

sprites-load-timing

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With Benoit blog post. Displayload timings

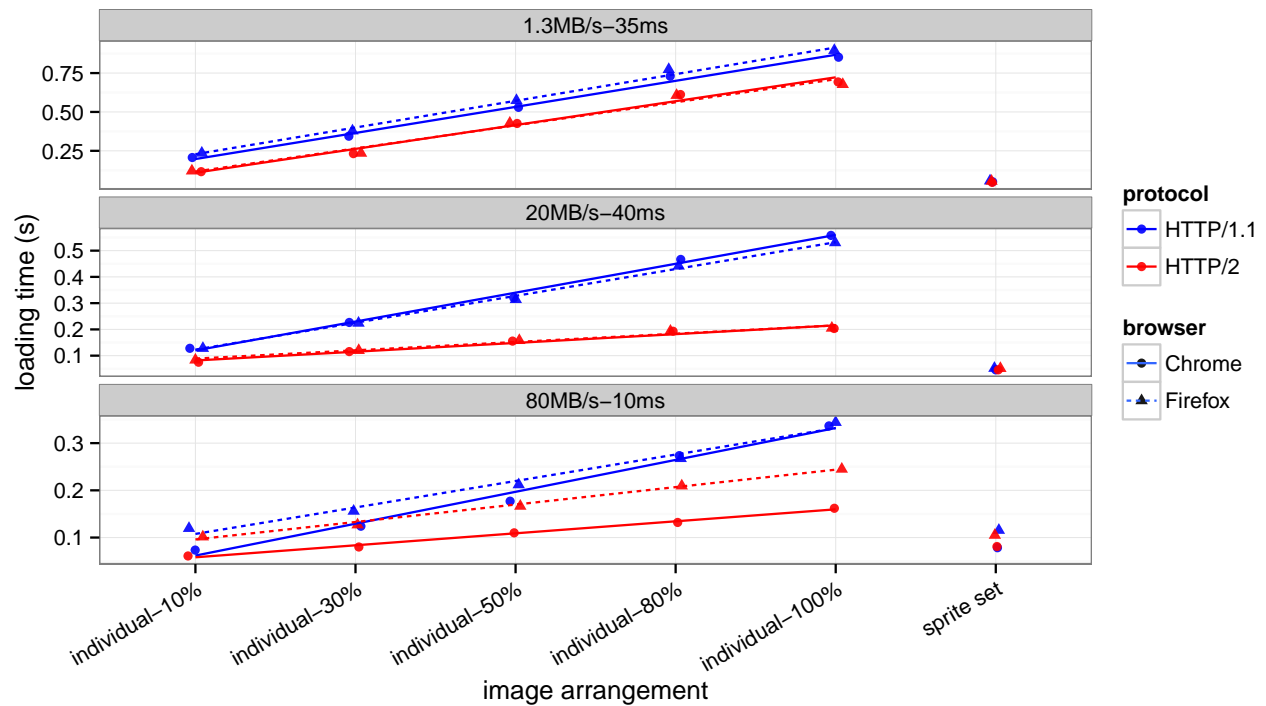
```
library(ggplot2)
df = read.csv('data/sprites-summary.csv')
df$setup = factor(df$setup, levels = c("individual-10%", "individual-30%",
                                       "individual-50%", "individual-80%",
                                       "individual-100%", "sprite set"))

df.no.sprites = df[df$setup != 'sprite set',]
df.conf3 = df[df$configuration == 3,]
df.conf3.no.sprites = df[df$setup != 'sprite set' & df$configuration == 3,]

graph1 = ggplot(df, aes(x=setup, y=load.time)) +
  geom_point(aes(colour=protocol, shape=browser),
            size=2,
            alpha=0.9,
            position = position_jitter(w=0.05, h=0)
  ) +
  scale_colour_manual(values = c('blue', 'red')) +
  facet_wrap(~network, ncol = 1, scales = 'free_y') +
  theme_bw() +
  theme(axis.text.x=element_text(angle = 30, hjust = 1),
        plot.title = element_text(vjust=2)) +
  geom_smooth(data=df.no.sprites,
            aes(x=setup,
                y=load.time,
                group=interaction(browser, protocol),
                colour=protocol,
                linetype=browser
            ),
            method='lm',
            formula= y~x,
            se=FALSE,
            alpha=0.7
  ) +
  labs(title='Images loading time versus arrangement, browser and protocol',
        y='loading time (s)',
        x='image arrangement'
  )

print(graph1)
```

