

Symbols

- * (asterisk operator), 789
- @ (at symbol), formulas, 308
- // (comments), 116
- & (concatenation operator), 113
- + (concatenation operator), 113-115
- _ (continued line character), 119
- % (percentage symbol), formulas, 308
- # (pound symbol), formulas, 308
- ? (question mark) symbol, formulas, 308
- 3D charts, angle options, 225-226
- 100,000 loop limit, 121

A

access

- CMC, PDF 907
- Encyclopedia section (InfoView), 583
- generic user accounts, 648
- InfoView, 571
- planning, 648-649
- Section Expert, 20

account management

- Administrator accounts, 665
- all users, listing, 668
- authentication settings, 667
- default usernames, 665

- e-mail associations, 666
- group inheritance model, 665
- Guest accounts, 665
- licenses, 666
- membership settings, 667
- overview, 665
- passwords, 666
- permissions, 665
- rights restriction, 667
- systems of record, 665
- user accounts
 - adding, 665-667
 - editing, 668
- user groups
 - adding users to, 671-673
 - Administrators, 669
 - advantages, 669
 - creating new, 669-670
 - defaults, 669
 - defined, 668
 - Everyone, 669
 - membership settings, 667
 - permission management, 669
 - scheduling, 692
 - subgroup creation, 673-675
 - Windows authentication settings, 713
 - usernames, 665-666

Action drop-down box parameter option, 136

actions

- InfoView objects, 574, 582-583
- OLAP Intelligence, 452
 - accessing, 468
 - applying, 470

- context-aware expressions, 471
- copying, 471
- creating, 467-471
- dimensions, 470
- HTML example, 471-472
- naming, 469
- SQL Server, 468
- templates, 470
- types, 470
- viewing, 468

Actions Manager (OLAP Intelligence), 467-471

Active Directory

- authentication, 712-713
- security plug-in, 606

active-active server collections, 611

ActiveX Data Objects (ADO), 340

ActiveX viewer, 799

- InfoView, 578
- Report Viewer, PDF 892-PDF 893

Actual versus Target Reports, 207

ad hoc reporting

- Crystal Reports Explorer
 - Administrator mode, 516
 - business views, 522
 - buttons, 521
 - charts, 524
 - configuring, 513-515
 - data sources, 522
 - Data tab, 525
 - Default Datasources folder, 516

- definitions, 521
- Design tab, 526-527
- dialog boxes, 517
- end user mode, 516
- Excel integration, 526
- fields, customizing, 519
- fields, selecting, 519, 522
- filters, 519-520
- folders, 514
- formatting reports, 526-527
- formulas, 521
- installing, 513
- linking tables, 518
- Load Definition option, 516
- ODBC connections, 516
- overview, 513, 527
- permissions, 515
- platforms supported, 513
- RAS settings, 513
- reports, 516, 522-525
- sections, 526
- security, 513
- sort orders, 523
- summaries, 523
- tables, selecting, 518
- templates, 524
- toolbar, 516-518
- Live Office Add-in
 - concealing data, 532
 - configuring, 528
 - connections, 528-530
 - cube views, 533
 - data sources, 531
 - defaults, 532
 - Direct OLAP connections, 532-536
 - drilling, 531, 536
 - fields, selecting, 530
 - filters, 530
 - formatting, 532
 - inheritance, 532
 - installing, 528
 - instances, 532
 - MDX, 535
 - overview, 527
 - parameters, 532
 - PowerPoint, 536-537
 - properties, 531
 - removing reports, 531
 - time-series analysis, 529
 - views, 531-532
 - Word, 537-538
 - overview, 512
- Add Crystal Reports 10 command (Project menu), PDF 881**
- addresses (IP), PDF 900**
- addTable method, 862**
- administration**
 - capabilities, table, 767-768
 - CMC
 - access, PDF 907
 - account management
 - overview, 665
 - auditing, 612
 - authentication settings, 709-713
 - BOE, place in architecture of, 599
 - Business Objects
 - Enterprise content, 566
 - Cache Server management, 701-702
 - Categories tab, 692-693
 - content management, 675-676
 - creating user accounts, 665-667
 - database subsection, 685-686
 - defined, 662
 - editing user accounts, 668
 - Event Server management, 702
 - Filters subsection, 687-688
 - folder management, 695-699
 - Format subsection, 691
 - functions, list of, 663-664
 - group management, 668-675
 - History tab, 681-683
 - Job Server management, 704
 - licensing settings, 708-709
 - Limits tab, 683
 - listing all user accounts, 668
 - main screen, 664
 - object creation, 676
 - object management. *See* objects, management
 - Page Server management, 703-704
 - Parameters subsection, 686-687
 - passwords, 662
 - print settings, 688-689
 - Process tab, 683-686
 - processing extensions, 688
 - Properties tab, 679
 - purpose, 662
 - Rights tab, 693-695
 - Schedule tab, 689-690
 - server management, 700-702, 706
 - server options, 683-685
 - starting, 662
 - system-wide settings, 708
 - URL for starting, 662
 - user account management, 665-668
 - Delegated Administration paradigm, 667
 - managing content
 - defined, 675
 - effective characteristics, 676
 - importance, 675
 - objects. *See* objects, management
 - plug-ins, 602
 - Administrator accounts, 665**
 - Administrator mode (Crystal Reports Explorer), 516**
 - Administrators group, 669**
 - Administrators Tools Console, 583**
 - ADO (ActiveX Data Objects), 340**
 - ADO recordsets**
 - COM Data Provider, 342-344
 - NET Data Provider, 344
 - returning, 341-342

ADO.NET, 742

Advanced DHTML Viewer
(InfoView), 576-577

Advanced Field dialog box,
519

Advanced Filter dialog box,
520

Advanced rights, 694

Advanced Search Wizard,
576

Advanced Sort dialog box,
523

aggregation

- awareness (universes), 413
- functions
 - SQL, 412
 - Web Intelligence, 500
- security, 607
- Web Intelligence, 485

alert function (InfoView),
582

alerts

- advantages, 273-274
- Business Objects
 - Enterprise, 275
- creating, 274-275
- defined, 273
- detail sections triggering,
 - highlighting, 283
- editing, 274-275
- example, 282-284
- functions, 275
- IsAlertTriggered function,
283
- message creation, 275
- naming, 274
- notification options setting,
690
- parts, 273
- prompting for trigger con-
dition, 275
- ToolTips, 284
- triggering, 274-275
- Web delivery, 275

aliasing, PDF 928

alignment

- horizontal, 164, 169
- sections, text, 185

Allow Context Menus

- OLAP Intelligence, 456
- slice navigation objects, 459

Allow Custom Values para-
meter property, 137

Allow Discrete Values para-
meter property, 137

Allow Multiple Values para-
meter property, 137, 149

Allow Range Values para-
meter property, 137

Analysis Buttons objects,
459-464

- actions, 462
- copying, 465
- drilling down, 463
- labels, 461
- members
 - copying, 462
 - dimension, 462
 - ranges, 464
 - specifications, 464
 - selecting, 463
 - targeting, 463
- page specifications, 462
- parameters, 464

Analysis Buttons Properties
dialog box, 461

analytic reports, 424

- actions
 - accessing, 468
 - copying, 471
 - creating, 467-472
 - viewing, 468
- Analysis Buttons objects,
459-464
 - actions, 462
 - copying, 465
 - copying members, 462
 - dimension members,
462
 - drilling down, 463
 - labels, 461
 - member ranges, 464
 - member specifications,
464
 - page specifications, 462
 - parameters, 464

- selecting members, 463
- targeting members, 463
- calculated members, 446
- Calculation Experts, 473
- calculations
 - adding, 472
 - custom, 475-476
- chart objects, adding,
452-454
- Data Analysis Experts,
474-475
- Dimension Explorer,
455-457
- displaying worksheet
dimensions, 440
- distribution, 425
- exception highlighting,
451-452
- filtering, 441, 448-451
- locking, 434
- objects
 - adding, 433-434
 - formatting, 434
 - moving, 434
 - selecting, 433
 - sizing, 433-434
 - Worksheet, 435-436
- options, 476-477
- parameters, 466-467
- Slice Navigator objects,
458-459
- sorting, 446-448
- text box objects, 465
- worksheets, 434
 - asymmetrical member
views, 442-443
- captioning members,
444
- chart reflections, 435
- dimensions, 434-435
- members, selecting,
438-442
- number formatting, 444
- ordering members, 443
- properties, 435-438
- totals, 444

API, Business Objects
Enterprise. *See* BOE SDK

applications

- Crystal Reports Server
 - CCM, 549
 - CMC, 550-551
 - InfoView, 552
- data sources, 624
- development
 - controlling change, 642-643
 - controlling risk, 643
 - documentation, 643
 - end user buy off, 643
 - environment setup, 643
 - goals, focusing, 642
 - manager selection, 641
 - planning, 642
 - scope creep, 642
 - team selection, 642
 - user acceptance phase, 644
- desktop. *See* desktop applications
- servers
 - Java, 721, 725-726
 - OLAP Intelligence requests, 628
 - Report. *See* RAS
 - WCS, 613
- tiers
 - BOE, 597-600
 - Crystal Reports Server, 545-547
- Apply Security Restrictions command (Tools menu), 418**
- applying**
 - actions (OLAP Intelligence), 470
 - restriction sets, 418
- architecture**
 - BOE
 - advantages, 629-630
 - application tiers, 597-600
 - Business Views Semantic layer, 623-624
 - client tiers, 597-599
 - CMS role. *See* CMS
 - COM support, 599
 - communication bus, 601

- content creation applications in client tier, 599
- core servers, 604
- CSP, 600
- data tiers, 597, 623-625
- Destination Job Servers, 617
- end users, 598-599
- Framework, 600
- Java support, 600
- Job Servers, 614
- List of Values Job Servers, 617
- .NET support, 600
- object types, Framework, 601
- OLAP Intelligence requests, 628-629
- Page Servers, 618-619
- plug-ins, 601-603
- Program Job Servers, 617
- Report Job Servers, 615-617
- request processing, 626-627
- scaling, 629-630
- scenarios overview, 625-626
- scheduling reports, 627-628
- SDK for applications, 599
- server tiers. *See* servers, tiers
- tier system overview, 596-597
- Universes Semantic layer, 624
- WCA, 614
- WCS, 600, 613-614
- Web browser clients, 598-599
- Web Intelligence Job Servers, 618
- Crystal Enterprise, PDF 902
- TCP communication, PDF 903
 - application-level configurations, PDF 903
 - Framework, PDF 902-PDF 903
 - WCS, PDF 904-PDF 910
 - Web connectors, PDF 904-PDF 910
- Crystal Reports Server, 545
 - application tier, 545-547
 - client tier, 545
 - data tier, 549
 - intelligence tier, 547-548
 - processing tier, 548
- InfoView, 570
- system
 - distributed server
 - deployment, 654-656
 - documentation, 659
 - fault-tolerant configuration, 657
 - File Repository Servers, 658
 - load balancing, 658
 - multiple report processing servers, 656-658
 - multiple server deployment, 654-656
 - planning issues, 649-653
 - processing requirements, 649-650
 - single-server deployment, 654
 - troubleshooting, 658-659
 - Web Services, 828-829
- arguments, naming, 124**
- arithmetic formulas**
 - creating in Formula Editor, 105-107
 - error checking, 108
 - formatting results, 109
 - functions available, 106
 - help files, 106
 - naming, 107
 - operators, accessing, 108
- ASP.NET**
 - defined, 742
 - printing issues, 762
 - Web Forms Viewer, 755-757
- Associated Member Selector dialog box, 467**

asterisk operator (*), 789
 asymmetrical member views
 (OLAP Intelligence),
 442-443

auditing

CMS services, 612-613
 planning, 653

Auditor, 390

authentication

Active Directory model,
 712-713
 BOE SDK sessions, 710,
 770-771
 CMS services, 605-607
 Designer (universes), 410
 directory servers, 710-712
 InfoView, 571
 LDAP, 710-712
 models supported, 709
 .NET controls, 817-818
 plug-ins, 602, 605
 system-wide settings,
 709-713
 user accounts, setting up,
 667
 UWS code, 836-838
 Windows NT model,
 712-713

Automatic Totals tab (Options dialog box), 477

autosave feature, 49

axes

cross-tabs, 250
 dual, 245

B

Baan drivers, 355

Baan integration kits, 355

backgrounds

borders, 170
 colors, 183-185

bar charts

creating, 243-246
 maps with, 219

barcode conversion formu- las, 117

Basic edition (Business Objects Enterprise), 563-564

Basic syntax, 306-307

batch reporting (Report Designer Component), PDF 893-PDF 894

BCA Publisher, 390

BCA Scheduler, 390

BeforeReadingRecords process, 125

BI (Business Intelligence), 559

portals, building, 835-838
 Web Services
 advantages, 827-828
 Apache Axis library, 832
 API compared to OOP,
 829
 architecture, 828-829
 authentication code,
 836-838
 BI Catalog service, 826
 BI Query service, 826
 client applications, build-
 ing, 833-835
 clustering, 834
 configuring, 832-833
 Consumer SDK project
 setup, 835
 consuming services, 826
 default portal page, 837
 defined, 826
 deploying, 832
 disadvantages, 827
 Enterprise Application
 Integration, 831-832
 format advantage, 827
 Java application server
 required, 832
 latency issues, 828
 listing folders and
 reports, 837-838
 logging off, 836
 login code, 836
 Microsoft Office sample
 applications, 826
 new features, 826

object-oriented APIs,
 compared, 829
 performance issues, 827
 portals, 831, 835-838
 ports, 827
 Report Engine service,
 826
 security issues, 828
 sessions, 826, 836
 simple report viewer
 code, 834
 SOAP, 829
 SSL, 833
 starter portal JSP pages,
 835
 transport advantage, 827
 UDDI, 830-831
 view modes, table, 834
 viewer page, 838
 WSDL, 829-831

blank reports, 18, 46

BOE SDK (Business Objects Enterprise SDK)

* queries, 789
 authentication issues,
 770-771
 CeSecurityID properties,
 786-787
 CI_APPOBJECTS kinds,
 777
 CI_INFOOBJECTS kinds,
 776
 CI_KIND properties, 776
 CI_SYSTEMOBJECTS
 kinds, 777
 COM support, 766
 deleting objects, 791-792
 development environments
 supported, 599
 distribution, 792
 documentation, 769
 embedded objects, 775
 EnterpriseSession objects,
 772
 factories, 790
 folder creation, 791
 group management, 793
 InfoObject base class, 775
 indexed properties, 781-783

- InfoStore
 - categories, 775-778
 - service, 772-775
- installing, 769-770
- Java support, 766, 769
- logon issues, 771-793
- namespaces, 769-770
- .NET
 - assemblies, 770
 - installing, 769-770
 - support, 766
- object creation, 775, 790-791
- object model, 772
- parameter capturing, 793
- platform choices, 766-767
- Plugin interface, 775
- portal content objects, 776
- properties
 - bags, 778
 - composite, 783-785
 - custom, 789
 - enumerations, 785
 - permission, 787-788
 - Product Catalog Report, 779-780
 - schedule object, 783-784
 - InfoObject, recursively listing, 778-779
- PSServer, 772
- purpose, 597, 769
- query examples, 789-790
- RASReportService, 772
- ReportEngine, 772
- reports as datasources, 793-795
- request processing role, 625
- RowsetController, 794-795
- scheduling reports, 792-793
- secEnterprise, 770
- service instantiation, 772
- session creation, 770-772
- system objects, 777, 786-787
- Top N queries, 789
- users
 - names, returning, 774
 - preferences, 793
- Web Services
 - advantages, 827-828
 - Apache Axis library, 832
 - API compared to OOP, 829
 - architecture, 828-829
 - authentication code, 836-838
 - BI Catalog service, 826
 - BI Query service, 826
 - client applications, building, 833-835
 - clustering, 834
 - configuring, 832-833
 - Consumer SDK project setup, 835
 - consuming services, 826
 - default portal page, 837
 - defined, 826
 - deploying, 832
 - disadvantages, 827
 - Enterprise Application Integration, 831-832
 - format advantage, 827
 - Java application server required, 832
 - latency issues, 828
 - listing folders and reports, 837-838
 - logging off, 836
 - login code, 836
 - Microsoft Office sample applications, 826
 - new features, 826
 - object-oriented APIs, compared, 829
 - performance issues, 827
 - portals, 831, 835-838
 - ports, 827
 - Report Engine service, 826
 - security issues, 828
 - sessions, 826, 836
 - simple report viewer code, 834
 - SOAP, 829
 - SSL, 833
 - starter portal JSP pages, 835
 - transport advantage, 827
 - UDDI, 830-831
 - view modes, table, 834
 - viewer page, 838
 - WSDL, 829-831
- Boolean objects, formatting, 172**
- Boolean tab (Format Editor), 172**
- Border tab (Format Editor), 165, 170**
- Border tool (OLAP Intelligence), 456**
- borders**
 - backgrounds, 170
 - colors, 170
 - drop shadows, 170
 - formatting, 165
 - line styles, 170
 - page breaks, 170
 - slice navigation objects, 459
 - wrapping, 170
- Bottom N group selections using parameter fields, 147-148**
- Box tab (Format Editor), 172**
- boxes, 236-238**
- brackets in formulas, 307**
- business elements, 406**
- Business Intelligence. *See* BI**
- Business Objects**
 - 6.x migration to Business Objects Repository, 389-390
 - Web site, PDF 880
- Business Objects Enterprise**
 - adding report objects, 677
 - administration. *See* CMC
 - advantages, 560-563, 645
 - alerts, 275
 - architecture
 - advantages, 629-630
 - application tiers, 597-600
 - Business Views Semantic layer, 623-624
 - client tiers, 597-599
 - CMS role. *See* CMS
 - COM support, 599
 - communication bus, 601
 - content creation applications in client tier, 599
 - core servers, 604
 - CSP, 600

- data tiers, 597, 623-625
- Destination Job Servers, 617
- end users, 598-599
- Framework, 600
- Java support, 600
- Job Servers, 614
- List of Values Job Servers, 617
- .NET support, 600
- object types, Framework, 601
- OLAP Intelligence
 - requests, 628-629
- Page Servers, 618-619
- plug-ins, 601-603
- Program Job Servers, 617
- Report Job Servers, 615-617
- request processing, 626-627
- scaling, 629-630
- scenarios overview, 625-626
- scheduling reports, 627-628
- SDK for applications, 599
- server tiers. *See* servers, tiers
- tier system overview, 596-597
- Universes Semantic layer, 624
- WCA, 614
- WCS, 600, 613-614
- Web browser clients, 598-599
- Web Intelligence Job Servers, 618
- change management, 562
- component reusability, 561
- content
 - creating, 561, 565-566
 - delivering, 567
 - managing, 566-567
 - publishing, 566
- Crystal Reports Server, compared, 544
- data pull method, 567
- data push method, 567
- data sources, 561
- Framework
 - administration plug-ins, 602
 - authentication plug-ins, 602
 - communication bus, 601
 - content plug-ins, 602-603
 - defined, 600
 - distribution plug-ins, 603
 - object types, 601
 - overview, 596
 - plug-ins, 601-603
 - server registration, 603
- information
 - consumers, 559
 - flow, 562
- integrated development, 561
- Job Server, 563
- Launchpad, 662
- leveraging
 - infrastructure, 560
 - investments, 561
- object management services, 609-610
- on-demand reporting, 646-648
- overview, 558
- reliability, 562
- Repository
 - Business Objects 6.x migration, 389-390
 - business views, 394
 - CMS requirement, 386
 - CMS services, 607
 - components, sharing, 390-392
 - custom functions, adding to reports, 393-394
 - defined, 386
 - Explorer, 392, 400-401
 - image objects, adding to reports, 392
 - Import Wizard, 387
 - language, 386
 - listing properties, 387
 - Microsoft Access, 395
 - migrating, 387-390, 395
 - .NET Components with, 746, 817
 - Object Repository Helper, 394
 - OLAP Intelligence reports with, 392
 - organizing, 394
 - property bags, 386
 - Query Builder, 386
 - Repository Explorer, 392
 - SQL Commands, adding to reports, 392-393
 - text objects, adding to reports, 392
 - Update Repository Objects box, 391
 - updating, 394-395
 - upgrading from version 9, 388-389
 - version differences, 386-390
 - Web reports, 392
- requirements issues, 645
- scalability, 562, 631
- scheduling
 - permissions, 646-647
 - reporting, 646-648
- SDK, 567
- security plug-in, 605
- self-service, 560
- skill sets, 560
- Software Development Kit. *See* BOE SDK
- stack, 558
- standardization, 560
- URLs for reporting
 - context specification, 806
 - creating OpenDocument links, 807-809
 - credential process, 798
 - Document IDs, 801
 - encoded characters, 812
 - expired sessions, 800
 - Java environments, 800
 - JSF, 813-816
 - length limitations of queries, 813
 - .NET environments, 800

