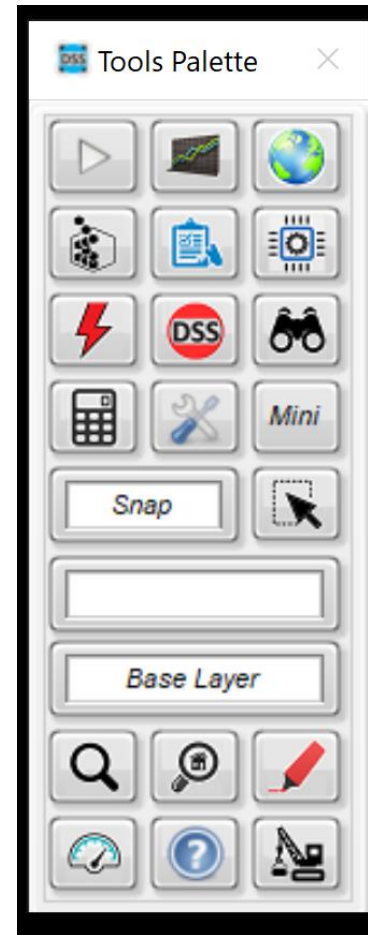
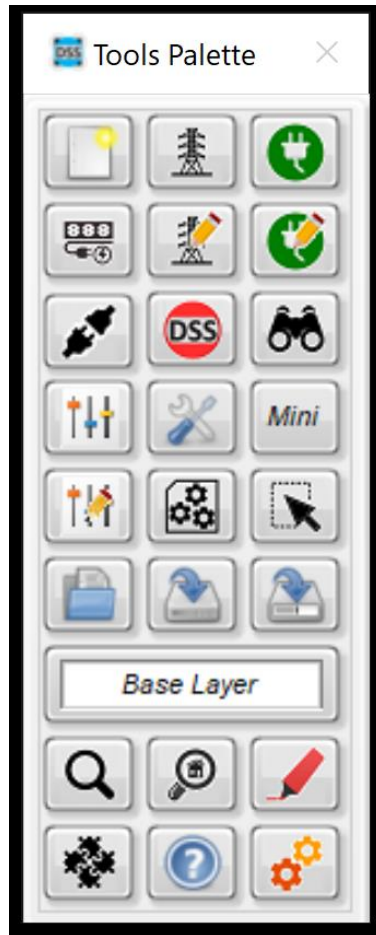


Botão direito do mouse em
uma barra



Ambiente Gráfico do OpenDSS-G

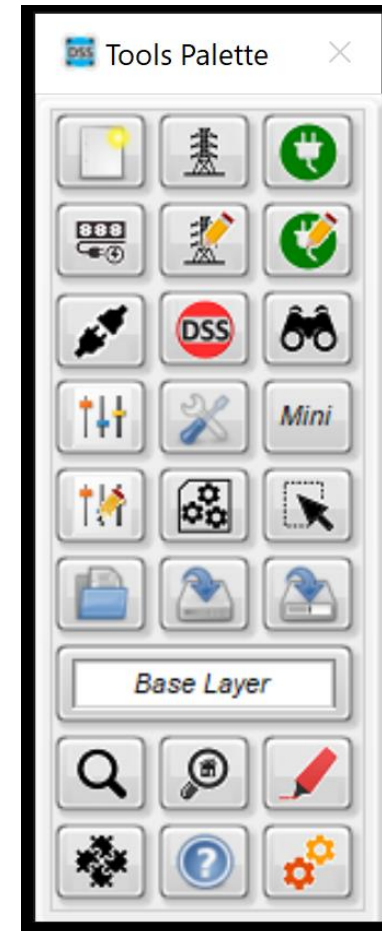
Painel de Controle



Ambiente Gráfico do OpenDSS-G

Painel de Controle – Modo de Construção

- New Project
- Create PDElement
- Create PCElement
- New Bus
- Edit PDElement
- Edit PCElement
- Move PDElement
- OpenDSS Command
- Find Element
- Controls
- Configuration
- Mini
- Edit Controls
- Generals OpenDSS Defs
- Selects Ops
- Open Project
- Save Project
- Save As...
- Zoom
- Inspector
- Highlight
- Extras
- Help
- Enable Simulator Mode



