

GRITS 2011: Benny Chan

ADVANCED GUI WITH JAVASCRIPT



Browsers as Application GUI

- Modern Browsers are basically an HTML and a power JavaScript rendering engine.
- As the internet technology advances, browsers became a standard platform for deploying cross-platform client-server applications, via the internet.



HTML Controls Limitation

- Browser only provides simple text formatting, text boxes, buttons and pull down menus

```
<h1>HTML Controls</h1>
```

```
<p>Paragraph</p>
```

```
<input type=button value=button>
```

```
<input type=text value="text box">
```

```
<INPUT TYPE=RADIO NAME="pizzasize" VALUE="S">small<BR>
```

```
<INPUT TYPE=RADIO NAME="pizzasize" VALUE="M">medium<BR>
```

```
<INPUT TYPE=RADIO NAME="pizzasize" VALUE="L">large<P>
```

```
<SELECT NAME="Fruit">
```

```
<OPTION SELECTED> Apples
```

```
<OPTION> Bananas
```

```
<OPTION> Oranges
```

```
</SELECT>
```

button

text box

small

medium

large

Apples

Apples

Bananas

Oranges

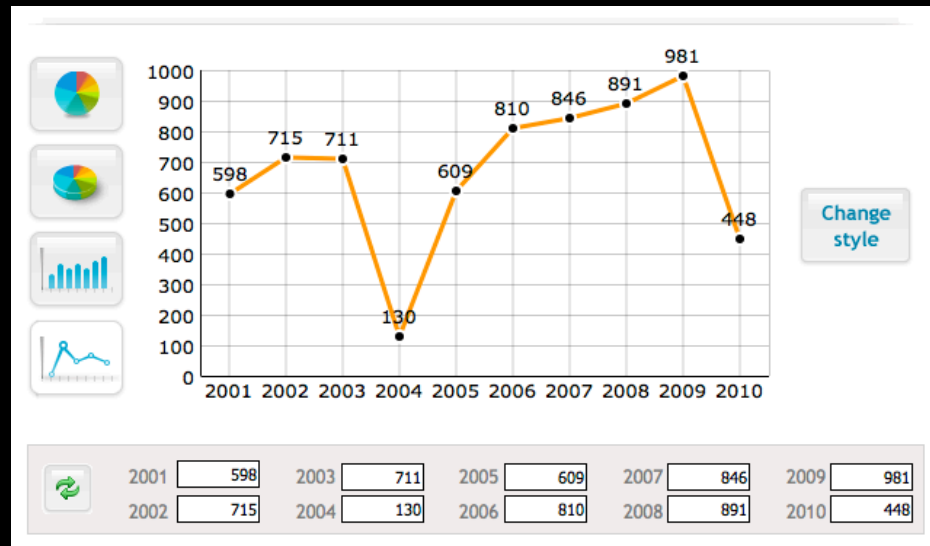


Where to find better controls

- Browsers do not provide complicated GUI controls like plots, tables, and visualizations
- IPAC developers develop scientific applications
- With the help of DHTMLX, an open source JavaScript library solution, we can create and customize complicated visualization and controls, at low cost.
- Let's see some examples...



Sample Controls: Plots & Tables



| | | | | | | | | | |
|------|----------------------------------|------|----------------------------------|------|----------------------------------|------|----------------------------------|------|----------------------------------|
| 2001 | <input type="text" value="598"/> | 2003 | <input type="text" value="711"/> | 2005 | <input type="text" value="609"/> | 2007 | <input type="text" value="846"/> | 2009 | <input type="text" value="981"/> |
| 2002 | <input type="text" value="715"/> | 2004 | <input type="text" value="130"/> | 2006 | <input type="text" value="810"/> | 2008 | <input type="text" value="891"/> | 2010 | <input type="text" value="448"/> |

| | Price | Delivery terms | | Bestseller | |
|--|---------------------|-------------------------------------|-------------------------------------|-----------------------|-----------------------|
| | | In Store | Shipping | | |
| Alexandr Pushkin | \$7.15 | <input checked="" type="checkbox"/> | 1 Hour | <input type="radio"/> | |
| John Grisham | \$7.99 | <input type="checkbox"/> | 2 days | <input type="radio"/> | |
| 350 The Green Mile | Stephen King | \$11.10 | <input checked="" type="checkbox"/> | 24 Hours | <input type="radio"/> |
| 700 Misery | Stephen King | \$7.70 | <input type="checkbox"/> | na | <input type="radio"/> |
| -120 The Dark Half | Stephen King | \$0 | <input type="checkbox"/> | 2 days | <input type="radio"/> |
| 1500 The Partner | John Grisham | \$12.99 | <input checked="" type="checkbox"/> | 2 days | <input type="radio"/> |
| 500 It | Stephen King | \$9.70 | <input type="checkbox"/> | na | <input type="radio"/> |
| 400 Cousin Bette | Honore de Balzac | \$0 | <input checked="" type="checkbox"/> | 1 Hour | <input type="radio"/> |
| 1500 The Testament | John Grisham | \$19.10 | <input checked="" type="checkbox"/> | 2 days | <input type="radio"/> |
| 800 Eugene Onegin | Alexandr Pushkin | \$11.20 | <input checked="" type="checkbox"/> | 24 Hours | <input type="radio"/> |
| -300 Dark Avenues | Ivan Bunin | \$14.96 | <input checked="" type="checkbox"/> | 1 Hour | <input type="radio"/> |
| 150 Father Goriot | Honore de Balzac | \$9.99 | <input type="checkbox"/> | 2 days | <input type="radio"/> |
| 650 The Captain's Daughter | Alexandr Pushkin | \$10.21 | <input type="checkbox"/> | 2 days | <input type="radio"/> |
| -100 Hamlet | William Shakespeare | \$5.99 | <input checked="" type="checkbox"/> | 1 Hour | <input type="radio"/> |
| 1300 The Village | Ivan Bunin | \$11.66 | <input type="checkbox"/> | 24 Hours | <input type="radio"/> |
| 700 The Winter's Tale | William Shakespeare | \$19.31 | <input checked="" type="checkbox"/> | 1 Hour | <input type="radio"/> |
| 250 The Black Sheep | Honore de Balzac | \$16.00 | <input checked="" type="checkbox"/> | 1 Hour | <input type="radio"/> |

