Inforum in 2012: Information and Technology

Ronald Horst¹

¹Inforum – Department of Economics
University of Maryland

Inforum World Conference, 2012
1 Motivation
   - The Basic Problem That We Studied
     - Distribution of Information
     - Tools for Applied Economists
   - Previous Work

2 Our Results and Contributions
   - www.Inforum.umd.edu
   - Software Documentation
   - G7
   - Compare
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Distribution of Information

- Learn about who is using the web site.
- Understand what material is sought.
- Provide better documentation and easier access to information.
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Tools for Applied Economists

- Improvements for data work, econometrics, and modeling.
- Improved document generating tools.
- More help through demonstrations and better documentation.
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A Sample of Previous Work

- Clopper Almon (1967). Time Series Regressions with Plot
- ... 
- Wittek and Horst (2010). Updates to *G7, Compare*, and the Inforum Web Site
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- Learn about who is using the web site
  - Google Analytics: Visitor Profiles, Referring Sites
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Google Analytics: Visitor Profiles

Visitors Overview

- Visits: 1,175
- Unique Visitors: 851
- Pageviews: 3,545
- Pages / Visit: 3.02
- Avg. Visit Duration: 00:02:46
- Bounce Rate: 52.94%
- % New Visits: 68.60%

Language

<table>
<thead>
<tr>
<th>Language</th>
<th>Visits</th>
<th>% Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>zh-hans</td>
<td>757</td>
<td>64.43%</td>
</tr>
<tr>
<td>zh-hant</td>
<td>135</td>
<td>11.43%</td>
</tr>
<tr>
<td>zh-cn</td>
<td>49</td>
<td>4.17%</td>
</tr>
<tr>
<td>zh-hk</td>
<td>30</td>
<td>2.52%</td>
</tr>
<tr>
<td>zh-tw</td>
<td>25</td>
<td>2.16%</td>
</tr>
<tr>
<td>zh-hk</td>
<td>16</td>
<td>1.35%</td>
</tr>
<tr>
<td>zh-cn</td>
<td>16</td>
<td>1.35%</td>
</tr>
<tr>
<td>zh-tw</td>
<td>15</td>
<td>1.21%</td>
</tr>
<tr>
<td>zh-hk</td>
<td>12</td>
<td>1.02%</td>
</tr>
</tbody>
</table>

851 people visited this site

### Google Analytics: Geographic Location

**Jul 15, 2012 - Aug 14, 2012**

#### Location

- **% of visits:** 100.00%

#### Map Overlay

![Google Analytics Map](image_url)

#### Statistics

<table>
<thead>
<tr>
<th>Country/Territory</th>
<th>Visits</th>
<th>Pages / Visit</th>
<th>Avg. Visit Duration</th>
<th>% New Visits</th>
<th>Bounce Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>527</td>
<td>3.01</td>
<td>00:02:17</td>
<td>47.82%</td>
<td>55.11%</td>
</tr>
<tr>
<td>Cameroon</td>
<td>75</td>
<td>2.64</td>
<td>00:06:26</td>
<td>29.33%</td>
<td>49.33%</td>
</tr>
<tr>
<td>France</td>
<td>52</td>
<td>2.33</td>
<td>00:03:30</td>
<td>48.15%</td>
<td>59.32%</td>
</tr>
<tr>
<td>Russia</td>
<td>52</td>
<td>4.29</td>
<td>00:07:19</td>
<td>38.77%</td>
<td>53.85%</td>
</tr>
<tr>
<td>Poland</td>
<td>48</td>
<td>3.98</td>
<td>00:06:14</td>
<td>47.50%</td>
<td>52.50%</td>
</tr>
<tr>
<td>India</td>
<td>36</td>
<td>2.56</td>
<td>00:02:01</td>
<td>77.78%</td>
<td>44.44%</td>
</tr>
<tr>
<td>Brazil</td>
<td>26</td>
<td>1.23</td>
<td>00:00:30</td>
<td>96.15%</td>
<td>76.92%</td>
</tr>
<tr>
<td>Canada</td>
<td>25</td>
<td>2.28</td>
<td>00:00:24</td>
<td>76.00%</td>
<td>44.00%</td>
</tr>
<tr>
<td>Germany</td>
<td>25</td>
<td>5.84</td>
<td>00:03:38</td>
<td>64.00%</td>
<td>48.00%</td>
</tr>
<tr>
<td>Italy</td>
<td>22</td>
<td>2.32</td>
<td>00:02:31</td>
<td>98.91%</td>
<td>54.55%</td>
</tr>
</tbody>
</table>

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Google Analytics: File Downloads

**Events Overview**

- % of unique events: 100.00%

**Overview**

- Total Events: 121
- Unique Events: 70
- Event Value: 0
- Avg. Value: 0.00
- Visits with Event: 65
- Events / Visit: 1.86

**Event Category**

<table>
<thead>
<tr>
<th>Event Category</th>
<th>Total Events</th>
<th>% Total Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td>43</td>
<td>35.64%</td>
</tr>
<tr>
<td>Software</td>
<td>41</td>
<td>33.33%</td>
</tr>
<tr>
<td>EconData</td>
<td>32</td>
<td>26.45%</td>
</tr>
<tr>
<td>EconDataArchive</td>
<td>4</td>
<td>3.31%</td>
</tr>
<tr>
<td>Maryland</td>
<td>1</td>
<td>0.83%</td>
</tr>
</tbody>
</table>