- openDocument. *See* openDocument dispatcher
- parameters, tables, 800-806
- prompt values, 805
- purpose, 798
- query strings, 800, 812-813
- report part names, 802-804
- reserved characters, 812-813
- unsafe characters, 812-813
- viewrpt.cwr dispatcher, 798-799
- Web Intelligence document creation, 809-811
- user adoption, 560
- versions, 563
 - Basic, 563-564
 - Premium, 564-565
 - Professional, 564
 - selecting, 565
- business pain, identifying, 635**
- business tiers**
 - business elements, 406
 - Business View Manager, 400
 - Repository samples, 421
 - tools, 404
 - column-level security, 405
 - data connection component, 401
 - data foundation component, 402-404
 - disparate data sources, joining, 401
 - dynamic data connections, 402
 - filters, 405-406
 - formulas, 404-405
 - parameters, 405-407
 - Repository Explorer, 400-401
 - row-level security, 405
 - security rights, 400
 - SQL expressions, 404

Business View Manager, 400
 Repository samples, 421
 tools, 404

- business views, 399**
 - advantages, 645
 - business elements, 406
 - Business Objects
 - Repository, 394
 - business tiers, 400
 - business elements, 406
 - Business View Manager, 400
 - column-level security, 405
 - data connection component, 401
 - data foundation component, 402-404
 - disparate data sources, joining, 401
 - dynamic data connections, 402
 - filters, 405-406
 - formulas, 404-405
 - parameters, 405-407
 - Repository Explorer, 400-401
 - row-level security, 405
 - security rights, 400
 - SQL expressions, 404
 - Business View Manager, 400
 - Repository samples, 421
 - tools, 404
 - client tiers, 399
 - column-level security, 405
 - creating, 407
 - Crystal Reports Explorer, 522
 - data connection component, 401
 - data foundation component, 402-404
 - data tiers, 408
 - disparate data sources, joining, 401
 - dynamic data connections, 402
 - filters, 405-406
 - formulas, 404-405
 - parameters, 405-407
 - planning issues, 645-646

- Repository Explorer, 400
 - dependencies, 401
 - filtering, 401
 - folder structure, 401
 - organizing, 401
 - security, 401
 - storing objects, 400
 - views, 401
- requirements, reporting, 645-646
- rights, 407
- row-level security, 405
- scheduled prompts, 421
- security rights, 400
- Semantic layer, 623-624
- SQL expressions, 404
- universes, compared, 421

BW Query driver, 350

C

CA SiteMinder, 771

- Cache Server (Crystal Reports Server), 547-548**
 - managing, 701-702
 - maximum size allowed, setting, 701
 - on-demand report persistence, 702
 - planning, 649-651
 - purpose, 619-620
 - RAM, managing, 701
 - request processing role, 626
 - thread management, 701

calculated fields, PDF 928-PDF 929

calculated members (OLAP Intelligence), 446

Calculated Members dialog box, 446, 472

Calculation Experts (OLAP Intelligence), 473

calculations

- analytic reports, 472-473
- OLAP Intelligence, 475-476

Calculations tab (Calculated Members dialog box), 475-476

- calendar management, 707-708
- cannot open SQL Server messages, 659
- capabilities matrix, 767-768
- CAR file, 365
- cascading prompts, 279-282
- CCM (Central Configuration Manager), 549
 - auditing, 612
 - BOE, place in architecture of, 599
 - purpose, 662, 713
 - server selection, 714
 - services, 715
 - starting, 714
- CDate() function, 117
- CDateTime() function, 117
- CDbl() function, 117
- cells, cross-tab, 250
- Central Configuration Manager. *See* CCM
- Central Management Console. *See* CMC
- Central Management Server. *See* CMS
- Central Repositories, 127-130
- CeSecurityID properties, 786-787
- change control, 642-643
- Change linking view tool, 404
- change password control (.NET), 817
- characters
 - functions (Web Intelligence), 500
 - sets, 853
 - spacing, 170
- Chart dialog box, 37, 43
- Chart Expert
 - accessing, 205-206
 - Advanced layout button, 208-209
 - Appearance tab, 221
 - Automatically Select Chart Options option, 211
 - Axes tab, 211
 - axes, dual, 245
 - Chart Options menu, 221-223
 - Color Highlight tab, 212
 - Cross-Tab layout button, 208
 - data scales options, 211
 - Data tab, 207-210
 - editing charts, 220
 - formatting options, 221
 - gridline, 211
 - Group layout button, 208-209
 - Layout section, 208-209
 - Load Templates, 221
 - Min/Max Data Ranges options, 211
 - Number Format options, 212
 - Number of Divisions options, 211
 - OLAP layout button, 208
 - On Change Of fields, 244
 - On Change Of option, 210, 228
 - Options tab, 211-212
 - position specification, 221
 - Show Value field option, 210
 - sizing, 221
 - summaries, dynamic, 210
 - Text tab, 212-214
 - trend lines, 246
 - type selection, 206, 244
 - Type tab, 205-206
- Chart menu, 22
- charts
 - 3D chart angle options, 225-226
 - adding
 - programmatically, 873
 - analytic reports, 452-454
 - Appearance tab, 221
 - Axes tab options, 211
 - axes, dual, 245
 - axis options, 223-225
 - Chart Options menu, 221-223
 - ChartDefinitionObject, 871
 - ChartObject, 871-873
 - colors, 212, 222
 - complementary data in a single chart, 228-231
 - ConditionFields, 871-872
 - Data Axis Settings options, 224
 - data labels, 222-223
 - data
 - scales options, 211
 - selection, 207-210
 - DataFields, 872
 - Depth option, 222
 - dual axis setup, 230
 - editing, 220
 - expert. *See* Chart Expert
 - Explode Pie option, 222
 - field specification, 228
 - fill formatting options, 225
 - Formatting dialog box, 225
 - formatting options, 211-212, 221
 - Funnel type, 206
 - Gantt type, 206
 - Gap Width slider, 222
 - Gauge type, 205
 - grid axis options, 225
 - gridline options, 211, 223
 - help, 226
 - Histogram type, 206
 - inserting, 205-206
 - layout axis options, 224
 - layout control, 208-209
 - legend options, 222-223
 - line chart setup, 230
 - line formatting options, 225
 - maps. *See* maps
 - Min/Max Data Ranges options, 211
 - moving average displays, 231
 - new chart types, 204-206
 - number formatting, 212
 - Number of Divisions option, 211
 - numbers axis options, 224
 - Numeric Axis type, 205
 - objects, formatting, 225

- OLAP
 - based, 377-378
 - Intelligence Dimension Explorer, 457
 - reports, adding, 370-372
 - On Change Of option, 210, 228, 244
 - Overlap slider, 222
 - Pie Rotation slider, 222
 - Pie Tilt slider, 222
 - position specification, 221
 - programmatic manipulation with RAS, 871-873
 - rapid method, 209
 - recurrences, relation to
 - location in report, 206
 - Riser Shape option, 222
 - running total displays, 228-231
 - scales axis options, 224
 - series options, 223-224
 - Show Value field option, 210
 - sizing, 221
 - Standard Report Creation Wizard, 43
 - summaries, dynamic, 210
 - templates, 221, 335
 - title
 - elements, 212-214
 - options, 222
 - trend lines, 224, 246
 - type selection, 205-206, 244
 - Underlay Following Sections option, 228
 - Use Depth option, 222
 - wall thickness, 3D charts, 226
- Choose a Data Source parameter property, 137**
 - Choose Data Source dialog box, 522**
 - ClearTrust, 771**
 - client tiers**
 - BOE, 597-599
 - business views, 399
 - Crystal Reports Server, 545
 - client-side viewers (InfoView), 577**
 - clustering**
 - CMS, 611, 715-716
 - UWS, 834
 - CMC (Central Management Console), 550-551**
 - access, PDF 907
 - account management
 - overview, 665
 - auditing, 612
 - authentication settings, 709-713
 - BOE
 - content, 566
 - place in architecture of, 599
 - Cache Server management, 701-702
 - content management. *See* content, management
 - creating user accounts, 665-667
 - database subsection, 685-686
 - defined, 662
 - editing user accounts, 668
 - Event Server management, 702
 - Filters subsection, 687-688
 - folder management, 695-699
 - Format subsection, 691
 - functions, list of, 663-664
 - group management, 668-675
 - Job Server management, 704
 - licensing settings, 708-709
 - listing all user accounts, 668
 - main screen, 664
 - object creation, 676
 - object management. *See* objects, management
 - Page Server management, 703-704
 - Parameters subsection, 686-687
 - passwords, 662
 - print settings, 688-689
 - Processing Extensions, 688
 - purpose, 662
 - servers
 - management, 700-702, 706
 - options, 683-685
 - starting, 662
 - system-wide settings, 708
 - tabs
 - Categories, 692-693
 - History, 681-683
 - Limits, 683
 - Process, 683-686
 - Properties, 679
 - Rights, 693-695
 - Schedule, 689-690
 - URL for starting, 662
 - user account management, 665-668
 - CMS (Central Management Server), 410, 547**
 - aggregation of users, 607
 - auditing services, 612-613
 - authentication services, 605-607
 - authorization services, 607
 - Business Objects Repository control, 386
 - calendar management, 707-708
 - clustering, 611, 715-716
 - databases
 - requirements, 649
 - support, 608
 - event handling, 611, 708
 - File Repository Server management, 705-706
 - managing, 704-705
 - nameservers, 608
 - objects
 - management services, 609-610
 - metadata, 607-608
 - scheduling services, 610-611
 - properties, viewing, 716
 - purpose, 604
 - repository services, 607
 - security services, 605-607
 - server group management, 706-707
 - UNIX databases supported, 608

coarse-grained security, 481

code languages, PDF 880

colors

- borders, 170
- branding considerations, 238
- charts
 - elements, controlling, 212
 - schemes, 222
- conditional formatting formulas, 241
- detail line color formulas, 201-202
- fonts, 166
- section backgrounds, 183-185
- Section Expert Color tab, 192
- section text, 184-185
- selecting, 165

columns

- cursor focus, 166
- Format Groups with Multiple Column option, 193-194
- Format with Multiple Columns option, 191
- Gap Between Details option, 193
- headers, custom function
 - example, 130-131
- multiple, 192-194
- security, 405
- titles, 165-166

COM (Component Object Model), 338

- configuration, PDF 903
- Data Provider, 338-339
 - ADO recordsets, returning, 341-344
- complex queries, 339
- creating, 340-341
- legacy applications, 339
- parameters, 342
- runtime data manipulation, 339
- troubleshooting, 355
- XML, reading, 356

Report Designer

- Component, PDF 880,
- PDF 893-894

Report Engine Object Model, PDF 884-PDF 885

- code-behind, PDF 891-PDF 892

- data source credentials, PDF 890-PDF 891

- data unbound fields, PDF 891

- exporting reports, PDF 885-PDF 887

- printing reports, PDF 888

- Report object, PDF 884-PDF 885

- setting parameters, PDF 889-PDF 890

Report Viewer,

- PDF 892-PDF 893

request processing, 625

SDKs, 766, PDF 880

support for in BOE, 599

Visual Basic Report Designer, PDF 880-PDF 882

- Property Browser, PDF 882-PDF 883

- unbound fields, PDF 883

- user interface, PDF 882

combining objects, 172-175

commands

- Components menu, Project, PDF 881

- File menu

- Page Setup, 176

- Save, 49

- Insert menu

- Group, 47, 172

- Page Menu, 432

- Summary, 48

- Text Object, 161

- Linking Diagram menu,

- Order Links, 403

- Report menu, Refresh

- Report Data, 49

- SQL (Structured Query Language), PDF 924

- Tools menu, Apply Security Restrictions, 418

- View menu, Toolbars, 165

comments (formulas), 116

Common Object Request Broker Architecture (CORBA), PDF 902

Common tab (Format Editor), 168-170

- borders, 170

- CSS classes, 169

- field length, 169

- grouping objects, 169

- horizontal alignment, 169

- locking, 169

- object names, 168

- read-only option, 169

- repeating objects, 169

- strings, 169

- suppression, 169

- text rotation, 169

- ToolTips text, 168

communication bus (BOE), 601

Company Sales Reports, 207

comparisons

- date operators, 267-268

- strings, 268-269

complex queries, handling, 339

Component Object Model. See COM

components

- architecture, 720

- integration approaches, 767

- Java. *See* Java Reporting

- Component

- Report Designer

- Component, PDF 880,

- PDF 893-PDF 894

- scalability, 720

Components menu commands, Project, PDF 881

concatenating strings, 57-58

concurrent licenses, 709

concurrent users, number of, 650

Condition objects, 409, 488**conditional formatting, 451-452**

- CurrentFieldValue function, 326
- defined, 192, 240
- formulas, entering, 241
- Highlighting Expert, 241
- report section, 197
- viewing, 241
- x+2 buttons, 192

configurations

- application-level, PDF 903
- CCM. *See* CCM
- CMC. *See* CMC
- Crystal Reports Explorer, 513-515
- direct OLAP connections (Live Office), 533
- firewalls
 - NAT, Crystal Enterprise relationships, PDF 918
 - rules, PDF 913, PDF 916-PDF 919
- Live Office, 528
- Socks
 - firewalls, PDF 920-PDF 921
 - multiple servers, PDF 921-PDF 922
 - Web connector, PDF 919-PDF 920

Connection Properties dialog box, 428**Connection tab (Options dialog box), 477****connections**

- Database Expert, 27-29
- Direct OLAP, 532-536
- Live Office, 528
- ODBC, 516
- OLAP, 426-427, 431
- restriction set overrides, 417
- swapping, 416
- TCP
 - destinations, PDF 908
 - initial processing, PDF 907-PDF 910
 - secondary processing, PDF 910

- universes, 411
- Web Service data sources, 347
- XML data sources, 347

connectors (Web), PDF 904-PDF 905

- Socks configurations, PDF 919-PDF 920
- WCS interaction, PDF 905-PDF 910

content

- BusinessObjects Enterprise
 - creating, 565-566
 - delivering, 567
 - managing, 566-567
 - publishing, 566
- management
 - defined, 675
 - effective, characteristics, 676
 - importance, 675
 - objects. *See* objects, management
 - plug-ins, 602-603

Content Locale fields, 63**context-aware expressions (OLAP Intelligence), 471****continued line character (_), 119****control structures**

- Do/While, 121
- For/Step/Do, 120
- formatting, 119
- Formula Editor, 118
- If/Then/Else, 118-120
- Select Case, 118-120
- Switch, 120

controllers (RAS), 859**CORBA (Common Object Request Broker Architecture), PDF 902****core servers, list of, 604****Corporate Categories, 692****Count summary, 88****CRAXDRT library, PDF 884, PDF 894****credentials (data sources), PDF 890-PDF 891****cross-tabs**

- advantages, 250
- axes, 250
- cells, 250
- columns, 250
- creating, 253
- defined, 250
- display strings, 260-262
- Expert, 253
- fields, 253
- formatting features, 252
- group headers, placing, 262-263
- horizontal expansion feature, 252
- horizontal/vertical summaries toggle, 258-259
- inserting in reports, 253
- labeling columns, 259-260
- percentage-of summaries, 257-259
- quarterly sales by customer example, 250-251
- relative position, setting, 256-257
- reports
 - chart layout button, 208
 - map layout options, 216
- rows, 250
- spreadsheets, similarity, 251
- summaries for cells, 253
- Top N groups, 254-255
- wizard, 252-253

CRViewer1 ActiveX control, 799**Crystal Analysis. *See* OLAP Intelligence****Crystal Enterprise**

- architecture, PDF 902
 - application-level configurations, PDF 903
- Framework, PDF 902-PDF 903
- TCP/IP communication, PDF 903
- WCS, PDF 904-PDF 910
- Web connectors, PDF 904-PDF 910

- deploying (IP packet filtering firewalls), PDF 896, PDF 911
 - external scenarios, PDF 912-PDF 914
 - internal scenarios, PDF 914-PDF 917
- NAT, PDF 917-PDF 919
- proxy server relationships (Socks configurations), PDF 919
 - firewalls, PDF 920-PDF 921
 - multiple servers, PDF 921-PDF 922
 - Web connectors, PDF 919-PDF 920
- Crystal Management Console.** *See* CMC
- Crystal Reports 10**
 - ActiveX Designer Runtime Library 10.0. *See* Report Engine Object Model
 - Designer
 - Blank Report link, 18
 - Dependency Checker, 25
 - design explorers, 23-24
 - group organization, 68
 - menus, 21-23
 - report sections, 18-20
 - toolbars, 20-21
 - Workbench, 25
 - Explorer
 - Administrator mode, 516
 - business views, 522
 - buttons, 521
 - charts, 524
 - configuring, 513-515
 - data sources, 514-522
 - Data tab, 525
 - Default Datasources folder, 516
 - definitions, 521
 - Design tab, 526-527
 - dialog boxes, 517
 - end user mode, 516
 - Excel integration, 526
 - fields, 519, 522
 - filters, 519-520
 - folders, 514
 - formatting reports, 526-527
 - formulas, 521
 - installing, 513
 - linking tables, 518
 - Load Definition option, 516
 - ODBC connections, 516
 - overview, 513, 527
 - permissions, 515
 - platforms supported, 513
 - RAS settings, 513
 - reports, 516, 522-525
 - sections, 526
 - security, 513
 - sort orders, 523
 - summaries, 523
 - tables, selecting, 518
 - templates, 524
 - toolbar, 516-518
 - troubleshooting, PDF 894
 - Servers
 - applications, 549-552
 - architecture, 545
 - Business Objects
 - Enterprise, compared, 544
 - Cache Servers, 547-548
 - CMS, 547
 - components, 544
 - concurrent users, 545
 - defined, 544
 - Event Server, 548
 - Input/Output File
 - Repository Servers, 547
 - instances, 548
 - Job Servers, 548
 - limitations, 545
 - Page Servers, 548
 - platforms supported, 545
 - publishing reports, 551
 - RAS, 548
 - scalability, 545
 - tiers, 545-549
 - viewing on-demand reports, 551
 - Web-based viewing, 552
 - Web Intelligence, 545
 - viewers. *See* Web, viewers
- Crystal Repository, 312, 386**
- Crystal Server Pages (CSP), 586**
- Crystal syntax, 306**
- Crystal Vision, 554-556**
- Crystal Web Request (CWR), 614**
- Crystal Xcelsius, 554-556**
- CrystalReportViewer class**
 - instantiating, 726
 - processHttpRequest method, 727-728
 - setReportSource method, 727
- CSP (Crystal Server Pages), 586**
- CSS classes, formatting, 169**
- CStr() function, 117, 127**
- CTime() function, 117**
- cube (.cub) files, 428**
- cubes**
 - aggregation, 361
 - grid presentations, 361
 - members defined, 361
 - OLAP
 - Report Creation Wizard, 363
 - role, 360
 - views, 376-377, 533
- Current CE User ID fields, 63**
- Current CE User Name fields, 63**
- Current CE User Time Zone fields, 63**
- Current Connection node (Database Expert), 28**
- Current Date function, 111**
- CurrentFieldValue function, 326**
- cursor focus, deleting, 166**
- Customer Contact Listing report, 160-163**
- customizing**
 - calculations, 475-476
 - events, 611

fields (Crystal Reports Explorer), 519
 formulas, 121
 functions
 argument names, 124
 author information, 124
 Business Objects
 Repository, adding
 from, 393-394
 calling other custom
 functions, 311
 categories, entering, 124
 Central Repositories,
 adding, 127-130
 converting formulas to,
 315
 creating, 123-125, 128,
 310-311
 Crystal Repository with,
 312
 CurrentFieldValue func-
 tion, 326
 database field access, 311
 default values, 125
 descriptions, 312
 divide-by-zero errors,
 128-129
 division example,
 128-129
 End Function state-
 ments, 311
 Extractor, 128
 field header example,
 130-131
 Formula Expert, creating
 formulas with, 122
 Formula Extractor, 325
 Formula Workshop, 100
 Help text, 125
 More Info, adding, 124
 name formula example,
 314-317
 optional parameters, 311
 Repository, 100-101
 sharing, methods, 312
 statelessness, 325
 summary descriptions,
 124
 syntax options, 311
 templates, creating,
 325-326

InfoView, 585
 display, 587
 global settings, 586-588
 headers/styles, 586-587
 objects listing, 587
 programmatic, 591-592
 user preferences,
 588-591
 viewers, 588
 SDK, 390
 universes, 419-420
**CWR (Crystal Web
 Request), 614**

D

daemons, 699

**Data Analysis Experts
 (OLAP Intelligence),
 474-475**

**data connection component
 (business views), 401**

Data Date fields, 63

Data dialog box, 37-39

data

foundation component
 (business views), 402-404
 packets, PDF 898
 provider functions (Web
 Intelligence), 500
 pull method, 567
 push method, 567
 scope, 647
 sources. *See* data sources
 tiers, BOE, 597
 application data sources,
 624
 business views, 408,
 623-624
 Crystal Reports Server,
 549
 database systems as data
 sources, 624
 importance, 623
 programmatic data
 sources, 625
 Universes Semantic
 layer, 624

warehouses
 Business View Manager
 tools, 404
 indexing, 403
 managing, 403
 retrieved records, mini-
 mizing, 403
 simplicity, 403
 tables, mapping, 403