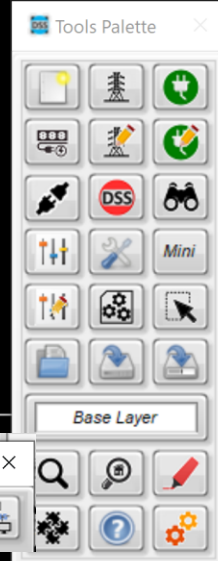
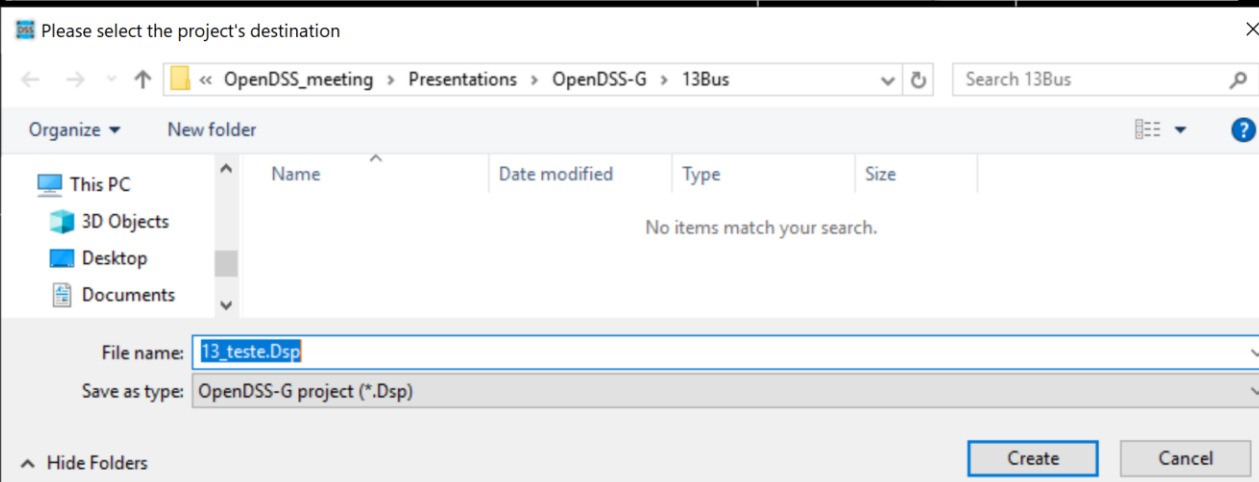
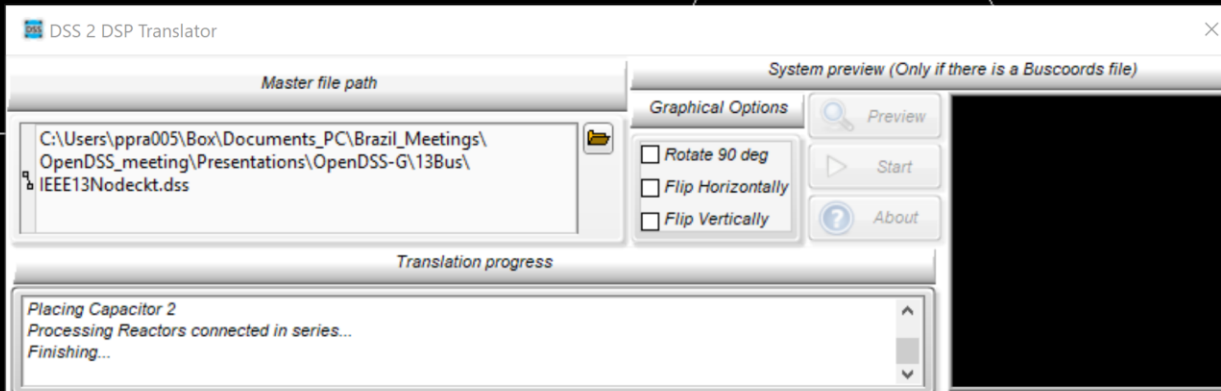
Ambiente Gráfico do OpenDSS-G

