

SAGE2 Survey 2017

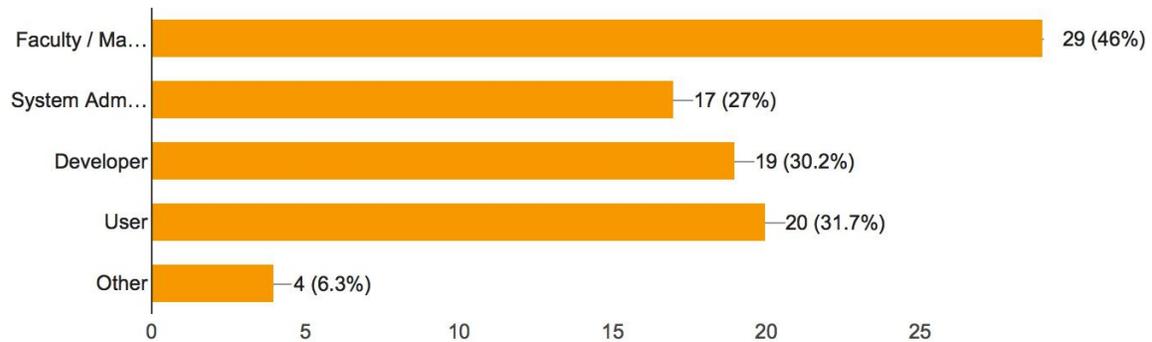
64 responses

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Introduction

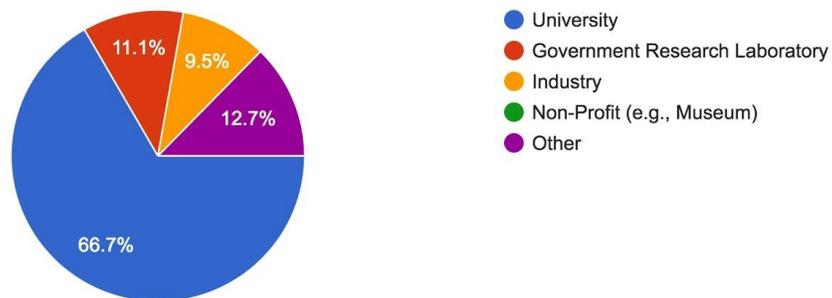
What is your role?

What is your role? (optional) (63 responses)



Type of Institution

Type of Institution (63 responses)



Location of Institution

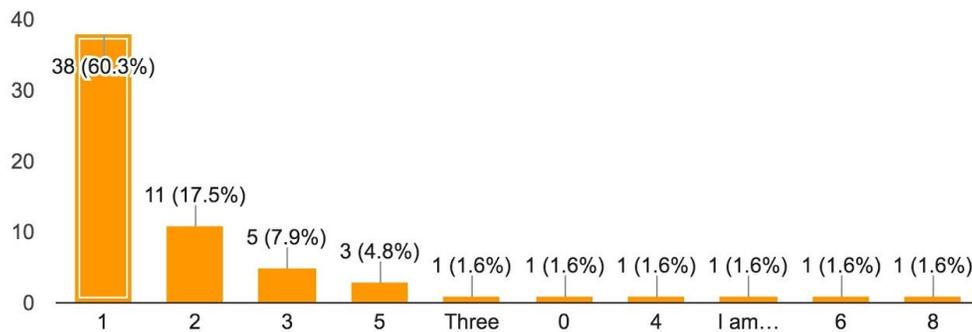
- 27 USA
- 16 South America
- 12 Asia
- 8 Europe

About Your SAGE2 Wall

How many walls do you manage within your institution?

40% have more than one wall

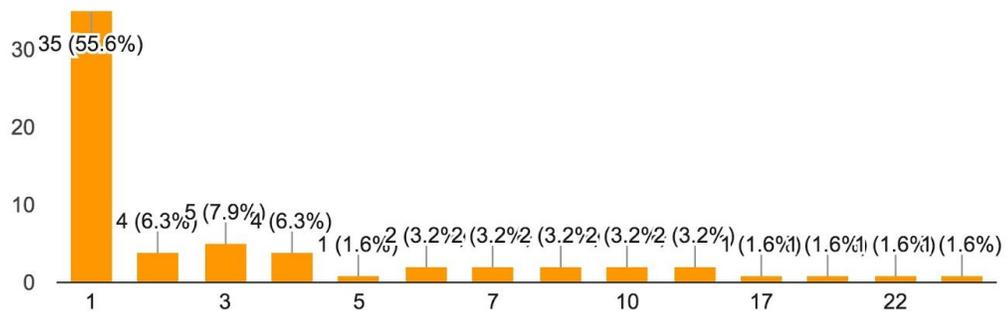
How many walls do you manage within your institution? (63 responses)



How many computers drive your main wall ?