**Data Integrator
 (BusinessObjects), 558**

**Data Selection dialog box,
 530**

**Data Source Names (DSNs),
 26**

**Data Source Table dialog
 box, 517**

data sources

ad hoc reports, 522
 BusinessObjects, 561
 COM Data Provider,
 338-339
 ADO recordsets, return-
 ing, 341-344
 complex queries, 339
 creating, 340-341
 legacy applications, 339
 parameters, 342
 runtime data manipula-
 tion, 339
 troubleshooting, 355
 XML, reading, 356
 credentials, PDF 890-PDF
 891
 Crystal Reports Explorer,
 514-522
 cube files, 428
 disparate, joining, 401
 HTTP, 346-347, 428
 Java, 345-346, 355
 Live Office, 531
 multiple, 508
 .NET, 338-339
 Data Provider, 344
 Dataset Providers,
 339-341
 OLAP server, creating, 427
 reports as with BOE SDK,
 793-795

- semantic layers, 398
 - abstract function, 398
 - business suitability, 398
 - business views. *See* business views
 - data sources supported, 398
 - future, 399
 - metadata, 398
 - security, 399
 - transportability, 399
 - types, 398
 - universes. *See* universes
- support, 398
- Web Service, 346
- XML, 346-347
- Data tab (Crystal Reports Explorer), 525**
- Data Time fields, 63**
- Data Time Zone fields, 63**
- Database Explorer dialog box, 160**
- Database menu, 22, 270**
- DatabaseControllers (RAS), 859**
- databases**
 - access control, planning, 648-649
 - connectivity, 723-725, 739
 - credentials, 757-758
 - drivers, 25-26
 - Expert, 27
 - accessing, 50
 - connections, 27-29
 - Current Connection node, 28
 - Favorites node, 28
 - History node, 29
 - More Data Sources node, 28
 - opening, 27
 - fields, 55-56
 - logon management, CMC, 685-686
 - objects
 - adding, 29-30
 - joining, 33-35
 - options, 685-686
 - SQL commands, 31-33
 - stored procedures, 31
 - tables, 30-31
 - viewing, 30-31
 - requirements planning, 637
- DataDefController, 860**
- Date and Time tab (Format Editor), 172**
- dates**
 - comparators, 267-268
 - Date function, 267
 - DateTime function, 267
 - DTSToDate function, 268
 - formats for specifying, 268
 - formatting, 172
 - formulas
 - Formula Editor for creating, 110-113
 - functions, 111
 - operators, 110-111
 - grouping, 70
 - strings, converting from, 267-268
 - templates field objects for formatting, 328
 - Web Intelligence functions, 500
- Default Datasources folder (Crystal Reports Explorer), 516**
- Default Value parameter property, 137**
- Define Filter dialog box, 449**
- Delegated Administration**
 - folder rights, 699
 - paradigm, 667
- Delete button (Section Expert), 190**
- delete function (InfoView), 582, 585**
- deleting**
 - cursor focus, 166
 - reports from Live Office, 531
- Demilitarized Zone (DMZ), PDF 906**
- dependencies (Repository Explorer), 401**
- Dependency Checker, 25**
- Depth option for charts, 222**
- Description parameter property, 136**
- Description property, 680**
- Description Table Field parameter property, 137**
- Design tab (Crystal Reports Explorer), 526-527**
- Designers**
 - Crystal Reports, 18
 - Blank Report link, 18
 - Dependency Checker, 25
 - design explorers, 23-24
 - Getting Started page, 18
 - group organization, 68
 - menus, 21-23
 - report sections, 18-20
 - toolbars, 20-21
 - Workbench, 25
 - OLAP Intelligence, 431
 - cubes, connecting, 431
 - pages, adding, 432-433
 - universes, 410-411
- designs**
 - consistency. *See* templates
 - explorers, 23
 - docking, 24
 - Field Explorer, 23
 - hiding, 24
 - Report Explorer, 23
 - Repository Explorer, 23
 - tabs view, 24
 - viewing, 24
 - exporting, 581
 - report sections, 20
- desktop applications**
 - creating, PDF 880
 - Report Designer
 - Component, PDF 880, PDF 893-PDF 894
 - Report Engine Object Model, PDF 884-PDF 885
 - code-behind, PDF 891-PDF 892
 - data source credentials, PDF 890-PDF 891
 - exporting reports, PDF 885-PDF 887

- printing reports, PDF 888
- Report object, PDF 884-PDF 885
- setting parameters, PDF 889-PDF 890
- unbound fields, PDF 891
- Report Viewer, PDF 892-PDF 893
- Visual Basic Report Designer, PDF 880-PDF 882
 - Property Browser, PDF 882-PDF 883
 - unbound fields, PDF 883
 - user interface, PDF 882
- destinations**
 - export, PDF 886
 - IP, PDF 908-PDF 910
 - Job Servers, 617
 - object options, 678
 - port, PDF 908-PDF 910
 - scheduling options, 690-691
- Detail objects, 409, 488**
- Detail sections, 19**
 - drilling down, 188-189
 - Hide (Drill-Down OK) option, 188
 - lines, adding between, 236
 - template, created by, 324
- developer-centric model, 645**
- DHTML (Dynamic HTML)**
 - Grid viewer, 841, 848-850
 - Interactive viewer, 841, 846-848
 - query panel, 810-811
 - Report Page viewer, 840, 843-845
 - Viewer (InfoView), 576
- dialog boxes**
 - Advanced Field, 519
 - Advanced Filter, 520
 - Advanced Sort, 523
 - Analysis Buttons Properties, 461
 - Associated Member Selector, 467
 - Calculated Members, 446, 472
 - Chart, 37, 43
 - Choose Data Source, 522
 - Connection Properties, 428
 - Crystal Reports Explorer, 517
 - Data, 37-39
 - Data Selection, 530
 - Data Source Table, 517
 - Database Explorer, 160
 - Define Filter, 449
 - Edit Restriction Set, 417
 - Enter Values, 31
 - Extend the Scope of Analysis, 507
 - Field Explorer, 160
 - Field Selection mini, 519
 - Filter mini, 519
 - Filters, 520
 - Format Editor, 164
 - Format Table, 497
 - Formula, 521
 - Group Sorting, 42
 - Highlight Exceptions, 451
 - Insert Group, 47, 172
 - Insert Summary, 48
 - Link, 40
 - Member Selector, 451
 - Modify Command, 32
 - New Page template, 432
 - New Server, 427
 - ODBC, 160
 - ODBC Data Source Selection, 38
 - Options, 477
 - Page Setup, 176
 - Quick Filter, 495
 - Record Selection, 44
 - Report Chart, 524
 - Report Template Selection, 477
 - Section Expert, 527
 - Set Parameters, 467
 - Summaries, 41-42, 523
 - Table Linking, 518
 - Template, 44
 - Toolbar, 165
 - Visual Basic Project References, 341
- Dimension bar (OLAP Intelligence), 456**
- Dimension Explorer (OLAP Intelligence), 455-457**
- Dimension objects**
 - definitions, 411
 - type definition, 409
 - Web Intelligence, 488
- dimensional hierarchies, 411**
- dimensions (Worksheet object), 434-435**
- direct access drivers, 25**
- directory servers**
 - authentication, 710-712
 - LDAP security plug-in, 606
- Discussions section (InfoView), 584-585**
- disparate data sources, joining, 401**
- dispatchers**
 - advantages, 799
 - context specification, 806
 - credential process, 798
 - Document IDs, 801
 - encoded characters, 812
 - expired sessions, 800
 - Java, 800
 - JSF, 813-816
 - length limitations of queries, 813
 - links, 807-809
 - .NET version, 800
 - parameters, tables of, 800-806
 - prompt values, 805
 - purpose of, 798
 - query strings, 800, 812-813
 - report part names, 802-804
 - reserved characters, 812-813
 - token requirements, 809
 - unsafe characters, 812-813
 - viewrpt.cwr dispatcher, 798-799
 - Web Intelligence document creation, 809-811
- display strings, 260-262**
- distinct records option, 294**
- distributed-server deployment, 654-656**

distribution
 BOE SDK, 792
 destinations, 792
 plug-ins, 603

divide-by-zero errors,
 128-129

DMZ (Demilitarized Zone),
 PDF 906

DNS (Domain Name System), PDF 897

Do/While structures, 121

docking design explorers, 24

document functions (Web Intelligence), 500

Document IDs, 801

Document Structures and Filters view (Web Intelligence), 497

documentation
 application development, 643
 business pain identification, 635
 system, importance, 659

Domain Name System (DNS), PDF 897

dragging/dropping objects, 173

drill-down reports
 group paths for, 72
 hiding details, 74-75
 icon, 72
 navigating, 72-73
 purpose, 72
 Suppress option, 74

drilling
 by functionality
 universes, 412
 Web Intelligence, 502, 505-506
 Direct OLAP connections, 536
 down functionality
 Analysis Buttons, 463
 commands, 375
 Crystal Reports OLAP feature, 375
 defined, 375
 Details Section, 188-189
 focused, 438
 Hide (Drill-Down OK) option, 188
 hyperlinks, 171
 InfoView, 576
 magnifying glass icon, 188
 microcubes, 414
 OLAP Intelligence worksheets, 438-442
 Show All Headers on Drill-down option, 201
 universes, 412
 Web Intelligence, 502-504
 Windows Forms options, 755
 Live Office, 531
 up functionality
 OLAP Intelligence worksheets, 438-442
 universes, 412
 Web Intelligence, 502-505
 Web Intelligence, 502
 activating, 503-506
 beyond the report, 506-507
 hierarchies, 502-503
 synchronizing, 506

drivers
 Baan, 355
 BW Query, 350
 direct access database, 25
 indirect access database, 26
 InfoSet, 350
 Java data source, 345-346
 MDX query, 351
 ODS, 351
 Open SQL, 349
 PeopleSoft, 353
 XML data source, 356

drop shadows (borders), 170

DSNs (Data Source Names), 26

.dsr files, PDF 881

DTSToDate function, 268

dynamic cascading prompts, 279-282

dynamic data connections (business views), 402

Dynamic HTML. *See* DHTML

Dynamic List of Values properties, 137, 149

dynamic translation, PDF 900

E

e-mail

addresses
 columns, 166-167
 hyperlinks, 171
 Job Server services, 615
 upon alerts (InfoView), 581
 user accounts associations, 666

EAI (Enterprise Application Integration), 831-832

Edit Mask parameter property, 138

Edit menu, 21

Edit Restriction Set dialog box, 417

editing

column titles, 165-166
 restriction sets, 417

embedded objects in SDK, 775

Encyclopedia section (InfoView), 572, 583-584

end users

BOE, 598-599
 buy off, 643
 centric model, 645
 Crystal Reports Explorer mode, 516

Enter Values dialog box, 31

Enterprise Application Integration (EAI), 831-832

Enterprise Resource Planning. *See* ERP

Enterprise security plug-in, 605

EnterpriseSession objects, 772

ePortfolio, 570

ERP (Enterprise Resource Planning), 348

- Baan integration kits, 355
- full data access, 348
- integration kit support, 348
- metadata issues, 349
- PeopleSoft integration kits, 353-354
- real-time data access, 349
- sample reports, 349
- SAP integration kits, 349
 - BW data, 350-352
 - BW Query driver, 350
 - InfoSet driver, 350
 - MDX query driver, 351
 - ODS driver, 351
 - Open SQL driver, 349
 - R3 data, 349-350
 - reports, viewing, 353
 - troubleshooting, 356
- security, 348
- Siebel integration kits, 354

errors

- dividing by zero, 128-129
- looping, 121
- runtime, variable data, 312-314

EvaluateAfter() function, 122, 127

Event Servers, 548

- managing, 702
- polling frequency, 702
- purpose, 620

events

- code-behind, PDF 891-PDF 892
- handling, 611, 820
- management, 708

Everyone group, 669, 694

Excel

- Crystal Reports Explorer integration, 526
- exporting, 749
- OLAP workbook views, 533-536

exception handling

- highlighting, 451-452
- logging option, 857
- RAS, 856-857

Expert Tools toolbar, 20, 183

Explorer. *See* Crystal Reports Explorer

Export control for viewers, 850-852

exporting

- data, 619
- design formats, 581
- destinations, PDF 886
- function (InfoView), 575
- options example, 178
- reports
 - batched .NET code example, 749-751
 - Excel format, 749
 - HTML format, 749
 - .NET, 748-751
 - PDF format, 749
 - Report Engine Object Model, PDF 885-PDF 887
 - RTF format, 749
 - Word format, 749

expressions, PDF 928-PDF 929

Extend the Scope of Analysis dialog box, 507

external IP packet filtering, PDF 912-PDF 914

external resources, 178-179

external systems, 616

F

factories, 790

fault tolerance

- CMS services, 611
- configurations, 657

favorites

- cubes, 429-430
- Database Expert node, 28
- OLAP Intelligence, 455

Fetch table indexes tool, 404

Field Explorer, 23

- active field indicators, 55
- advantages, 54
- arithmetic formulas, creating, 107
- Create Parameter Field dialog, 140
- database fields, 55-56
- dialog box, 160
- formulas
 - creating, 93
 - fields, 56-57
- group name fields, 62
- opening, 54
- parameters, 58-59, 139-142
- purpose, 54
- running totals
 - creating, 92
 - fields, 59-62
- special fields, 63-64
- SQL Expression fields, 57-58

Field Selection mini-dialog box, 519

FieldRangeFilterItems, 865-867

fields

- active field indicators, 55
- ad hoc reports, 522
- adding with RAS, 859-860
- calculated, PDF 928-PDF 929
- ConditionFields for charts, 871-872
- Content Locale fields, 63
- Current CE User ID fields, 63
- Current CE User Name fields, 63
- Current CE User Time Zone fields, 63
- Data Date fields, 63
- Data Time fields, 63
- Data Time Zone fields, 63
- database fields, 55-56
- DataFields for charts, 872
- determining all in report programmatically, 860-861
- File Author fields, 63

- File Creation Date fields, 63
 - File Path and Name fields, 63
 - filtering, selecting for, 81
 - findFieldByName method, 859
 - formatting, 161-162
 - formula fields, 56-57
 - group name fields, 62
 - Group Number fields, 63
 - Group Selection Formula fields, 63
 - groups, selecting, 65
 - headers, 130-131
 - Horizontal Page Number fields, 64
 - length, 169
 - Live Office, 530
 - Modification Date fields, 64
 - Modification Time fields, 64
 - Page N of M fields, 64
 - Page Number fields, 64
 - parameter. *See* parameters
 - Print Date fields, 64
 - Print Time fields, 64
 - Print Time Zone fields, 64
 - programmatically manipulating, 859-861
 - Record Number fields, 64
 - Record Selection Formula fields, 64
 - removing from reports programmatically, 861
 - Report Comments fields, 64
 - Report Title fields, 64
 - reports, adding, 47
 - ResultFields collection, 860-861
 - running totals, 59-62
 - selecting with RAS, 859-860
 - special fields, 63-64
 - SQL Expression fields, 57-58
 - template field objects, 326-327, 330-332
 - Total Page Count fields, 64
 - unbound
 - Report Engine Object Model, PDF 891
 - Visual Basic Report Designer, PDF 883
 - File Author fields, 63**
 - File Creation Date fields, 63**
 - File menu commands, 21**
 - Page Setup, 176
 - Save, 49
 - Save Data with Report, PDF 893
 - File Name property, 679**
 - File Path and Name fields, 63**
 - File Repository Servers. *See* FRS**
 - File Transfer Protocol (FTP), 616, PDF 897**
 - files**
 - cube, 428
 - .dsr, PDF 881
 - events, 611
 - exported reports, PDF 885-PDF 887
 - hyperlinks, 171
 - .rpt, PDF 881
 - RTF
 - exporting from Java Reporting Component, 731-734
 - .NET exports, 749
 - Filter mini-dialog box, 519**
 - filters, 405-406**
 - adding new, 82
 - analytic reports, 448-451
 - Crystal Reports Explorer, 519-520
 - defaults, 687-688
 - field selection, 81
 - FieldRangeFilterItems, 865-867
 - Formula Editor, 85-86
 - formulas
 - selecting records. *See* records, selection
 - Select Expert, 83-84
 - InfoView, 580, 583
 - IP packet firewalls (Crystal Enterprise deployment), PDF 911
 - external scenarios, PDF 912-PDF 914
 - internal scenarios, PDF 914-PDF 917
 - Is Like option, 83
 - Is One Of option, 83
 - Live Office, 530
 - multiple filter application, 83
 - OperatorFilterItems, 865-867
 - overview, 80
 - packet filtering, PDF 900
 - programmatically adding, 865-868
 - ranges, 82
 - records, 84-86, PDF 926-PDF 927
 - refreshing data options, 82
 - reports, 441
 - Repository Explorer, 401
 - Select Expert, 80-83
 - Standard Report Creation Wizard, 44
 - subreports with linked data, 292-294
 - values, 81-82
 - Web Intelligence, 488-489, 495-497
- Filters dialog box, 520**
 - financial functions, 310**
 - find function (InfoView), 576**
 - findByAlias method, 860**
 - findFieldByName method, 859**
 - finding**
 - keywords in fields, 308-310
 - tables, 404
 - fine-grained security, 481**
 - firewalls, PDF 899**
 - configuration rules, PDF 913, PDF 916-PDF 919
 - defined, PDF 896
 - IP packet filtering (Crystal Enterprise deployment), PDF 911

- external scenarios, PDF 912-PDF 914
- internal scenarios, PDF 914-PDF 917
- NAT, PDF 900-PDF 901, PDF 917
- relationships, PDF 917-PDF 919
- packet filtering, PDF 900
- protocols, PDF 896-PDF 899
- proxy servers, PDF 901
- Socks configurations, PDF 920-PDF 921
- Fit Section command, 185, 200**
- focused drill-downs, 438**
- Folder Path property, 680**
- folders**
 - adding objects, 696
 - creating, 696, 791
 - Crystal Reports Explorer, 514
 - database residence, 695
 - Delegated Administration, 699
 - expiration limits, 698
 - InfoView, 573
 - keyword associations, 696
 - management, 695-699
 - Repository Explorer, 401
 - rights, 699
 - subfolders, 697
 - Users folders, 695
- Font tab (Format Editor), 170**
- fonts**
 - character spacing, 170
 - colors, 166, 234
 - face selection, 234
 - formatting, 164, 170
 - rotating, 238-240
 - strikeout, 170
 - underlining, 170
- footers**
 - cross-tab placement, 262-263
 - reports, 48
 - templates, 333-334

For/Step/Do structures, 120**Format Editor, 164**

- borders, 165
- colors, 165
- column titles, 165
- dialog box, 164
- fonts, 164
- Formula Workshop, 102
- horizontal alignment, 164
- hyperlinks, 166-167
- opening, 164, PDF 882
- tabs
 - Boolean, 172
 - Border, 170
 - Box, 172
 - Common, 168-170
 - Date and Time, 172
 - Font, 170
 - Hyperlink, 171
 - Line, 172
 - Numbers, 172
 - Paragraph, 172
 - Picture, 172
 - Rounding, 172
 - Sub report, 172

Format Groups with Multiple Column option, 193-194**Format menu, 22, 183****Format Table dialog box, 497****Format with Multiple Columns option, 191****formatting**

- ad hoc reports, 526-527
- Boolean objects, 172
- borders, 165, 170
- box creation, 236-238
- conditional, 451-452
 - CurrentFieldValue function, 326
 - defined, 192, 240
 - formulas, entering, 241
 - Highlighting Expert, 241
 - report section, 197
 - viewing, 241
 - x+2 buttons, 192
- CSS classes, 169
- dates, 172

- e-mail addresses, 166-167
- fields, 161-162, 169
- files, 691
- fonts
 - character spacing, 170
 - colors, 166, 234
 - face selection, 234
 - formatting, 164, 170
 - rotating, 238-240
 - strikeout, 170
 - underlining, 170
- Format Editor, 164
 - Boolean tab, 172
 - borders, 165, 170
 - Box tab, 172
 - colors, 165
 - column titles, 165
 - Common tab, 168-170
 - Date and Time tab, 172
 - fonts, 164, 170
 - horizontal alignment, 164
 - hyperlinks, 166-167, 171
 - Line tab, 172
 - Numbers tab, 172
 - opening, 164
 - Paragraph tab, 172
 - Picture tab, 172
 - Rounding tab, 172
 - Subreport tab, 172
- formulas, 102
- horizontal alignment, 169
- hyperlinks, 166-167, 171
- importance, 234
- InfoView, 580
- line creation, 236
- Live Office, 532
- locking, 169
- margins, 176
- numbers, 172
 - display strings, 260-262
 - OLAP Intelligence, 444
- objects, 168-169
- paragraphs, 172
- phone numbers, 178
- read-only options, 169
- reports, 158, 434
- strings, 169
- suppression, 169
- templates. *See* templates
- text, 161, 169, 238-240