Sample Controls: Rich text Editor & Color Pickers



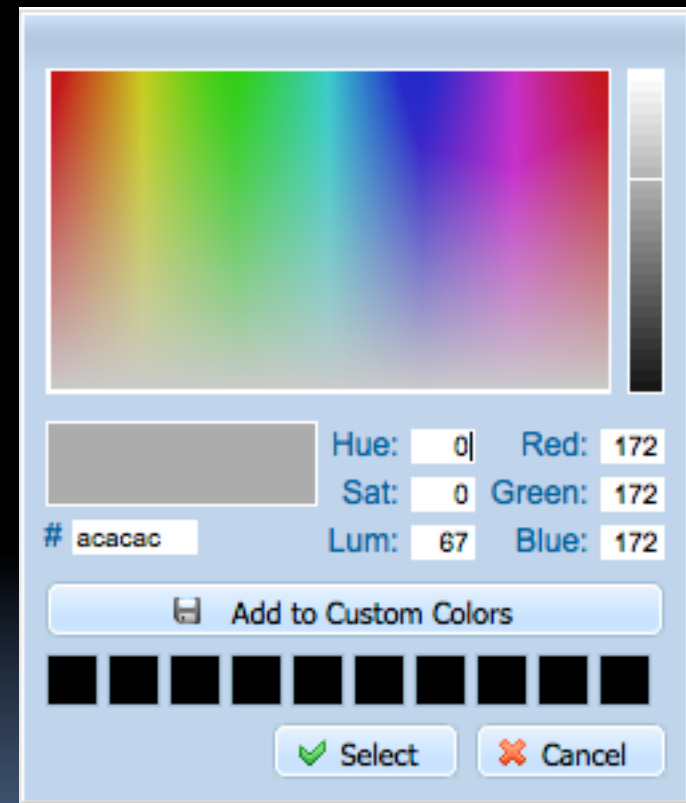
The screenshot shows a web browser window with a rich text editor. The editor's toolbar includes buttons for Bold (B), Italic (I), and Underline (U), along with a link icon. The main content area contains the following text:

dhtmlxEditor

What is dhtmlxEditor

This component is a simple text editor that can be used in web pages. It contains functionality that is often used in desktop editors. So if you've ever used any, you wouldn't have any trouble using **dhtmlxEditor** for writing texts and formatting them in the Web.

2.1 Main Features



The screenshot shows a color picker dialog box. It features a large color selection area with a rainbow gradient and a vertical grayscale bar on the right. Below the color area, there are input fields for color values:

| | | | |
|------|----|--------|-----|
| Hue: | 0 | Red: | 172 |
| Sat: | 0 | Green: | 172 |
| Lum: | 67 | Blue: | 172 |

The color code is displayed as # acacac. Below the input fields is a button labeled "Add to Custom Colors". At the bottom, there are "Select" and "Cancel" buttons.

Sample Controls: Calendars & Project Management

Event duration from till Date

Today July 2009

| Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|------------------------|----------------------------|----------------------------|------------------------|---|------------------------|------------------------|
| 29 10:00 Test build | 30 10:00 Test build | 01 10:00 Test build | 02 10:00 Test build | 03 10:00 Test build | 04 10:00 Test build | 05 10:00 Test build |
| 06 10:00 Test build | 07 10:00 Test build | 08 10:00 Test build | 09 10:00 Test build | 10 Second Friday 10:00 Test build | 11 10:00 Test build | 12 10:00 Test build |
| 13 10:00 Test build | 14 10:00 Test build | 15 10:00 Test build | 16 10:00 Test build | 17 10:00 Test build | 18 10:00 Test build | 19 10:00 Test build |
| 20 10:00 Test build | 21 Each 8 days, 5 times | 22 10:00 Test build | 23 10:00 Test build | 24 10:00 Test build | 25 10:00 Test build | 26 10:00 Test build |
| 27 10:00 Test build | 28 10:00 Test build | 29 Each 8 days, 5 times | 30 10:00 Test build | 31 10:00 Test build | 01 10:00 Test build | 02 10:00 Test build |

Jul '10

- Applet redesign
- Hosted Control
- Task A: 8h, 7.7.2010 - 7.7.2010
- Task B (Jim): 50h, 8.7.2010 - 14.7.2010
- Task C: 30h, 9.7.2010 - 12.7.2010
- Task D: 30h, 10.7.2010 - 13.7.2010
- J# interfaces: 60h, 14.7.2010 - 17.7.2010
- use GUIDs: 10h, 17.7.2010 - 18.7.2010
- Unit testing: 20h, 15.7.2010 - 17.7.2010
- Stress test: 20h, 15.7.2010 - 17.7.2010
- User interfaces: 60h, 17.7.2010 - 20.7.2010
- Testing, QA: 60h, 20.7.2010 - 23.7.2010



Sample Control: Layout Management

The screenshot displays a software interface for layout management. It features three main panels: panel 'a' (top left), panel 'b' (top right), and panel 'c' (bottom left). Panel 'a' has an upward arrow, panel 'b' has a rightward arrow, and panel 'c' has a downward arrow. To the right of these panels is a 'Choose layout schema:' section with a vertical scrollbar and several icons representing different window arrangements. Below this is a 'Choose color schema:' section with a dropdown menu set to 'DHX Sky Blue' and a checked checkbox for 'Show Headers'.