Over 55% use a single-computer system

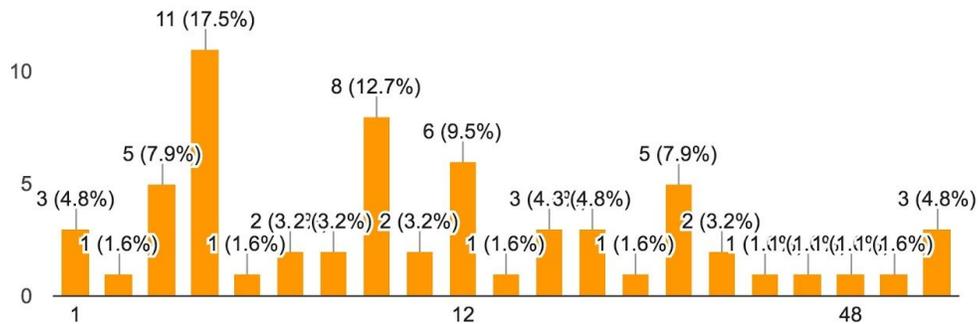
How many computers drive your main wall ? (63 responses)



How many displays are used in your main wall ?

A large spread of configurations:

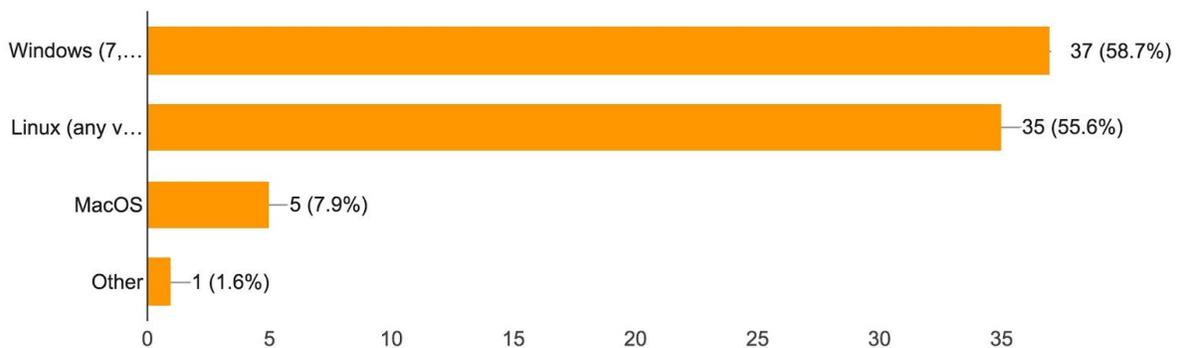
How many displays are used in your main wall ? (63 responses)



What operating system is used to drive your wall?

Mostly Windows, and Linux second.

What operating system is used to drive your wall? (63 responses)

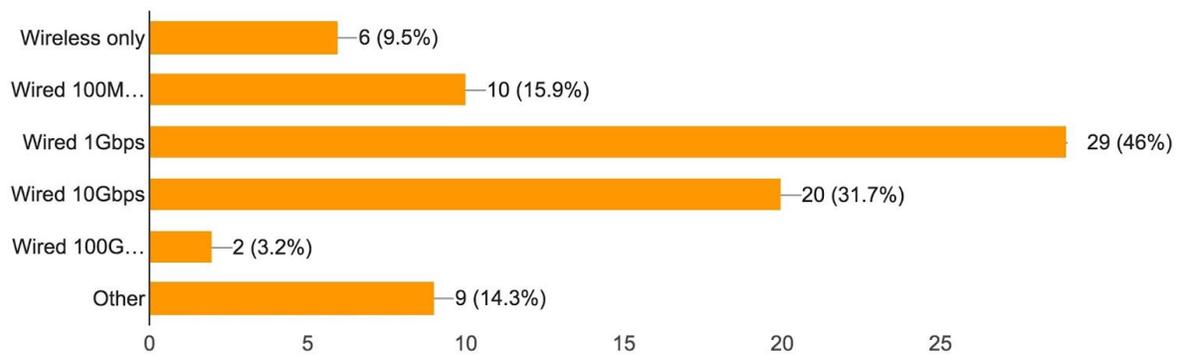


What external networking bandwidth is directly available to the wall ?