- times, 172
- toolbars, 20, 165, 234
- ToolTips, 168, 235
- forms, 852**
- Formula dialog box, 521**
- formulas, 404-405**
 - # symbol, 308
 - % symbol, 308
 - ? symbol, 308
 - @ symbol, 308
 - adding pages to sections, 187
 - arithmetic
 - creating in Formula Editor, 105-107
 - error checking, 108
 - formatting results, 109
 - functions available, 106
 - help files, 106
 - naming, 107
 - operators, accessing, 108
 - barcode conversion, 117
 - Basic syntax, 306-307
 - brackets, 307
 - comments, 116, 326
 - complex filters, 93-95
 - constant formula processing, 125
 - control structures, 118-121
 - creating functions from, 123-125
 - Crystal Reports Explorer, 521
 - Crystal syntax, 306
 - custom, 121
 - date comparators, 267-268
 - differences between Basic and Crystal syntax, 306
 - Editor, 85-86
 - areas, 103-104
 - arithmetic formulas, 105-110
 - Auto-Complete feature, 106
 - available elements, dependencies, 104
 - comments, 116
 - continued line characters, 119
 - control structures, 118-121
 - Custom Function creation, 100
 - Date and Time formulas, 110-113
 - Editing area, 103, 106
 - error-checking while designing, 108
 - features list, 98-99
 - Fields area, 103
 - Fields frame, 108
 - Formula Workshop
 - interface containing, 98
 - Functions area, 103
 - naming formulas, 107
 - Operators area, 103, 108, 122
 - operators, accessing, 108
 - order of operations, 112
 - results, 109
 - string formulas, 113-115
 - syntaxes available, 103
 - toolbar area, 103
 - type conversion, 116-117
 - Use Expert button,
 - accessing through, 108
 - variables, 121-122
 - Xtreme Cycles example, 104-105
 - Expert, 122
 - Extractor
 - accessing, 124
 - argument names, 124
 - creating functions from formulas, 123-125
 - templates, 325
 - fields
 - @ symbol for, 308
 - adding to reports, 56
 - concatenating strings, 57-58
 - defined, 56
 - Field Explorer view, 56
 - new formula creation, 56
 - objects, 326-327, 330-332
 - formatting conditions, 451-452
 - CurrentFieldValue function, 326
 - defined, 192, 240
 - formulas, entering, 241
 - Highlighting Expert, 241
 - report section, 197
 - viewing, 241
 - x+2 buttons, 192
 - groups
 - creating, 76-77
 - selecting, 90, 93
 - memo field operations, 308-310
 - multipass issues
 - BeforeReadingRecords
 - process, 125
 - cross-tab, chart and map generation, 126-127
 - group ordering step, 126
 - importance, 125
 - local record selection
 - step, 126
 - OLAP grid generation, 127
 - page count determination, 127
 - pass #1, 126
 - pass #2, 126-127
 - pass #3, 127
 - pre-pass #1, 125
 - pre-pass #2, 126
 - print-time formula evaluation, 126
 - record retrieval, 126
 - recurring formula evaluation, 126
 - saving data from pass #1, 126
 - sorting, grouping, summarizing step, 126
 - subreport generation, 127
 - WhilePrintingRecords
 - process, 126-127
 - WhileReadingRecords
 - process, 126
 - name custom function
 - example, 314-317
 - nesting, 93-95
 - new features available, 308
 - order of precedence, 307
 - parentheses, 307
 - print-time formula evaluation, 126

- record selection, 84-86
 - complex example, 284-285
 - date comparators, 267-268
 - displaying, 266
 - performance issues, 269-271
 - string comparisons, 268-269
 - tools for, 266
 - troubleshooting, 285
 - recurring, evaluation phase, 126
 - runtime errors, 312-314
 - S symbol, 308
 - strings
 - & (concatenation operator), 113
 - + (concatenation operator), 113-115
 - comparisons, 268-269
 - field searches within, 308-310
 - Formula Editor for creating, 113-115
 - functions, 113
 - Left function, 114
 - subreports with linked data, 293
 - symbols, 308
 - syntax options, 306-307
 - syntaxes available, 103
 - templates, 325
 - ToolTips
 - adding to results, 115
 - creating, 235
 - type conversion, 116-117
 - unbound fields, PDF 883
 - Web Intelligence, 499-502
 - Workshop, 101
 - advantages, 98-99, 325
 - components, 99
 - Custom Function creation, 100
 - Format Editor with, 102
 - formatting formulas, 102
 - Formula Editor place in, 98
 - Formula Extractor, 124
 - formula fields, 101
 - navigating, 99-100
 - Report Section Expert, 102
 - Repository Custom Functions, 100-101
 - selection formulas, 101
 - SQL Expression fields, 101
 - Tree, navigation, 99-100
 - x+2 buttons, 192
- four-tier approach (Web Intelligence engine), 481**
- Framework, PDF 902-PDF 903**
- Free-Form Placement option, 190**
- French brackets, 307**
- FRS (File Repository Servers), 621**
- configuring, 658
 - managing, 705-706
 - purpose, 620-621
- FTP (File Transfer Protocol), 616, PDF 897**
- Full Control rights, 694**
- Full Outer joins, 35**
- full-client reports, 390**
- functions**
- arguments, naming, 124
 - arithmetic, in Formula Editor, 106
 - CDate(), 117
 - CDateTime(), 117
 - CDbl(), 117
 - concatenation, 113-115
 - CStr(), 117, 127
 - creating from formulas, 123-125
 - CTime(), 117
 - Current Date, 111
 - CurrentFieldValue, 326
 - custom
 - argument names, 124
 - author information, 124
 - Business Objects Repository, adding from, 393-394
 - calling other custom functions, 311
 - categories, entering, 124
 - Central Repositories, adding, 127-130
 - converting formulas to, 315
 - creating, 123-125, 128, 310-311
 - Crystal Repository with, 312
 - CurrentFieldValue function, 326
 - database field access, 311
 - default values, 125
 - descriptions, 312
 - divide-by-zero errors, 128-129
 - division example, 128-129
 - End Function statements, 311
 - Extractor, 128
 - field header example, 130-131
 - Formula Expert, creating formulas with, 122
 - Formula Extractor, 325
 - Formula Workshop, 100
 - Help text, 125
 - More Info, adding, 124
 - name formula example, 314-317
 - optional parameters, 311
 - Repository, 100-101
 - sharing, methods, 312
 - statelessness, 325
 - summary descriptions, 124
 - syntax options, 311
 - templates, creating, 325-326
 - Date and Time formula, 111
 - divide-by-zero errors, 128-129
 - DTSToDate, 268
 - EvaluateAfter(), 122, 127
 - financial, 310
 - help files, 106
 - InfoView
 - alert, 582
 - delete, 582, 585
 - filter, 583

- high importance, 585
- history, 581
- low importance, 585
- modify, 582
- new message, 585
- organize, 582
- reply to group, 585
- reply to sender, 585
- schedule, 578-580
 - Viewer, 575-576
- IsAlertTriggered(), 283
- ISubreportClientDocument(), 874
- LowerCase(), 309-310
- Roman(), 117
- string, 113
- ToNumber(), 117
- ToText(), 117
- ToWords(), 117
- type conversion, 116-117
- user defined, 268
- Web Intelligence, 500

Funnel charts, 206

G

- Gantt charts, 206**
- Gap Between Details option, 193**
- Gap Width slider for charts, 222**
- Gauge charts, 205**
- general preferences (InfoView), 588**
- generic database user accounts, 648**
- generic events, 611**
- geographic prompts, cascading, 279-282**
- geographical mapping. *See* maps**
- Getting Started page, 18**
- Give Preference to Servers Belonging to the Selected Group, 684**
- global settings (InfoView), 586-588**

- global variables, 122**
- grand totals**
 - alternative summaries, 88
 - creating, 87-88
 - multi-pass reporting process, calculation in, 127
- graphics, adding, 174**
- Grid viewer, 841, 848-850**
- Group By On Server option, 276-278**
- Group command (Insert menu), 47, 172**
- group name fields, 62**
- Group Number fields, 63**
- Group Selection Formula fields, 63**
- Group Sort Expert Top/Bottom N parameters, 148**
- Group Sorting dialog box, 42**
- group trees**
 - InfoView, 575
 - Java Reporting Component viewer, 730
 - Web Forms Viewer property, 755
 - Windows Forms, 754
- GroupFilterControllers, 867**
- groups, PDF 930**
 - adding programmatically, 863-864
 - boxes, creating around, 236-238
 - complex filter formulas, 93-95
 - cross-tab placement in headers, 262-263
 - data reports, creating, 47
 - date/time related, 70
 - Design window for organizing, 68
 - details,
 - hiding, 89
 - line color formulas, 201-202
 - drill-down paths, 72
 - field selection, 65

- Format Groups with
 - Multiple Column option, 193-194
- formulas
 - creating, 76-77
 - ranges, 75-76
- Group Expert, 68-69, 76
- Group Indent fields, 72
- Group Sort Expert, 89-91
- Group Tree, 68
- hierarchical, 70-72
- Insert Group dialog, 65
- inserting, 65-67
- map layout options, 216-217
- multi-pass reporting process
 - ordering step, 126
- multiple fields, sorting, 67-68
- naming, 67
- objects, 169, 410
- option settings, 67
- parameter field selections
 - from, 147-148
- prompt, 407
- purpose, 65
- report section components, 182
- sections inserting summaries, 184-185
- selections, 89-93
- server, 706-707
- sort order selection, 66
- sorting, 89-91
- summaries, 88-89
- Top 10 Sort option, 206
- user
 - adding users, 671-673
 - Administrators, 669
 - advantages, 669
 - creating, 669-670
 - defaults, 669
 - defined, 668
 - Everyone, 669
 - management with SDK, 793
 - membership settings, 667
 - permission management, 669
 - scheduling, 692
 - subgroup creation, 673-675

Windows authentication settings, 713

Guest accounts, 665

H

handles (objects), 161

hardware planning issues, 638-641

hcarts (ad hoc reports), 524

headers

cross-tab placement in, 262-263

InfoView, 586-587

reports, 48

Show All Headers on Drill-down option, 201

templates for formatting, 333-334

Help menu, 23

Hide (Drill-Down OK) option, 188-190

hiding

design explorers, 24

objects, 416

hierarchies

groups, 70-72

Web Intelligence, 502-503

high importance function (InfoView), 585

Highlight Exceptions dialog box, 451

highlighting

conditional formatting, 241

exceptions, 451-452

Expert, 241

Histogram charts, 206

history function (InfoView), 581

History node (Database Expert), 29

History tab (CMC), 681-683

horizontal alignment, 164, 169

Horizontal Page Number fields, 64

HTML (Hypertext Markup Language)

example (OLAP

Intelligence actions), 471-472

exporting to from .NET

Components, 749

Query panel (InfoView), 577

report example, 50

Report panel, 486-487, 577

report viewer, Java, 726-729

Web Intelligence reports, 492

HTTP (Hypertext Transfer protocol), PDF 897

cubes, 428-429

data sources, 346-347

human resource issues, 637

Hyperlink tab (Format Editor), 166-167, 171

hyperlinks

drill-down functionality, 171

e-mail, 171

files, 171

formatting, 166-167

QueryStrings, 178-179

reports opening with, 242-243

objects, 171

Web sites, 171

Hypertext Markup Language. *See* HTML

Hypertext Transfer Protocol. *See* HTTP

I

IANA (Internet Assigned Numbers Authority), PDF 899

IBR (Integrated Baan Reporting), 355

iCubes, 428-429

identifying business pain, 635

If/Then/Else structures, 118-120

images, adding, 174

importing .rpt files, PDF 881

In operator, 269

In-Place Subreports, 295-297

indexes

data warehouses, 403

database performance, 277

properties, 781-783

tables, 404

indirect access drivers, 26

InfoObject class, 774-775

information consumers, 559

InfoSet driver, 350

InfoStore

calling with getService, 772

characteristics, 775

CI_APPOBJECTS kinds, 777

CI_INFOOBJECTS kinds, 776

CI_KIND properties, 776

CI_SYSTEMOBJECTS kinds, 777

FROM clause, 775

indexed properties, querying, 781

InfoObjects, 774-775

objects

categories, 775-778

changing, 775

creating, 775

embedded, 775

purpose, 774

retrieving, 774

storing, 774

Plugin interface, 775

query acceleration, 775

universes, 410-411

InfoView

accessing, 571

actions, 574

ActiveX viewer, 578

administration page, 586

Advanced DHTML viewers, 576-577

- Advanced Search Wizard, 576
 - alert function, 582
 - architecture, 570
 - authentication, 571
 - Business Objects Enterprise
 - content, 566
 - categories, 573
 - client-side viewers, 577
 - Crystal Reports Server
 - combination, 552
 - current locale, 588
 - customizing, 585-586
 - database logons, 580
 - delete function, 582, 585
 - DHTML viewers, 576
 - Discussions section, 584-585
 - document forwarding, 573
 - e-mailing upon alerts, 581
 - Encyclopedia section, 572, 583-584
 - Favorites folder, 574
 - filters, 580, 583
 - folders, 573
 - formatting, 580
 - global settings, 586-588
 - high importance function, 585
 - history function, 581
 - HTML Query panel, 577
 - HTML Report panel, 577
 - initial views, 572, 588
 - installing, 570-571
 - Java, 578
 - logos, 587
 - low importance function, 585
 - measuring units, 590
 - migration issues, 390
 - mobile viewer, 577
 - modify function, 582
 - My InfoView, 573
 - Navigation section, 572-573
 - new document icon, 572
 - new message function, 585
 - notes, 584-585
 - object properties, 573
 - organize function, 582
 - overview, 570
 - parameters, 580
 - preferences, 573
 - print settings, 580
 - programmatic customizations, 591-592
 - properties
 - action, 582-583
 - page, 586-588
 - reply to group function, 585
 - reply to sender function, 585
 - schedule function, 578-580
 - screens, refreshing, 572
 - searches, 573
 - server groups, 580
 - server-side viewers, 576
 - style sheets, 587
 - time zones, 588
 - toolbar section, 572-573
 - troubleshooting
 - invisible changes, 592
 - logons, 593
 - My InfoView, 593
 - user preferences, 588-591
 - general, 588
 - My InfoView, 590-591
 - OLAP Intelligence documents, 589
 - viewers, 589-590
 - Web Intelligence documents, 589
 - Viewer functions, 575-576
 - Web Intelligence document creation, 809-810
 - Web.xml settings, 592
 - welcome page, 571
 - Workspace section, 574
- inheritance**
- Live Office, 532
 - rights, 694
- initiating RAS sessions, 858**
- Inner joins, 34**
- Input File Repository Servers, 547, 705-706**
- Insert button (Section Expert), 190**
- Insert Group dialog box, 47, 172**
- Insert menu commands, 22**
- Cross-Tab, 253
 - Group, 47, 65, 172
- Insert Chart, 205
- Insert Map, 214
- Insert OLAP Grid, 362
- Insert Subreport, 289-290, 303
- Page Menu, 432
- Summary, 48
- Text Object, 161
- Insert Summary dialog box, 48**
- Insert Tools toolbar, 20**
- inserting**
- charts, 205-206
 - report sections, 190, 195-199
- installing**
- Business Objects Enterprise SDKs, 769-770
 - Crystal Reports Explorer, 513
 - InfoView, 570-571
 - Live Office, 528
 - .NET BOE SDK, 769-770
 - on-demand, 28
 - Repository samples, 421
- instances**
- action buttons, 682
 - deleting, 683
 - expiration, 683
 - history, viewing, 681-682
 - Pause button, 682
 - refreshing, 683
 - Resume button, 682
 - Run Now button, 682
 - Send To button, 683
- Integrated Baan Reporting (IBR), 355**
- integration approach selection, 766-768**
- integration kits**
- Baan, 355
 - ERP applications support, 348
 - full data access, 348
 - metadata issues, 349
 - PeopleSoft, 353-354
 - real-time data access, 349
 - sample reports, 349
 - SAP, 349

- BW data, 350-352
- BW Query driver, 350
- InfoSet driver, 350
- MDX query driver, 351
- ODS driver, 351
- Open SQL drivers, 349
- R3 data, 349-350
- reports, viewing, 353
- troubleshooting, 356
- security, 348
- Siebel, 354
- intelligence tier (Crystal Reports Server), 547-548**
- interactive reports (Web Intelligence), 492-494**
- Interactive viewer, 841, 846-848**
- internal IP packet filtering, PDF 914-PDF 917**
- Internet Assigned Numbers Authority (IANA), PDF 899**
- Interoperable Object Reference (IOR), PDF 902**
- IOR (Interoperable Object Reference), PDF 902**
- IP addresses, converting, PDF 900**
- IP packet filtering firewalls (Crystal Enterprise deployment), PDF 911**
 - external scenarios, PDF 912-PDF 914
 - internal scenarios, PDF 914-PDF 917
- Is date operators, 267**
- Is Like operator, 152**
- IsAlertTriggered() function, 283**
- ISubreportClientDocument() function, 874**
- items grid control, .NET, 817**
- iViews, 353**

J

Java

- Applet viewer, 799
- configuration, PDF 904
- Crystal Enterprise SDK, 720
- Data Base Connectivity, 723-725, 739
- data source drivers, 345-346
- documentation, 769
- folder structure for Web applications, 769
- InfoView edition, 570
- Naming and Directory Interface, 725
- Provider, 355
- query panel, 810-811
- Reporting Component API, 722
 - application servers, 720-721, 725-726
 - architecture, 720-722
 - code for exporting reports, 732-734
 - COM libraries, 723
 - configuration, 725
 - connection URLs, 724
 - CrystalReportViewer class, 726
 - data source coding methods, 737-738
 - databases, 723-725, 739
 - desktop viewer controls, 722
 - export format limitations, 733
 - exporting reports, 731-734
 - file format limitations, 722-723
 - group tree customization, 730
 - HTML report viewer, 726-729
 - IDEs, 738
 - JDBC connections, 723-725, 739
 - JNDI references, 725
 - native Java code makeup, 721
 - overview, 720
 - page number specification for exports, 734
 - parameter passing, 735-737
 - parts, 721
 - PDF, exporting, 731-734
 - printing reports, 735
 - processHttpRequest method, 727-728
 - programming issues, 735-738
 - report engine, 721
 - report panel, 487-490, 578
 - report source types, 731
 - report tags, 730
 - ReportExportControl, 733
 - RTF, exporting, 731-732
 - scalability, 720
 - setReportSource method, 727
 - tag libraries, 726, 730-731
 - toolbars for viewers, 728-730
 - user function libraries, 723
 - viewer tags, 730
 - viewing in HTML sample code, 728-729
 - Web application configuration, 726
- SDK. *See* BOE SDK
- support, 600
- viewer (InfoView), 578
- Java Server Faces. *See* JSF**
- Java Server Pages. *See* JSP**
- JavaBeans, 346**
- JavaDir property, 346**
- JDBC (Java Data Base Connectivity), 723-725, 739**
- JNDI (Java Naming and Directory Interface), 725**
- Job Servers**
 - access requirements, 657
 - Business Objects Enterprise, 563

Crystal Reports Server, 548
 database access services, 615
 Destination Job Servers, 617
 e-mail services, 615
 external systems services, 616
 FTP services, 616
 jobs per CPU, 652
 List of Values Job Servers, 617
 managing, 704
 object distribution service, 615
 place in server tier, 614
 planning, 649, 652-653
 printer services, 616
 processing extensions, 616
 Program Job Servers, 617
 Report Job Servers, 615-617
 requirements planning issues, 647
 scheduling reports, 628
 SMTP services, 615
 unmanaged disk services, 616
 Web Intelligence Job Servers, 618

joins. *See also* linking
 disparate data sources, 401
 enforcing, 35
 Full Outer, 35
 Inner, 34
 Left Outer, 34
 linking order, 402
 metadata, 398
 multiple tables, PDF 927-PDF 928
 Not Equal, 34
 overview, 33-34
 semantic layers, 398
 tables, 47, 402
 universe optimal paths, 413

JSF (Java Server Faces)
 component overview, 814-816
 disadvantages, 814
 JSP Model 2 pattern, 813
 purpose, 813
 stability, 814

JSP (Java Server Pages)
 Model 2 pattern, 813
 tag libraries for, 730-731
JSR-168 support, 821