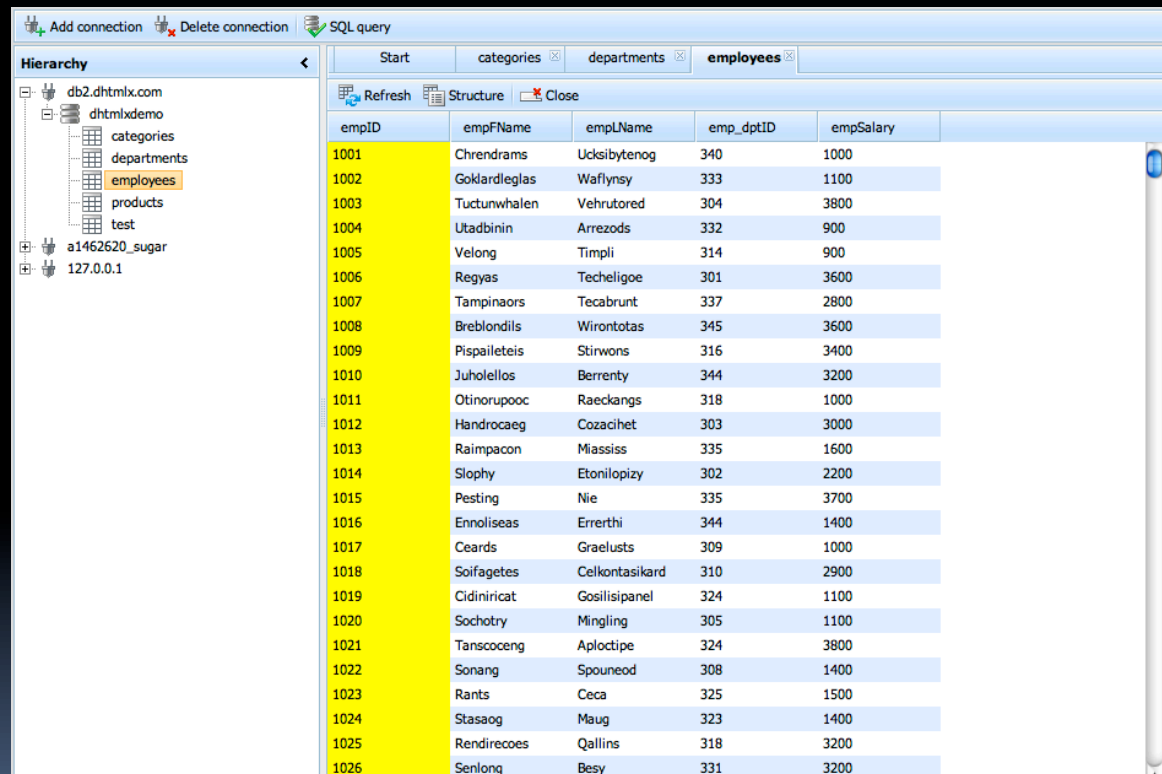
Combinations of Controls

- With Combinations of these Powerful Controls, one could built an entire fully interactive AJAX software suite with minimal effort
- Cost saving in both Development Budget and Time



Software Suite Sample: Database Administrator

- Layout
- Tree
- Toolbar
- Windows
- Grid
- Tab

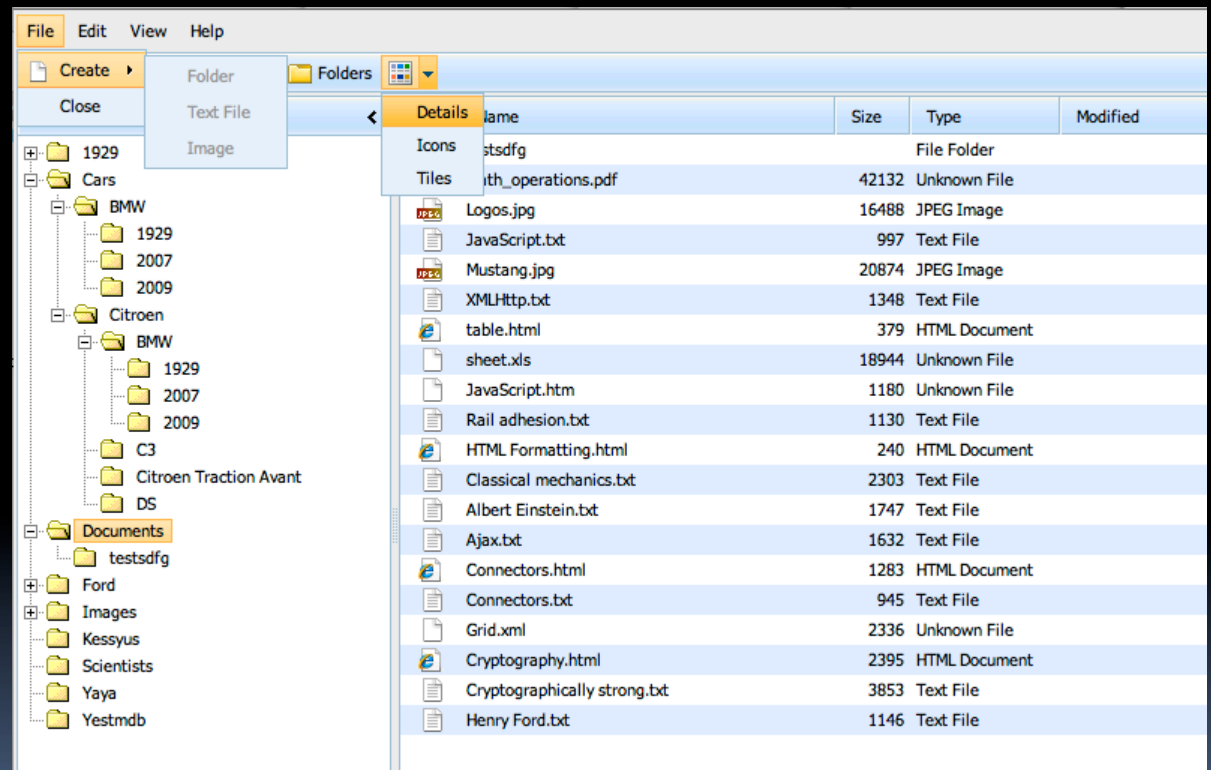


The screenshot displays a Database Administrator interface. On the left, a 'Hierarchy' tree shows a database named 'db2.dhtmlx.com' with a schema 'dhtmlxdemo' containing tables 'categories', 'departments', 'employees', 'products', and 'test'. The 'employees' table is selected. On the right, a data grid shows the contents of the 'employees' table with columns: empID, empFName, empLName, emp_dptID, and empSalary. The grid contains 26 rows of employee data.