Mostly 1Gbps wired network, but 30% also have 10Gbps

What external networking bandwidth is directly available to the wall ?

(63 responses)



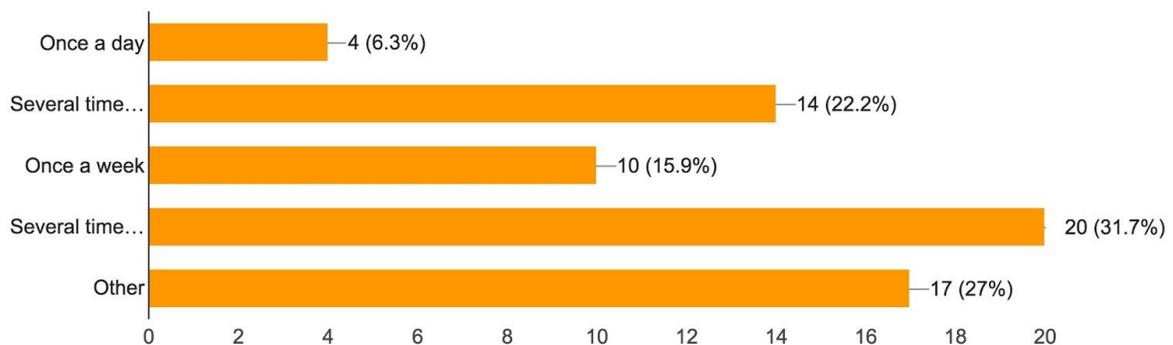
SAGE2 Wall Usage

How often is your wall used (whether for meetings, classes, presentations, etc)?

Several time a week at 30%, and several times a day at 22%

How often is your wall used (whether for meetings, classes, presentations, etc)?

(63 responses)



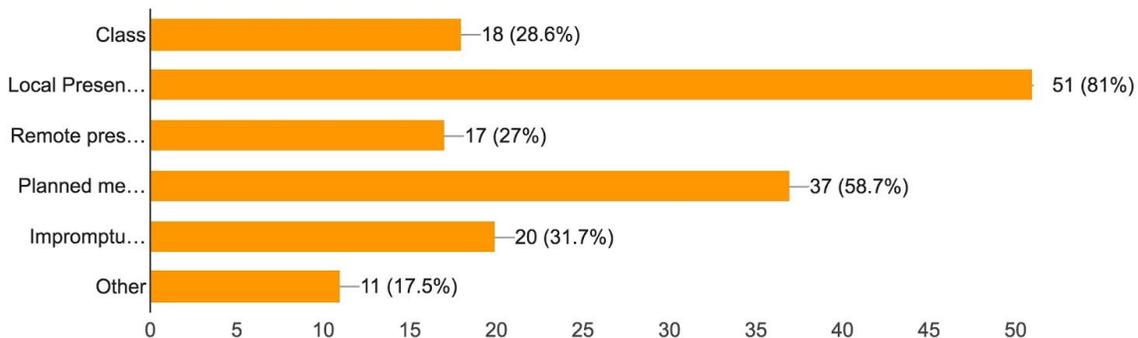
Of that time, what % of it involves using SAGE2?

- 21% use SAGE2 100% of the time
- 46% use SAGE2 70% or more of the time

What are your most common usage scenarios?

- Presentation and planned meetings, the most
- Classes and impromptu meetings, next

What are your most common usage scenarios? (63 responses)



List communities (e.g. biologists, physicists, artists) that use your display ?

Archeologists, Librarians

Astronomers

Biologist, engineering, electron microscopy etc

Biologists, architects, civil engineers, software engineers and geographers

Communication faculty and students

Company Management, Sales and P&D

Computational Scientists

Computer engineering

Computer science, Computer Security Incident Response Team

Computer scientists

Computer scientists, biologists

Data Scientists

Developers and researchers

Doctor

Engineers

Engineers, artists

Engineers, undergraduate students

Geology

Hydrology/geoscience, renewable energy

IT Engineers resolving IT incidents.