Better Documentation and Easier Access to Information

- Tools to Improve Site
  - Google Webmaster Tools
  - LinkChecker
- New EconData, Papers, and Partner Information
- New Section with Software Documentation
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- HTML (Available for browsing on web site)
- PDF (May be printed as book)
- Compiled Help (Integrated with G7)

All feature full indexes, searching, cross references, external links
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All feature full indexes, searching, cross references, external links
Source Material

- Compare Manual
- Build and IdBuild Manuals
- Fixer and MacFixer Manuals
- Banker Guide
An Introduction to Inforum

Inforum, or the Interindustry Forecasting Project at the University of Maryland, was founded 45 years ago by Dr. Clopper Almon, now Professor Emeritus of the University. It is dedicated to improving business planning, government policy analysis, and the general understanding of the economic environment. Inforum accomplishes this mission through:

- Building and using structural economic models of U.S. and other economies. Inforum pioneered the construction of dynamic, interindustry, macroeconomic models that portray the economy in a unique “bottom-up” fashion.
- Working with government and private sector research sponsors to investigate a variety of issues. Economic projections and analysis using Inforum econometric models are distinguished by detail at the industrial and product level.
- Serving as a training crucible for University of Maryland graduate students who receive valuable training in empirical economics. Indeed, Inforum graduate research assistants have completed over 40 Ph.D. dissertations, most of which have contributed directly to the infrastructure of Inforum.
- Maintaining active and productive ties with a world-wide network of research associates, each of which uses Inforum modeling methods and software. The Inforum partners have held annual conferences since 1993.

In 2012, Inforum proudly celebrated its 45th anniversary. Since its founding in 1967 by Dr. Clopper Almon, Inforum has operated at the University of Maryland, serving clients in business and government and providing training for many university students, visiting scholars, and others. Inforum continues to foster cooperation and development of economic knowledge and techniques with partners around the world.

- An Introduction to G7
- G7. New for 2012
- G7. New for 2011
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1.1 An Introduction to G7

G7 is a data base, regression, and econometric model-building program for Windows. It is designed for estimation of regression equations with annual, quarterly, or monthly time-series data. G7 takes its name from Carl Friedrich Gauss, the originator of the method of least squares. The G7 project is maintained at the University of Maryland, but is supported by contributions of Inforum colleagues around the world. Please visit the Inforum web site for more information and the latest version of the G7 software. The latest edition of these help files and additional documentation also may be found there. Please report any problems with the software, and please send questions and comments by email to the Inforum webmaster.

Several sources of information are available for G7. These include the G7 Help Files that include the G7 User Guide and Reference Manual, the G7 Tutorial, and the Software Demonstration routines that are available from the Inforum web site.
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Developments in G7

- Successful testing under Windows 8
- Extensions to the Excel Interface
- Graphical Interface Improvements
- Programming Logic and Strings
- Data Management and Development
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Summary

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Extensions to the Excel Interface

- Read time series, vectors, and matrix data
- Print labels and data to Excel documents

New features
- Set text and data formatting: control fonts, colors, . . .
- Merge cells, freeze panes, insert formulas, subscripts and superscripts, . . .
- Create graphs from printed data
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Graphical Interface Improvements

- Minor improvements to show, look, and editor windows

- G7 Graphs
  - Improved layout of graph legends
  - Allow longer series names to be displayed
  - Allow up to seven series to be shown at once
  - Partially restored the display of line styles
  - Allow algebraic expressions to be graphed

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```gr
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Strings

- Ex: `str sector = 'Petroleum and Gas'`

Keywords

- Ex: `%date, %fdate1, %rsq, %beta1`

Scripting Functions

- Ex: `title %s(sector) Output (2010): %getval(a.out5, 2010)`
- Ex: `if( %mod( %1, 3 ) == 0 ){ ... }`
- Ex: `str bank = %if("%s(model)"="Lift" ),"a","b")`
Programming Logic and Strings

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Data Management and Development

- Resector commands: vector and matrix aggregation, disaggregation, and scaling

- Extended Workspace
  - Assemble large data sets (millions of series)
  - Operates at higher speed
  - Currently saves data as text (compile with Banker)
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Compare

- Print data to Excel workbook
- Control typeface, pitch, other formatting
- Name each worksheet, freeze panes

- Create Excel graphs
  - Formatted dates on horizontal axis
  - Graph up to 29 series
  - Choose from a large number of graph styles
  - Currently specify series names, title, subtitle, and vertical axis title
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We are

- Learning more about research sponsors, partners, and other visitors.
- Providing more and better information.
- Continuing to improve and extend Inforum software.

What is next

- Improve documentation by integrating other/newer material.
- Extend the Excel graphing capability.
- Complete improvements to scaling and matrix balancing routines.

For more, see Demonstration routines on the web and CD.
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www.inforum.umd.edu/organization/conferences/iwcxx/iwcxx.html.