T001: 64-bit MPICH2 Setup Instructions

Introduction

This document describes how to prepare a computer for running 64-bit simulations using MPICH2. This procedure is only required for versions prior to DEFORM v11.2. Starting with v11.2, the installation procedure was modified so that this was no longer necessary.

Problem Description

In order to use the 64-bit solver, MPICH2 64-bit must be installed and configured. If your computer has a 64-bit Windows operating system, you will be prompted with an option to install 'MPICH2 64-bit' during installation. After installation the MPICH 2 program must be configured with the procedure below. This must be performed in each user account that will run DEFORM. If the user's password is changed, MPICH2 must be reconfigured (starting at step 2). Once the configuration has been performed, the 64 bit solver can be activated by clicking on the 64-bit radio button in Run(options) prior to running your simulation.

Solution

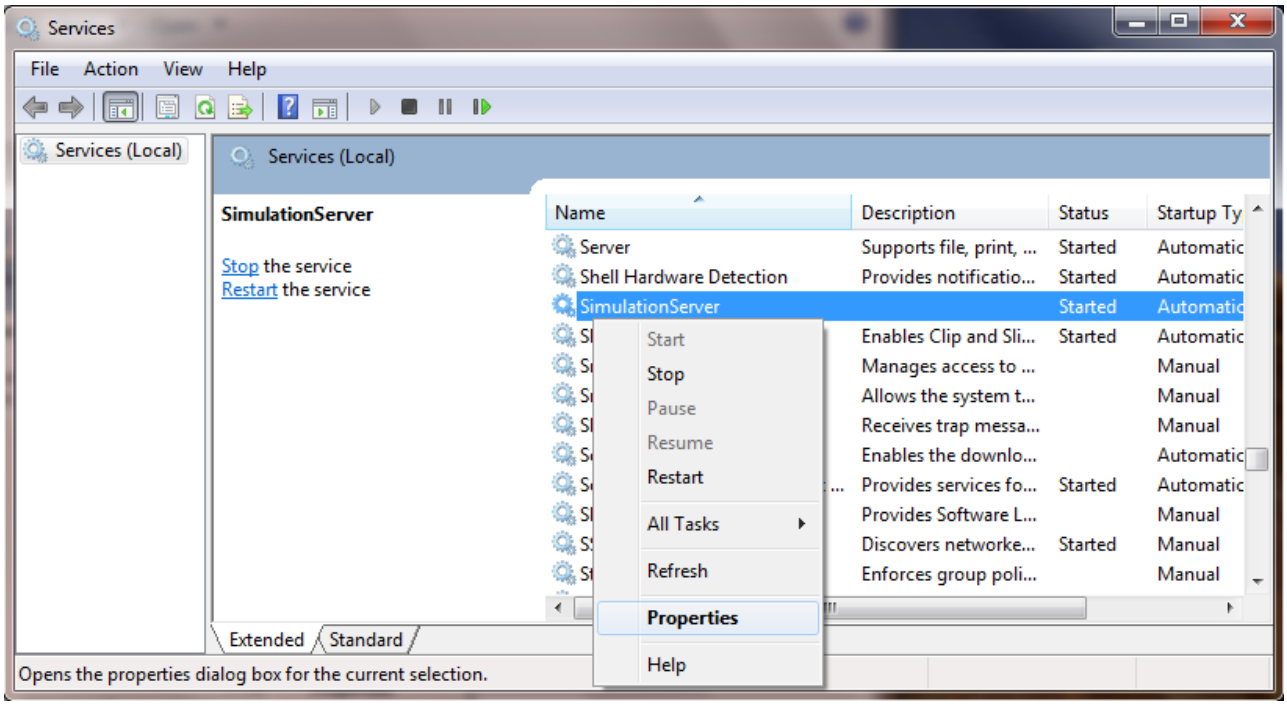
Windows

1. Open command window as administrator (Start > All programs > Accessories) and change to the MPICH2 directory 'cd c:\Program Files\MPICH2\bin' and execute the following two commands one by one: 'smpd.exe -install' and then 'smpd.exe -restart'.