IT specialists, Meteorologists

Life sciences, IT, Engineering, Architecture, Physics, Imaging, GIS, Archaeology, ...

Management, project staff, system administrators, guests

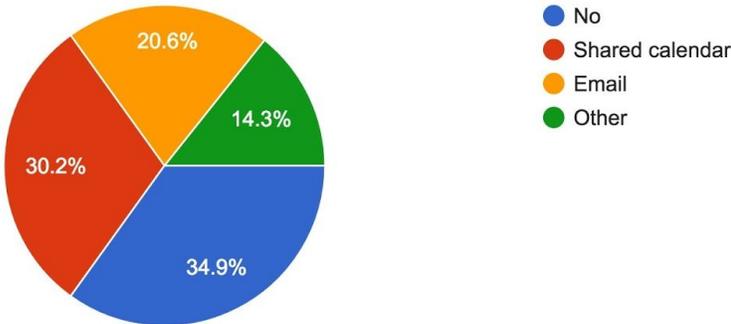
Managers, Officers

Medical researchers, biologist, chemists, physicists, neurologists, statisticians, computer scientists, and more!
NOC engineers
Network Operators and Developers
Our office workers
People in visualization domain
Physicians, Nurses, Biomedical personnel, Psychologists and Health managers
Primarily used for teaching undergraduates: nurses, engineers, town planners, marketing students, etc.
Researchers and video artists
Software Engineering
Software and Systems Technology. Engineers
Information Technology Services, EPSCoR researchers (geologists, biologists, chemists), ITS
Cyberinfrastructure use it for meeting with variety of researchers
University researchers, scientist and faculty; policy makers; local agencies; students
We teach preschool-8th grade daily with the wall, and conduct special events and faculty training using SAGE2 several times per month.
Weather & Climate Researchers
All: biologists, physicists, librarians, etc
biologists, artists, data analyst
business school
computer scientist
computer scientists, artists, architects
computer scientists, biologists, earth scientists, educational groups (elementary / high school students)
design, art, cs
designers
eScience, research projects, volcanic visualization
education (secondary & post-secondary), community organizations, business networking
engineers
engineers, artists, archaeologists, biologists, various medical research
Mostly biologists, otherwise anyone who's getting a tour
interdisciplinary group
meteorologists
multidisciplinary researchers and a wide range of staff and students.
network technology
networking, computer science, physiciata
none, the app we'd like to use is still to be developed
physicists
physicists, astronomers, biologists, archaeologists, artists
physicists, neurologists
remote sensing
teachers (computer graphics), museums, performing artists

Is there a reservation system for people to schedule use of your wall?

Mostly calendar and emails

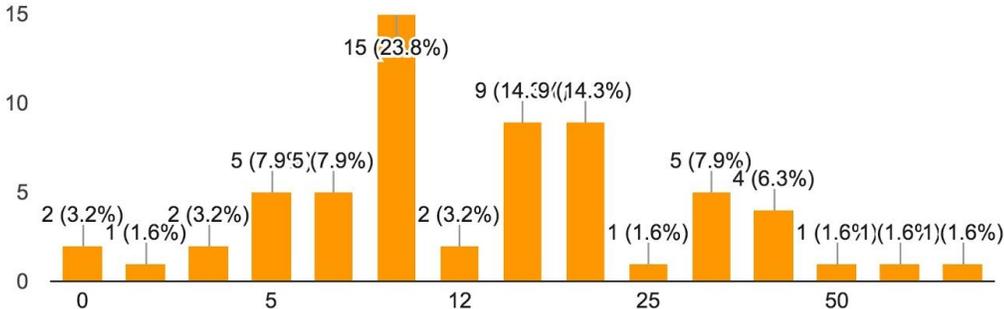
Is there a reservation system for people to schedule use of your wall? (63 responses)



How large are the meetings that use your wall?