| empID | empFName | empLName | emp_dptID | empSalary |
|-------|--------------|----------------|-----------|-----------|
| 1001 | Chrendrams | Ucksibyteng | 340 | 1000 |
| 1002 | Gokardleglas | Waflynsy | 333 | 1100 |
| 1003 | Tuctunwhalen | Vehrutored | 304 | 3800 |
| 1004 | Utadbinin | Arrezods | 332 | 900 |
| 1005 | Velong | Timpli | 314 | 900 |
| 1006 | Regyas | Techeligoe | 301 | 3600 |
| 1007 | Tampinaors | Tecabrunt | 337 | 2800 |
| 1008 | Breblondils | Wirontotas | 345 | 3600 |
| 1009 | Pispaileteis | Stirwons | 316 | 3400 |
| 1010 | Juholellos | Berrenty | 344 | 3200 |
| 1011 | Otinorupoc | Raekangs | 318 | 1000 |
| 1012 | Handrocaeg | Cozacihet | 303 | 3000 |
| 1013 | Raimpacon | Miassiss | 335 | 1600 |
| 1014 | Slophy | Etonilopizy | 302 | 2200 |
| 1015 | Pesting | Nie | 335 | 3700 |
| 1016 | Ennoliseas | Errerthi | 344 | 1400 |
| 1017 | Ceards | Graelusts | 309 | 1000 |
| 1018 | Soifagetes | Celkontasikard | 310 | 2900 |
| 1019 | Cidiniricat | Gosilisipanel | 324 | 1100 |
| 1020 | Sochotry | Mingling | 305 | 1100 |
| 1021 | Tansoceng | Aploctipe | 324 | 3800 |
| 1022 | Sonang | Spouneod | 308 | 1400 |
| 1023 | Rants | Ceca | 325 | 1500 |
| 1024 | Stasaog | Maug | 323 | 1400 |
| 1025 | Rendirecoes | Qallins | 318 | 3200 |
| 1026 | Senlong | Besy | 331 | 3200 |

Software Suite Sample: File Explorer

- Layout
- Tree
- Toolbar
- Windows
- Grid
- Tab Bar
- Menu
- Data View



The NStED Visualization Framework

- As we customize Rich Web Controls towards our need here in NStED, we can create reusable and skin-able components across different applications and different projects that has similar needs and requirements