K

Keep Together option, 191
Key Performance Indicators cubes, 430

L

labels (cross-tabs columns), 259-260
latency, 828
Launchpad (BusinessObjects Enterprise), 662
layering objects, 172-175
layers (semantic), 398
 abstract function, 398
 business suitability, 398
 business views
 advantages, 645
 business elements, 406
 Business Objects Repository, 394
 business tiers. *See* business tiers
 Business View Manager, 400, 404, 421
 client tiers, 399
 column-level security, 405
 creating, 407
 Crystal Reports Explorer, 522
 data connection component, 401
 data foundation component, 402-404
 data tiers, 408
 disparate data sources, joining, 401
 dynamic data connections, 402
 filters, 405-406
 formulas, 404-405
 parameters, 405-407

planning issues, 645-646
 Repository Explorer, 400-401
 requirements, reporting, 645-646
 rights, 407
 row-level security, 405
 scheduled prompts, 421
 security rights, 400
 SQL expressions, 404
 universes, compared, 421
 connection swapping, 416
 data sources supported, 398
 future, 399
 metadata, 398
 object hiding, 416
 overrides, 415-416
 restriction sets, 416-419
 row restrictions, 416
 security, 399
 table swapping, 416
 transportability, 399
 types, 398
 universes. *See* universes
 Web Intelligence, 482-483

LDAP (Lightweight Directory Access Protocol)
 authentication, 710-712
 security plug-in, 606

Left function, 114

Left Outer joins, 34

legacy applications, 339

legacy reports, 637

Length Limit parameter property, 137

libraries

CRAXDRT, PDF 884, PDF 894
 references, PDF 884

licensing

concurrent licenses, 709
 keys, 708
 named licenses, 709
 processor licenses, 709
 Report Application Server issues, 622
 system-wide settings, 708-709
 user accounts, setting up, 666

Lightweight Directory Access Protocol. *See* LDAP

Line tab (Format Editor),
172

Linear Regression Experts,
474

lines

borders, 170
creating, 236

Link dialog box, 40

linking. *See also* joins

order, 402
reports to reports, 242-243
subreports, 288, 292-295,
303, 875
tables

Crystal Reports
Explorer, 518
programmatically, 863
views, 404

**Linking Diagram menu com-
mands, Order Links,** 403

List of Values Job Servers,
617

**List of Values Type property
of parameter fields,** 136

listings

COM Data Provider
ADO recordsets,
343-344
reading XML, 356
Java Data Provider, 345-346

Live Office

concealing data, 532
configuring, 528
connections, 528-530
cube views, 533
data sources, 531
defaults, 532
Direct OLAP Connections,
532-533
configuring, 533
drilling, 536
workbook views,
533-536
drilling, 531
fields, selecting, 530
filters, 530
formatting, 532

inheritance, 532
installing, 528
instances, 532
MDX, 535
overview, 527
parameters, 532
PowerPoint, 536-537
properties, 531
reports, 531
views, 531-532
Word, 537-538

load balancing, 658
CMS services, 611
RAS, 856
translation, PDF 900

local variables, 122

Locate tables tool, 404

locking

positions/sizing, 169
reports, 434

**logical functions (Web
Intelligence),** 500

logons

BOE SDK sessions, 771,
793
.NET, 817
UWS code, 836

logos, 333-334

look and feel consistency. *See*
templates

looping

100,000 loop limit, 121
batch reporting, PDF 894
Do/While, 121
For/Step/Do, 120
While/Do, 121

**low importance function
(InfoView),** 585

LowerCase() function,
309-310

M

**maintenance phase of devel-
opment,** 644

managing

accounts
Administrator accounts,
665

all users, listing, 668
authentication settings,
667
default usernames, 665
e-mail associations, 666
group inheritance model,
665
Guest accounts, 665
licenses, 666
membership settings, 667
overview, 665
passwords, 666
permissions, 665
rights restriction, 667
systems of record, 665
user accounts, 665-668
user groups. *See* account
management, user
groups
usernames, 665-666

CMC for. *See* CMC

content, 675-676

folders, 695-699

groups

adding users, 671-673
Administrators, 669
advantages, 669
creating, 669-670
defaults, 669
defined, 668
Everyone, 669
membership settings, 667
permission management,
669
scheduling, 692
subgroup creation,
673-675
Windows authentication
settings, 713

objects

adding objects to folders,
696
alert notification options,
690
Categories, 678, 692-693
CMS services, 609-610
Corporate Categories,
692
database options,
685-686
Description property,
680

- destination options, 678, 690-691
 - file format options, 691
 - File Name property, 679
 - Filters subsection, 687-688
 - Folder Path property, 680
 - folder selection, 678
 - history data, 681-683
 - instance expiration limits, 683
 - logons, database, 685
 - new object creation, 676
 - notification options, 690
 - Parameters subsection, 686-687
 - Personal Categories, 692
 - Preview button, 680
 - print settings, 688-689
 - Process tab (CMC), 683-686
 - Processing Extensions, 688
 - Properties tab, 679
 - Refresh Options, 680
 - Report Titles, 679
 - reports as objects, 676
 - repository options, 678
 - rights options, 693-695
 - scheduling options, 689-690
 - server options, 683-685
 - summary information, entering, 678
 - thumbnails, 678-680
 - types, 676, 695
 - Universe properties, 680
 - servers
 - Auditing tab, 701
 - Cache Servers, 701-702
 - CMS management, 704-705
 - disabled servers, restarting, 700
 - Event Servers, 702
 - FRS management, 705-706
 - groups of servers, 706-707
 - Job Servers, 704
 - overview, 700
 - Page Servers, 703-704
 - Servers command, CMC, 700
 - status of servers, viewing, 700
 - manual design process, 46-49**
 - data sources, 46
 - fields, adding, 47
 - grouping data, 47
 - headers/footers, 48
 - saving reports, 49
 - summaries, 48-49
 - tables, 46-47
 - viewing reports, 49
 - MapInfo (vendor), 214**
 - maps**
 - advanced layout options, 215-218
 - Bar Charts, 219
 - blank result maps, 216
 - cross-tab layout options, 216
 - Dot Density type, 219
 - Expert
 - accessing, 214
 - Advanced layout button, 215-218
 - Bar Charts, 219
 - blank result maps, 216
 - Cross-Tab layout button, 216
 - Data tab, 215
 - Dot Density type, 219
 - Geographic field selection, 217-218
 - Graduated type, 219
 - Group layout button, 216-217
 - Layout section, 215-216
 - Map Values field, 217
 - OLAP layout button, 216
 - On Change Of option, 216-217
 - Pie Charts, 219
 - Placement section, 215
 - purpose, 214
 - Ranged type, 219
 - Rapid map Creation
 - function, 217
 - Show option, 216-218
 - Text tab, 219-220
 - Type tab, 218-219
 - Format Map dialog, 226
 - Geographic field selection, 217-218
 - Graduated type, 219
 - groups layout options, 216-217
 - layer control, 227
 - layout options, 215-216
 - Navigator thumbnails, 227
 - OLAP, 216, 377-378
 - On Change Of option, 216-217
 - panning, 227
 - Pie Charts, 219
 - placement control, 215
 - positioning, 226
 - properties, 226
 - Ranged type, 219
 - Resolve Mismatch dialog, 227
 - Show option, 216-218
 - sizing, 226
 - summary field creation, 217
 - tables, 403
 - title options, 219-220
 - type selection, 218-219
 - unbound fields, PDF 891
 - zooming, 227
- margins**
 - defaults, 177
 - formatting, 176
 - MDX (Multi Dimensional Expressions), 446, 476**
 - Live Office, 535
 - query driver, 351
 - Measure objects**
 - definitions, 412
 - type, 409
 - Web Intelligence, 488
 - Member Display tab (Options dialog box), 477**
 - Member Selector dialog box, 451**

members

names (Slice Navigator),
458

OLAP

defined, 361
drilling-down feature,
375
fields same as, 366
slice specification,
367-370
specifying, 366
settings, 667

memo fields, 308-310**menus, 21-23**

Chart, 22
Database, 22
Edit, 21
File, 21
Format, 22
Help, 23
Insert, 22
Report, 22
View, 22
Window, 23

Merge button (Section Expert), 190**Merge Section Below command, 199-200****merged dimensions, 508****microcube engine, 413-415, 483****Microsoft**

Access, 395
Excel
 Crystal Reports Explorer
 integration, 526
 exporting, 749
 OLAP workbook views,
 533-536
Live Office Add-in
 concealing data, 532
 configuring, 528
 connections, 528-530
 cube views, 533
 data sources, 531
 defaults, 532
 Direct OLAP
 Connections, 532-536
 drilling, 531

fields, selecting, 530
filters, 530
formatting, 532
inheritance, 532
installing, 528
instances, 532
MDX, 535
overview, 527
parameters, 532
PowerPoint, 536-537
properties, 531
reports, 531
views, 531-532
Word, 537-538
PowerPoint, 536-537
UWS sample applications,
826
Web Services with, 826
Word
 Live Office, 537-538
 .NET exports to, 749

miscellaneous functions (Web Intelligence), 500**mobile viewer (InfoView), 577****Modification Date fields, 64****Modification Time fields, 64****Modify Command dialog box, 32****modify function (InfoView), 582****More Data Sources node (Database Expert), 28****Moving Average Experts, 474****moving**

averages, charting, 231
report objects, 434

Multi Dimensional Expressions. See MDX**multi-pass reporting process**

BeforeReadingRecords
 process, 125
cross-tab, chart and map
 generation, 126-127
group ordering step, 126
importance, 125
local record selection step,
126

OLAP grid generation, 127
page count determination,
127
pass #1, 126
pass #2, 126-127
pass #3, 127
pre-pass #1, 125
pre-pass #2, 126
print-time formula evalua-
 tion, 126
record retrieval, 126
recurring formula evalua-
 tion, 126
saving data from pass #1,
126
sorting, grouping, summa-
 rizing step, 126
subreport generation, 127
WhilePrintingRecords
 process, 126-127
WhileReadingRecords
 process, 126

multiple

tables, joining,
 PDF 927-PDF 928
report processing servers
 deployment, 656-658
restriction sets, 418-419
servers
 deployment, 654-656
 Socks configurations,
 PDF 921-PDF 922

My InfoView (InfoView)

preferences, 590-591
troubleshooting, 593

N**name builder custom func-
tion, 314-317****Name property of parameter
fields, 136****Named Sets (OLAP
Intelligence), 457****names**

actions (OLAP
 Intelligence), 469
licenses, 709
objects, 168
tables, 31

nameservers, 608**NAT (Network Address Translation),
PDF 900-PDF 901,
PDF 917-PDF 919****native drivers, 25****navigation**

- functions (InfoView), 575
- InfoView, 572-573
- maps (Web Intelligence), 493
- Tools toolbar, 21
- Web Intelligence, 483
- Workspace, 574

nesting

- dimensions, 435
- formulas, 93-95
- subreports, 300

.NET

- adding new reports, 745
- ADO.NET, 742
- API stack, 816
- application servers, 613
- ASP.NET, 742
- authentication controls, 817-818
- batched exports, 749-751
- change password control, 817
- configuring, PDF 904
- Data Provider, 344
- data sources, 338-339
- database credentials, 757-758
- Dataset Providers
 - creating, 340-341
 - runtime data manipulation, 339
- defined, 742
- Destination control, 819
- event handling control, 820
- Excel, exporting to, 749
- exporting reports, 748-751
- Field Explorer, 746
- HTML, exporting to, 749
- InfoView edition, 570-571
- items grid control, 817
- logon control, 817

object mode

- defined, 747
- Export method, 749
- exporting reports, 748-751
- ExportToDisk method, 748
- ExportToHttpResponse method, 749
- ExportToStream method, 748
- formats for exporting reports, 749
- print methods, 751-752
- ReportDocument objects, 748
- strongly typed reports, 748
- object viewing controls, 819
- opening reports, 748
- overview, 743
- parameter fields with viewers, 758-760
- PDF, exporting, 749
- print methods, 751-752
- printing reports, 762
- Property Browser, 746
- reports
 - Application Server, 760
 - controls, 819
 - designer, 744-746
 - Engine Object Model, 747
 - Wizard, 745
- repository, 746, 817
- RTF, exporting, 749
- scheduling controls, 818-819
- SDK
 - assemblies, 770
 - installation, 769-770
 - supporting, 766
- server controls, 816-820
- SetDatabaseLogon method, 758
- SOAP, 742
- strongly typed reports, 748
- support for in BOE, 600
- threads, 749-751
- user interface conventions, 745-746

versions, 743

- Viewer, Windows Forms, 752
- Visual Studio .NET, 743
- Web Forms Viewer, 755-757
- web services with, 761-762
- Windows Forms, 752-755
- Word, exporting to, 749
- xcopy, 762
- XML web services, 742, 761-762

Network Address**Translation (NAT),
PDF 900-PDF 901,
PDF 917-PDF 919****networks**

- hardware planning issues, 639-640
- redundancy translation, PDF 901

new message function (InfoView), 585**New Page options, 191****New Page template dialog box, 432****New Server dialog box, 427****newDocument method, 861****NLB (Network Load Balancing), 658****No Access rights, 694****Not Equal joins, 34****notification options, 690****NT security plug-in, 606****numbers**

- display strings, 260-262
- formatting, 172, 444
- phone numbers, 178
- templates field objects for formatting, 328

Numbers tab (Format Editor), 172**Numeric Axis charts, 205****numeric functions (Web Intelligence), 500**

O

Object Linking and Embedding (OLE), 21**objects**

- adding to reports, 433-434
- Analysis Buttons, 459-464
 - actions, 462
 - copying, 465
 - drilling down, 463
 - labels, 461
 - members, 462-464
 - page specifications, 462
 - parameters, 464
- Boolean, 172
- chart, adding, 452-454
- combining, 172-175
- Condition, 488
- creating in BOE SDK, 775, 790-791
- database
 - adding, 29-30
 - joining, 33-35
 - SQL commands, 31-33
 - stored procedures, 31
 - tables, 30-31
 - viewing, 30-31
- definitions, 411-412
- deleting in BOE SDK, 791-792
- Detail, 488
- Dimension
 - definitions, 411
 - Web Intelligence, 488
- dragging/dropping, 173
- fields
 - formatting, 161-162
 - length, 169
- formatting, 434
- grouping, 169, 410
- handles, 161
- hiding, 416
- hyperlinks, 171
- IDs, 790
- layering, 172-175
- listing options, 587
- management
 - adding objects to folders, 696
 - alert notification options, 690

- Categories, 678, 692-693
- CMS services for, 609-610
- Corporate Categories, 692
- database options, 685-686
- Description property, 680
- destination options, 678, 690-691
- file format options, 691
- File Name property, 679
- Filters subsection, 687-688
- Folder Path property, 680
- folder selection, 678
- history data, 681-683
- instance expiration limits, 683
- logons, database, 685
- new object creation, 676
- notification options, 690
- Parameters subsection, 686-687
- Personal Categories, 692
- Preview button, 680
- print settings, 688-689
- Process tab, CMC, 683-686
- Processing Extensions, 688
- Properties tab, 679
- Refresh Options, 680
- Report Titles, 679
- reports as objects, 676
- repository options, 678
- rights options, 693-695
- scheduling options, 689-690
- server options, 683-685
- summary information, entering, 678
- thumbnails, 678-680
- types, 676, 695
- Universe properties, 680

Measure

- definitions, 412
- Web Intelligence, 488

metadata, 607-608

- model, Business Objects
 - Enterprise SDK, 772
 - moving, 434
 - names, 168
 - repeating, 169
 - reports, 19, PDF 884-PDF 885
- Repository
 - Helper, 394
 - refresh options of objects, 678
- restriction set overrides, 417
- scheduling, 610-611
- selecting, 433
- sizing, 433-434
- Slice Navigator, 458-459
- storing, 400
- text
 - boxes, 465
 - formatting, 161
 - sizing, 161
- types, BOE, 601
- universe, 408-409
- Worksheet, 434-435
 - asymmetrical member views, 442-443
 - automatic totals, 444
 - calculated members, 446
 - chart reflections, 435
 - dimensions, 434-435
 - exception highlighting, 451-452
 - filters, 448-451
 - member captions, 444
 - numbers, formatting, 444
 - ordering members, 443
 - properties, 435-438
 - selecting members, 438-442
 - sorting, 446-448

ODBC (Open Database Connectivity), 26

- connections, 516
- Data Source Selection dialog box, 38
- dialog box, 160

ODS (Operational Data Store) driver, 351

OIQL (OLAP Intelligence Query Language), 476

OLAP (Online Analytical Processing)

advanced Crystal Reports features, 374

advantages, 361

aggregation within cubes, 361

Analyzer feature

Report Creation Wizard, 363

role, 360

CAR files, 365

charts

adding, 370-372

creating, 377-378

layout button, 208

Connection Browser,

363-365, 426-427

cubes, connecting, 431

data sources, 427-428

favorite cubes, 429-430

OLAP Report Creation

Wizard using, 363-365

SQL Server Analysis

Services cube, 428

Cube tab, 362

cubes, 360, 426

data sources, 362

defined, 360

dimension specification,

365-367

Direct Connections (Live

Office), 532-533

configuring, 533

drilling, 536

workbook views,

533-536

drilling-down feature, 375

Expert

accessing, 362

formatting options, 373

label customization,

373-374

source specification,

363-365

style customization,

372-373

field specification, 367

formatting options, 373

grid presentations, 361

inserting grids in existing reports, 379

Intelligence. *See* OLAP Intelligence

interactive drill-down, 362

interactive features, 374-375

interactive OLAP

Worksheet, 362

label customization,

373-374

link to parameter functionality, 368

maps

creating, 377-378

layout options, 216

members defined, 361

new features, 361-362

page specification, 367-370

parameter specification, 366

pivoting grids, 375-376

planning issues, 639

purpose, 360-361

Report Creation Wizard

CAR files, 365

charts, adding, 370-372

creating reports, 364

dimension specification,

365-367

field specification,

365-367

link to parameter func-

tionality, 368

nesting dimensions, 365

page specification,

367-370

parameter specification,

366

purpose, 362

row and column specifi-

cation, 365-367

Select Cube button, 363

slice specification,

367-370

source specification,

363-365

style selection, 370-371

text prompts, 368

row and column specifica-

tion, 365-367

Row/Column Dimension

Parameter links, 361

server data sources, 427-428

slice specification, 367-370

Slice/Page Dimension

Parameter links, 362

source specification,

363-365

style customization, 372-373

summary report example,

379-381

View Cube option, 376

OLAP Intelligence, 424

actions, 452

accessing, 468

applying, 470

context-aware expres-

sions, 471

copying, 471

creating, 467-471

dimensions, 470

HTML example,

471-472

naming, 469

SQL Server, 468

templates, 470

types, 470

viewing, 468

Allow Context Menus, 456

Analysis Buttons objects,

459-464

actions, 462

copying, 465

copying members, 462

dimension members, 462

drilling down, 463

labels, 461

member ranges, 464

member specifications, 464

page specifications, 462

parameters, 464

selecting members, 463

targeting members, 463

analytic reports, 424-425

automatic totals, 444

Blank Application option,

426-427

Border tool, 456

BW data, reporting,

351-353

calculated members, 446

Calculation Experts, 473

- calculations, adding, 472
- charts
 - Dimension Explorer, 457
 - objects, adding, 452-454
- connections, 426-427
- cubes, 426
- custom calculations, 475-476
- Data Analysis
 - calculations, 477
 - Experts, 474-475
- data sources, 427-428
- design overview, 430
- designer, 431
 - cubes, connecting, 431
 - pages, adding, 432-433
- Dimension bar, 456
- Dimension Explorer, 455-457
- exception highlighting, 451-452
- favorite cubes, 429-430
- Favorites component, 455
- filters, 441, 448-451
- growth calculations, 473
- guided analytics, 424
- InfoView preferences, 589
- Key Performance Indicators
 - cubes, 430
- Linear Regression Experts, 474
- locking reports, 434
- MDX, 476
- members
 - asymmetrical views, 442-443
 - captioning, 444
 - contributions, 473
 - ordering, 443
 - selecting, 438-442
- Moving Average Experts, 474
- Named Sets support, 457
- numbers, formatting, 444
- objects
 - adding, 433-434
 - formatting, 434
 - moving, 434
 - selecting, 433
 - sizing, 433-434
 - Worksheet. *See* Worksheet objects

- openDocument dispatcher
 - links in, 808-809
- overview, 378, 424-426
- parameters, 466-467, 477
- Pivot control, 456-457
- Query Language syntax, 476
- rank, calculating, 473
- reports
 - creating, 426
 - options, 476-477
- request processing, 628-629
- Root Node, 456
- Search Wizard, 441
- Slice Navigator objects, 458-459
- sorts, 446-448
- SQL Server Analysis
 - Services cube, 428
- starting, 426
- templates, 426
- text box objects, 465
- Trend Line Experts, 474
- users, 424
- variances, 473
- worksheet dimensions, viewing, 440

OLAP Intelligence Query Language (OIQL), 476

OLE (Object Linking and Embedding), 21

OLE DB database drivers, 26

OLTP (Online Transactional Processing) databases, 360

on-demand installations, 28

on-demand reporting

- persistence in Cache Servers, 702
- planning for deployments using, 647-648
- viewing, 551