Around 15 people, a few large places

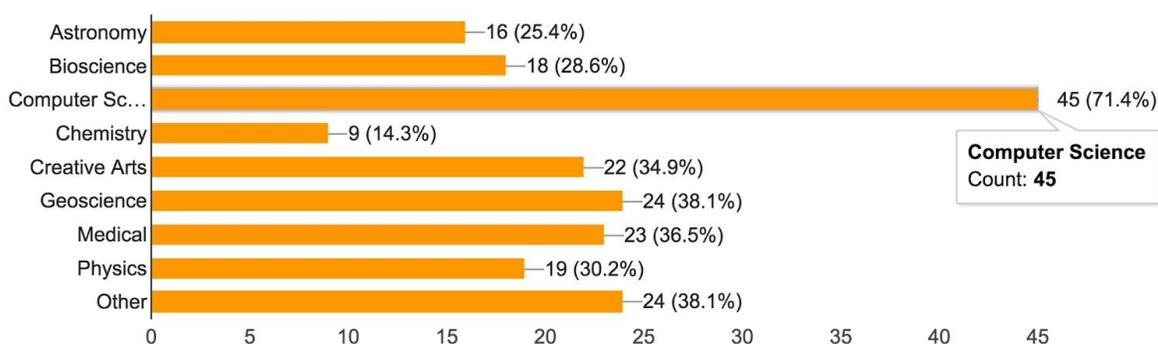
How large are the meetings that use your wall? (63 responses)



SAGE2 Applications

What type of content is displayed on your wall?

What type of content is displayed on your wall? (63 responses)



What are your most used SAGE2-specific applications?

PDF viewer, google earth, desktop sharing

PDF viewer, maps

ParaSAGE, PDF Viewer, Movie Player, WebView

browser and image viewer

built-in and custom apps

built-in apps (pdf viewer, movie player, image viewer, desktop sharing, ...)

desktop Sharing

desktop sharing

desktop sharing for web conferences, image visualization for medical research, film views from surgeries, surgeries streaming and real time classes with PDF, ppt etc.

desktop sharing, PDF viewer, browser

desktop sharing, PDF viewer, image viewer, web viewer.

desktop sharing, image viewer

desktop sharing, pdf viewer, custom apps

desktop sharing, pdf-viewer, web-browser

different media in one window

document editing, laptop screen sharing

image viewer

image viewer, Movie player, BioDigital Human (locally developed)

image viewer, desktop sharing
image viewer, movie player, pdf viewer
movie player
movie player and image viewer
movie player, PDF viewer.
movie player, image viewer
movie player, image viewer, desktop sharing
movie player, image viewer, pdf viewer
movie player, pdf viewing, web-based applications, image viewer
pdf view, desktop sharing
pdf viewer, desktop sharing
pdf viewer, image viewer
pdf viewer, image viewer, desktop sharing
pdf viewer, image viewer, desktop sharing, movie player
pdf viewer, image viewer, desktop sharing, movie player, internet viewer
pdf viewer, movie player, desktop sharing and an internal application named smartssa.
pdf viewer, movie player, image viewer, desktop sharing
pdf, image
pdf, screensharing, image, webview
please refer FIT/Immersive Analytics response to this survey
screen Capture + Web view
sketchfab Viever (3D model viewer), video stream viewer (no name yet for it), collaborative extension (for work with mobile devices)
sketchfab Viewer, Deep Viewer, PDF viewer, Webview
video capture (decklink), screen sharing, custom (Point Cloud Viewer, Google Maps)
video transmission
vnc viewer, image viewer
we'd like to develop an audio/video realtime conferencing app with low latency audio/video codecs
web based app
web browser and screen sharing
web browser to run Emperor
web browser, desktop sharing, pdf viewer, image viewer
webview, pdf viewer, desktop sharing

What is your favorite SAGE2 feature?

desktop sharing

3D data visualization of large data sets

Ability to create custom 3D (eg WebGL) applications

Ability to drag content from user's machines to wall

Apps, easy to connect for users

Being able to see multiple documents.

Collaborative interaction

Convenient, such as simply dragging images and putting them in the correct locations

Desktop sharing

Desktop sharing and collaboration

Desktop sharing and movie player.

Ease for connection and sharing

Easy to deploy

Information sharing

Integration with leaflet api and google maps

Large display

Mirrored walls

Multiple pointers, so many students can interact with the wall

OpenSeaDragon

Runs in browser

Seamless integration of displays

Smarter Google Maps

The fact that it is web-based. At the same time it limits performance for some types of applications, but this should diminish with future SW/HW development.