NStED Table Control

- Grid
- Windows
- Tab Bar
- Menu
- SQLite Backend

NStED NASA/IPAC/NEExSCI STAR AND EXOPLANET DATABASE

Table 1

| rowid | Indx | col | row | raw_col | raw_row | wave | Flux | Error | Background | Sig_to_Noise | |
|-------|------|-------|-------|---------|---------|-----------|--------------------|------------------|-------------------|------------------|------|
| 1 | 0 | 0.00 | 23.52 | 975.48 | 0.00 | 3273.5383 | 30606.922000000000 | 308.849220000000 | 1003.649300000000 | 99.099882000000 | 21.1 |
| 2 | 1 | 1.00 | 23.54 | 975.46 | 1.00 | 3273.5535 | 30715.736000000000 | 312.932610000000 | 1031.192400000000 | 98.154475000000 | 21.1 |
| 3 | 2 | 2.00 | 23.57 | 975.43 | 2.00 | 3273.5686 | 30151.791000000000 | 298.707360000000 | 1016.806800000000 | 100.940900000000 | 21.1 |
| 4 | 3 | 3.00 | 23.59 | 975.41 | 3.00 | 3273.5838 | 30293.510000000000 | 300.519150000000 | 1036.945600000000 | 100.803930000000 | 21.3 |
| 5 | 4 | 4.00 | 23.62 | 975.38 | 4.00 | 3273.5990 | 28596.600000000000 | 353.365960000000 | 1017.704700000000 | 80.926300000000 | 21.4 |
| 6 | 5 | 5.00 | 23.64 | 975.36 | 5.00 | 3273.6142 | 30061.963000000000 | 383.978880000000 | 1010.511200000000 | 78.290667000000 | 21.6 |
| 7 | 6 | 6.00 | 23.67 | 975.33 | 6.00 | 3273.6293 | 30585.525000000000 | 339.216640000000 | 998.015440000000 | 90.165168000000 | 21.5 |
| 8 | 7 | 7.00 | 23.69 | 975.31 | 7.00 | 3273.6445 | 31105.936000000000 | 345.389730000000 | 993.034730000000 | 90.060396000000 | 21.6 |
| 9 | 8 | 8.00 | 23.72 | 975.28 | 8.00 | 3273.6597 | 30997.289000000000 | 347.728810000000 | 1002.910300000000 | 89.142136000000 | 21.7 |
| 10 | 9 | 9.00 | 23.74 | 975.26 | 9.00 | 3273.6748 | 31203.457000000000 | 304.561850000000 | 1008.829200000000 | 102.453600000000 | 21.7 |
| 11 | 10 | 10.00 | 23.77 | 975.23 | 10.00 | 3273.6900 | 31152.822000000000 | 304.893640000000 | 1010.716900000000 | 102.176030000000 | 21.7 |
| 12 | 11 | 11.00 | 23.79 | 975.21 | 11.00 | 3273.7052 | 30538.154000000000 | 293.516890000000 | 988.661070000000 | 104.042240000000 | 21.9 |
| 13 | 12 | 12.00 | 23.82 | 975.18 | 12.00 | 3273.7203 | 31411.789000000000 | 386.626620000000 | 999.686340000000 | 81.245801000000 | 22.0 |
| 14 | 13 | 13.00 | 23.84 | 975.16 | 13.00 | 3273.7355 | 30839.703000000000 | 297.423360000000 | 1004.194400000000 | 103.689580000000 | 22.1 |
| 15 | 14 | 14.00 | 23.87 | 975.13 | 14.00 | 3273.7507 | 32112.697000000000 | 333.172320000000 | 1005.315300000000 | 96.384649000000 | 21.9 |
| 16 | 15 | 15.00 | 23.89 | 975.11 | 15.00 | 3273.7659 | 29880.443000000000 | 342.129560000000 | 1001.274700000000 | 87.336633000000 | 21.8 |
| 17 | 16 | 16.00 | 23.91 | 975.09 | 16.00 | 3273.7810 | 30695.365000000000 | 292.703620000000 | 1007.544800000000 | 104.868420000000 | 21.9 |
| 18 | 17 | 17.00 | 23.94 | 975.06 | 17.00 | 3273.7962 | 32930.012000000000 | 377.657580000000 | 1030.033000000000 | 87.195420000000 | 22.0 |
| 19 | 18 | 18.00 | 23.96 | 975.04 | 18.00 | 3273.8114 | 33366.539000000000 | 375.543210000000 | 1050.097200000000 | 88.848735000000 | 21.9 |
| 20 | 19 | 19.00 | 23.99 | 975.01 | 19.00 | 3273.8265 | 31906.855000000000 | 303.839940000000 | 1048.985800000000 | 105.012050000000 | 22.0 |
| 21 | 20 | 20.00 | 24.01 | 974.99 | 20.00 | 3273.8417 | 30621.219000000000 | 316.501690000000 | 1033.164100000000 | 96.748989000000 | 22.1 |
| 22 | 21 | 21.00 | 24.04 | 974.96 | 21.00 | 3273.8569 | 31615.986000000000 | 323.483470000000 | 1022.138700000000 | 97.736019000000 | 22.3 |
| 23 | 22 | 22.00 | 24.06 | 974.94 | 22.00 | 3273.8720 | 29645.602000000000 | 353.454430000000 | 1037.451200000000 | 83.873901000000 | 22.4 |
| 24 | 23 | 23.00 | 24.09 | 974.91 | 23.00 | 3273.8872 | 31479.895000000000 | 422.529950000000 | 1044.238500000000 | 74.503344000000 | 22.3 |
| 25 | 24 | 24.00 | 24.11 | 974.89 | 24.00 | 3273.9024 | 32340.793000000000 | 396.245190000000 | 1058.775500000000 | 81.618134000000 | 22.3 |
| 26 | 25 | 25.00 | 24.14 | 974.86 | 25.00 | 3273.9175 | 32577.658000000000 | 392.555270000000 | 1081.665400000000 | 82.988717000000 | 22.3 |
| 27 | 26 | 26.00 | 24.16 | 974.84 | 26.00 | 3273.9327 | 31391.957000000000 | 317.404550000000 | 1079.639800000000 | 98.902038000000 | 22.3 |
| 28 | 27 | 27.00 | 24.19 | 974.81 | 27.00 | 3273.9478 | 34412.633000000000 | 458.537720000000 | 1052.247600000000 | 75.048641000000 | 22.3 |
| 29 | 28 | 28.00 | 24.21 | 974.79 | 28.00 | 3273.9630 | 33101.879000000000 | 323.265540000000 | 1038.505600000000 | 102.398410000000 | 22.4 |
| 30 | 29 | 29.00 | 24.23 | 974.77 | 29.00 | 3273.9782 | 32230.936000000000 | 303.445060000000 | 1022.535800000000 | 106.216710000000 | 22.4 |
| 31 | 30 | 30.00 | 24.26 | 974.74 | 30.00 | 3273.9933 | 32557.762000000000 | 305.476140000000 | 1051.702900000000 | 106.580380000000 | 22.4 |
| 32 | 31 | 31.00 | 24.28 | 974.72 | 31.00 | 3274.0085 | 32892.781000000000 | 304.819820000000 | 1042.661300000000 | 107.908930000000 | 22.3 |
| 33 | 32 | 32.00 | 24.31 | 974.69 | 32.00 | 3274.0237 | 31410.391000000000 | 339.205130000000 | 1051.128700000000 | 92.599988000000 | 22.3 |
| 34 | 33 | 33.00 | 24.33 | 974.67 | 33.00 | 3274.0388 | 32195.943000000000 | 340.177700000000 | 1052.272000000000 | 94.644486000000 | 22.3 |

93288 records

Clear Selection Columns Setting Reset



IPAC specific customization

- Customized table control target to visualize IPAC data (IPAC tables)
- Built in sorting / searching / filtering
- Display multiple Tables with Tabs
- Very easy for developers to deploy



Developers Duty

```
<SCRIPT>
function initializePage()
{
  var tbl1 = new iceTable(webServiceURL, "myTablePlaceholder", workspace);
  tbl1.init(tableName, tableFile);
}
</SCRIPT>
```

```
<BODY onload="initializePage();>
<DIV id="myTablePlaceholder"></DIV>
</BODY>
```

|
Simple Customization with a few extra lines

```
tbl1.enableMultipleSelection = true;
tbl1.enableColumnSelection = true;
tbl1.setSkin("mySkin");
```