On-Demand Subreports, 295-297

On-Demand Viewing, 618-619, 627

Online Analytical Processing. *See* OLAP

Only Use Servers Belonging to the Selected Group, 684

Open Database Connectivity. *See* ODBC

open method, RAS, 858

Open SQL drivers, 349

openAnalytic.jsp dispatcher, 798

openDocument dispatcher

- advantages, 799
- context specification, 806
- Document IDs, 801
- encoded characters, 812
- expired sessions, 800
- Java version, 800
- length limitations of queries, 813
- links
 - Crystal Reports, 807-808
 - OLAP Intelligence, 808-809
 - .NET version, 800
 - parameters, tables of, 800-806
 - prompt values, 805
 - query strings, 800, 812-813
 - report part names, 802-804
 - reserved characters, 812-813
 - token requirements, 809
 - unsafe characters, 812-813

opening

- Database Expert, 27
- Format Editor, 164

operating systems requirements, 640

Operational Data Store (ODS) driver, 351

OperatorFilterItems, 865-867

operators

- arithmetic, 108
- Date and Time formula, 110-111
- date comparators, 267-268
- Formula Editor Operators
 - areas, 103
- help files for, 106
- In, 269

optimal join paths (universes), 413
optimizing universes, 412
Options dialog box, 477
Order Links command (Linking Diagram menu), 403
ordering members (OLAP Intelligence), 443
organize function (InfoView), 582
Output File Repository Servers, 547, 705-706
Overlap slider for charts, 222
overrides, 415-418
 connection swapping, 416
 object hiding, 416
 restriction sets, 416-418
 row restrictions, 416
 table swapping, 416

P

packets, PDF 898
 filtering, PDF 900
 filtering firewalls (Crystal Enterprise deployment), PDF 911
 external scenarios, PDF 912-PDF 914
 internal scenarios, PDF 914-PDF 917
Page Footer sections, 191
Page Header section, 19
Page Menu command (Insert menu), 432
Page N of M fields, 64
Page Number fields, 64
Page Servers
 access requirements, 657
 Crystal Reports Server, 548
 export capabilities, 619
 managing, 703-704
 On-Demand Viewing, 618-619
 Page on Demand function, 618
 performance settings, 703
 persistence of jobs, 704
 planning, 649-651
 purpose, 618
 request processing role, 626
 row-level security services, 619
 Single Sign-on, 704
 viewer interface, 841-843
Page Setup command (File menu), 176
Page Setup dialog box, 176
pages, 19
 adding to reports, 432-433
 breaks, 170
 size, selecting, 177
Panel Buttons (Slice Navigator), 458
panning
 3D charts, 226
 maps, 227
paper metaphor, 19, 182
Paragraph tab (Format Editor), 164, 172
paragraphs, formatting, 172
Parameter Manager (OLAP Intelligence), 466-467
Parameter Table Field parameter property, 137
parameters, 405
 * (asterisk), 151-153
 ? symbol, 308
 Action drop-down boxes, 136
 adding
 programmatically, 870
 reports, 59, 143
 advantages, 134-135
 all values, selecting, 151-153
 Allow Custom Values property, 137
 Allow Discrete Values property, 137
 Allow Multiple Values property, 137, 149
 Allow Range Values property, 137
 Analysis Buttons, 464
 Append All Database Values action, 142
 Bottom N group selections, 147-148
 business views, 407
 capturing programmatically, 793
 cascading, 148-151
 changing values programmatically, 870
 Choose a Data Source property, 137
 COM Data Provider, 342
 Create Parameter Field dialog, 140
 creating, 59, 139-142
 database derived values, 148-151
 default options, CMC, 686-687
 Default Value property, 137
 default values, setting, 141-143
 defined, 58
 denotation, 146
 Description property, 136
 Description Table Field property, 137
 discrete, 868
 dynamic, 148-151
 Dynamic List of Values properties, 137, 149
 Edit Mask property, 138
 fields, creating, 308
 formulas, 143
 group selections, 147-148
 guidelines for handling, 870
 header custom function example, 130-131
 InfoView, 580
 input properties, 136-139
 Is Like operator, 152
 Length Limit property, 137
 List of Values Type, 136
 Live Office, 532
 multiple values, displaying, 147
 Name property, 136

- .NET viewers with, 758-760
- OLAP
 - Intelligence, 466-467, 477
 - link to parameter functionality, 368
- optional, 311
- options, 140
- ParameterFieldController, 870
- ParameterFields class, 868-870
- Parameter Table Field property, 137
- passing in Java Reporting Component, 735-737
- programmatically manipulation of, 868-871
- Prompt Group Text property, 137
- Prompt with Description Only property, 137
- Prompting Text property, 137
- prompts, 134
- ranged, 868
- reading programmatically, 868-870
- records, selecting, 145-147
- refreshing, 144
- reusing, 151
- setting, PDF 889-PDF 890
- Sort Order property, 137
- SQL Commands, 32
- Static List of Values properties, 136-137
- static parameters, 141-143
- stored procedures, 31
- text-entry field creation, 140
- Top N Value fields, 141, 147-148
- Top/Bottom N groupings, 135
- type checking, 869
- Value Field property, 136
- value representation objects, 869
- Value Table Field property, 136-137
- Value Type property, 136
- values, storing, 151
- parentheses in formulas, 307**
- parts viewer, 840, 845-846**
- passwords**
 - change password control, .NET, 817
 - expiration settings, 666
 - user accounts, 666
- PDF (Portable Document Format)**
 - exporting from Java Reporting Component, 731-734
 - .NET exports to, 749
 - reports (Web Intelligence), 492
 - viewer for, 851
- PeopleSoft, 353-354**
- percent calculations, 128**
- perfect reports, 324**
- performance**
 - CMS auditing services, 612
 - Information tool, 277-279
 - issues
 - Group By On Server data, 278
 - grouping at database level, 276
 - indexed databases, 277
 - Latest Report Changes data, 278
 - Page N of M Used option, 278
 - Performance Information tool, 277-279
 - processing metrics, 278
 - record selection, 269-271
 - report contents information, 278
 - saved data information, 278
 - saving Performance Information data, 279
 - SQL Expressions, 271-272, 276-277
 - SQL statements, 270-271
 - subreports, 277, 295-297
 - timing metrics, 278
 - viewers, 852
 - Web Services, 827
- management (Business Objects), 558
- Page Server settings, 703
- planning, 640
- string searches in databases, 310
- permissions**
 - API properties, 787-788
 - BusinessObjects Repository, migration, 389
 - Crystal Reports Explorer, 515
 - cumulative nature, 694
 - determining from rights, 694
 - groups, management, 669
 - rights types, 693
 - user accounts, relation, 665
- Personal Categories, 692**
- phone numbers, formatting, 178**
- Picture tab (Format Editor), 172**
- pictures, adding, 174**
- Pie Charts**
 - exploding, 222
 - maps, 219
 - Rotation slider, 222
 - Tilt slider, 222
- PIKs (portal integration kits), 820-823**
- pivoting**
 - OLAP
 - grids, 375-376
 - Intelligence, 456-457
 - Web Intelligence, 497-498
- planning**
 - application development issues, 641-643
 - architecture issues, 649-653
 - auditing requirements, 653
 - business pain identification, 635
 - Cache Server, 649-651
 - CMS database, 649

- concurrent users, 650
- data-access control methods, 648-649
- distributed server systems, 654-656
- fault-tolerant configuration, 657
- File Repository Servers, 658
- hardware issues, 638-641
- importance, 634
- Job Server, 649, 652-653
- load balancing, 658
- methodology overview, 634-635
- multiple report processing servers, 656-658
- multiple-server deployment, 654-656
- network issues, 639-640
- OLAP server issues, 639
- operating system issues, 640
- Page Servers, 649-651
- performance issues, 640
- processing requirements, 649-650
- project requirements
 - database issues, 637
 - hardware issues, 638-641
 - importance, 636
 - interfaces, user, 637
 - legacy report issues, 637
 - network issues, 639-640
 - OLAP server issues, 639
 - operating system issues, 640
 - performance issues, 640
 - reports, key questions, 637-638
 - running times, 638
 - security issues, 639-640
 - staffing issues, 637
 - storage issues, 638
 - technical solutions contrasted to, 636
 - users, questions about, 636
- Report Application Servers, 649-652
- reporting requirements
 - Business Views deployment issues, 645-646
 - data access control methods, 648-649
 - Job Server issues, 647
 - on-demand reporting, 646-648
 - overview, 644-645
 - scheduling permissions, 646-647
 - requirements, establishing, 636-641
 - running times, 638
 - security issues, 639-640
 - single-server deployment, 654
 - staffing issues, 637
 - storage issues, 638
 - support and maintenance phase, 644
 - user acceptance phase, 644
- plug-ins**
 - authentication, 602, 605
 - BOE architecture of, 601-603
 - distribution plug-ins, 603
 - interface, 775
- Portable Document Format.**
See PDF
- portals**
 - application sample, 766
 - integration kits (PIKs), 820-823
 - JSR-168 support, 821
 - SAP support, 823
 - security issues, 821
 - SharePoint integration, 821
 - stylesheets with, 821
- portlets, 820**
- ports**
 - advantages of Web Services, 827
 - TCP, PDF 899
 - well-known, PDF 899
- position locking, 169**
- post-query behavioral rules (microcubes), 414**
- PowerPoint (Microsoft), 536-537**
- Premium edition (BusinessObjects Enterprise), 564-565**
- Preview button (CMC Properties tab), 680**
- Preview tab view, 162-163**
- previewing reports, 163-165**
- Print at Bottom of Page option, 191**
- Print Date fields, 64**
- print function (InfoView), 575**
- Print Time fields, 64**
- Print Time Zone fields, 64**
- printing**
 - ASP.NET issues, 762
 - defaults, 688-689
 - Direction option, 193
 - InfoView, 580
 - Java Reporting Component reports, 735
 - Job Server services, 616
 - .NET methods, 751-752
 - programmatic methods, 876
 - RAS, 876
 - reports, PDF 888
 - selecting printers, 177
 - server-side, 876
- processHttpRequest method, 727-728**
- processing**
 - extensions, 616, 688
 - TCP connections, PDF 907-PDF 910
 - tier (Crystal Reports Server), 548
- ProcessingInfo objects, 610**
- processor licenses, 709**
- Product Profitability Reports, 207**
- Professional edition (BusinessObjects Enterprise), 564**
- Program Job Servers, 617**
- programmatic data sources, 625**

programming formulas. *See*
control structures

Project command
(Components menu), PDF
881

Project menu commands,
Add Crystal Reports 10,
PDF 881

projects

development

controlling change,
642-643

controlling risk, 643

documentation, 643

end user buy off, 643

environment setup, 643

goals, focusing, 642

manager selection, 641

planning, 642

scope creep, 642

team selection, 642

user acceptance phase,
644

manager selection, 641

planning. *See* planning

projections

microcubes, 414

Web Intelligence, 483

Prompt Group Text param-
eter property, 137

Prompt with Description
Only parameter property,
137

Prompting Text parameter
property, 137

prompts

dynamic cascading, 279-282

groups, 407

multiple values, allowing,
269

Proper Name formula, 314

properties

action (InfoView), 582-583

API objects

bags, 778

CeSecurityID properties,
786-787

composite properties,
783-785

custom, setting, 789

decoding values for, 785

enumerating, 778

indexed properties,
781-783

Product Catalog Report,
listing, 779-780

recursively listing,
778-779

rights properties,
787-788

schedule object proper-
ties, 783-784

system object properties,
786-787

bags, 386

InfoView, 573

display, 587

headers/styles, 586-587

objects listing, 587

viewers, 588

JavaDir, 346

Live Office, 531

Worksheet object, 435-438

Property Browser

Visual Basic Report

Designer, PDF 882-PDF
883

Visual Studio .NET, 746

proxy servers (Crystal
Enterprise relationship,
socks configuration), PDF
919

firewalls, PDF 920-PDF
921

multiple servers, PDF
921-PDF 922

Web connectors/WCS,
PDF 919-PDF 920

PSServer, 772

Q

queries

* (asterisk operator), 789

complex, 339

filters pane (Web
Intelligence), 488

microcubes, 415

panels

universes, 409

Web Intelligence,
486-491

restriction set overrides, 417

SDK examples, 789-790

SQL

aliasing, PDF 928

calculated fields, PDF
928-PDF 929

commands, PDF 924

filtering records, PDF
926-PDF 927

grouping, PDF 930

multiple tables, joining,
PDF 927-PDF 928

overview, PDF 924

SELECT statement,
PDF 925-PDF 926

sorting records, PDF 927

union queries,
PDF 929-PDF 930

union, PDF 929-PDF 930

Web Intelligence, 490

Query and Analysis tools
(BusinessObjects), 559

Query Builder,
BusinessObjects
Repository, 386

QueryStrings, 178-179

Query—HTML report panel,
486, 490-491

Quick Filter dialog box, 495

R

ranged parameters, 868

RAS (Report Application
Server), 513

adding

charts, 873

fields, 859-860

filters, 867-868

groups, 863-864

parameters, 870

sorting, 864

summaries, 864-865

tables, 862

charting, 871-873

- controllers, 859
- Crystal Reports Explorer
 - settings, 513
- Crystal Reports Server, 548
- DatabaseControllers, 859
- DataDefController, 860
- environments available, 856
- exception handling, 856-857
- FieldRangeFilterItems, 865-867
- fields, all in report, 860-861
- filters, 865-866
- findFieldByName method, 859
- initiating sessions, 858
- interactive report viewing
 - feature, 622-623
- Java edition of, 720
- licensing issues, 622
- linking tables, 863
- load balancing, 856
- logging exceptions, 857
- machine name specification, 858
- modifying
 - charts, 873
 - reports, 859
- .NET, bridge for, 760
- new report creation, 861
- object model, 623
- opening reports, 858
- OperatorFilterItems, 865-867
- parameters, 868-871
- planning, 649-652
- printing, server-side, 876
- purpose, 621, 856
- removing fields, 861
- ReportClientDocument
 - creation, 861
- ReportService, 772
- ResultFields collection, 860-861
- retrieving tables, 862
- RowsetController, 794-795
- SDK installation, 856
- selecting fields, 859-860
- subreports, 873-875
- Tables.findByAlias method, 860
- Top N sorts, 864
- viewer interface, 841-842
- Web application features, 622
- Read-only option, 192**
- read-only reports, 169**
- Rearrange tables tool, 404**
- Record Number fields, 64**
- Record Sort Expert, 86-87**
- RecordFilterControllers, 867**
- records**
 - filtering, PDF 926-PDF 927
 - retrieving, 403
 - selection
 - dialog box, 44
 - formulas. *See* formulas,
 - record selection
 - importance of, 266
 - sorting, PDF 927
- refresh function (InfoView), 576**
- Refresh options (CMC Properties tab), 680**
- Refresh Report Data command (Report menu), 49**
- Relative Positions option, 192**
- rem comments, 116**
- remote terminal access, PDF 897**
- renaming tables, 31**
- repeating objects, 169**
- reply to group function (InfoView), 585**
- reply to sender function (InfoView), 585**
- Report Application Server. *See* RAS**
- Report Chart dialog box, 524**
- Report Engine Object Model, PDF 884-PDF 885**
 - code-behind, PDF 891-PDF 892
 - data source credentials, PDF 890-PDF 891
- exporting reports, PDF 885-PDF 887
- .NET
 - defined, 747
 - Export method, 749
 - exporting reports, 748-751
 - ExportToDisk method, 748
 - ExportToHttpResponse method, 749
 - ExportToStream method, 748
 - formats for exporting reports, 749
 - print methods, 751-752
 - ReportDocument
 - objects, 748
 - strongly typed reports, 748
 - parameters, PDF 889-PDF 890
 - printing reports, PDF 888
 - Report object, PDF 884-PDF 885
 - unbound fields, PDF 891
- Report menu commands, 22**
 - Refresh Report Data, 49
 - Select Expert command, 81
- Report Template Selection dialog box, 477**
- ReportDocument objects (.NET), 748**
- ReportExportControl (Java), 733**
- reports**
 - ad hoc. *See* ad hoc reporting
 - aligning text, 185
 - analytic, 424-425
 - batch (Report Designer Component), PDF 893-PDF 894
 - blank, 18, 46
 - blocks, 414, 483-485
 - color selection, 183-185, 192
 - command access, 187
 - Comments fields, 64
 - conditional formatting, 197

- custom functions
 - argument names, 124
 - author information, 124
 - Business Objects
 - Repository, adding, 393-394
 - calling other custom functions, 311
 - categories, entering, 124
 - Central Repositories, adding, 127-130
 - converting formulas, 315
 - creating, 123-125, 128, 310-311
 - Crystal Repository, 312
 - CurrentFieldValue function, 326
 - database field access, 311
 - default values, 125
 - descriptions, 312
 - divide-by-zero errors, 128-129
 - division example, 128-129
 - End Function statements, 311
 - Extractor, 128
 - field header example, 130-131
 - Formula Expert, creating formulas with, 122
 - Formula Extractor, 325
 - Formula Workshop, 100
 - Help text, 125
 - More Info, adding, 124
 - name formula example, 314-317
 - optional parameters, 311
 - Repository, 100-101
 - sharing, methods, 312
 - statelessness, 325
 - summary descriptions, 124
 - syntax options, 311
 - templates, creating, 325-326
- Customer Contact Listing, 160-163
- default components, 182
- deleting, 190, 199
- Description fields, 335
- design explorers
 - docking, 24
 - Field Explorer, 23
 - hiding, 24
 - Report Explorer, 23
 - Repository Explorer, 23
 - tabs view, 24
 - viewing, 24
- detail column size settings, 193
- detail line color formulas, 201-202
- Details Section, drill-down using, 188-189
- engine (Web Intelligence), 483, 772
- Expert, 102
- Explorer, 23
- exporting, PDF 885-PDF 887
- Fit Section command, 185, 200
- font color selection, 184-185
- Format Groups with Multiple Column option, 193-194
- Format with Multiple Columns option, 191
- Free-Form Placement option, 190
- formatting, 158
- Gap Between Details option, 193
- general properties, 186
- groups, effects of inserting, 182
- Header section, 19
- Hide (Drill-Down OK) option, 188, 190
- HTML example, 50
- Job Servers, 615-617
- Keep Together option, 191
- manual creation, 46-49
 - data sources, 46
 - fields, adding, 47
 - grouping data, 47
 - headers/footers, 48
 - saving, 49
 - summaries, 48-49
 - tables, 46-47
 - viewing reports, 49
- merging, 190, 199-200
- minimal configuration, 199
- moving fields between, 186
- multiple sections, adding, 195-199
- multiple column layout options, 192-194
- multiple of a type, selecting from, 197
- names, 183
- navigating while changing properties, 183
- New Page options, 191, 195
- object, PDF 884-PDF 885
- panels (Web Intelligence), 486-487
 - HTML, 486-487
 - Java, 487-490
 - Query—HTML, 486, 490-491
- pages, adding, 187
- paper metaphor, 182
- Parts viewer, 840, 845-846
- previewing, 163-165, 184
- printing, 193, PDF 888
 - Print at Bottom of Page option, 191
 - Printing Direction option, 193
- purpose, 182
- read-only, 169, 192
- Relative Positions option, 192
- reordering, 190
- requirements
 - Business Views deployment issues, 645-646
 - data access control methods, 648-649
 - Job Server issues, 647
 - on-demand reporting, 646-648
 - overview of, 644-645
 - scheduling permissions, 646-647
- Reserve Minimum Page Footer option, 191
- Reset Page Number After option, 191
- resizing, 195
- saving, 44, 49