The flexibility of the screen sharing up to the 4K resolution

The interaction in different ambients

UI with comfortable controls

Uploading new SAGE2 app through .zip file (Students are testing their apps and they don't need access to the server side)

View wall remotely

WebView

ability to combine many desktops

browser-based interface

collaborative workstation

custom app development

desktop mirroring for multiple users

desktop sharing

desktop sharing, pdf viewer, movie player, image viewer, js app

easy to use, collaborative work,

high-def + ad hoc collaboration + remote sharing

https, api enabling to script
movie player
please refer FIT/Immersive Analytics response to this survey
remote interaction
screen sharing
scriptable
upload content from personal device, multi-user, scalable user interface (no tiny font or icons on ultra high resolution display wall)
web viewer
web-based application
webview

What is your least favorite SAGE2 feature?

Pointer interaction (local mouse pointer to SAGE2 wall)
The fact that you can not easily integrate wall-local native (i.e. non-web) applications. The web isn't that good for a lot of stuff compared to native
Buggy
Bugs - lack of quality control
Complex user interface.
Doodle
Electron is needed. So some interactions implemented in other browsers might be disabled
File catalog system
I can't think of one...grateful that SAGE2 exists and is constantly being improved/made easier for the user to install/maintain
Inserting stitches in sage2
It is hard to setup, constant changes
Movie player
None
PDF viewer
Poor performance on Google Maps beyond 2x2 display tiles
Runs in browser. Sometimes makes things harder to develop
SAGE2 Pointer inconsistencies
Synchronization between webviews
The interaction in different ambients
UIC crime
Using Node.js
With multiple PCs driving the wall and applications running inside web browsers, it is very difficult to synchronize the picture between them. When some web browser does more rendering at the moment, it is behind the others. It results in tearing effects when rotating our 3D models.
awkward to use

diversity of apps is pretty low right now
lack of streamlined security procedures, which prevents full use of the software
many of the built in apps
minimal security model
mobile control interface
movie player
no true fullscreen functionality (center on display and black out all other content)
open multiple browser windows
pdf viewer
please refer FIT/Immersive Analytics response to this survey
synchronization between screens
they are all fun
video
video application
video playback performance

What SAGE2-specific applications that do not currently exist in SAGE2 would you most like to see added?

n/a
programmable network
Video conferencing
Volumetric viewer
GIS viewer, Youtube player (website is hard to navigate), google docs/hangout integration if possible,
Stereoscopic 3D image viewer
Fully functional, well performing web browser
VNC Viewers, Multi Browser Windows sharing
direct video streaming from URL (youtube and VLC-like video streaming)
Pixel streaming, enabling remote collaboration on 3D models (envisaged for a next SAGE2 wall)
Low-latency and high resolution streaming sink
web browser with configurable proxy
internal video-conference integration
Video Synchronization
Web chat, social networking integration, integrated script editor and numerical computing environment
Better WebGL support
Vector drawing tool
Improvements in information sharing and video resolution
Plotting
user management: an application showing currently connected users etc.
PowerPoint

A RDP client

Integrated web conferencing

Web conference or video conference (such as Mconf) integrated to the remote presentation feature.

Full-screen, interleave 3d, head-tracked WebGL apps

Web app

Video streaming plug-in

Remote conference

PowerPoint, 'bring to front' command for apps

We'd like to see an audio/video realtime conferencing app with low latency audio/video codecs

Auto-link multi-sources for synchronized display

The shared voice

Adhere to government security requirements so the we can collaborate with colleagues outside our network

Being able to draw not only in a notepad window, but anywhere on the screen to highlight, underline or point out certain things from a laptop

3D Support

word viewer, excel viewer, more file types of video, support kinect for leap motion

3D vis integrated with vtk / paraview

native display of X Windows

Web browser (we do not have Electron clients yet)

Sort graphically (similar to sort alphabetically but using image criteria), organize the display (view given number of images, media without distorting their proportions at their maximum size in the given real estate of the screen)

4K streaming video

Web view over clustered configurations

Video-conferencing (might exist, didn't check)

Very easy to use video conferencing system compatible with non-SAGE2 devices

Stereoscopic 3d window for webgl, support for frame grabber cards, CDN type video support, multi server for heavy plugin-calling code.

Jupyter

Volume renderer, OBJ model viewer, ParaView

Integration with videoconferencing/webconferencing software, legacy web apps that depend on browser plugins

resizing flexibility in aspect ratio; add a taskbar to minimize icons

H.323 Videoconference, Airplay Desktop Sharing, Chromecast Desktop Sharing

What SAGE2-specific applications, if any, have you developed ?