NStED Planet Page



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Holdings

Helpdesk

[Download IPAC ASCII Format table](#) [Convert & download other formats.](#)

- Click on next to Planet Host Star for more info and tools
- Click on Column Headers to Sort
- Use Textbox below Headers to filter by String, or Values. For Example, "> 10.0" or "<= 7.5"

| Planets | | | | | | | |
|-----------------------|----------------------|---|-------------------------|-------------------------|--|----------------------|------------------------|
| Planet Host Star Name | Planet Letter | Mass of the Planet | Orbital Period | Orbital Semi-major Axis | Is the Planet Known to Transit? (1 = yes, 0 = no) | Radius of the Planet | Measured Transit Depth |
| | | Jupiter masses | days | AU | | Jupiter Radii | perc |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 11 UMi | b | 10.50000±2.47000 | 516.22000000±3.25000000 | 1.540000±0.070000 | 0 | | |
| 14 And | b | 4.800 | 185.840±0.230 | 0.83000 | 0 | | |
| 14 Her | b | 4.640±0.190 | 1773.400±2.500 | 2.77000±0.05000 | 0 | | |
| 16 Cyg B | b | 1.680±0.070 | 799.500±0.600 | 1.68000±0.03000 | 0 | | |
| 18 Del | b | 10.300 | 993.300±3.200 | 2.60000 | 0 | | |
| 2M1207 | b | 4.000 ^{+5.000} _{-1.000} | | 41 | 0 | 1.500 | |
| 30 Ari B | b | 9.88000±0.94000 | 335.10000000±2.50000000 | 0.995000±0.012000 | 0 | | |
| 42 Dra | b | 3.880±0.850 | 479.100±6.200 | 1.19000±0.01000 | 0 | | |
| 47 Uma | b | 2.63±0.230 | 1089.0±2.9 | 2.13±0.12 | 0 | | |
| 47 Uma | c | 0.79±0.13 | 2594±90.000 | 3.79±24 | 0 | | |
| 4 Uma | b | 7.100±1.600 | 269.300±1.960 | 0.87000±0.04000 | 0 | | |
| 51 Peg | b | 0.468±0.007 | 4.23077±0.00005 | 0.05200 | 0 | | |
| 55 Cnc | b | 0.824±0.007 | 14.65162±0.0007 | 0.11500±0.0000011 | 0 | | |
| 55 Cnc | c | 0.169±0.008 | 44.3446±0.007 | 0.24000±0.000045 | 0 | | |
| 55 Cnc | d | 3.835±0.080 | 5218.000±230.000 | 5.77000±0.11000 | 0 | | |
| 55 Cnc | e | 0.034±0.0036 | 2.81705±0.0001 | 0.03800±0.000001 | 0 | | |
| 55 Cnc | f | 0.144±0.040 | 260.000±1.100 | 0.78100±0.00700 | 0 | | |
| 61 Vir | b | 0.01600±0.00160 | 4.21500000±0.00060000 | 0.050201±0.000005 | 0 | | |
| 61 Vir | c | 0.05730±0.00350 | 38.02100000±0.03400000 | 0.217500±0.000100 | 0 | | |
| 61 Vir | d | 0.07200±0.00800 | 123.01000000±0.55000000 | 0.476000±0.001000 | 0 | | |
| 61 Vir | h | 2.400 | 899.000±19.000 | 2.20000 | 0 | | |

428 records



Home


Overview

Holdings

Helpdesk



Keck Observatory Archive (KOA)