- sections, 19-20
 - Section Expert
 - accessing, 20, 183
 - aligning text, 185
 - Arrow buttons, 190
 - blank space removal, 185, 200
 - charts using Underlay
 - Following Sections option, 228
 - color selection, 183-185
 - Color tab, 192
 - command access, 187
 - Common tab, 190-192
 - conditional formatting, 197
 - defined, 183
 - Delete button, 190
 - detail line color formulas, 201-202
 - Detail Size box, 193
 - Details Section, drill-down using, 188-189
 - dialog box, 527
 - Fit Section command, 185, 200
 - font color selection, 184-185
 - Format Groups with Multiple Column option, 193-194
 - Format with Multiple Columns option, 191
 - Formatting tabs area, 189
 - Free-Form Placement option, 190
 - Gap Between Details option, 193
 - general properties of sections, 186
 - Hide (Drill-Down OK) option, 188-190
 - Insert button, 190
 - Layout tab, 192-194
 - Merge button, 190
 - moving fields, 186
 - navigating between sections, 183
 - New Page options, 191
 - objects, selecting 185
 - pages, adding, 187
 - previewing reports, 184
 - Print at Bottom of Page option, 191
 - Printing Direction option, 193
 - Read-only option, 192
 - Relative Positions option, 192
 - Reserve Minimum Page Footer option, 191
 - Reset Keep Together option, 191
 - Reset Page Number After option, 191
 - Sections area, 189-190
 - Sections box, 190
 - sections, selecting, 183
 - summary counts, inserting, 184-185
 - Suppress (No Drill-Down) option, 191, 198
 - Suppress Blank Section option, 191
 - Underlay Following Sections option, 191
 - x+2 buttons, 192, 197
 - selecting all objects in, 185
 - Show All Headers on Drill-down option, 201
 - source interface, 841
 - strongly typed, PDF 885, PDF 891
 - summary counts, inserting, 184-185
 - Suppress (No Drill-Down) option, 191, 198
 - Suppress Blank Section option, 191
 - templates, 391
 - Title fields, 64
 - Underlay Following Sections option, 191
 - uniqueness of types, 182
 - variables, 499-502
 - viewing, 354-355, PDF 892-PDF 893
 - x+2 buttons, 192, 197
 - Web Intelligence
 - creating, 486-487
 - formats, 491
 - Wizard
 - accessing, 50
 - connections, 27-29
 - Chart dialog box, 37, 43
 - components, 37
 - Current Connection node, 28
 - Data dialog box, 37-39
 - Favorites node, 28
 - Group Sorting dialog box, 42
 - History node, 29
 - Link dialog box, 40
 - More Data Sources node, 28
 - ODBC data sources, 38
 - opening, 27
 - previewing reports, 45
 - Record Selection dialog box, 44
 - sales report example, 37-44
 - subreport creation, 290
 - Summaries dialog box, 41-42
 - Template dialog box, 44
- Repository (BusinessObjects), 386**
- Business Objects 6.x migration, 389-390
 - business views, 394
 - CMS
 - requirement, 386
 - services, 607
 - components, sharing, 390-392
 - custom functions, adding to reports, 393-394
 - defined, 386
 - Explorer, 23, 392
 - dependencies, 401
 - filtering, 401
 - folder structure, 401
 - objects, 400
 - organizing, 401
 - security, 401
 - views, 401
 - images, adding to reports, 392
 - Import Wizard, 387
 - language, 386

- listing properties, 387
 - Microsoft Access, 395
 - migrating, 387-390, 395
 - .NET Components with, 746, 817
 - Object Repository Helper, 394
 - OLAP Intelligence reports with, 392
 - organizing, 394
 - property bags, 386
 - Query Builder, 386
 - Repository Explorer, 392
 - SQL Commands, adding to reports, 392-393
 - text objects, adding to reports, 392
 - Update Repository Objects box, 391
 - updating, 394-395
 - upgrading from version 9, 388-389
 - version differences, 386-390
 - Web reports, 392
- request processing**
- BOE SDK role, 625
 - Cache Server role, 626
 - Crystal Report requests, 626-627
 - instance viewing, 626
 - OLAP Intelligence requests, 628-629
 - on-demand viewing, 627
 - Page Server role, 626
- requirements**
- projects
 - database issues, 637
 - hardware issues, 638-641
 - importance, 636
 - legacy report issues, 637
 - network issues, 639-640
 - OLAP server issues, 639
 - operating system issues, 640
 - performance issues, 640
 - reports, key questions, 637-638
 - running times, 638
 - security issues, 639-640
 - staffing issues, 637
 - storage issues, 638
 - technical solutions, 636
 - users, 636-637
- reporting
- Business Views deployment issues, 645-646
 - data access control methods, 648-649
 - Job Server issues, 647
 - on-demand reporting, 646-648
 - overview of, 644-645
 - scheduling permissions, 646-647
- Reserve Minimum Page Footer option, 191**
- Reset Page Number After option, 191**
- restriction sets, 416-418**
- applying, 418
 - creating, 417
 - editing, 417
 - multiple, 418-419
 - user versus group conflicts, 419
- result objects pane (Web Intelligence), 488**
- rights. *See also* content, management**
- Advanced, 694
 - cumulative nature, 694
 - folders, 699
 - Full Control, 694
 - Inherited, 694
 - No Access, 694
 - options, 693-695
 - restricting with User screen
 - Rights tab, 667
 - Schedule, 694
 - View, 694
 - View On Demand, 694
- Riser Shape option for charts, 222**
- risk control, 643**
- Roman() function, 117**
- Root Node (OLAP Intelligence), 456**
- rotating text, 169, 238-240**
- Rounding tab (Format Editor), 172**
- rows**
- restrictions, 416-417
 - security, 405, 619
- .rpt files, PDF 881**
- RTF files**
- exporting from Java Reporting Component, 731-734
 - .NET exports, 749
- running totals**
- # symbol, 308
 - adding to reports, 60
 - charting, 228-231
 - creating, 60, 91-93
 - defined, 59
 - example, 60-61
 - financial statements, 62
 - formula option, 61
 - large order sums, 62
 - placement guideline, 61
- runtime**
- data manipulation, 339
 - errors, 312-314

S

S symbol in formulas, 308

SAP

- integration kits, 349
 - BW data, 350-352
 - BW Query driver, 350
 - InfoSet driver, 350
 - MDX query driver, 351
 - ODS driver, 351
 - Open SQL drivers, 349
 - R3 data, 349-350
 - reports, viewing, 353
 - troubleshooting, 356
- portal support, 823

Save Data with Report command (File menu), PDF 893

Save menu commands (File menu), 49

saving

- ad hoc reports, 525
- autosave feature, 49
- reports, 44, 49

scalability

- Business Objects
 - Enterprise, 562
- component limitations, 720
- cross-platform, 630
- Crystal Reports Server, 545
- scaling, 629-630

schedule function**(InfoView), 578-580****Schedule rights, 694****scheduling**

- CMS services, 610-611
- destination options, 690-691
- event handling, 611
- groups, 692
- InfoView, 578-580
- Job Server role, 628
- .NET control, 818-819
- notification services, 610
- options, setting in CMC, 689-690
- process in BOE, 627-628
- prompts, troubleshooting, 421
- reports
 - administrator-controlled, 647
 - advantages, 646
 - BOE SDK, 792-793
 - Job Server planning, 652-653
 - identifiers, capturing, 792
 - on-demand reporting compared, 648
 - parameters, capturing, 793
 - permissions for users, 646-647
 - retries, setting in CMC, 689
 - Web Intelligence parameters, 793

scope

- analysis, 488
- creep, 642
- data, 647

SDKs (Software Development Kits)**Business Objects**

- Enterprise. *See* Business Objects Enterprise SDKs
- * queries, 789
- authentication issues, 770-771
- CeSecurityID properties, 786-787
- CI_APPOBJECTS
 - kinds, 777
- CI_INFOOBJECTS
 - kinds, 776
- CI_KIND properties, 776
- CI_SYSTEMOBJECTS
 - kinds, 777
- COM support, 766
- deleting objects, 791-792
- development environments supported, 599
- distribution, 792
- documentation, 769
- embedded objects, 775
- EnterpriseSession
 - objects, 772
- factories, 790
- folder creation, 791
- group management, 793
- InfoObject base class, 775
- indexed properties, 781-783
- InfoStore, 772-778
- installing, 769-770
- Java support, 766, 769
- logon issues, 771-793
- namespaces, 769-770
- .NET, 766-790
- object creation, 775, 790-791
- object model, 772
- parameter capturing, 793
- platform choices, 766-767
- Plugin interface, 775
- portal content objects, 776

- properties. *See* BOE SDK, properties
- PSServer, 772
- purpose, 597, 769
- query examples, 789-790
- RASReportService, 772
- ReportEngine, 772
- reports as datasources, 793-795
- request processing role, 625
- RowsetController, 794-795
- scheduling reports, 792-793
- secEnterprise, 770
- service instantiation, 772
- session creation, 770-772
- system objects, 777, 786-787
- Top N queries, 789
- usernames, 774
- user preferences, 793
- COM, PDF 880
- table of, with platforms supported by, 766
- Web Services
 - advantages, 827-828
 - Apache Axis library, 832
 - API compared to OOP, 829
 - architecture, 828-829
 - authentication code, 836-838
 - BI Catalog service, 826
 - BI Query service, 826
 - client applications, building, 833-835
 - clustering, 834
 - configuring, 832-833
 - Consumer SDK project setup, 835
 - consuming services, 826
 - default portal page, 837
 - defined, 826
 - deploying, 832
 - disadvantages, 827
 - Enterprise Application Integration, 831-832
 - format advantage, 827

- Java application server
 - required for, 832
 - latency issues, 828
 - listing folders and reports, 837-838
 - logging off, 836
 - login code, 836
 - Microsoft Office sample applications, 826
 - new features, 826
 - object-oriented APIs
 - compared to, 829
 - performance issues, 827
 - portals, 831, 835-838
 - ports, 827
 - Report Engine service, 826
 - security issues, 828
 - sessions, 826, 836
 - simple report viewer
 - code, 834
 - SOAP, 829
 - SSL, 833
 - starter portal JSP pages, 835
 - transport advantage, 827
 - UDDI, 830-831
 - view modes, table of, 834
 - viewer page, 838
 - WSDL, 829-831
- Search Wizard, 441**
- searches. *See* finding**
- secAD, 771**
- secEnterprise, 770**
- secLDAP, 770**
- secNT, 771**
- Section Expert**
 - accessing, 20, 183
 - aligning text, 185
 - Arrow buttons, 190
 - blank space removal, 185, 200
 - charts using Underlay
 - Following Sections option, 228
 - color selection, 183-185
 - Color tab, 192
 - command access, 187
 - Common tab, 190-192
 - conditional formatting, 197
 - defined, 183
 - Delete button, 190
 - detail line color formulas, 201-202
 - Detail Size box, 193
 - Details Section, drill-down using, 188-189
 - dialog box, 527
 - Fit Section command, 185, 200
 - font color selection, 184-185
 - Format Groups with
 - Multiple Column option, 193-194
 - Format with Multiple
 - Columns option, 191
 - Formatting tabs area, 189
 - Free-Form Placement
 - option, 190
 - Gap Between Details
 - option, 193
 - general properties of sections, 186
 - Hide (Drill-Down OK)
 - option, 188-190
 - Insert button, 190
 - Layout tab, 192-194
 - Merge button, 190
 - moving fields, 186
 - navigating between sections, 183
 - New Page options, 191
 - pages, adding, 187
 - previewing reports, 184
 - Print at Bottom of Page
 - option, 191
 - Printing Direction option, 193
 - Read-only option, 192
 - Relative Positions option, 192
 - Reserve Minimum Page
 - Footer option, 191
 - Reset Keep Together
 - option, 191
 - Reset Page Number After
 - option, 191
 - Sections area, 189-190
 - Sections box, 190
 - selecting
 - objects, 185
 - sections, 183
 - summary counts, inserting, 184-185
 - Suppress (No Drill-Down)
 - option, 191, 198
 - Suppress Blank Section
 - option, 191
 - Underlay Following
 - Sections option, 191
 - x+2 buttons, 192, 197
- security**
 - aggregation services, 607
 - authentication services, 605-607
 - authorization services, 607
 - business views, 400
 - CMS services, 605-607
 - coarse-grained, 481
 - column level, 405
 - Crystal Reports Explorer, 513
 - ERP integration kits, 348
 - fine-grained, 481
 - firewalls
 - configuration rules, PDF 913, PDF 916-PDF 919
 - defined, PDF 896
 - IP packet filtering (Crystal Enterprise deployment), PDF 911-PDF 917
 - NAT, PDF 900-PDF 901, PDF 917
 - relationships, PDF 917-PDF 919
 - packet filtering, PDF 900
 - protocols, PDF 896-PDF 899
 - proxy servers, PDF 901
 - Socks configurations, PDF 920-PDF 921
 - integration kits, 348
 - planning, 639-640
 - processing extension issues, 616
 - Repository Explorer, 401
 - row-level, 405
 - SQL expressions, 404

Web Intelligence, 481-482
 Web Services issues, 828

Select Case structures, 118-120

SELECT statements, 781

Select Expert
 adding new filters, 82
 date comparators, 267-268
 dialog box, 145
 field selection, 81
 formulas generated, showing, 83-84
 Is Like option, 83
 Is One Of option, 83
 multiple filter application, 83
 opening, 81
 purpose, 80
 ranges, setting, 82
 refreshing data options, 82
 report sections, 197
 tabs, 81
 values for filters, 81-82

SELECT statement, PDF 925-PDF 926

Select visible tables tool, 404

selecting
 BusinessObjects Enterprise versions, 565
 colors, 165
 data sources, 522
 fields
 Crystal Reports Explorer, 522
 Live Office, 530
 members, Analysis Buttons, 463
 page sizes, 177
 printers, 177
 records
 dialog box, 44
 formulas. *See* formulas, record selection importance of, 266
 report objects, 433
 tables, 404, 518

selection formulas, 90-93
 Formula Workshop, 101
 string field searches, 309
 Windows Forms, 755

semantic layers, 398
 abstract function, 398
 business suitability, 398
 business views, 399
 business elements, 406
 business tiers, 400
 Business View Manager, 400
 client tiers, 399
 column-level security, 405
 creating, 407
 data connection component, 401
 data foundation component, 402-404
 data tiers, 408
 disparate data sources, joining, 401
 dynamic data connections, 402
 filters, 405-406
 formulas, 404-405
 parameters, 405-407
 Repository Explorer, 400-401
 rights, 407
 row-level security, 405
 security rights, 400
 SQL expressions, 404
 connection swapping, 416
 data sources supported, 398
 future, 399
 metadata, 398
 object hiding, 416
 overrides, 415-416
 restriction sets, 416-419
 applying, 418
 creating, 417
 editing, 417
 multiple, 418-419
 user versus group conflicts, 419
 row restrictions, 416
 security, 399
 table swapping, 416
 transportability, 399
 types, 398
 universes. *See* universes
 Web Intelligence engine, 482-483

servers
 applications, 549-552
 architecture, 545
 BusinessObjects Enterprise, compared, 544
 Cache Servers, 547-548
 CMS, 547
 components, 544
 concurrent users, 545
 Crystal Vision, 554
 defined, 544, 699
 Event Server, 548
 groups
 Give Preference to Servers Belonging to the Selected Group, 684
 management overview, 683-685
 Only Use Servers Belonging to the Selected Group, 684
 Use the First Available Server option, 684
 Input/Output File Repository Servers, 547
 instances, 548
 Job Servers, 548
 limitations, 545
 management
 Auditing tab, 701
 Cache Servers, 701-702
 CMS management, 704-705
 disabled servers, restarting, 700
 Event Servers, 702
 FRS management, 705-706
 groups of servers, 706-707
 Job Servers, 704
 overview, 700
 Page Servers, 703-704
 Servers command, CMC, 700
 status of servers, viewing, 700
 multiple, Socks configurations, PDF 921-PDF 922
 Page Servers, 548

- platforms supported, 545
- properties, viewing, 715
- proxy, Crystal Enterprise relationship, PDF 901, PDF 919-PDF 922
- publishing reports, 551, 715
- RAS, 548
- scalability, 545
- tiers (BOE)
 - Cache Servers, 619-620
 - CMS. *See* CMS
 - communication bus, 601
 - core servers provided, 604
 - defined, 597
 - Destination Job Servers, 617
 - Event Servers, 620
 - File Repository Servers, 620-621
 - Framework, 600-603
 - Job Servers, 614
 - List of Values Job Servers, 617
 - object types, 601
 - Page Servers, 618-619
 - plug-ins, 601-603
 - Program Job Servers, 617
 - registration of servers, 603
 - Report Application Servers, 621-623
 - Report Job Servers, 615-617
 - WCA, 614
 - WCS, 613-614
 - Web Intelligence Job Servers, 618
- viewing on-demand reports, 551
- Web Intelligence, 545
- Web-based viewing, 552
- server-side viewers (InfoView), 576**
- service-oriented architecture, 828-829**
- Session Manager objects, 770**
- Set Parameters dialog box, 467**
- SetDatabaseLogon method, 758**
- setReportSource method, 727**
- shared variables, 122, 297-299**
- Shortcut Manager, 583**
- Show All Headers on Drill-down option, 201**
- Show SQL Query command, 270**
- Siebel integration kits, 354**
- Simple Mail Transfer Protocol (SMTP), 547, 615, PDF 897**
- single-server deployment, 654**
- sizing**
 - field objects, 161-162
 - locking, 169
 - report objects, 433-434
 - text objects, 161
- SI_ properties, table, 781**
- Slice Navigator objects, 458-459**
- slices**
 - dimensions, 435
 - OLAP specification of, 367-368, 370
- SOA (service-oriented architecture), 828-829**
- SOAP (Standard Object Access Protocol), 742, 829**
- Socks protocol, 901**
 - firewalls, PDF 920-PDF 921
 - multiple servers, PDF 921-PDF 922
 - Web connector/WCS, PDF 919-PDF 920
- Sort Expert, 86-87**
- Sort Order parameter property, 137**
- SortControllers, 864**
- sorting**
 - ad hoc reports, 523
 - adding programmatically, 864
 - analytic reports, 446-448
 - Group Sort Expert, 89-91
 - multi-pass reporting
 - process, timing in, 126
 - Record Sort Expert, 86-87
 - records, PDF 927
 - Standard Report Creation Wizard, 42
 - top ten option, 206
 - Web Intelligence, 495-497
- Source IP, PDF 908-PDF 910**
- Source port, PDF 908-PDF 910**
- special fields, table of, 63-64**
- SQL (Structured Query Language), 31**
 - aliasing, PDF 928
 - calculated fields, PDF 928-PDF 929
 - commands, PDF 924
 - adding to reports, 31-33
 - advantages, 51
 - BusinessObjects Repository, adding from, 392-393
 - compatibility, 52
 - example, 50-52
 - parameters, 32
 - storing, 33
 - expressions, 404
 - % symbol, 308
 - adding to reports, 57
 - database fields, limitation, 272
 - defined, 57, 271
 - Editor, launching, 271
 - Field Explorer, 271
 - Formula Workshop, 101
 - multipass issues, 273
 - performance issues, 272, 276-277
 - security rights, 404
 - SQL queries, generating, 272
 - syntax for fields, 272

- WHERE statement generation, 272
- vendor dependencies, 58
- filtering records, PDF 926-PDF 927
- grouping, PDF 930
- multiple tables, joining, PDF 927-PDF 928
- overview, PDF 924
- SELECT statement, PDF 925-PDF 926
- Server
 - Analysis Services, 428, 468
 - JDBC driver for, 724
 - sorting records, PDF 927
- statements
 - microcubes, 415
 - performance issues, 270-271
 - restriction set overrides, 417
 - viewing, 270
- union queries, PDF 929-PDF 930
- square brackets, 307**
- stacks**
 - Business Objects, 558
 - TCP, PDF 898
- staffing issues, 637**
- Standard Report Creation Wizard, 36-37**
 - Chart dialog box, 37, 43
 - components, 37
 - Data dialog box, 37-39
 - Group Sorting dialog box, 42
 - Link dialog box, 40
 - ODBC data sources, 38
 - previewing reports, 45
 - Record Selection dialog box, 44
 - sales report example, 37-44
 - Summaries dialog box, 41-42
 - Template dialog box, 44
- Standard toolbar, 20**
- stateful packet filtering, PDF 900**
- stateless packet filtering, PDF 900**
- Static List of Values properties, 136-137**
- static translation, PDF 900**
- status bar (Windows Forms), 754**
- stored procedures, 31**
- storing**
 - objects, 400
 - planning, 638
 - SQL Commands, 33
 - universes, 410
- strikeout text, 170**
- strings**
 - arrays, 269
 - comparisons, 268-269
 - concatenating, 57-58
 - converting from numbers, 127
 - formatting, 169
 - formulas
 - & (concatenation operator), 113
 - + (concatenation operator), 113-115
 - comparisons, 268-269
 - field searches within, 308-310
 - Formula Editor for creating, 113-115
 - functions, 113
 - Left function, 114
 - keyword searches, 308-310
- strongly typed reports, 748, PDF 885, PDF 891**
- Structure Pane (universes), 410**
- Structured Query Language. See SQL**
- STRUTS**
 - InfoView action, calling, 809
 - replacement, 814-816
- subfolders, 697**
- subgroups, creating, 673-675**
- subject areas (universes), 411**
- Subreport tab (Format Editor), 172**
- subreports. See also reports**
 - adding to reports, 289-290, 303
 - advantages, 288-289
 - Available Fields for links, 292
 - Change Subreport Links option, 303
 - creating, 290, 301-303
 - defined, 288
 - Design tabs, 291
 - distinct records option, 294
 - editing, 291, 300
 - filters for linked data, 292-294
 - formatting details of, 300
 - formulas for linking data, 293
 - hiding sections, 291
 - importing programmatically, 874-875
 - In-Place, 295-297
 - inserting, 289-290, 303
 - ISubreportClientDocument, 874
 - limitations, 873
 - links
 - adding programmatically, 875
 - creating, 293
 - definition, 292
 - derived fields, 288
 - unlinking, 292, 295
 - main reports based on multiple subreports, 301-304
 - modifying programmatically, 875
 - multiple views of data, enabling, 288-291
 - nesting, 300
 - objects, 874
 - OLAP grids in, 379
 - On-Demand, 295-297
 - On-Demand Subreport check box, 290
 - performance issues, 277, 295-297
 - programmatic manipulation, 873-875