Painel de Controle – Modo de Simulação

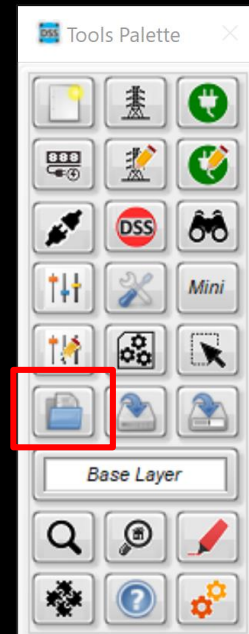
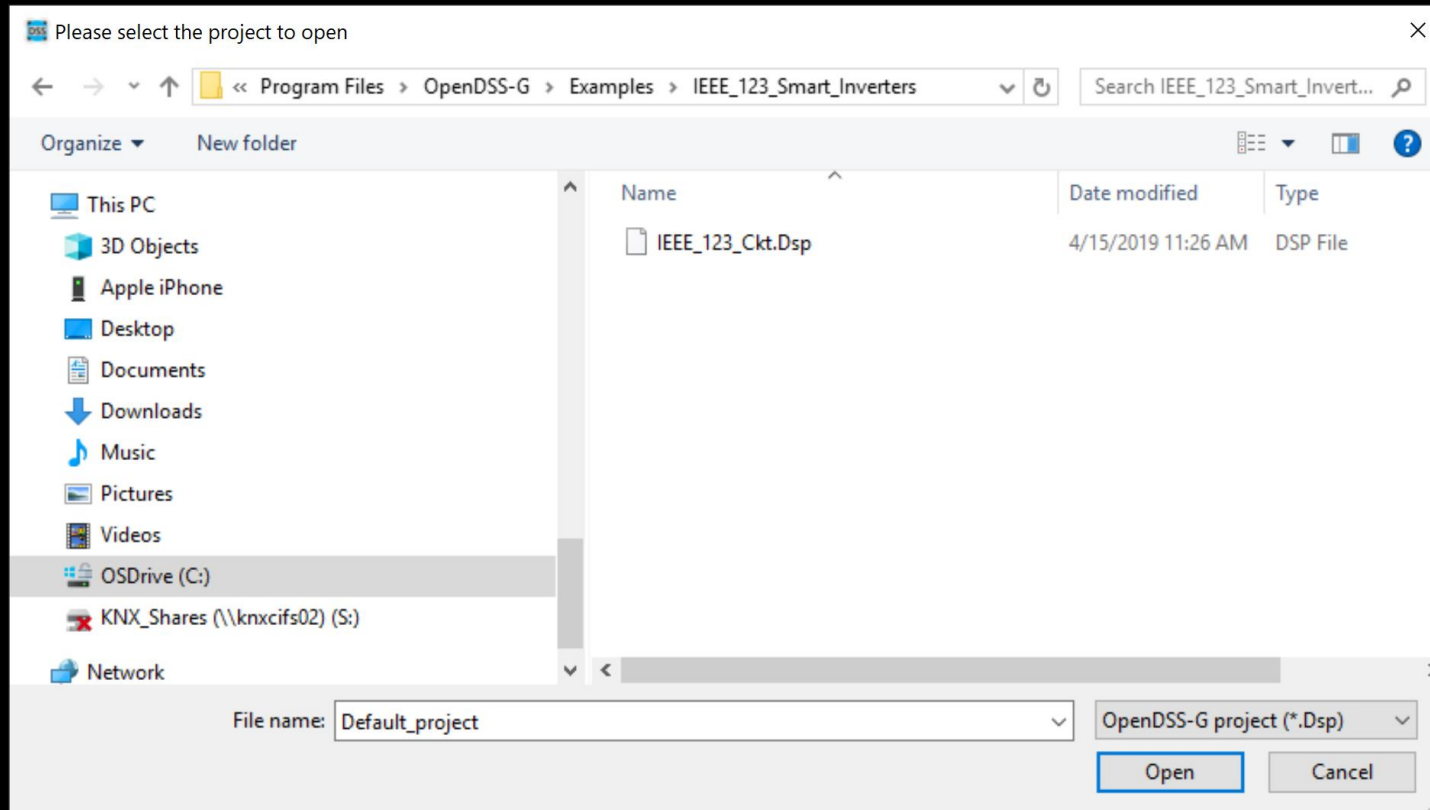
- Run Simulation
- Graphics
- GIS Options
- Program Control
- Reports
- Automatic Simulation
- Generate Fault
- OpenDSS Command
- Find Element
- Extras
- Configuration
- Mini
- Selects Ops
- Zoom
- Inspector
- Highlight
- Meter
- Help
- Enable Constructor Mode



Importando Modelo do OpenDSS para o OpenDSS-G

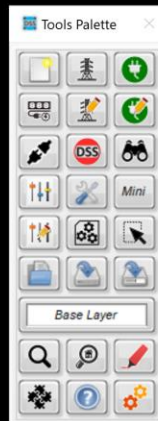
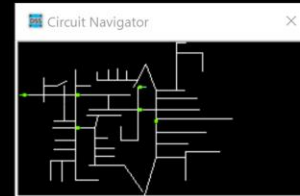
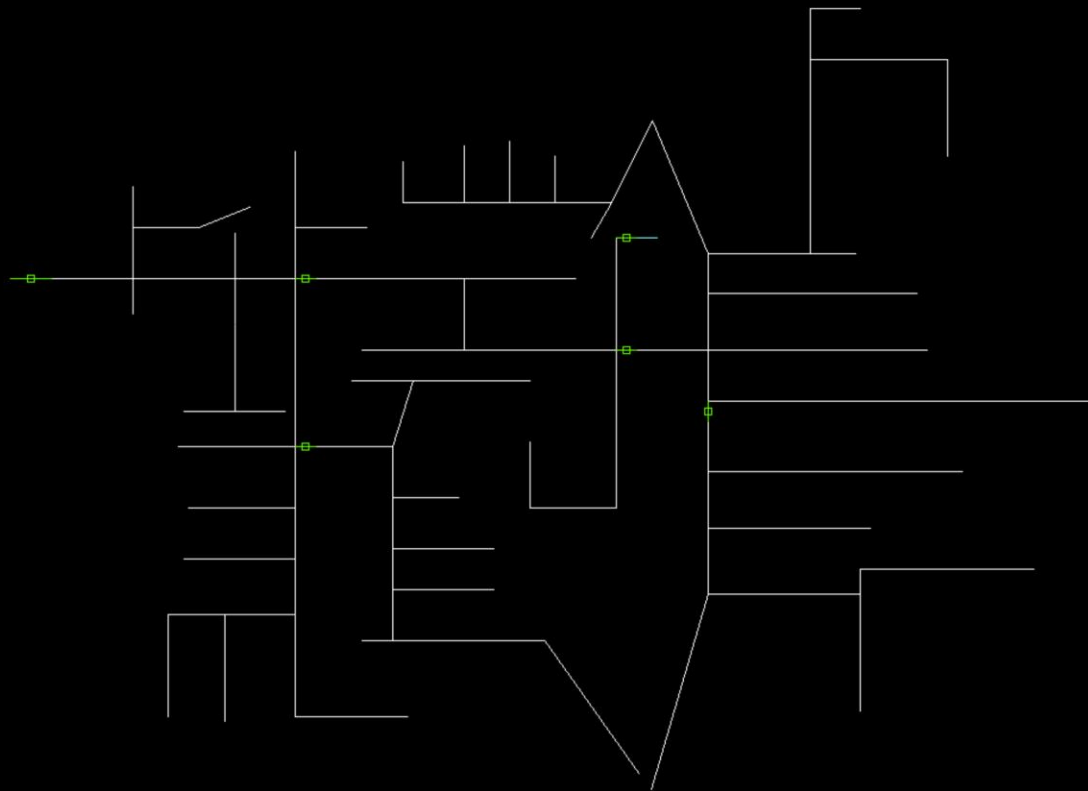