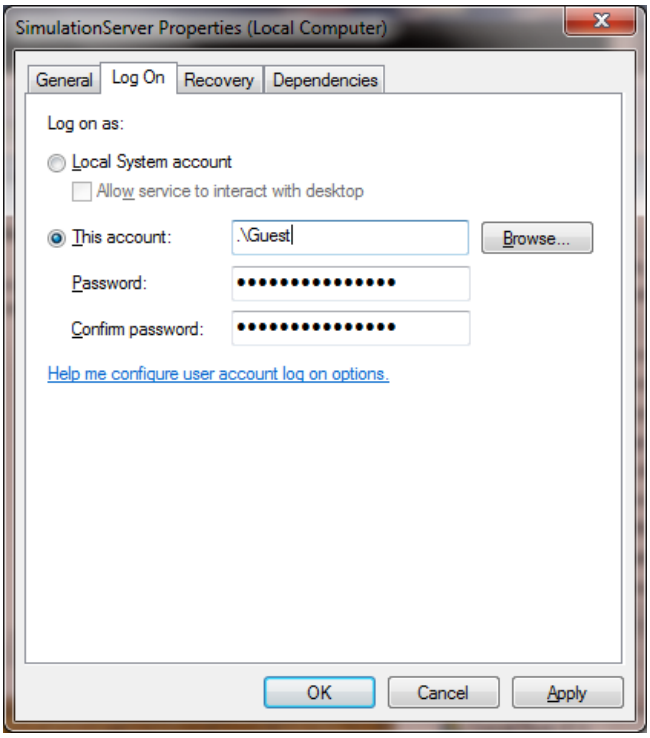
2. Open command window as administrator and change to the MPICH2 directory and execute the following command: 'mpiexec.exe –register'. Enter your username and password. If your account is stored on a domain, then enter the username with the format "domain\username". When finished, execute the command: 'mpiexec.exe –validate'. The response will be SUCCESS if everything is configured correctly.

The remaining steps are only required if you will be using the DEFORM Simulation Queue.

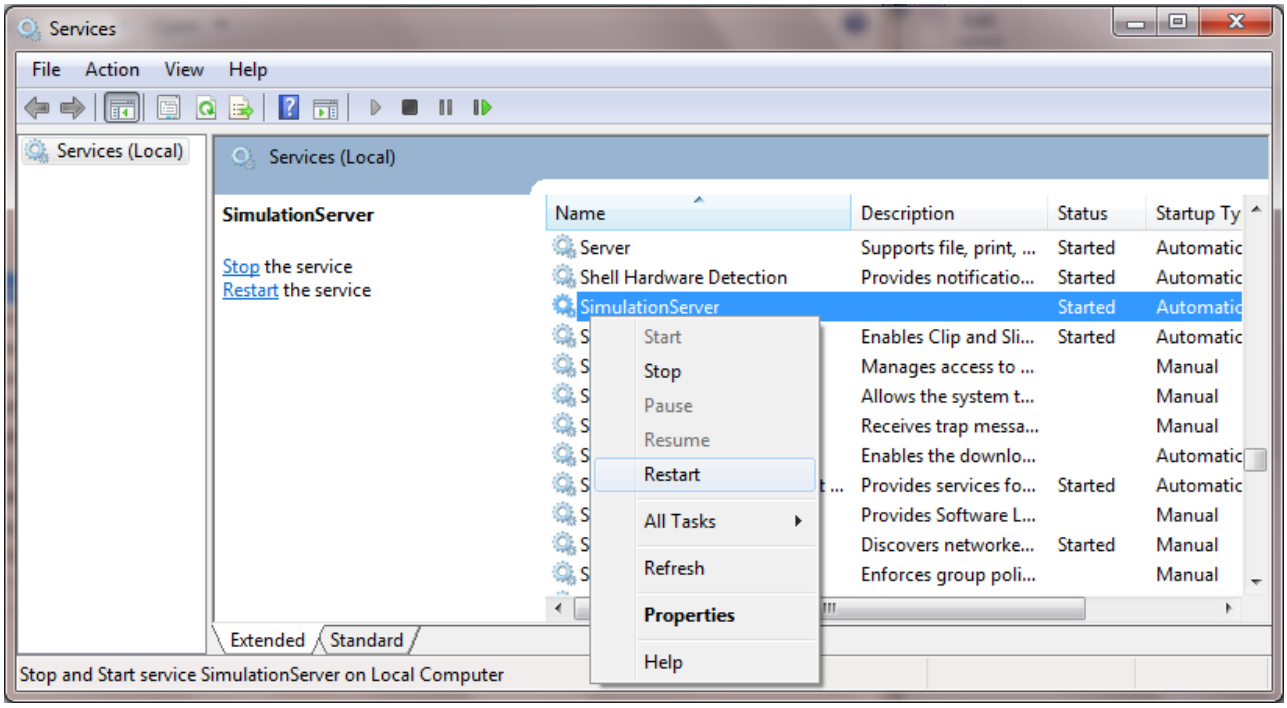
3. Open Windows Services menu, select 'SimulationServer' and select 'Properties' with a right-mouse click.



4. Select the “Log On” tab and click the “Browse…” button. Enter the user’s account name (Windows log-in) in the blank box and click the “Check Names” button to locate the account. If the user account is located on a domain, then first choose the “Locations…” button to change the appropriate domain location. Click OK, then enter the account password, confirm the password and click OK to exit the Properties menu.



5. Finally, start or restart the SimulationServer by right-clicking on it and selecting "Start" or “Restart”.



Linux

The 64-bit 3D FEM running procedures on Linux are different from these procedures on PC. Corresponding details for Linux are indicated in the DEFORM Linux Installation Notes.