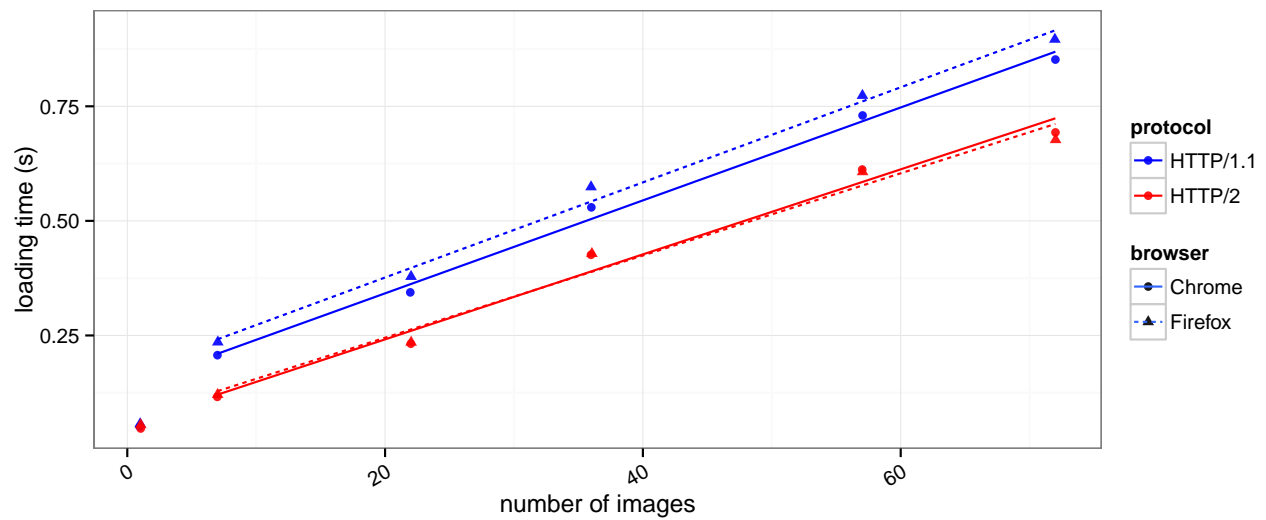
Images loading time versus arrangement, browser and protocol



```
graph2 = ggplot(df.conf3, aes(x=X..of.images, y=load.time)) +
  geom_point(aes(colour=protocol, shape=browser),
    size=2,
    alpha=0.9,
    position = position_jitter(w=0.05, h=0)
  ) +
  scale_colour_manual(values = c('blue', 'red')) +
  theme_bw() +
  theme(axis.text.x=element_text(angle = 30, hjust = 1),
    plot.title = element_text(vjust=2)) +
  geom_smooth(data=df.conf3.no.sprites,
    aes(x=X..of.images,
      y=load.time,
      group=interaction(browser, protocol),
      colour=protocol,
      linetype=browser
    ),
    method='lm',
    formula= y~x,
    se=FALSE,
    alpha=0.7
  ) +
  labs(title='Images loading time versus number of images, browser and protocol',
    y='loading time (s)',
    x='number of images'
  )

print(graph2)
```

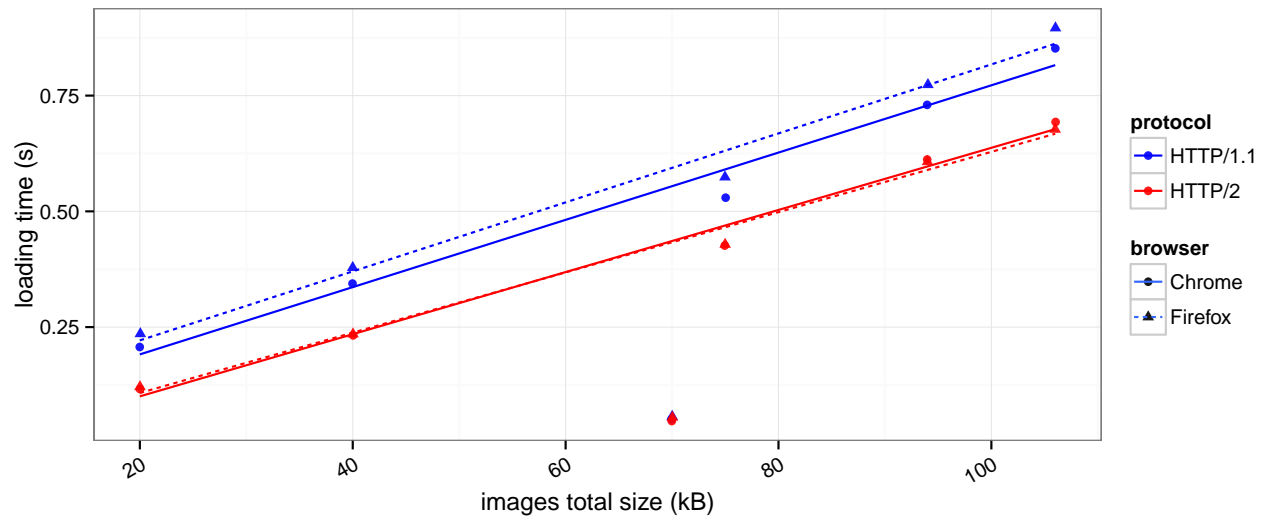
Images loading time versus number of images, browser and protocol



```
graph3 = ggplot(df.conf3, aes(x=Total.size, y=load.time)) +
  geom_point(aes(colour=protocol, shape=browser),
    size=2,
    alpha=0.9,
    position = position_jitter(w=0.05, h=0)
  ) +
  scale_colour_manual(values = c('blue', 'red')) +
  theme_bw() +
  theme(axis.text.x=element_text(angle = 30, hjust = 1),
    plot.title = element_text(vjust=2)) +
  geom_smooth(data=df.conf3.no.sprites,
    aes(x=Total.size,
      y=load.time,
      group=interaction(browser, protocol),
      colour=protocol,
      linetype=browser
    ),
    method='lm',
    formula= y~x,
    se=FALSE,
    alpha=0.7
  ) +
  labs(title='Images loading time versus images total size, browser and protocol',
    y='loading time (s)',
    x='images total size (kB)'
  )

print(graph3)
```

Images loading time versus images total size, browser and protocol



```
dis = read.csv('data/sprites-distribution.csv')
```

```
graph4 = ggplot(dis, aes(x=Data, y=Prctile)) +
  geom_point(size=2,
    alpha=0.9,
    color = 'blue'
  ) +
  theme_bw() +
  theme(axis.text.x=element_text(angle = 30, hjust = 1),
    plot.title = element_text(vjust=2)) +
  labs(title='Distribution of image loading time',
    x='loading time (s)',
    y='percentile'
  )
```

```
print(graph4)
```

Distribution of image loading time