| Cal HI 5994 | | Cal Ns 5994 | | Sci HI 5994 | | SCI Ns 5994 | | |
|-------------|------------------------|-------------|-----------------|----------------|----------|-------------|-------------------|-------------------|
| rowid | koaid | instrument | targname | object | imagetyp | frameno | ra | dec |
| 1 | NC.20081115.28791.fits | NIRSPEC | GRB 980703_ref | Test | object | 26 | 359.7766300000000 | 8.5898600000000 |
| 2 | NC.20081115.28811.fits | NIRSPEC | GRB 980703_ref | Test | object | 27 | 359.7751600000001 | 8.5871200000000 |
| 3 | NC.20081115.28830.fits | NIRSPEC | GRB 980703_ref | Test | object | 28 | 359.7782600000000 | 8.5876000000000 |
| 4 | NC.20081115.28856.fits | NIRSPEC | GRB 980703_ref | Test | object | 29 | 359.7754900000000 | 8.5890600000000 |
| 5 | NC.20081115.28876.fits | NIRSPEC | GRB 980703_ref | Test | object | 30 | 359.7759700000000 | 8.5859900000000 |
| 6 | NC.20081115.28895.fits | NIRSPEC | GRB 980703_ref | Test | object | 31 | 359.7774500000000 | 8.5887300000000 |
| 7 | NC.20081115.29267.fits | NIRSPEC | GRB 980703_ref | Test | object | 32 | 359.7778700000000 | 8.5838900000000 |
| 8 | NC.20081115.29301.fits | NIRSPEC | GRB 980703_ref | Test | object | 33 | 359.7778700000000 | 8.5838900000000 |
| 9 | NC.20081115.29393.fits | NIRSPEC | GRB 980703_ref | GRB 980703 | object | 34 | 359.7787500000000 | 8.5845800000000 |
| 10 | NC.20081115.29855.fits | NIRSPEC | GRB 980703_ref | GRB 980703 | object | 35 | 359.7807300000000 | 8.5841000000000 |
| 11 | NC.20091216.37706.fits | NIRSPEC | s05540+0959 | MIRA sky | object | | | 0000000 |
| 12 | NC.20091216.37767.fits | NIRSPEC | s05540+0959 | MIRA PMFM +350 | object | | | 0000000 |
| 13 | NC.20091216.37805.fits | NIRSPEC | s05540+0959 | MIRA PMFM +350 | object | | | 0000000 |
| 14 | NC.20091216.37873.fits | NIRSPEC | s05540+0959 | MIRA PMFM -350 | object | | | 0000000 |
| 15 | NC.20091216.37906.fits | NIRSPEC | s05540+0959 | MIRA PMFM -350 | object | | | 0000000 |
| 16 | NC.20091216.39609.fits | NIRSPEC | Mars UT 11-00 | HIP20789 | object | | | 74208615 |
| 17 | NC.20091216.39681.fits | NIRSPEC | Mars UT 11-00 | HIP20789 | object | | | 76349720 |
| 18 | NC.20091228.15490.fits | NIRSPEC | s03298+3118 | MIRA sky | object | | | 0000000 |
| 19 | NC.20091228.15551.fits | NIRSPEC | s03298+3118 | MIRA PMFM +350 | object | | | 0000000 |
| 20 | NC.20091228.15595.fits | NIRSPEC | s03298+3118 | MIRA PMFM +350 | object | | | 0000000 |
| 21 | NC.20091228.15657.fits | NIRSPEC | s03298+3118 | MIRA PMFM -350 | object | | | 0000000 |
| 22 | NC.20091228.15683.fits | NIRSPEC | s03298+3118 | MIRA PMFM -350 | object | | | 0000000 |
| 23 | NC.20091228.50094.fits | NIRSPEC | s07115-0036 | MIRA sky | object | | | 0000000 |
| 24 | NC.20091228.50157.fits | NIRSPEC | s07115-0036 | MIRA PMFM +350 | object | | | 0000000 |
| 25 | NC.20091228.50252.fits | NIRSPEC | s07115-0036 | MIRA sky | object | | | 0000000 |
| 26 | NC.20091228.50281.fits | NIRSPEC | s07115-0036 | MIRA PMFM +350 | object | | | 0000000 |
| 27 | NC.20091228.50341.fits | NIRSPEC | s07115-0036 | MIRA PMFM +350 | object | | | 0000000 |
| 28 | NC.20091228.50407.fits | NIRSPEC | s07115-0036 | MIRA PMFM -350 | object | | | 0000000 |
| 29 | NC.20091228.50439.fits | NIRSPEC | s07115-0036 | MIRA PMFM -350 | object | | | 0000000 |
| 30 | NC.20091229.17503.fits | NIRSPEC | HIP 12134 | MIRA sky | object | 1 | 39.0744200000000 | -29.9179100000000 |
| 31 | NC.20091229.17547.fits | NIRSPEC | HIP 12134 | MIRA PMFM +350 | object | 2 | 39.0744200000000 | -29.9179100000000 |
| 32 | NC.20091229.17564.fits | NIRSPEC | HIP 12134 | MIRA PMFM +350 | object | 3 | 39.0744200000000 | -29.9179100000000 |
| 33 | NC.20091229.17616.fits | NIRSPEC | HIP 12134 | MIRA PMFM -350 | object | 4 | 39.0744200000000 | -29.9179100000000 |
| 34 | NC.20091229.17929.fits | NIRSPEC | ECDFS 11370REF2 | MIRA PMFM -350 | object | 5 | 53.0479600000000 | -28.0341100000000 |