Abrindo Projeto

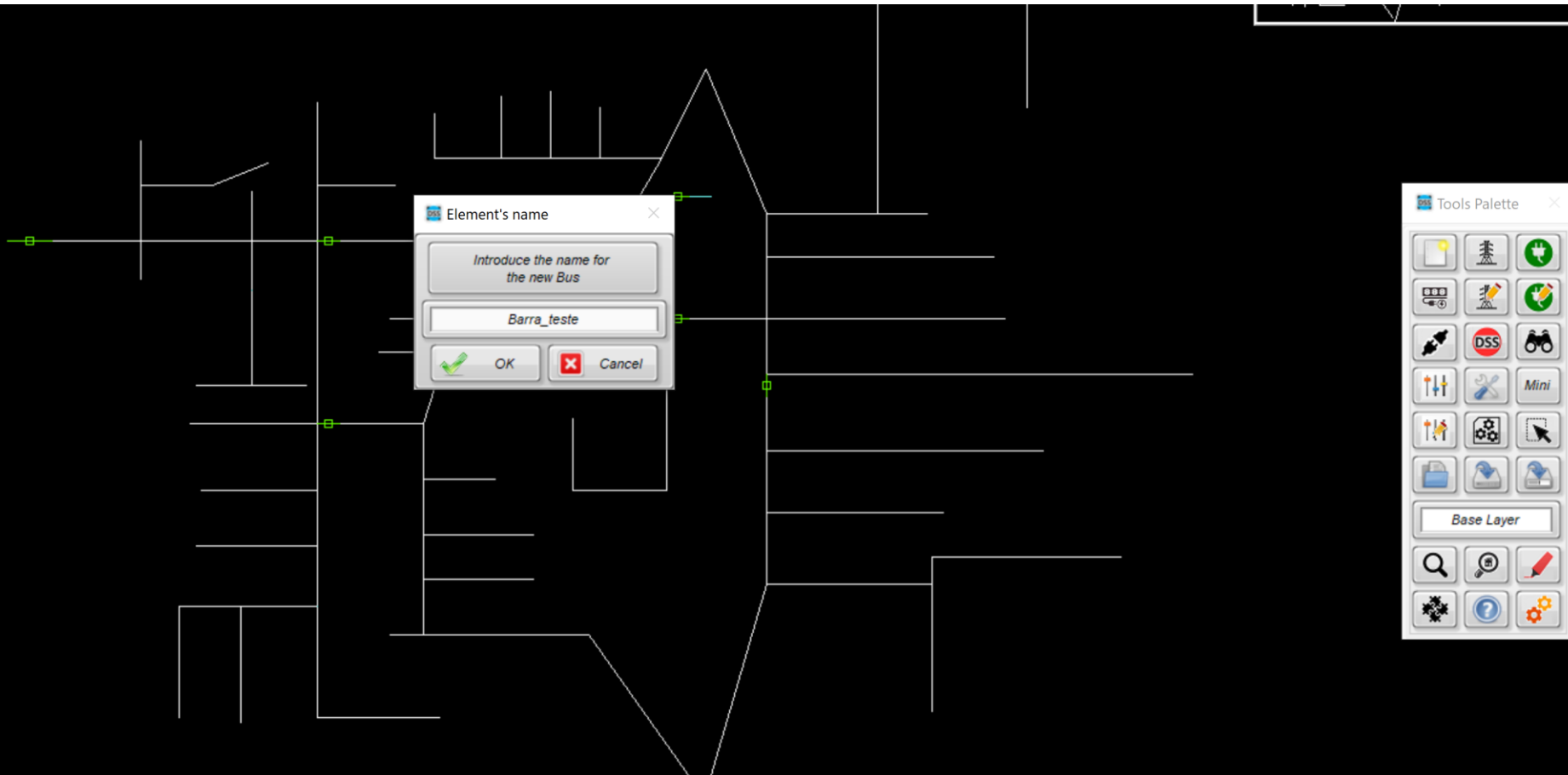


Abrindo Projeto

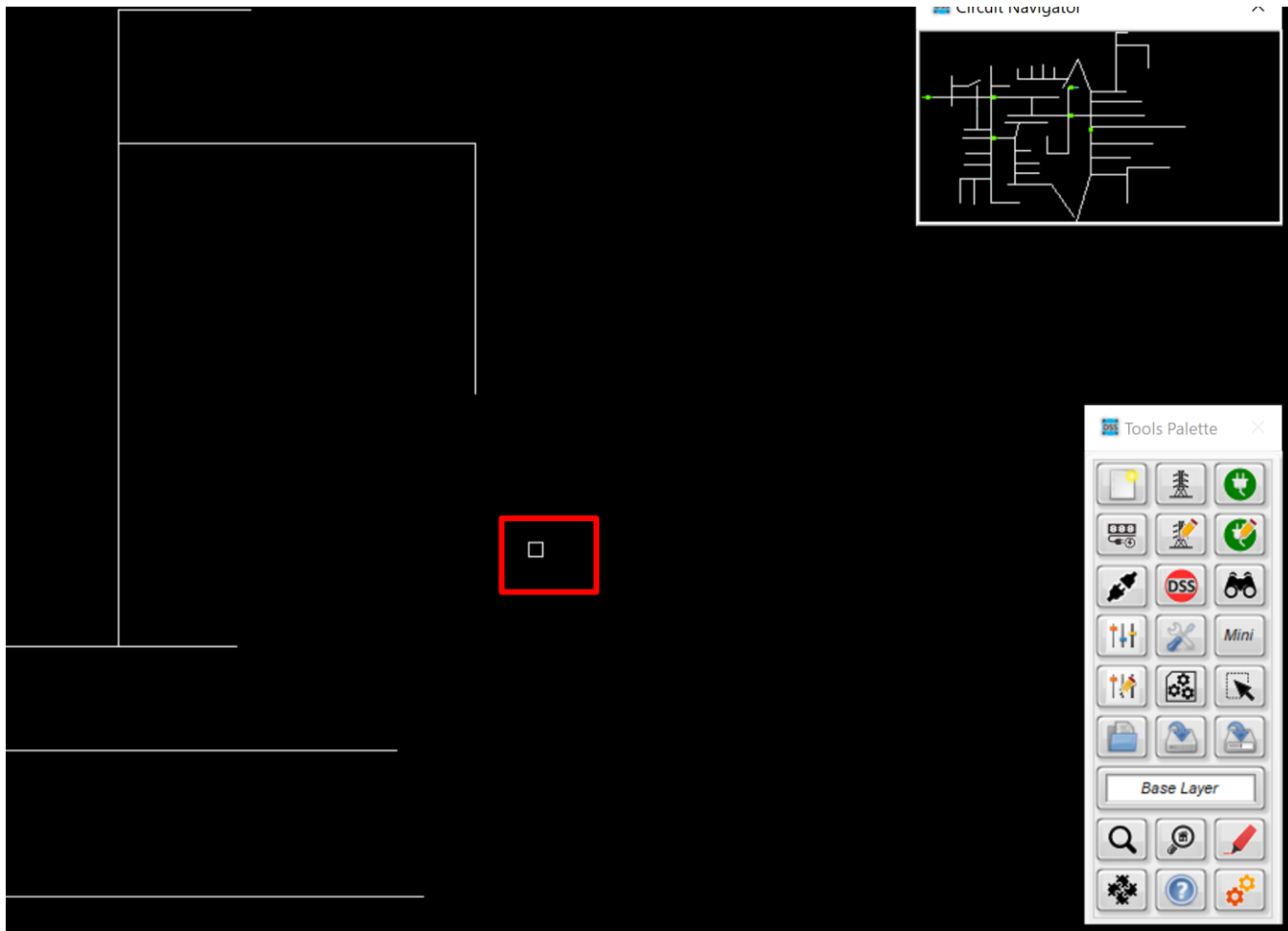
OpenDSS-G -> C:\Program Files\OpenDSS-G\Examples\IEEE_123_Smart_Inverters\IEEE_123_Ckt.Dsp



Criando Nova Barra



Criando Nova Barra



Criando Novo Elemento

Line Definition Panel

New line

Line Name:

Emergency Amps: Normal Amps: # Phases:

Earth Model: Length: Units:

LineCode: Geometry:

Linked Controls: ☐ Create Line: Cancel:

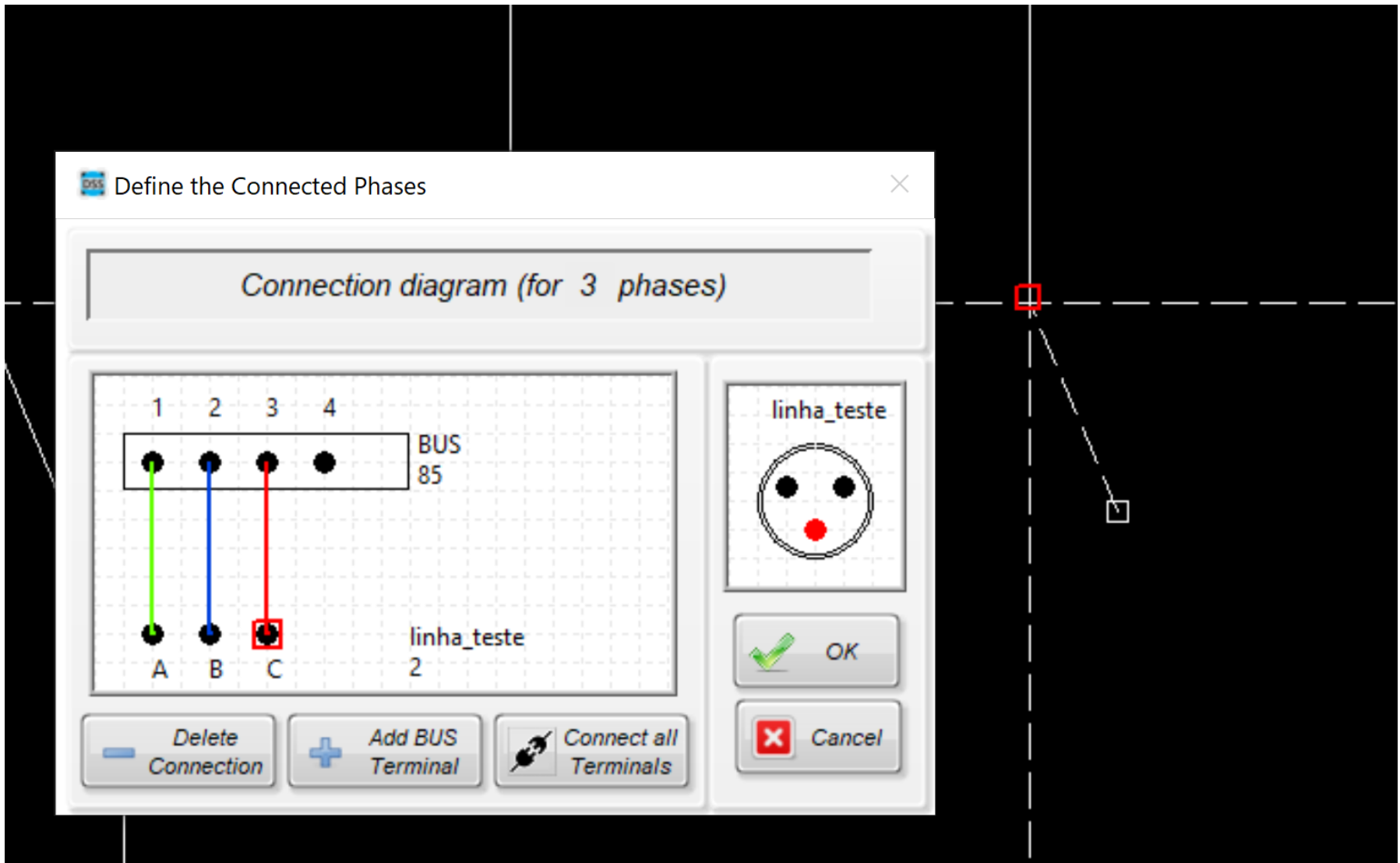
Symmetrical Comp Definition Matrix Definition Geometry Definition

R0	X0	C0	B0
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R1	X1	C1	B1
<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