N/A

For government, seismology viewer (OVSICORI), hydrology analysis, big data

"VxPortals" CAVE-style head tracking perspective projection framework.
SmartSpace3D (smart grid concept demonstrator).
Euclidian 3D point cloud viewer (RMIT student project team).
Movie synchronizer.
Gephi based graphs visualization, Neural network visualization demo for The Virtual Brain simulator
None, but we plan to develop 2 or 3 this year
Proposal to video synchronization, Fogo Player
We are developing a shapefile viewer maps
We are working in a game controller to play games on SAGE2
Integration with web-conference and legacy videoconference
please refer FIT/Immersive Analytics response to this survey - ContextuWall
River disaster management webview app
BioDigital Human (Anatomy),
USC Sage Explorer (Interactive presentation viewer),
Image 360 viewer (for viewing YouTube 360 content, etc.)
Sketchfab Viewer,
Deep Viewer (based on Zoom app)
Video streaming player
Sketchfab Viewer, Gigapixel Viewer, video streaming app (no name yet), mobile device extension
Visual analytics software, traffic visualisation, software with R serve backend
info's with D3
Planning on building an interface for v13 (distributed volume renderer) to stream rendered images to
SAGE2 and have user input (e.g. manipulation of a transfer function) fed back into v13

What external Javascript-based web applications do you use with SAGE2?

none (7)
Google Docs (7)
mogoDB to manage DB (2)
Hangouts (2)
Google Docs and Spreadsheets
google docs, hangouts, custom web applications, mapping, ...
Google Docs, Poloniex
Google Hangout ,Google Docs, Google Maps, Youtube.
Emperor
Google presentations
Google Docs, Hangouts.
Custom code
Docs
VLC Media Player
Google Slides. At that time it had some bugs.
Hangouts, Google Docs
MS office
Google Docs, Paraview, weather information websites

ParaViewWeb

I've used Google Hangouts in the past

d3, google doc

biodigital.com

Google Docs (mainly presentations)

Google docs, DropBox, Skype,

Hangout

We often project screen of somebody's laptop. We grab its video output by Decklink adapter

Hangouts, slack, docs

None - just recently upgraded to version 2.0 that enabled non SAGE2 specific web apps

What external Javascript-based web applications would you like to use with SAGE2, if possible.

youtube or video content, tulmut hype

Youtube

We will be using this with the HI EPSCoR Track I project for water data visualization for water models - there is planned web based applications for this with SAGE2

Integration of near realtime data feeds from remote sensing platforms (satellite and ground) - show me latest satellite pass, weather model, or sensor data stream.

May not be Javascript but Google Earth with synchronized screens would be very useful for our Wifire project (fire simulation)

Custom Applications

webconference

Skype, Fogo Player

WhatsApp, Telegram robots

Google Keep

mconf

Web app add-in MS PowerPoint

Office

If Webex could be integrated into SAGE2 that would be great.

webgl

maps.google.com street view (this does not work well in 320 degree CAVE at the moment)

dedicated Youtube App with sync

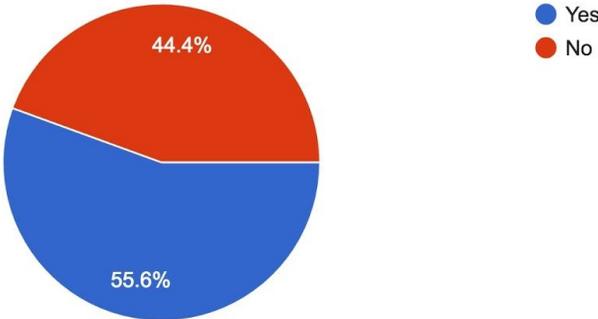
Support for more JavaScript frameworks that work with multi display environments

Jupyter

The Future

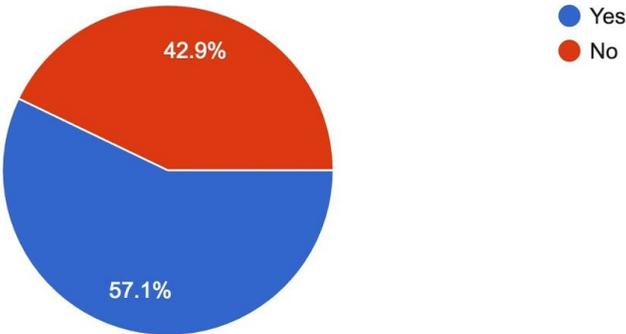
Does your organization plan to upgrade your existing wall?