- reusability of components
 - feature, 289
- SubreportController, 874
- summary field flexibility, 288
- unlinked, 292
- unrelated data sources, 288
- variables, passing data, 297-299
- writing to databases, 300-301
- subtotals, 127**
- summaries**
 - ad hoc reports, 523
 - adding programmatically, 864-865
 - aligning, 185
 - Chart Expert creation of
 - dynamic, 210
 - Count, 88
 - cross-tabs cells, 253
 - details, hiding, 89
 - dialog box, 41-42, 523
 - grand total creation, 87-88
 - groups, 88-89
 - maps, 217
 - multi-pass reporting
 - process, calculation, 127
 - percentages in cross-tabs, 257-259
 - reports, 48-49, 678
 - running totals
 - # symbol, 308
 - adding to reports, 60
 - charting, 228-231
 - creating, 60, 91-93
 - defined, 59
 - example, 60-61
 - financial statements, 62
 - formula option, 61
 - large order sums, 62
 - placement guideline, 61
 - S symbol, 308
 - sections, adding, 184-185
 - Standard Report Creation Wizard, 41-42
 - subreports for flexibility, 288
- Summary command (Insert menu), 48**

- SummaryFieldControllers, 864-865**
- Supervisor, 390**
- support and maintenance phase of development, 644**
- Suppress (No Drill-Down) option, Section Expert, 191**
- Suppress Blank Section option, 191**
- suppression, 169**
- Switch structures, 120**
- synchronizing**
 - drilling (Web Intelligence), 506
 - multiple data sources, 508
- syntax**
 - grouping, PDF 930
 - records, PDF 926-PDF 927
 - SELECT statement, PDF 925
 - union queries, PDF 929

T

- Table Linking dialog box, 518**
- tables**
 - adding
 - programmatically, 862
 - reports, 30-31
 - findByAlias method, 860
 - finding, 404
 - indexes, 404
 - joining, 402
 - linking, 47
 - Crystal Reports Explorer, 518
 - programmatically, 863
 - views, 404
 - mapping, 403
 - multiple, joining, PDF 927-PDF 928
 - rearranging, 404
 - renaming, 31
 - report blocks, 483-485
 - restriction set overrides, 417
 - retrieving programmatically, 862
 - selecting, 46, 404, 518
 - swapping, 416
- TCP/IP (Transmission Control Protocol/Internet Protocol), PDF 898**
 - communication, PDF 903
 - connections
 - destinations, PDF 908
 - initial processing, PDF 907-PDF 910
 - secondary processing, PDF 910
 - ports, PDF 899
 - protocol stacks, PDF 898
 - rules, PDF 898-PDF 899
- teams for development, 642**
- telephone numbers, formatting, 178**
- Telnet, PDF 897**
- Template dialog box, 44**
- templates**
 - actions (OLAP Intelligence), 470
 - ad hoc reports, 524
 - advantages, 332
 - applying to reports, 321-323, 330
 - blank report, 18
 - capabilities, 320-321
 - charts, 335
 - CurrentFieldValue function, 326
 - custom functions, 325-326
 - database field issues, 324
 - defined, 320
 - Expert, launching, 322
 - field mismatches with, 324
 - field objects, 326-327, 330-332
 - folder, 329
 - Formula Extractor advantages, 325
 - formulas, 325
 - guidelines, 324
 - headers and footers, 333-334
 - importance, 320
 - logos, 333-334
 - multiple tasking, 323

- multiple, applying, 333
 - OLAP Intelligence, 426
 - perfected reports as basis, 324
 - previewing pictures, 332
 - reapplying, 333
 - Report Description fields, 335
 - selecting to apply, 330
 - statelessness, 325
 - styles, compared, 321
 - thumbnails, 332
 - Title fields, 335
 - Title property, 328
 - undoing, 323, 331
- text**
- boxes, 465
 - Business Objects
 - Repository, adding from, 392
 - character spacing, 170
 - colors, 166
 - fonts, 164
 - formatting, 161
 - horizontal alignment, 164
 - hyperlinks, 166-167
 - rotating, 169, 238-240
 - searching, 494
 - sizing, 161
 - strikeout, 170
 - ToolTips, 168
 - underlining, 170
- Text Object command (Insert menu), 161**
- thread safety, 648**
- thumbnails**
- enabling, 680
 - generating, 678
- tile panels (slice navigation objects), 459**
- time. *See also* dates**
- formatting, 172
 - formulas
 - Formula Editor for creating, 110-113
 - functions, 111
 - operators, 110-111
 - grouping, 70
- titles**
- charts, controlling, 212-214
 - columns, 165-166
 - editing in CMC, 679
 - templates, 335
- ToNumber() function, 117**
- Toolbar dialog box, 165**
- toolbars, 20**
- Crystal Reports Explorer, 516-518
 - Expert Tools, 20
 - Formatting, 20, 234
 - Formula Editor, 103
 - InfoView, 572-573
 - Insert Tools, 20
 - Java Reporting Component viewer, 729-730
 - Navigation Tools, 21
 - Standard, 20
 - ToolTips, 21
 - Web Forms Viewer properties, 755
 - Web Intelligence, 495
 - Windows Forms, 754
- Toolbars command (View menu), 165**
- Tools menu commands, Apply Security Restrictions, 418**
- ToolTips**
- adding to formulas, 115
 - alerts, 284
 - creating, 235
 - enabling/disabling, 21
 - formulas for creating, 235
 - text, 168
- Top N groups, 254-255, 789**
- Top N sorts, adding programmatically, 864**
- Top N Value parameter fields, 141, 147-148**
- Total Page Count fields, 64**
- totals**
- multi-pass reporting process, calculation, 126-127
 - OLAP Intelligence worksheets, 444
- ToText() function, 117**
- ToWords() function, 117**
- traffic lighting, 451-452**
- Transmission Control Protocol/Internet protocol. *See* TCP/IP**
- trend lines**
- creating, 224, 246
 - Experts, 474
- troubleshooting**
- architectural issues, 658-659
 - cannot open SQL Server messages, 659
 - Crystal Reports 10, PDF 894
 - Crystal Xcelsius, 556
 - Database Expert, accessing, 50
 - InfoView, 592-593
 - load balancing, 658
 - OLAP Intelligence, 477
 - phone numbers, formatting, 178
 - SAP integration kits, 356
 - scheduled prompts, 421
 - updates, 50
- type conversion, 116-117, 127**

U

UDDI (Universal Description, Discovery and Integration), 830

unbound fields

- Report Engine Object Model, PDF 891
- Visual Basic Report Designer, PDF 883

Underlay Following Sections option, 191

Underlay Section property, 238-240

underlining text, 170

undoing templates, 323

Unified Web Services. *See* UWS

union queries,
PDF 929-PDF 930

**Universal Description,
 Discovery and Integration
 (UDDI), 830**

Universe Pane, 410

universes

- accessing, 409
- aggregate awareness, 413
- analytical flexibility, 412
- Business Objects
 - Repository, migration, 389
- business views, compared, 421
- connections, 411, 416
- contexts, 413
- creating, 410-411
- customizing, 419-420
- Designer, 410-411
- drilling, 412
- microcube engines, 413-415
- objects, 408-409
 - definitions, 411-412
 - Detail, 409
 - Dimension, 409-411
 - grouping, 410
 - hiding, 416
 - Measure, 409, 412
- optimal join paths, 413
- optimizing, 412
- overview, 408
- properties, 680
- query panels, 409
- restriction sets, 416-418
 - applying, 418
 - creating, 417
 - editing, 417
 - multiple, 418-419
 - user versus group conflicts, 419
- row restrictions, 416
- semantic layer, 415-416, 624
- storing, 410
- Structure Pane, 410
- subject areas, 411
- table swapping, 416
- Universe Pane, 410
- URL reporting, 810-811
- viewing, 410

- Web Intelligence, 408
 - Crystal Reports, compared, 420
 - examples, 485
 - layer, 482-483
 - query panel, 409

UNIX

- application servers in, 613
- CMS database services for, 608

unmanaged disks, 616

**Update button (CMC
 Properties tab), 680**

updates, troubleshooting, 50

URL reporting

- context specification, 806
- creating OpenDocument links, 807-809
- credential process, 798
- Document IDs, 801
- encoded characters, 812
- expired sessions, 800
- Java environments, 800
- JSF, 813-816
- length limitations of queries, 813
- .NET environments, 800
- openDocument. *See* openDocument dispatcher
- parameters, tables of, 800-806
- prompt values, 805
- purpose, 798
- query strings, 800, 812-813
- report part names, 802-804
- reserved characters, 812-813
- unsafe characters, 812-813
- viewrpt.cwr dispatcher, 798-799
- Web Intelligence document creation, 809-811

Use Depth option for charts, 222

**Use the First Available
 Server option, 684**

users

- acceptance phase of development, 644

accounts

- adding new, 665-667
- adding users to groups, 671-673
- Administrator accounts, 665
- all accounts, listing, 668
- authentication settings, 667
- e-mail associations, 666
- editing, 668
- Guest accounts, 665
- licenses, 666
- managing, 665-668
- membership settings, 667
- passwords, 666
- permissions, 665
- rights restriction, 667
- selecting usernames, 666
- folders, 695
- function libraries
 - defined, 268
 - Java Reporting
 - Component with, 723
- groups
 - adding users, 671-673
 - Administrators, 669
 - advantages, 669
 - creating, 669-670
 - defaults, 669
 - defined, 668
 - Everyone, 669
 - management with SDK, 793
 - membership settings, 667
 - permission management, 669
 - scheduling, 692
 - subgroup creation, 673-675
 - Windows authentication settings, 713
- interfaces
 - requirements planning, 637
 - Visual Basic Report Designer, PDF 882
- names
 - case sensitivity, lack of, 666
 - defaults created, 665

- e-mail associations, 666
- editing accounts, 668
- licenses, 666
- passwords, 666
- returning programmatically, 774
- selecting, 666
- preferences
 - BOE SDK, 793
 - InfoView, 588-591
- prompts (Web Intelligence), 494
- Web Intelligence roles, 484

UWS (Unified Web Services)

- advantages, 827-828
- Apache Axis library, 832
- API compared to OOP, 829
- architecture, 828-829
- authentication code, 836-838
- BI Catalog service, 826
- BI Query service, 826
- client applications, building, 833-835
- clustering, 834
- configuring, 832-833
- Consumer SDK project setup, 835
- consuming services, 826
- default portal page, 837
- defined, 826
- deploying, 832
- disadvantages, 827
- Enterprise Application Integration, 831-832
- format advantage, 827
- Java application server required for, 832
- latency issues, 828
- listing folders and reports, 837-838
- logging off, 836
- login code, 836
- Microsoft Office sample applications, 826
- new features, 826
- object-oriented APIs compared to, 829
- performance issues, 827
- portals, 831, 835-838
- ports, 827

- Report Engine service, 826
- security issues, 828
- sessions, 826, 836
- simple report viewer code, 834
- SOAP, 829
- SSL, 833
- starter portal JSP pages, 835
- transport advantage, 827
- UDDI, 830-831
- view modes, table of, 834
- viewer page, 838
- WSDL, 829-831

V

Value Field parameter property, 136

Value Table Field parameter property, 136-137

Value Type property of parameter fields, 136

Variable Editor (Web Intelligence), 500

variables

- Formula Editor, using in, 121-122
- runtime errors data, 312-314
- scopes of, 121
- shared, 297-299
- subreports, passing data with, 297-299
- types, 121

versions (BusinessObjects Enterprise), 563

- Basic, 563-564
- Premium, 564-565
- Professional, 564
- selecting, 565

View menu, 22, 165

View On Demand rights, 694

View rights, 694

viewers

- character set issues, 853
- client tier issues, 598
- customizing options, 799

- database credentials, 757-758
- DHTML Grid viewer, 841, 848-850
- DHTML Interactive viewer, 841, 846-848
- DHTML Report Page viewer, 840, 843-845
- Export control, 850-852
- forms, 852
- InfoView, 575
 - ActiveX viewer, 578
 - Advanced DHTML viewers, 576-577
 - client-side viewers, 577
 - DHTML viewers, 576
 - drill down, 576
 - export, 575
 - find, 576
 - group tree, 575
 - HTML Query panel, 577
 - HTML Report panel, 577
 - Java Report panel, 578
 - Java viewer, 578
 - mobile viewer, 577
 - navigation, 575
 - preferences, 589-590
 - print, 575
 - refresh, 576
 - server-side viewers, 576
 - zoom, 576
- .NET, 819
- non-DHTML formats, 850-852
- Page Server interface, 841-843
- parameter fields, 758-760
- performance issues, 852
- processHttpRequest method, 843
- RAS, 841-842
- Report Parts viewer, 840, 845-846
- report source interface, 841
- toolbar elements, 844, 847-849
- Web Forms Viewer, 755-757

Web

- categories, 840-841
- character set issues, 853
- DHTML Grid viewer, 841, 848-850
- DHTML Interactive viewer, 841, 846-848
- DHTML Report Page viewer, 840, 843-845
- Export control, 850-852
- forms, 852
- interface, common, 841
- non-DHTML formats, 850-852
- overview, 840
- Page Server, 841-843
- performance issues, 852
- processHttpRequest method, 843
- RAS, 841-842
- Report Parts viewer, 840, 845-846
- toolbar elements, 844, 847-849
- Windows Forms Viewer, 752-755

viewing

- actions (OLAP Intelligence), 468
- database objects, 30
- design explorers, 24
- handles, 161
- InfoView, 587
- Live Office, 531-533
- Preview tab, 162-163
- reports, 31, 49
 - Baan integration kit, 355
 - on-demand, 551
 - PeopleSoft integration, 354
 - SAP integration kit, 353
 - Siebel integration kits, 354
 - Web Intelligence, 492-494
- Repository Explorer, 401
- universes, 410

viewrpt.cwr dispatcher, 798-799

Visual Basic

- Project References dialog box, 341
- Report Designer, PDF 880-PDF 882
 - Property Browser, PDF 882-PDF 883
- unbound fields, PDF 883
- user interface, PDF 882

Visual Studio .NET

- adding new reports, 745
- Crystal Reports, 743
- Field Explorer, 746
- Property Browser, 746
- report designer, 744-746
- Report Wizard, 745
- repository, 746
- user interface conventions, 745-746
- Web Forms Viewer, 755
- web services for reports, 761
- Windows Forms Viewer, 752

W

Watermarks, 191, 238-240

WCA (Web Component Adapter), 613-614

WCS (Web Component Server), PDF 904-PDF 905

- capabilities, 613-614
- Crystal Web Requests, 614
- purpose, 600
- replacements, 600
- Socks configurations, PDF 919-PDF 920
- Web connector interaction, PDF 905-PDF 910

Web

- browser clients, BOE, 598-599
- connectors, PDF 904-PDF 905
 - Socks configurations, PDF 919-PDF 920
- WCS interaction, PDF 905-PDF 910

Desktop, 570

Forms Viewer

- creating, 755
- customizing, 755-757
- database credentials, 757-758
- defined, 755
- parameter fields, 758-760
- ReportSource property, 755

viewers

- categories, 840-841
- character set issues, 853
- DHTML Grid viewer, 841, 848-850
- DHTML Interactive viewer, 841, 846-848
- DHTML Report Page viewer, 840, 843-845
- Export control, 850-852
- forms, 852
- interface, common, 841
- non-DHTML formats, 850-852
- overview, 840
- Page Server, 841-843
- performance issues, 852
- processHttpRequest method, 843
- RAS, 841-842
- Report Parts viewer, 840, 845-846
- toolbar elements, 844, 847-849

Web Intelligence

- aggregation, 485, 500
- BusinessObjects Repository, migration to, 390
- BW data, reporting, 351-353
- character functions, 500
- Condition objects, 488
- creating documents with STRUTS, 809-810
- Crystal Reports, compared, 480
- data limitations, 484
- data provider functions, 500
- date & time functions, 500
- Detail objects, 488

- DHTML query panel, creating documents in, 810-811
 - Dimension objects, 488
 - dispatchers, 809
 - document functions, 500
 - Document Structures and Filters view, 497
 - drilling, 502
 - activating, 503-506
 - beyond the report, 506-507
 - hierarchies, 502-503
 - synchronizing, 506
 - example universes, 485
 - filtering, 488-489, 495-497
 - formulas, 499-502
 - four-tier approach, 481
 - function library, 501
 - HTML Query panel, 577
 - HTML Report panel, 577
 - HTML reports, 492
 - InfoView preferences, 589
 - interactive reports, 492-494
 - Java query panel, creating documents in, 810-811
 - Java Report panel, 578
 - Job Servers, 618
 - logical functions, 500
 - Measure objects, 488
 - merged dimensions, 508
 - microcube engines, 413-415, 483
 - miscellaneous functions, 500
 - multiple data sources, 508
 - multiple queries, 490
 - navigating, 483, 493
 - numeric functions, 500
 - object defaults, setting in CMC, 689
 - overview, 480
 - PDF reports, 492
 - pivoting, 497-498
 - projections, 483
 - query filters pane, 488
 - query panel, 409
 - reports, 483
 - blocks, 483-485
 - creating, 486-487
 - formats, 491
 - panels, 486-491
 - variables, 499-502
 - result objects pane, 488
 - SDK services, 772
 - scheduling parameters, capturing, 793
 - scope of analysis pane, 488
 - security layer, 481-482
 - semantic layers, 482-483
 - sorting, 495-497
 - swapping, 497
 - terminology, 480
 - text searches, 494
 - themes, 481
 - toolbars, 495
 - universes, 420, 810-811
 - user prompts, 494
 - user roles, 484
 - Variable Editor, 500
 - viewers built with SDK, 799
 - workflow, 484
- web services**
- data sources, 346-347
 - defined, 742
 - reports using, 761-762
 - SDK
 - advantages, 827-828
 - Apache Axis library, 832
 - API compared to OOP, 829
 - architecture, 828-829
 - authentication code, 836-838
 - BI Catalog service, 826
 - BI Query service, 826
 - client applications, building, 833-835
 - clustering, 834
 - configuring, 832-833
 - Consumer SDK project setup, 835
 - consuming services, 826
 - default portal page, 837
 - defined, 826
 - deploying, 832
 - disadvantages, 827
 - Enterprise Application Integration, 831-832
 - format advantage, 827
 - Java application server required, 832
 - latency issues, 828
 - listing folders and reports, 837-838
 - logging off, 836
 - login code, 836
 - Microsoft Office sample applications, 826
 - new features, 826
 - object-oriented APIs compared, 829
 - performance issues, 827
 - portals, 831, 835-838
 - ports, 827
 - Report Engine service, 826
 - security issues, 828
 - sessions, 826, 836
 - simple report viewer code, 834
 - SOAP, 829
 - SSL, 833
 - starter portal JSP pages, 835
 - transport advantage, 827
 - UDDI, 830-831
 - view modes, table of, 834
 - viewer page, 838
 - WSDL, 829-831
- Web Services Description Language (WSDL), 826-830**
- WebI. See Web Intelligence**
- WebSeal, 771**
- well-known ports, PDF 899**
- WHERE statements, PDF 926**
- forcing generation from formulas, 271
 - indexed InfoObject properties, 781
 - SQL Expressions for generating, 272
- While/Do structures, 121**
- WhilePrintingRecords process, 126-127**
- WhileReadingRecords process, 126**
- Window menu, 23**

Windows

- authentication, 712
- Forms
 - customizing viewers, 754-755
 - database credentials, 757-758
 - defined, 752
 - drilldown options, 755
 - group trees, 754
 - invoking viewers, 754
 - parameter fields, 758-760
 - ReportSource property, 752-753
 - selection formulas, 755
 - status bar customization, 754
 - toolbar customization, 754
 - Viewer, 752

wizards

- Advanced Search, 576
- Report
 - accessing, 36
 - Database Expert. *See* Database Expert
 - Standard, 36-45
- Search, 441

Word (Microsoft)

- Live Office, 537-538
- .NET exports to, 749

Workbench, 25**workbook views (Live Office), 533-536****Worksheet objects, 434-435**

- asymmetrical member views, 442-443
- automatic totals, 444
- chart reflection, 435
- dimensions, 434-435, 440
- exception highlighting, 451-452
- filters, 448-451
- members
 - calculated, 446
 - captioning, 444
 - ordering, 443
 - selecting, 438-442

- numbers, formatting, 444
- properties, 435-438
- sorting, 446-448

wrapping borders, 170

- WSDL (Web Services Description Language)**
 - defined, 829
 - guidelines, 830
 - purpose, 826

X**x+2 buttons, 192, 197****Xcelsius (Crystal), 554-556****xcopy deployments, 762****XML (Extensible Markup Language)**

- data driver, 826
- data source drivers, 346-347, 356
- HTTP data sources, 346-347
- local data sources, 346-347
- web services
 - data sources, 346
 - defined, 742
 - reports using, 761-762

Z**zero, dividing by, 128-129****zooming**

- 3D charts, 226
- InfoView, 576
- maps, 227