1165 records

Clear Selection Columns Setting Reset

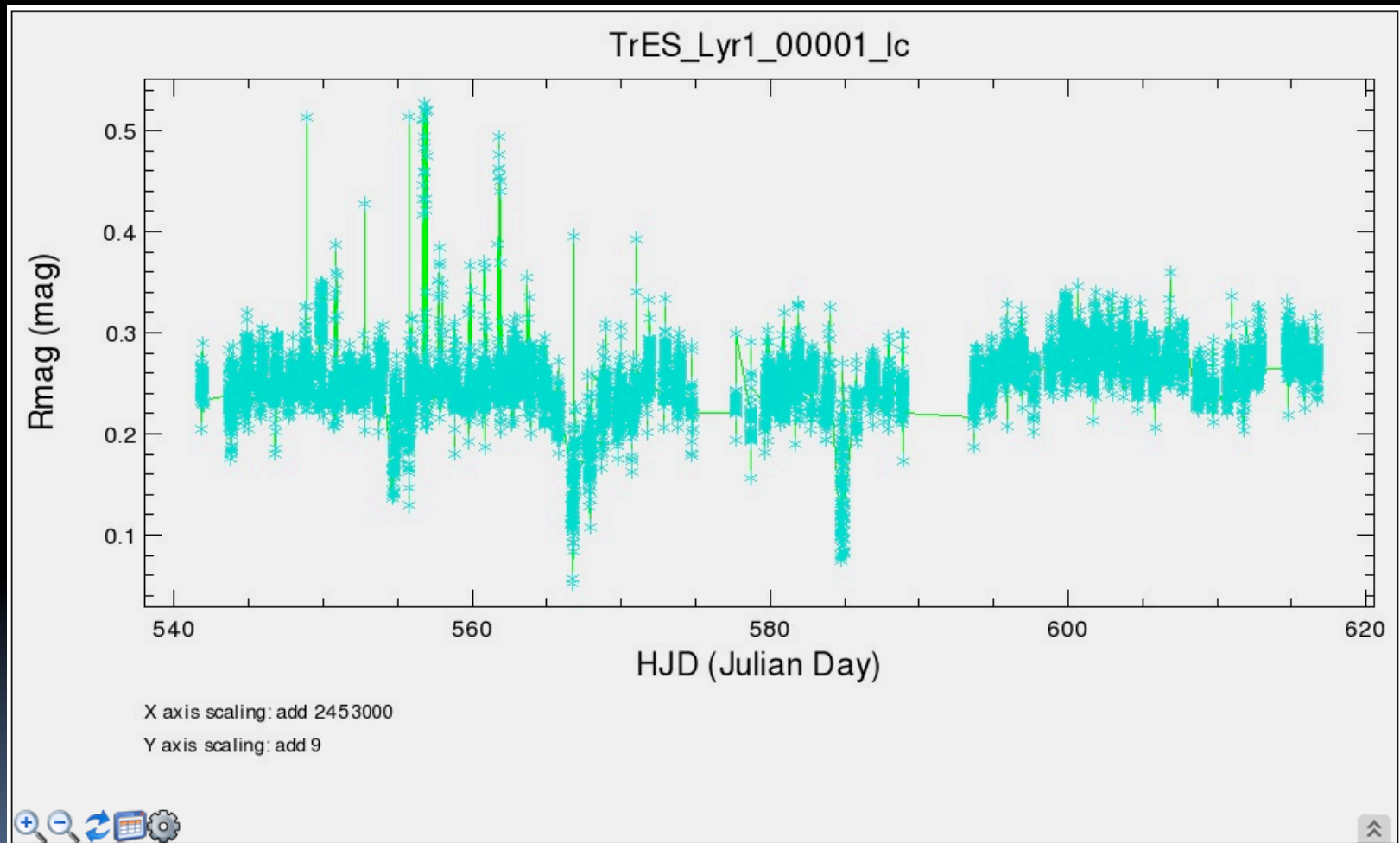


IPAC Plot Control

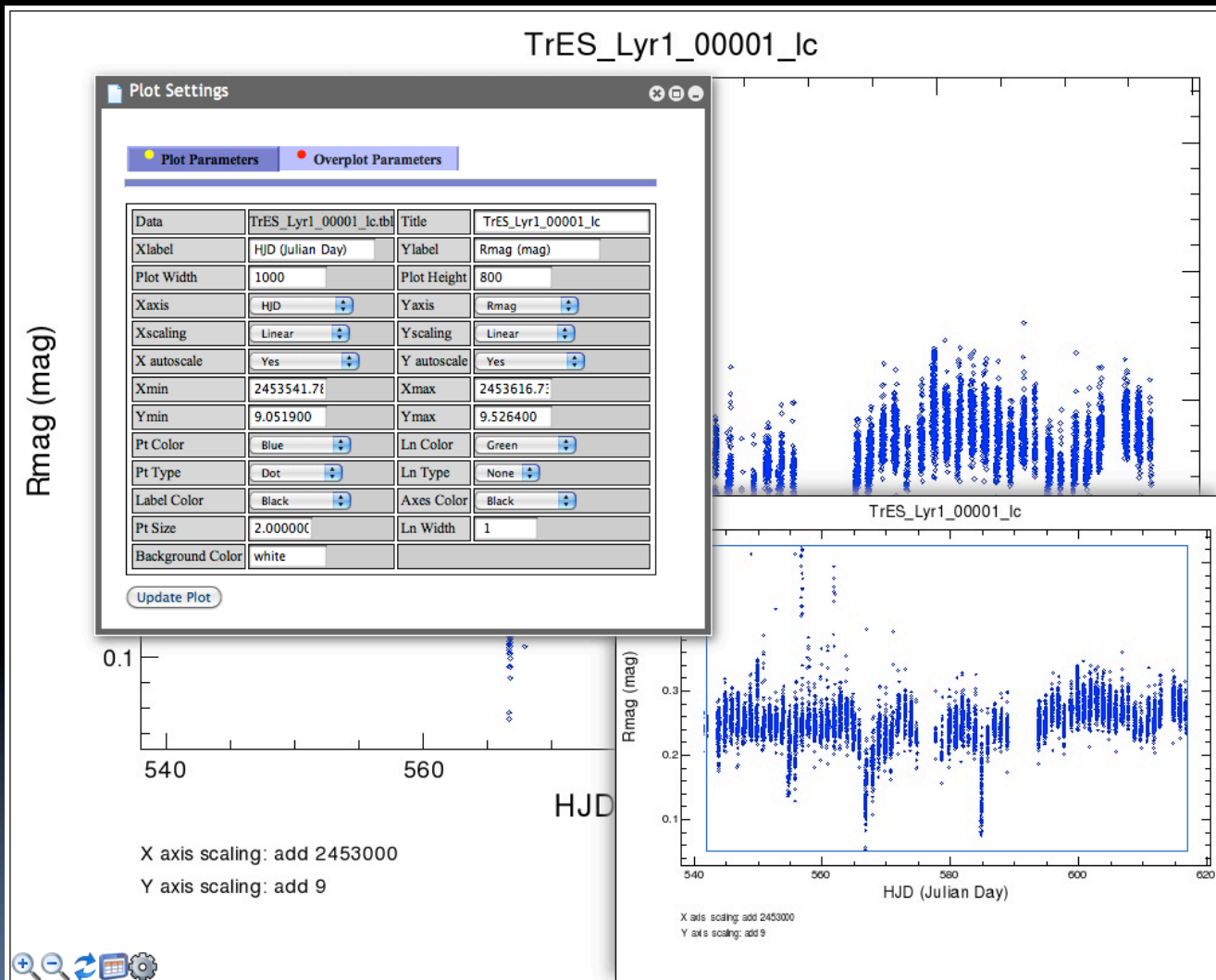
- Customized plot control target to display IPAC data (IPAC scattered plots / light curves)
- Built in dynamic zooming/scaling/panning
- Various Plot Settings
- Over-plots
- JPlot backend
- Also very easy for developers to deploy



NStED Plot Control



NStED Plot Control Panels



Developer's Duty

```
<script>
function onLoadFunc() {
    var myPlot = new icePlot();
    myPlot.workspace = "ice_tests/UseCases";
    myPlot.tblfile = "TrES_Lyr1_00001_lc.tbl";
    myPlot.init();
}
</script>

<body onload="onLoadFunc();">
<div id="IcePlotPlaceholder"></div>
</body>
```



Future Development Work

- NStED Sky Survey Image display control work underway
- Questions?