Does your organization plan to upgrade your existing wall? (63 responses)



Is your organization planning to build additional walls?

Is your organization planning to build additional walls? (63 responses)



What workflow tools would you like to see integrated with SAGE2?

DB

unknown - still learning what direction we are taking this

H.323 Videoconference

Mind maps, red mine and ganttproject

Ad-hoc invite to remote meeting participants (users)

Transmission of surgery in real time

The major web-conference tools: Webex, Skype, GoToMeeting etc...

Openstack

MS Office

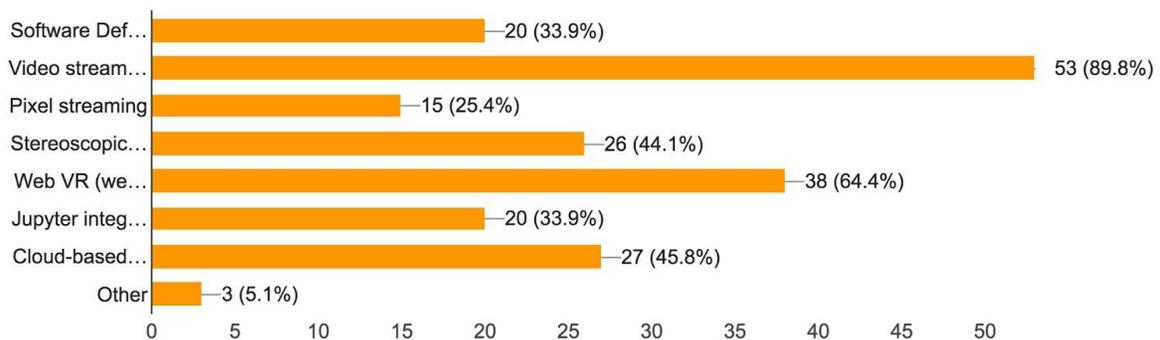
A content server with login and preview features (we have a student project that is building a prototype of this).

Maybe our photogrammetry 3D model software

Jupyter

Are there new SAGE2 capabilities you would like to see?

Are there new SAGE2 capabilities you would like to see? (59 responses)



Comments

- excellent job, we hope that SAGE project may continue for years, because we have some plans in the future for scientific proposes in Costa Rica
- Thanks for making this an open source project - the project still feels a bit immature / poorly organized at the master branch level though. There needs to be a bit of polishing and organization done to help a new developer or new user building from source to simply and clean up the getting started process.
- I apologize, my interaction with our wall is minimal right now. Our facility is still in startup mode, so it's difficult to answer the kinds of questions you're asking.
- SAGE2 enables operators to easily share and visualize state of their infrastructures. We are thankful to SAGE2 community for providing such a useful environment and looking forward for new features.
- SAGE is very good and useful project. Thanks a lot!
- There are many more potential applications we like to explore within our business focussed on enabling collaboration and (big data) visualisation using high bandwidth (photonic) connections.
- Thanks for your work!
- We have several internal projects building on top of SAGE2, and the project continuation would be extremely important for us.
- Thank you all for your hard work!!!
- Thanks for your effort.
- SAGE2 installation is very easy and definitely lowers the barrier to entry for this technology.
- We'd like to develop SAGE2 tools but currently lack the funding for personnel to do so.
- We have supported walls for about 5 years. Original SAGE was on our first cluster-based vizwall. Thought SAGE2 would allow for graceful display of high-resolution images on a display wall, but found that this was not a development area of high importance to the rest of the community. It is not clear at this point what role vizwalls will have here
- more stronger session, human computer interaction interface (kinect, leap motion)
- I've already tested cloud based server. It worked very well. Would have been even better with 10gbps network but for what we needed it was excellent.
- Thank You for the great work on the SAGE2 system ;-)
- We need to improve the cluster configuration in order to achieve larger Video Walls (36+ displays)
- Would like to have improved synchronization for clusters (especially for Web Views)
- As we have supported users since the original SAGE, we have been receiving quite positive feedbacks from SAGE2 users, in terms of usability and evolving features. Usual desired features are general web browsing (addressed in latest SAGE2 release) and easy integration with videoconferencing/webconferencing (which is currently addressed

by a separate machine with a separate display, or by means of desktop sharing, considered non-adequate solutions for some non-technical users).