Additional OpenDSS definitions

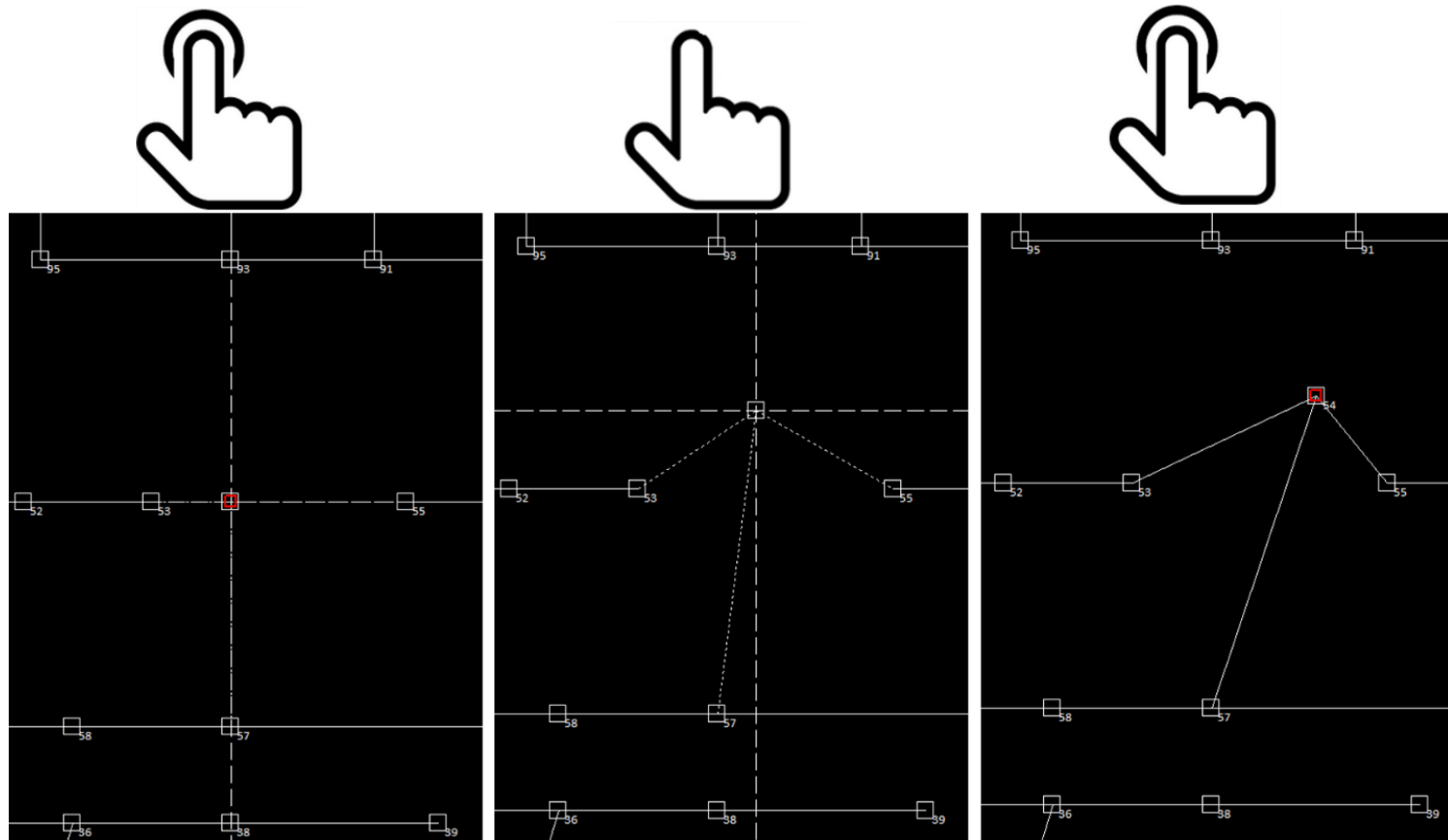


Criando Novo Elemento



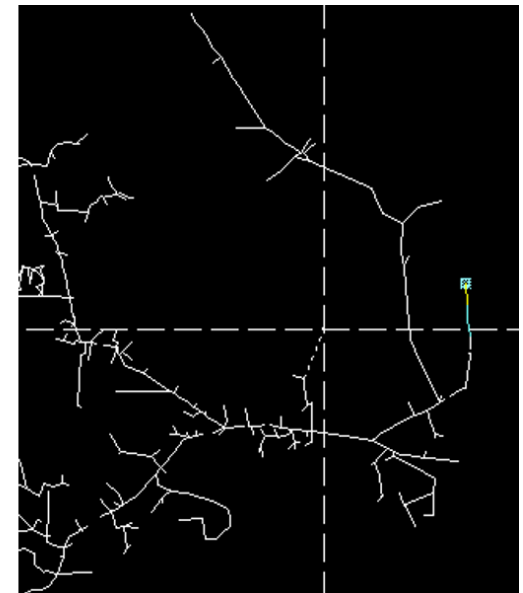
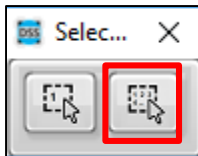
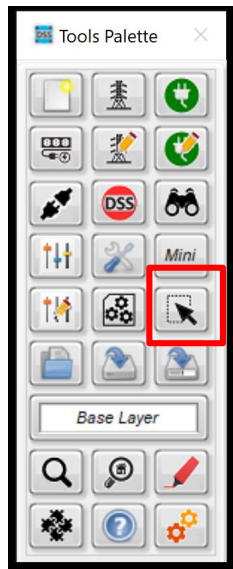
Interagindo com a Interface

Movendo elemento:

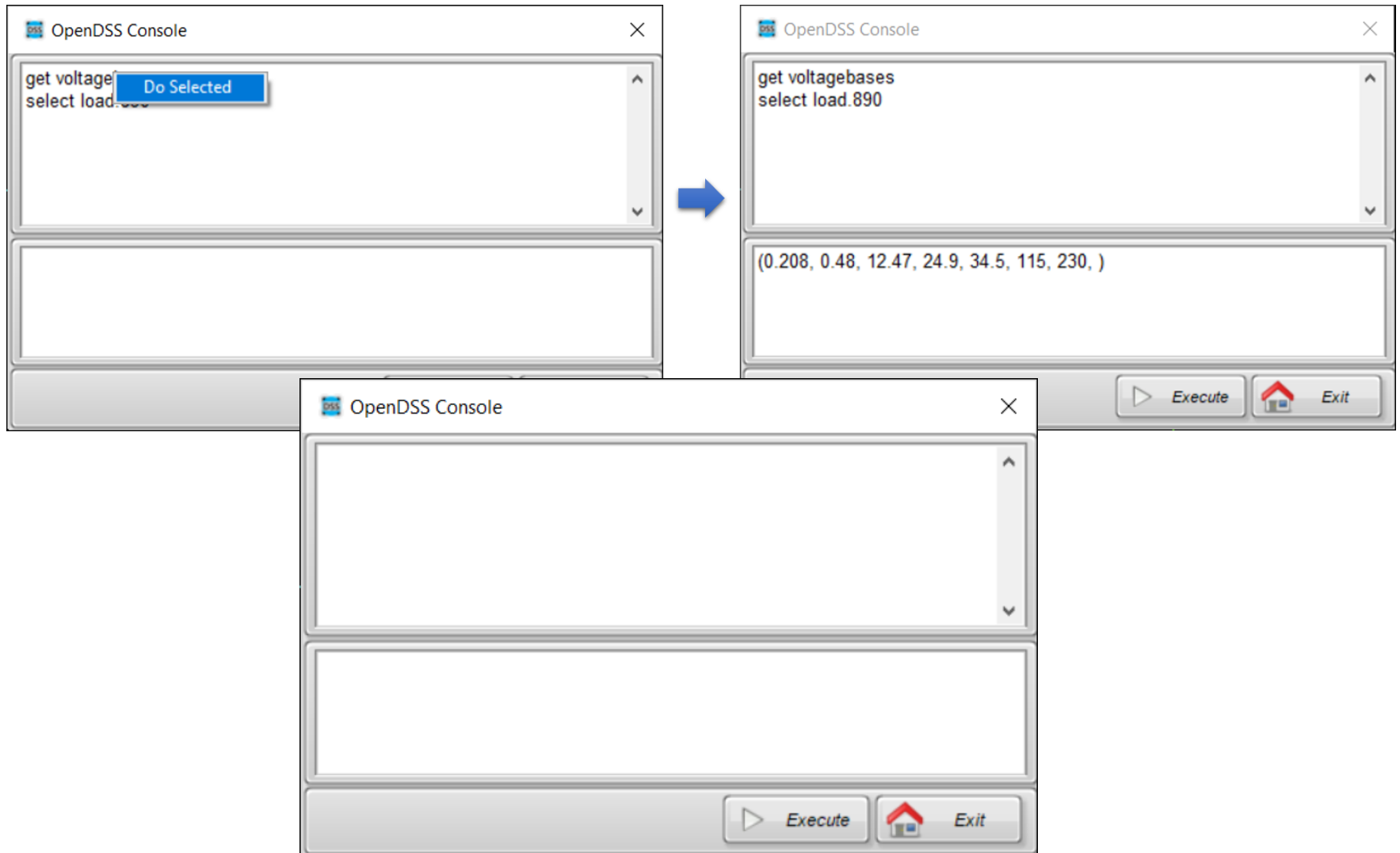


Interagindo com a Interface

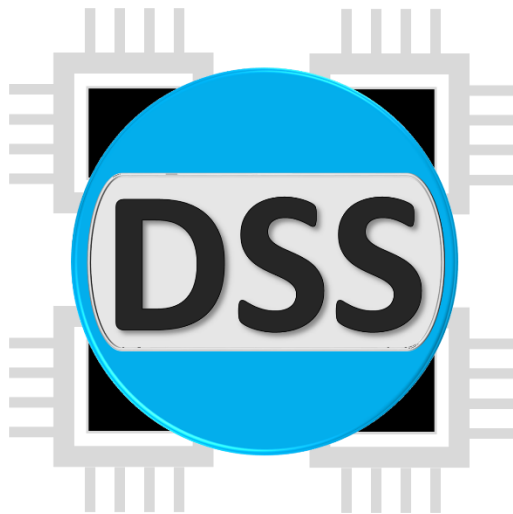
Movendo elementos:



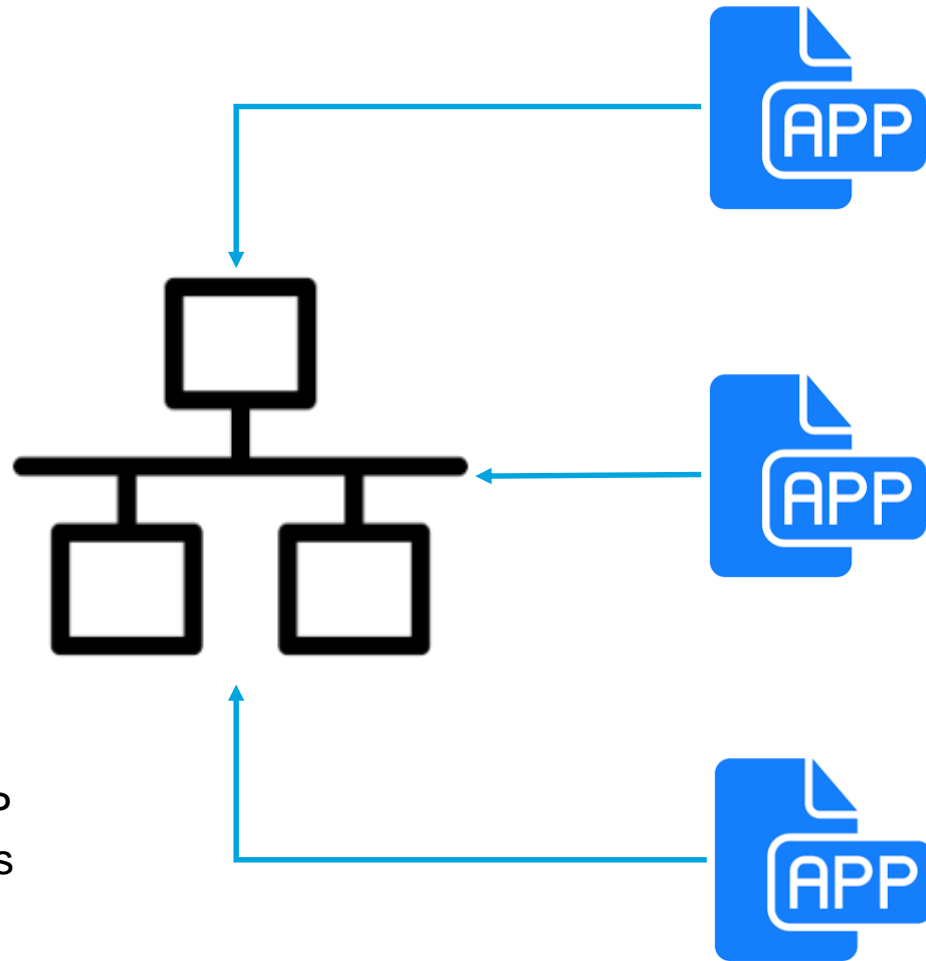
Usando Comandos do OpenDSS



Co-Simulation



OpenDSS-G Incorporates a TCP server for distributed applications





Together...Shaping the Future of Electricity

